

How the  
Foreign Exchange  
Market Works

by

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## **FOREWORD**

The Bank of Jamaica has undertaken to publish a series of pamphlets on topics that are integral to the policies and operations of the Bank.

The pamphlets are designed to enhance the public's understanding of key central banking issues. In this regard the pamphlets will present important economic and financial information in a manner that will benefit a wide cross-section of users. In particular, it is anticipated that the material presented will assist journalists, investors, students and other members of the public who frequently request relevant documentation and/or explanations from officers of the Bank.

The Bank and its staff in continuing to serve the Jamaican public are pleased to add these pamphlets to existing publications as we strive to inform and educate.

We take this opportunity to extend our gratitude to all who have supported the process and would like to invite suggestions and comments from all our readers.

**Myrtle Halsall (Mrs.)**

**Division Chief & Head of the Editing Committee**

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**Bank of Jamaica**

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## **PREFACE**

Since full liberalization of the foreign exchange market at the beginning of the 1990s, there has been a lot of discussion on the efficiency of the market and the appropriateness of the foreign exchange rate. In particular, there have been concerns as to whether the foreign exchange rate correctly reflects the forces of supply and demand in the market. Discussions have often focussed on the role of the Bank of Jamaica and the extent to which the Central Bank should seek to influence market conditions.

This pamphlet describes how the foreign exchange market works. It defines the market, the institutional framework within which it operates and the process of price determination. In presenting the three-fold role of the Bank of Jamaica - market intervention, market surveillance and data collection and information dissemination - particular attention is paid to the rationale for intervention in the foreign exchange market.

## **HOW THE FOREIGN EXCHANGE MARKET WORKS**

### ***What is the Foreign Exchange Market?***

In a market there are buyers and sellers who negotiate and agree on the price for the commodity being exchanged. The foreign exchange market is no different. However, here the commodity being traded is foreign exchange and the price is the foreign exchange rate. Specifically, a foreign currency is being traded for the Jamaica dollar at a particular rate of exchange.

The foreign exchange market in Jamaica is fully liberalised with exchange rates being determined by the forces of supply and demand. The market is quite extensive and is highly accessible to individuals and companies. There are numerous financial institutions within this market, many of which have several branches islandwide through which foreign exchange transactions are effected. Jamaican residents and visitors are therefore able to access foreign exchange freely and easily.

### **SOURCES AND USES OF FOREIGN EXCHANGE**

The main sources of foreign exchange are export earnings from goods and services, remittances from overseas, direct investment flows and private and official loan inflows. The owners of these receipts are the fundamental suppliers in the market, that is, they sell foreign exchange to licensed foreign exchange dealers who are then able to sell to other institutions and individuals who need to buy foreign exchange. In addition, the Bank of Jamaica may sell from its foreign reserves to augment the supply of foreign exchange in the market.

On the other hand, individuals and companies need to buy foreign exchange for various reasons. These buyers use the foreign exchange to pay for imports of merchandise, to make service payments (inclusive of travel), to repatriate profits, and to repay external debt. The Bank of Jamaica may also purchase foreign exchange from the market and this will add to the official Net International Reserves.

The sellers and buyers of foreign exchange are not mutually exclusive. The sellers of today, may be the buyers of tomorrow, or even of today.

## **INSTITUTIONAL FRAMEWORK**

To facilitate trade between sellers and buyers, an institutional framework has developed. Formally, there are three main groups - the authorised foreign exchange dealers, the cambios and the bureaux de change. The difference between the three main types of institutions lies in the types of transactions that they can undertake.

### **Authorised Foreign Exchange Dealers**

Authorised foreign exchange dealers include all commercial banks, select merchant banks and the two largest building societies. Authorised dealers are able to undertake all types of foreign exchange transactions: the buying and selling of foreign currency in the form of cash, drafts, travellers cheques and other instruments; the granting of loans and the taking of deposits; and the making of other international payments. Moreover, there is no monetary limit placed on the size of a foreign currency transaction. However, under the Money Laundering Act, these financial institutions are required to report to the Director of Public Prosecutions all cash transactions equal to or exceeding US\$50,000 or the equivalent in other currencies.

