(#694 in RFD Series)

INTERNATIONAL FINANCE DISCUSSION PAPERS

POSTWAR TRENDS IN INCOME AND DEPOSIT VELOCITY IN THE LDCs

by

Robert F. Emery

Discussion Paper No. 21, December 27, 1972

Division of International Finance

Board of Governors of the Federal Reserve System

December 27, 1972

Postwar Trends in Income and Deposit Velocity in the LDCs*

This study has several objectives. One is to indicate what other researchers have concluded with regard to the secular trend of various types of income and deposit velocity.[1/] A second objective is to assemble and analyze the postwar trends of various types of velocities, as well as the currency ratio, for up to 41 countries.

Although it was originally hoped that an analysis of these trends would provide fairly predictable velocity patterns that would be helpful in the formulation of monetary policy, these hopes were not fully realized. Only one type of velocity showed a fairly consistent trend, but even this trend prevailed in only about three out of four cases. The study does not attempt to delineate the basic determinants of income or deposit velocity.

Previous Research on the Trends in Secular Velocity

A substantial number of studies have been made of the trends in velocity -- particularly income velocity -- one of the more significant being that of Ezekiel and Adekunle.[2/] In their study,

---

1/ These terms will be defined more specifically later in the paper.

2/ See Hannan Ezekiel and Joseph O. Adekunle, "The Secular Behavior of Income Velocity: An International Cross-Section Study," Staff Papers, International Monetary Fund, Washington, D.C., July 1969, pp. 224-37.

*I would like to acknowledge my appreciation for the valuable assistance provided in the preparation of this study by Mr. Carl Bazarian of the Division of International Finance of the Board of Governors of the Federal Reserve System.

Ezekiel and Adekunle summarize some of the conclusions reached by other economists regarding the secular trend of income velocity. Stated very briefly, Irving Fisher, William Baumol and James Tobin have concluded that there is a rising secular movement in income velocity. On the other hand, Milton Friedman -- defining money to include currency in circulation, demand deposits and time deposits -- has concluded that the income velocity of money tends to fall as income increases. John Gurley and Edward Shaw believe that income velocity tends to fall during the earlier stages of growth and then levels off. Graeme Dorrance and Eckhard Brehmer believe that income velocity at first tends to fall, but after a certain point, to rise.[1/] It should be noted, however, that these studies were based mainly on the experience of the industrialized -- rather than the less-developed -- countries.

The Ezekiel and Adekunle article deals with both types of countries and employs a cross-section analysis in order to eliminate some of the collinearity problems present in a time-series analysis. Their research has produced fairly precise conclusions regarding the relationship between per capita income levels and three types of income velocity. Taking a group of 37 countries and their individual

1/ For the conclusions cited, see the references listed in ibid., pp. 224-5.

per capita gross domestic product in 1958 (stated in terms of U.S. dollars), they divided the countries into five income groups ranging from $1,250 and above (Group I) down to $249 and below (Group V). Three types of income velocity were calculated for each country, viz., currency velocity (V_1), money velocity[1/] (V_2), and broad money velocity[2/] (V_3). Their basic conclusion was as follows:

> Since no significant relationship had been found earlier between levels of the income velocity of currency and levels of income, no conclusion was drawn for the velocity of currency from the results obtained for the rate of change of velocity. For the totals of "money" and "money plus quasi-money," however, a significant inverse relationship between levels of velocity and levels of income had been found.[3/]

Ezekiel and Adekunle also conclude that the results of their investigations are not inconsistent with the hypotheses of Gurley-Shaw and Dorrance-Brehmer. On the other hand, Ezekiel and Adekunle believe that the Friedman hypothesis "does not lend itself easily" to any inferences regarding the relative rates of change in income velocity in relation to changes in the level of income.

The Ezekiel and Adekunle conclusions are interesting with regard to what they reveal about the three different types of velocities investigated, as well as the relation between currency ratios and income velocities. Each of these are discussed separately below.

1/ Currency in circulation plus demand deposits.
2/ V_2 plus quasi-money.
3/ Ibid., p. 237.

Currency Velocity.-- Ezekiel and Adekunle found no significant statistical relationship between the level of the income velocity of currency and the level of per capita GDP. However, the currency velocity appeared to decline, the higher the level of per capita income with the exception of Group I (the highest income level). When the highest and second highest income groups were combined, the currency velocity declined steadily, the higher the per capita income level. A rank correlation of currency velocity with the level of per capita income showed no significant (-0.0702) relationship. In addition, the least-squares relationships were investigated with the currency velocity being related linearly to the per capita income level on the basis of logarithmic values of the variables. The estimated linear relationship proved to be very weak, with neither the correlation, nor the regression, coefficients meeting the usual statistical standards.[1/]

Money Velocity. -- Unlike the income velocity of currency, Ezekiel and Adekunle found a fairly significant statistical relationship between the income velocity of money and the level of per capita GDP. As was the case with currency velocity, money velocity declined, the higher the level of per capita income with the exception of Group I. Again, when the highest and second highest income groups

1/ See ibid., pp. 227-9.

were combined, the money velocity declined steadily, the higher the per capita income level.