The authorised dealers, by agreement, currently sell five percent of their daily gross purchases of foreign exchange to the Bank of Jamaica. This is not statutorily binding; rather, it represents an agreement between the institutions and the Bank of Jamaica.

The activities of the authorised dealers are closely monitored, and because these institutions operate under the Banking Act, the Financial Institutions Act and the Building Societies Act they fall within the supervisory ambit of the Financial Institutions Supervisory Division (FISD) of the Bank of Jamaica.

### **Cambios**

The number of cambio operators currently in existence is 138. Cambios are licensed by, and operate within the guidelines stipulated by the Bank of Jamaica. They are permitted to buy and sell foreign exchange in the form of currency notes, drafts, money orders and other foreign effects in unlimited amounts. In

addition, cambios are required to report to the Director of Public Prosecutions all cash transactions equal to or exceeding US\$8,000 or the equivalent in other currencies. The most important distinction between authorised dealers and cambios is that, unlike authorised foreign exchange dealers, cambios are not permitted to grant loans or take deposits. Cambios currently sell five per cent of their daily gross purchases of foreign exchange to the Bank of Jamaica.

### **Bureaux de change**

There are 88 bureaux de change currently in operation. These institutions exist to facilitate transactions in the hotel sector. Their primary trading activity is to exchange currency for their guests. However, there is a monetary limit of US\$10,000, or its equivalent in other currencies, for individual transactions. Bureaux de change sell, to the Bank of Jamaica, 10 per cent of their daily purchases of foreign exchange. Importantly, the sale of foreign exchange is limited to the reconversion of the unused balance of Jamaican dollars of those guests from whom the bureau acquired the foreign exchange. There is a guarantee for reconversion of a minimum of 10 per cent of the amount originally bought from the guest.

### **EXCHANGE RATE DETERMINATION**

Since liberalization in 1991, the price of foreign exchange – the exchange rate – is fully market-determined. This means that the exchange rate is responsive to changes in supply and demand conditions in the market. Given that there are three main types of institutions providing opportunities for trading in foreign exchange, there are three sub-markets in which prices are determined. However, when one speaks of an exchange rate for the market, the key indicators derive from the ‘spot transactions’ of authorised dealers and cambios with the public, as well as ‘spot transactions’ between these two categories of foreign exchange dealers. Spot transactions refer to foreign exchange trades that are negotiated and settled within two business days. The exchange rate related to these transactions is the ‘spot exchange rate’.

The exchange rate that is reported on any given day reflects the totality of transactions undertaken by authorised dealers and cambios. Further, it is a weighted average of the rate at which each of these institutions trade; in this case

the computation of the system-wide exchange rate is weighted by the relative value of the transactions undertaken by the various institutions. This simply means that a large value transaction at a particular rate would have more impact on the average rate than a small value transaction at another rate. The monetary value of the foreign exchange being traded is critical: for example, a US\$500,000 transaction is worth more in terms of the weighting than a US\$5,000 transaction.

The distinction between large value transactions and small value transactions is important because typically these take place at different rates, with the large value transaction taking place at a higher rate than the small value transaction.

Large value transactions are usually classified as ‘contracts’ and take place at a specially negotiated ‘contract rate’. There may be as many contract rates as there are contracts, even within the same institution.

Small value transactions are usually deemed to be ‘counter transactions’ and take place at a ‘counter rate’. This ‘counter rate’ is, for the most part, known to all as it is usually posted in the halls or offices of the institutions.

The difference between a contract rate and a counter rate may be significant, with the contract rate usually being higher than the counter rate. The counter rate that is posted usually obtains for the entire day but, depending on market conditions, shifts in this rate may occur during the course of a day.

The reported exchange rate is a combination of all these exchange rates, weighted by the respective volumes. The higher rates related to contract transactions and the lower rates related to counter transactions are all taken into account. This explains why it is sometimes reported in the media that a particular currency, for example the United States dollar, is trading at a higher rate than is reported by the Bank of Jamaica.