A rank correlation of money velocity with the level of per capita income showed a significant (-0.5005) inverse relationship, with the rank correlation of money velocity being significantly different from zero at the 1 per cent level. The least-squares relationship was also tested, and while the proportions of the variances in money velocity explained by per capita income were not high, they did differ significantly from zero. A linear relation appeared to describe the relationship between the logarithms of money velocity and per capita incomes, with the signs of the regression coefficients suggesting an inverse relationship between the levels of money velocity and per capita income. From their cross-section analysis, Ezekiel and Adekunle concluded that "...on the average, an increase of 1 per cent in per capita income leads to a decrease of 0.22 per cent in the velocity of money."[1/]

Contrary to the findings of Ezekiel and Adekunle, Jacques Melitz and Hector Correa[2/] have concluded from their research that the level of monetization of an economy -- rather than the level of

1/ Ibid., p. 229.
2/ Jacques Melitz and Hector Correa, "International Differences in Income Velocity," Review of Economics and Statistics, Harvard University Press, Cambridge, February, 1970.

real per capita income -- is one of the key factors explaining international differences in the income velocity of money. (Other important factors appear to be interest rates and the ratio of currency to money.) As a means of measuring the degree of monetization, Melitz and Correa employ a three-fold classification developed by Raymond Goldsmith[1/] that groups countries according to those that receive less than 65 per cent of their income in the form of money, those that receive 65 to 85 per cent, and those that receive 85 per cent more. Their research indicates that the income velocity of money falls progressively from 8.3, to 6.4, to 4.1 as the countries move from a low, to an intermediate, to a high level of monetization.[2/] It is their belief that the observed influence of the level of economic development on income velocity derives primarily from the positive association of economic development with the degree of monetization. They also believe that "A subordinate element may be the negative association of the currency ratio (c/m) with development," and that "the rate of interest is a significant influence on cross-country differences in the income velocity of money (y/m)."[3/]

1/ Raymond Goldsmith, The Determinants of Financial Structure, Development Center, Organization for Economic Cooperation and Development, Paris, 1966, pp. 27-30.
2/ Melitz and Correa, op. cit., p. 16.
3/ Ibid., pp. 16-17.

Henry Wallich has questioned Melitz and Correa's conclusion that per capita income and other measures of economic development, in their inverse relation to income velocity, are only proxies for the economy's degree of monetization.[1/] He states that the three-fold classification which they borrowed from Goldsmith to measure the degree of monetization "...is quite adequate for the purpose for which Goldsmith designed it. It seems uncertain, however, how well it can bear the burden placed upon it by Melitz and Correa." Wallich argues that since other, more sensitive, proxies of monetization proved unsuccessful,"...the success of the three-fold classification therefore is not entirely convincing; it calls for stronger support."[2/]

Broad Money Velocity. -- Of the three income velocities -- currency, money and broad money -- the last one changes with the greatest regularity and predictability of the three. Ezekiel and Adekunle ascertained that broad money velocity falls regularly as one moves from a lower to a higher per capita income group in the five groups. A rank correlation of broad money velocity with the level of per capita income showed a significant (-0.6306) inverse

1/ Henry C. Wallich, "Notes: Income Velocity", Review of Economics and Statistics, Harvard University Press, Cambridge, May, 1971, p. 200-1.
2/ Ibid., p. 200.

relationship, with the rank correlation of broad money velocity being significantly different from zero at the 1 per cent level. As was the case with money velocity, the least-squares relationship for broad money velocity was also tested by Ezekiel and Adekunle. While the proportions of the variances in broad money velocity explained by per capita income were not high, they did differ significantly from zero. Again, a linear relation appeared to describe the relationship between the logarithms of money velocity and per capita incomes, with the signs of the regression coefficients suggesting an inverse relationship between the levels of broad money velocity and per capita income. From their cross-section analysis, Ezekiel and Adekunle concluded that on the average "...an increase of 1 per cent in per capita income leads to a fall of 0.4 per cent in the level of the velocity of money plus quasi-money", (i.e. broad money).[1/] They also concluded that "...the higher the level of development, the slower the rate of decrease in income velocity."[2/] In other words, there is a deceleration in velocity as countries increase their level of per capita income.

It would appear appropriate at this point to summarize what role -- if any -- price changes play in influencing income velocity. Ezekiel and Adekunle constructed three equations comparing

1/ Ezekiel and Adekunle, op. cit., p. 229.
2/ Ibid., p. 236.

the three income velocities, per capita incomes, and changes in consumer prices. They concluded that "In each equation, both variables (i.e. income and prices) seem to contribute significantly to the explanation of V^1/Y^1 [average annual rate of change of velocity divided by average annual rate of change in real per capita income in the same period]; the income variable, however, explains a greater proportion of the variance."[1/] Henry Wallich has concluded that inflation has a positive influence on velocity.[2/] Melitz and Correa, on the other hand, found that inflation appears not to have the expected positive relation to velocity. They hasten to add, however, that this may be due to the relatively low rates of inflation used in their sample, coupled with the fact that because people confronted by inflation tend to convert money into distant substitutes, a "...mild rate of inflation would offer little avenue for profitable adjustment of money balances."[3/]

Colin Campbell, during his investigations of income velocity in the Republic of Korea, found that the income velocity of broad money declined when the rate of inflation decelerated, and increased when the rate of inflation accelerated. He concluded

1/ Ibid., p. 235.
2/ Henry Wallich, op. cit., p. 200.
3/ Melitz & Correa, op. cit., p. 13.

that the decline in the velocity of money in Korea was the result of a decline in the rate of inflation.[1/]

To summarize, most investigators have found a significant positive relation between prices and income velocity, although the relationship is apparently insignificant when the rate of inflation is relatively low.

Deposit Velocity

Relatively few studies have been made of the secular trend of deposit velocity in the less developed countries as measured, for example, by the annual turnover of demand deposits divided by the 12-month average of outstanding demand deposit liabilities. One of the more extensive studies of deposit (as well as income) velocity in the United States is that of George Garvy and Martin Blyn.[2/] With regard to deposit velocity, which they refer to as transactions velocity,[3/] they found a general decline from 1929 to 1945, and a rise during the postwar period. They attributed this postwar rise to two processes operating in the same direction.

1/ Colin D. Campbell, "The Velocity of Money and the Rate of Inflation: Recent Experiences in South Korea and Brazil," Varieties of Monetary Experience, ed. by David Meiselman, Un. of Chicago Press, Chicago, 1970, pp. 345 and 369.

2/ George Garvy and Martin Blyn, The Velocity of Money, Federal Reserve Bank of New York, New York, 1969.

3/ Commercial bank debits divided by gross demand deposit liabilities outstanding.

One was the increased efficiency in the payment and clearing mechanisms, thus tending to reduce transactions balance requirements in relation to a given volume of payments. The other was the gradual transfer of business and other nonhousehold balances, excepting those required to support payments and credit, into money substitutes.[1/]

It is interesting to note, however, that when Garvy and Blyn calculated an income velocity for money plus time deposits (including savings bank deposits, and savings and loan shares), the series reveal an irregular declining trend from 1951 through 1968 (the last year measured). This shows the importance of taking into account institutional changes and the growth of money substitutes held by the general public in financial institutions other than commercial banks. Unless these aspects are taken into account, research on velocity confined only to commercial bank deposits and currency could lead to possibly erroneous concusions regarding the trends in velocity.

Currency Ratios

Although this study deals primarily with velocity, some attention is also given to the secular trend in the currency ratio (currency in circulation divided by the sum of currency in circulation

1/ Garvy and Blyn, op. cit., p. 91.

plus demand deposit liabilities) since the trends in the currency ratio may shed some light on the behavior of currency velocity, money velocity, and broad money velocity.

Research by Melitz and Correa confirms the hypothesis that the currency ratio is positively related to income velocity. Thus in countries with a high currency ratio, one can expect to find a high income velocity. They indicate that the basic reason for this is because where people rely heavily on currency for payments, which is more risky to hold than demand deposits, people try more strenuously to economize on money, e.g. by arranging more frequent payments and closer synchronization of receipts and payments.[1/]

Henry Wallich states that his research has also indicated that there is a significant positive correlation between the currency ratio and income velocity.[2/]

Similarly, J. Daniel Khazzoom has concluded that a "...test of the relationship between the currency ratio and the income velocity of money yielded predominantly positive correlation results. These findings do not contradict the hypothesis of a direct relationship between the currency ratio and the transactions velocity of money."[3/]

1/ Melitz and Correa, op. cit., p. 13-14.
2/ Henry Wallich op. cit., p. 200.
3/ J. Daniel Khazzoom, The Currency Ratio in Developing Countries, Praeger Publishers, New York, 1966, p. 106.

On the other hand, there appears to be an inverse relation between the currency ratio and per capita income. Quoting Khazzoom, Melitz and Correa (the publications already cited) and his own research,[1/] Henry Wallich states that the currency ratio is related negatively to per capita income.[2/] Thus, as real per capita income increases, one could expect to find a general decline in the ratio of currency to money.

Given this brief review of previous research on velocity trends, it is appropriate to next turn to my own research on this subject, with an explanation of the particular methodology utilized.

Explanation of the Methodology

Most postwar studies of velocity have involved a statistical testing of a velocity model -- often utilizing a regression equation with velocity being taken as dependent on such variables as income, interest rates, and prices. A different, and much simpler, approach is utilized in this study. The approach adopted here should be viewed as a first step in analyzing velocity behavior, with the second step (perhaps in a follow-up article) being the construction and testing of a model based in part on the conclusions reached in this paper.

1/ Henry C. Wallich, "Quantity Theory and Quantity Policy, "Ten Economic Studies in the Tradition of Irving Fisher, John Wiley and Sons, Inc., New York, 1967, pp. 257-80.