The Bank of Jamaica reports a weighted average rate of all transactions undertaken by the authorised dealers and the cambios and this composite rate would therefore reflect both the higher contract rates and the lower counter rates. Individual contract rates are then very often higher than the computed system weighted average rate.

The weighted average selling rate of authorised dealers and cambios is the official rate for customs duty and tax purposes.

The Bank of Jamaica also reports the 10-day moving average rate which is the weighted average rate of all transactions undertaken by the authorised dealers and the cambios over the 10 business days immediately preceding the reporting date. Since the exchange rate is subject to daily fluctuations, the 10-day moving average rate more accurately represents an average rate over a reasonable period of time.

The major focus in the foreign exchange market is on the trading activities of the United States dollar. This occurrence can be attributed to the international importance of the United States dollar and the extent of Jamaica's trade with the United States. In fact, approximately 60 per cent of Jamaica's trade is with the United States and an even greater percentage of Jamaica's trade is settled using United States dollars.

In recognition also of the importance of Jamaica's trade with the United Kingdom and Canada and also the international significance of their currencies, foreign exchange trading with respect to the Great Britain Pound and the Canadian dollar is also reported on a daily basis. Trading information, though not routinely disseminated publicly, is also available for other major currencies.

## **FORWARD MARKET FOR FOREIGN EXCHANGE**

A forward market for foreign exchange is defined by buyers and sellers coming to some agreement *now*, to purchase and sell a particular quantum of foreign exchange at a specified rate and a specified time in the future. There is a significant time lapse between when the transaction is negotiated and when it is settled. This differs from 'spot transactions', which are typically negotiated and settled within two business days.

There is no uncertainty in the calculation of the forward market exchange rate. It is based on the prevailing interest rates and the spot exchange rate. The forward exchange rate is the spot rate adjusted for the difference in interest rates between Jamaica dollar financial instruments and the foreign currency financial instruments over the period of time between when the transaction is negotiated and when it is settled. A forward market has not been active in Jamaica for several years.

## **THE ROLE OF THE BANK OF JAMAICA**

The Bank of Jamaica's role in the market is three-fold. On occasion it acts as a participant; it also monitors and undertakes market surveillance; and additionally it collects data and disseminates information on market activities.

### **Foreign Exchange Market Intervention**

The Bank of Jamaica takes particular interest in movements in the exchange rate and may take action to influence conditions in the foreign exchange market. It is at this stage that the Bank of Jamaica becomes an active participant in the market. The Bank of Jamaica's participation in the market is described as 'market intervention'.

#### ***Rationale for intervention***

In practice, intervention in the foreign exchange market has primarily been used to ensure relative price stability. The objective is to avoid too rapid an increase or decrease in the value of the Jamaica dollar in terms of the foreign currency.

Here too, the law of supply and demand applies. Where the demand for foreign currency is high relative to supply, then the price in terms of Jamaica dollars increases, and where supply is high relative to demand, price decreases. Intervention (sales or purchases of foreign exchange by Bank of Jamaica) is taken to affect this balance only in the short run. Where objective indicators suggest that there needs to be adjustment in the exchange rate, the monetary authorities will take action aimed only at preventing wide swings from taking place on a day-to-day basis. All decisions are taken on the basis of a detailed analysis of the underlying market conditions, as undertaken on a daily basis.

The Bank of Jamaica intervenes on both sides of the market. It intervenes to sell foreign exchange in circumstances where foreign exchange availability is limited to avoid rapid and disorderly depreciation in the exchange rate. The Bank of Jamaica also intervenes to buy foreign exchange from the market when there is excess supply, in order to prevent a rapid and unsustainable appreciation in the exchange rate.

Foreign exchange market intervention occurs as part of a broader economic policy process in the Bank. This process involves a continuous assessment of economic conditions that takes cognizance of the fiscal, monetary and balance of payments trends emerging in the economy.