2/ Henry Wallich, "Income Velocity," op. cit., p. 200.

Stated briefly, this study first attempts to determine what the actual trends have been in the postwar period for four different types of velocity and the currency ratio in those less developed countries for which appropriate data are readily available. The investigation has been confined at this time to only the less developed countries in order to hold down the total volume of data requiring analysis and in order to see what the trends have been for the less developed countries as a group. At some later time it may be helpful, for comparative purposes, to also examine the postwar trends in velocity in the industrialized countries.

The four velocities explained. -- The four different velocities examined in this study are: currency; money; broad money; and deposit velocity.

Currency velocity is measured by dividing the country's current annual GNP by the amount of currency in circulation on June 30. (Currency in circulation represents coins and bank notes in circulation held by the non-bank public.) Since all of the data used in this study are taken from the International Monetary Fund's International Financial Statistics, the definitions used in that publication for currency, money, and quasi-money, are synonomous with those used in this paper.

June 30 data are utilized for currency, money and quasi-money in lieu of averaging such data for the twelve months of the year, a very time-consuming process.[1/] It is likely that a mid-year figure (i.e. June 30) provides a more accurate reading of the actual velocity than an end-of-year figure. Detailed data on currency velocity for each of the countries examined is provided in Table 1 at the end of this paper.

Money velocity is measured by dividing current annual GNP by the stock of money, i.e. currency in circulation plus demand deposit money as defined in the IMF's International Financial Statistics. Detailed country data for the postwar period are provided in Table 2 at the end of this paper.

Broad money velocity is measured by dividing current annual GNP by the sum of money plus quasi-money. "Quasi-money" basically represents the time and savings deposits outstanding of the financial institutions covered in the International Financial Statistics. The term "broad money" -- which at present is only used by some of the economics profession -- is simply a convenient shorthand for the sum of money plus quasi-money. For detailed data on broad money velocity, see Table 3 at the end of this paper.

1/ A sample comparison of the velocity trends based on quarterly averages, as opposed to mid-year data, indicated that there was no significant difference in the basic trends.

Deposit velocity is measured by dividing average monthly bank debits or clearings for a given year by the demand deposit liabilities outstanding on June 30. It should be noted that the data on bank "debits" differ from those on bank "clearings", partly because of the more limited coverage of the clearings data. Those interested in ascertaining whether debits or clearings data are utilized, can determine this by examining the individual country pages in the International Financial Statistics. See Table 4 for the data on deposit velocity.

The currency ratio is measured by dividing the amount of currency in circulation by the stock of money on June 30. The detailed country data are provided in Table 5. Although not a measurement of velocity, the currency ratio is included in this study since currency ratio trends shed some light on the factors influencing the velocity trends. This subject will be examined in more detail later.

The group of countries examined. -- This study covers 38 to 41 less developed countries, the specific number depending on the series involved. The data on currency, money, and broad money velocity cover 40 countries, the data on deposit velocity 38 countries.

It was not possible to cover a larger number of LDC's, either because of the lack of any data, or because the time series was too short in view of the country's relatively recent independence.

It remains to be seen, however, whether a substantially larger sample would significantly alter the observed trends in velocity and the currency ratio.

For purposes of comparison, the countries are grouped into four geographical areas: Africa; Asia; Latin America; and the Middle East.

Time period covered. -- The earliest postwar year covered in the study is 1948 and the latest 1971. The particular years covered for each country vary substantially, solely because of the availability of data as reported in the International Financial Statistics. The reader is referred to the detailed country tables at the end of this paper for an indication of the particular years covered for the respective countries.

The longest and most consistent series of data are those for the Latin American countries, mainly because of their relatively long period of political independence. In the case of the African and Middle Eastern countries, some of the data are for a substantially shorter period of time.

The analysis of trends. -- After the various data had been assembled into a time series of annual data, a five-year moving average was calculated for all of the individual country data in order to eliminate a large part -- if not all -- of the cyclical movements present in the data. Thus, two series of data are provided

for each country in the tables presented at the end of this paper, viz., annual (i.e. as of June 30) data, and a five-year moving average of the annual data.

Next, the data were analyzed to see what the general trend had been in the postwar period during those years for which data were available. It was found that almost all of the data could be classified according to one of the following six categories: (1) a general rise in velocity or the currency ratio; (2) a general decline; (3) a substantial up and down movement with no clear overall trend; (4) a general rise and decline; (5) a general decline and rise; and (6) fluctuations within a narrow range with no general up or down trend.

It should be noted that these six categories do not incorporate all possibilities. For example, the data could reveal a generally flat trend for ten years and then a general decline in the next ten years. However, there were very few series that deviated from the six basic categories, and since the deviations for these few were so minor, it was decided not to establish an additional seventh or eighth category. They have accordingly been classified in that category to which they most closely correspond.

It should further be noted that the estimated trends are only approximate estimations. The data could be interpreted differently in some cases by other analysts. Consequently, not too heavy

a reliance should be placed on the particular figures derived from the analysis in this paper.