Where fundamental economic changes are detected the Bank of Jamaica is inclined to allow adjustments to occur through the market mechanism. However, if the disturbances are determined to be short-term in nature, the Bank will take action to moderate these adjustments.

### ***Institutions Targeted For Intervention***

Intervention usually takes place through authorised foreign exchange dealers and cambios because these are the significant players in the foreign exchange market. Transactions with these institutions will have an immediate impact on liquidity conditions as well as on the reported exchange rate. The reported rate, which is the official exchange rate, has the greatest potential to have an impact on public perception of exchange rate movement.

The authorised dealers, with foreign exchange market share of approximately 60 per cent, have the greater ability to affect liquidity conditions. However, because of their wider reach throughout the length and breadth of the island, intervention through the cambios not only affects market liquidity but rapidly affects market psychology as well.

### ***Intervention Rate***

Because the intention is primarily to affect liquidity in the market, the exchange rate at which the Bank of Jamaica intervenes usually mirrors the weighted average selling or buying rate in the market.

## **Market Surveillance**

The Bank of Jamaica relies heavily on its system of market surveillance to decide whether, when, and at what rate to intervene. This system operates at two levels.

Firstly, a formal reporting system exists that provides information daily on all foreign exchange contracts negotiated, indicating amounts purchased and sold with the respective buying and selling rates.

Secondly, the Bank of Jamaica traders interact with market participants constantly throughout the trading day to gather information on routine as well as unusual developments that are occurring in the foreign exchange market.

### **Data Collection and Information Dissemination**

The Bank of Jamaica is responsible for the collection of data on foreign exchange market activities. Data on each day's trading activities are collated by the institution, summarised and disseminated to the public. Information is collected on the amount of foreign exchange that is purchased and sold in the system with the respective weighted average buying rate and selling rate. Data are also provided on the highest and lowest rates at which foreign exchange is purchased and sold as well as the 10-day moving average rate for purchases and sales of foreign exchange.

This information is provided for the three main currencies, namely the United States dollar, the Great Britain Pound and the Canadian dollar. The exercise is done on a daily basis for the combined group of authorised foreign exchange dealers and cambios, inclusive of transactions among themselves.

In November 2000, the Bank of Jamaica implemented 'eGate', an acronym for electronic Gateway for Auctions, Trade and Foreign Exchange Management. Since this new electronic system allows for real time reporting of foreign exchange transactions, the data on daily foreign exchange trading activities are available in a more timely manner.

The dissemination of information on the 'exchange rate for the day', as the weighted average selling rate is called, is important as it is the applicable rate for customs duties, tax computations as well as for other accounting purposes.

The Bank of Jamaica further fosters relative price stability by way of foreign exchange market intervention. The Bank's periodic purchases and sales of foreign

currency prevents erratic fluctuations in the value of the Jamaica dollar. The Central Bank is also responsible for the dissemination of information on daily foreign exchange trading activities. In recognition of the positive impact that increased access to information can have on market efficiency, the aim of the Bank is to further develop the reporting system so that individuals and companies may have access to additional data on trading activities.

## **SUMMARY**

Since the liberalization of the foreign exchange market in the early 1990s, tremendous efficiency gains have been made. The varied and increased number of formal players in the market, together with substantial increases in the volume of foreign exchange traded have led to easier and freer access to foreign exchange. In addition, greater market transparency has been facilitated by the enhanced dissemination of information on foreign exchange market activities. These factors have combined to form a market in which the exchange rate is determined by the forces of supply and demand within a relatively stable environment.

## **Pamphlets in this Series**

<i>No.</i>	<i>Title</i>	<i>Author</i>
1	Monetary Policy Management in Jamaica	Claney Lattie
2	Your Guide to the Jamaican Consumer Price Index	Robert Stennett
3	The Measurement of Money Supply	Michelle Hylton
4	Essential Facts about Inflation	Kevin Harriott
5	How the Foreign Exchange Market Works	Helen McIntosh
6	The Central Bank's Role as Regulator	Noel Shippey Courtney Christie-Veitch