A Summary of the Postwar Trends

Of the four different types of velocity, the clearest and most predominant trend occurred in the case of broad money velocity. There was also a predominant trend in the case of deposit velocity. Somewhat more diffused was the trend for currency velocity, and the most diffused and least clear was the trend for money velocity. The trends for the currency ratio exhibited much less uniformity than one might have been expected on *a priori* grounds.

It should be noted that major reliance for an analysis of the trends will be placed on the data provided by the five-year moving averages rather than the annual data. As evidenced by the data in Table A -- particularly the sharp percentage reduction for the "up and down" category -- a clearer idea of the basic trend is provided by the five-year data since part of the cyclical fluctuations have undoubtedly been eliminated as a result of using five-year averages.

Currency velocity. -- The data in Table A indicate what per cent of the countries fell into the six different categories. The proportions are indicated both in terms of annual data and a five-year moving average.

Table A. Currency Velocity Trends: 40 Countries
(In per cent)

	Annual Data	Five-Year Moving Average
General Rise	35.0	40.0
General Decline	20.0	20.0
Up and Down	15.0	2.5
Rise and Decline	15.0	17.5
Decline and Rise	10.0	17.5
Fluctuation in a Narrow Range	5.0	2.5
Total	100.0	100.0

An examination of the data in Table A indicates that currency velocity is more likely to rise than to decline, but that there is no clearly predominant postwar trend. If account is taken of the fact that 7 out of the 40 countries (17.5 per cent) also experienced a rise in currency velocity after an initial postwar decline, there is somewhat stronger evidence that the predominant trend may be for currency velocity to rise.

Since a high proportion of the LDCs experienced a decline in their currency ratios, it is not too surprising that there should be a tendency for currency velocity to rise. This aspect may in fact, be the key factor accounting for the trend in currency velocity,

particularly since the postwar trend in money velocity has been so diffused.

Money velocity. -- As indicated in Table B, the postwar trends in money velocity have been very diffused, with only one of the six categories accounting for more than 25 per cent of the countries. There appears to be about as much tendency for money velocity to rise as to fall, and this conclusion applies to both the annual data and the five-year data. As indicated earlier, money velocity trends were the least clear of the four types of velocity measured.

Table B. Money Velocity Trends: 40 Countries
(In per cent)

	Annual Data	Five-Year Moving Average
General Rise	17.5	25.0
General Decline	15.0	17.5
Up and Down	17.5	12.5
Rise and Decline	22.5	25.0
Decline and Rise	17.5	15.0
Fluctuation in a Narrow Range	10.0	5.0
Total	100.0	100.0

Broad money velocity. -- The clearest trend of all those examined is that for broad money velocity. As indicated in Table C, 29 out of the 40 countries (or 72.5 per cent) experienced a general decline in broad money velocity during the postwar period. If the three countries that also had a decline in broad money velocity after 1958-62 are added to the above 29, the proportion becomes an impressive 80 per cent. Only four countries (or 10 per cent) experienced a general rise in broad money velocity, and all but one of these have had high rates of inflation which would have discouraged the growth of time and savings deposits.

Table C. Broad Money Velocity Trends: 40 Countries
(In per cent)

	Annual Data	Five-Year Moving Average
General Rise	7.5	10.0
General Decline	65.0	72.5
Up and Down	10.0	0.0
Rise and Decline	10.0	7.5
Decline and Rise	5.0	5.0
Fluctuation in a Narrow Range	2.5	5.0
Total	100.0	100.0

On the basis of these data, it is possible to say that the predominant trend of broad money velocity is downward. Such

a trend would roughly tend to prevail for three out of four less developed countries. Some of the main factors accounting for this trend will be explained later.

Deposit velocity. -- Although not as impressive as the trends in broad money velocity, the deposit velocity trends nevertheless reveal a predominant tendency to rise. As indicated in Table D, about 58 per cent of the countries experienced a general rise in deposit velocity while only 5 per cent (Iran and Taiwan) showed a general declining trend. The other trends in deposit velocity were somewhat diffused as indicated in Table D.

On the basis of these data, it may be tentatively concluded that a majority of countries should tend to experience a rising trend in their deposit velocity, and only rarely a declining trend. Stated somewhat differently and more cautiously, these data indicate that one could normally expect some trend in deposit velocity other than a declining trend, with the predominant tendency being a rise in deposit velocity.

Some of the factors underlying the tendency of deposit velocity to rise will be discussed later. However, it would appear that one of the major factors has been the increased volume of inter-firm sales of intermediary goods and security transactions as an economy develops, which are, of course, reflected in the greater use of deposit money.

Table D. Deposit Velocity Trends: 38 Countries
(In per cent)

	Annual Data	Five-Year Moving Average
General Rise	52.6	57.8
General Decline	2.6	5.3
Up and Down	7.9	0.0
Decline and Rise	7.9	5.3
Rise and Decline	15.8	15.8
Fluctuation in a Narrow Range	13.2	15.8
Total	100.0	100.0

Currency ratio. -- Despite the widely accepted notion that developing countries experience a decline in the currency ratio over time, the data in Table E reveal a somewhat diffused postwar trend, with only 41.5 per cent of the 41 countries experiencing a general decline in the currency ratio. Approximately 20 per cent experienced a rise in the currency ratio, while 39 per cent experienced other trends in the currency ratio.

Table E. Currency Ratio Trends: 41 Countries
(In per cent)

	Annual Data	Five-Year Moving Average
General Rise	14.6	19.5
General Decline	39.0	41.5
Up and Down	9.8	2.5
Rise and Decline	9.8	14.6
Decline and Rise	17.0	14.6
Fluctuation in a Narrow Range	9.8	7.3
Total	100.0	100.0

On the basis of the data presented thus far, it would appear that there is a more predominant trend in broad money velocity, and deposit velocity, than in the currency ratio. Some of the factors accounting for the somewhat diffused trend in the currency ratio will be discussed later.

General Conclusions

The postwar trends in velocity have exhibited a wide variance, depending on the particular type of velocity measured. Of the three income velocities that were examined (viz., currency, money and broad money), there was a tendency for currency velocity to rise, for broad money velocity to fall, and no clear trend was evident for money velocity. It can therefore be concluded that

generalizations regarding income velocity per se are not likely to be very helpful and may even be in error. Much preferable would be generalizations and conclusions regarding the different types of velocity.

Broad money velocity. -- One of the main conclusions reached in this paper is that there is a strong tendency for the income velocity of broad money to decline. A general declining trend was registered by approximately three out of every four countries examined. This conclusion is consistent with those reached by Milton Friedman, and Ezekiel and Adekunle, that were cited earlier.

There are several factors that probably account for this declining trend. One is the substantial rate of growth in quasi-money as countries develop economically. This growth is fairly rapid in those countries where price inflation is not too rapid and interest rates on time and savings deposits are attractive. With a more rapid growth in quasi-money than in current GNP, there is a tendency for broad money velocity to decline, since the changes in the stock of money are generally not large enough to offset this basic relationship.

A second factor contributing to this declining trend in broad money velocity is the tendency for the stock of money to be roughly "neutral" in the process. Although there is a decreasing

use of currency, this is offset by a greater use of deposit money. Thus the rising tendency of currency velocity is apparently neutralized by the changes in the income velocity of deposit money, leaving no predominant trend -- up or down -- in the income velocity of money.

Some economists have raised the question of whether there is a tendency after a period of time for broad money velocity to stop declining and to level off. An examination of the data in the country tables at the end of this paper indicates that this is not a general tendency, although there has been a leveling off for some countries.

Deposit velocity. -- The second clearest trend exhibited by the data was that for deposit velocity, i.e. total bank debits or clearings divided by the outstanding volume of deposit money. On the basis of a five-year moving average of the deposit velocity of 38 countries, 57.8 per cent (i.e. 22 countries) experienced a general rise in their deposit velocity during the postwar period. This general trend was also consistent with the postwar trend in the United States. As pointed out earlier, only two out of the 38 countries (5.3 per cent) exhibited a general declining trend -- further underlining the predominant uptrend in deposit velocity.

There are several factors that help to explain this tendency of deposit velocity to increase. One is the rising

volume of intermediate-type transactions as an economy develops -- such as inter-firm sales, stock market and commodity market transactions, forward foreign exchange transactions, etc. -- which are reflected in a greater use of deposit money via debit or clearings data. Another factor appears to be an increased efficiency in the use of payment and clearing mechanisms, thus permitting a reduction in the relative amount of deposit money balances held, and a shift of some funds from deposit money to quasi-money.[1/]

Currency ratio. -- The data on the currency ratio (i.e. currency in circulation divided by the stock of money) for the less developed countries in the postwar period indicate that there is a tendency for the ratio to decline. However, a predominant trend does not appear to be evident since only about 42 per cent of the countries exhibited this general declining tendency.

However, if one accepts the conclusion that the ratio is more likely to decline than to rise, then this conclusion is consistent with the research findings cited earlier regarding the relation between the currency ratio and per capita income. My own research indicates that the currency ratio tends to be negatively related to currency velocity and deposit velocity, but positively related to broad money velocity.

1/ See Garvy and Blyn., op. cit., p. 91.

As to which factors influence the trend in the currency ratio, three appear to be of major importance. One is whether the country is experiencing a relatively good rate of economic growth in real GNP, say 4 to 5 per cent per annum or better. The eight countries that experienced a rise in the currency ratio were mainly countries that had poor economic growth rates. Conversely, most of the countries experiencing a decline in their currency ratio had good rates of economic growth.

A second factor relates to whether there is a strong tradition reinforcing the use of coins and bank notes as opposed to deposit money, such as in Kuwait. Where such a tradition prevails, there actually tends to be a rise in the currency ratio.

A third factor relates to the development and use of banks and other financial institutions. Where a country lags in this regard, and the general public remains suspicious of the use of deposit money, it is unlikely that there will be much of a decline in the currency ratio. Increased socialization of an economy, and/or a nationalization of the financial system, further reduces the likelihood of a decline in the currency ratio.

Currency velocity and money velocity. -- As indicated earlier, there is a tendency for currency velocity to rise (this occurred for 40 per cent of the countries), but there appears to be no clear trend for monetary velocity. These results are not too

surprising, since the general tendency of the currency ratio to decline means that there is less currency outstanding in relative terms, and therefore one could logically expect a rising income velocity of currency.

On the other hand, with the greater use of deposit money, there is a continued expansion in the stock of money -- despite the relative decline in currency -- the net result being an inconclusive trend for the income velocity of money. If nothing else, this tentative analysis of the income velocity of money indicates that any conclusions regarding the secular trends in money velocity per se should be examined very carefully before being accepted.

Some general points. -- It should be noted that my conclusions regarding two different types of income velocity are different from those reached by Ezekiel and Adekunle, which were described earlier. They found no significant relationship between currency velocity and the level of per capita income (i.e. gross domestic product), but they did find a significant relationship between money velocity and per capita income. Assuming that through time a country's per capita income increases,[1/] I found that there were very diffused and hence

1/ One of the underlying assumptions in this paper is that all of the LDC's in the postwar period have experienced, to some extent, an increase in per capita income. If this were not the case, it would not be valid to compare my conclusions to those of Ezekiel and Adekunle.

inconclusive trends for money velocity, but that there was a partly significant trend (40 per cent of the countries) for currency velocity. However, the most significant and clear-cut trends appear to be those for broad money velocity and deposit velocity.

In view of some of the results of earlier research on velocity trends, it may be asked whether the data compiled in this paper indicate that as a country achieves a high level of per capita income, there is a tendency for income velocity to decline. So far as I have been able to determine, those countries which have first had an increase, and then a decrease, in velocity, have generally not been countries with relatively high levels of per capita income. In the case of broad money velocity, for example, the three countries experiencing a rise and decline in velocity were Turkey, Egypt and Chile. Perhaps a more valid test of the hypothesis would be to examine the velocity trends of the industrialized countries.

Another question that might be asked is whether the velocity trend appeared to be significantly affected by the concomitant existence in the country of rapid inflation. The main problem in answering this question is the fact that the degree of inflation varies over time in many of the LDC's, progressing from a rapid inflation to a much slower rate and back again to a rapid rate. This makes the analysis difficult. But it would appear that during those periods in which price inflation is very rapid -- say 30 to

40 per cent a year or more -- there is a tendency for income velocity to increase. This is perhaps most evident in the case of Bolivia during the first half of the 1950's when the rate of inflation reached very high levels. During the latter half of the 1950's, the income velocities decreased as the rate of inflation slackened.

A final question which may be asked is "What are the implications of the conclusions in this paper for the formulation of appropriate monetary policies?" It obviously would be helpful in formulating monetary policy if the authorities could know in advance with a fair amount of certainty, the likely trend in velocity. If, for example, it was very likely that money velocity would decline, then a somewhat less restrictive monetary policy might be appropriate, since with a decrease in velocity, the stock of money need not be decreased by as much as would have been necessary if velocity were to remain unchanged.

Unfortunately, the conclusions reached in this paper regarding velocity trends do not provide a very firm foundation for monetary decisions of the type just described. Other than in the case of broad money velocity, the authorities could not rely very heavily on the expectation that any particular secular trend will prevail, and even in the case of broad money velocity, this study suggests that there is a one-out-of-four chance that a different

trend will prevail. Hence, this study's most important conclusion would appear to be that many of the velocity patterns expected by economists do not always prevail.

However, further analysis of the experience of individual countries could be useful in identifying the factors that may explain the behavior of velocity. This could provide more useful guidance to policy makers than could be obtained merely from the assumption that velocity would tend to decline as economic development proceeded and income rose.

1. A. Currency Velocity: African Countries

	Egypt		Ghana		Morocco		Nigeria		Sudan		Tunisia	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1952	5.0											
1953	5.1											
1954	5.9	5.8										
1955	6.4	5.9										
1956	6.4	6.3										
1957	6.1	6.7	13.9						18.8			
1958	6.8	7.1	17.2						18.3			
1959	7.9	7.4	17.7	16.2	10.5							
1960	8.2	7.4	16.3	16.0	10.3		15.6		18.3	18.1	10.3	
1961	8.0	7.2	15.8	15.7	9.3	10.1	15.2		19.3	17.5	8.9	
1962	6.0	6.7	12.8	15.2	10.4	9.9	17.2	17.4	15.8	17.0	9.8	9.7
1963	5.9	6.1	15.7	14.7	9.9	9.9	17.1	18.3	15.9	16.5	10.1	9.8
1964	5.3	5.6	15.6	15.1	9.6	9.9	21.8	19.0	15.9	15.4	9.4	10.0
1965	5.3	5.5	13.7	16.8	10.2	9.6	20.2	18.6	15.8	14.7	10.8	9.6
1966	5.5	5.6	17.9	18.2	9.2	9.5	18.9		13.5	14.1	9.8	9.5
1967	5.7	5.7	21.1	19.7	9.2	9.2	15.0		12.5	13.2	7.9	9.5
1968	6.1		22.6		9.4				13.0		9.6	
1969	6.1		8.2		8.2				11.2		9.3	
1970												

Note: The "Five-year average" represents the average of the preceding two years, the stated year, and the subsequent two years. For example, the average shown for 1959 covers the period 1957-61.

1. B. Currency Velocity: Asian Countries

	Bur.	Cey.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1948			7.0				9.5			
1949	9.1		7.1			9.9	10.4			
1950	10.5	16.0	7.5			10.6	11.0			
1951	9.8	13.2	7.4			8.8	10.5	26.5		
1952	10.6	12.4	8.0			8.6	12.8	29.7	8.6	
1953	9.1	12.9	8.4			8.5	13.3	31.7	8.4	
1954	8.8	16.7	7.5	20.1		7.8	12.6	27.4	8.3	
1955	8.1	14.8	7.0	24.2	5.3	6.7	13.5	24.8	7.1	
1956	6.6	13.2	7.9	27.9	5.6	6.9	14.4	26.2	7.6	
1957	7.0	13.0	7.3	32.4	5.6	7.2	14.6	25.1	8.5	
1958	7.2	12.4	7.9	28.8	5.5	7.3	15.0	24.3	8.8	
1959	5.8	11.6	7.5	23.5	5.7	7.2	15.3	22.3	9.3	
1960	6.5	11.2	7.6	20.9	6.5	7.7	15.2	25.4	9.9	8.2
1961	6.6	10.4	7.2	22.5	6.5	8.4	15.0	22.1	9.9	6.9
1962	5.7	9.8	7.0	21.5	6.7	8.8	13.1	25.0	10.1	7.4
1963	4.7	9.1	7.2	30.8	8.8	8.8	15.2	24.8	10.7	6.7
1964	5.6	9.3	7.6	34.6	8.9	8.3	15.9	21.8	11.2	6.7
1965	4.5	8.9	7.3	31.8	9.0	8.7	16.1	22.1	11.5	6.0
1966	4.5	9.4	7.7	32.4	8.7	8.0	16.3	20.9	11.6	5.7
1967	4.9	9.9	8.8	26.7	11.1	9.7	16.8	19.9	11.5	6.8
1968		10.1	8.3	25.6	14.2	9.6	16.7	18.7	12.0	4.6
1969		10.7	8.1	26.8	12.9	9.3	18.8	19.6	12.8	5.3
1970				25.9	12.2		17.8	19.3	13.5	6.5

1. B. Currency Velocity (Five-Year Moving Average): Asian Countries

	Bur.	Cey.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1950			7.4				10.8			
1951	9.8		7.7			9.3	11.6			
1952	9.8	14.2	7.8			8.9	12.0			
1953	9.3	14.0	7.7			8.1	12.5	28.0		
1954	8.6	14.0	7.8			7.7	13.3	28.0	8.0	
1955	7.9	14.1	7.6			7.4	13.7	27.0	7.9	
1956	7.5	14.0	7.5	26.7		7.2	14.0	25.6	8.1	
1957	6.9	13.0	7.5	27.4	5.5	7.2	14.6	24.5	8.3	
1958	6.6	12.8	7.6	26.7	5.8	7.3	14.9	24.7	8.8	
1959	6.6	11.7	7.5	25.6	5.9	7.6	15.0	23.8	9.3	
1960	6.4	11.1	7.4	23.4	6.2	7.9	14.7	23.8	9.6	
1961	5.9	10.4	7.3	23.8	6.8	8.2	14.8	23.9	10.0	
1962	5.8	10.0	7.3	26.1	7.5	8.4	14.9	23.8	10.4	7.2
1963	5.4	9.3	7.4	28.2	7.9	8.6	15.1	23.2	10.7	6.7
1964	5.0	9.3	7.4	30.2	8.4	8.5	15.3	22.9	11.0	6.5
1965	4.8	9.3	7.7	31.3	9.3	8.7	16.1	21.9	11.3	6.4
1966		9.5	7.9	30.2	10.4	8.9	16.4	20.7	11.6	6.0
1967		9.8	8.0	28.7	11.2	9.1	16.9	20.2	11.9	5.7
1968				27.5	11.8		17.3	19.7	12.3	5.8
1969										
1970										

1. C. Currency Velocity (5-year moving average): Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1950																	
1951																	
1952	6.8	20.8	11.4	28.0	17.9	13.9	15.7	17.2		15.1	17.5	17.9	22.2	16.4	17.7		15.5
1953	6.2	42.1	11.3	29.4	18.9	14.3	15.6	17.2		15.7	16.8	18.4	20.6	17.5	17.9		16.3
1954	5.8	45.9	11.9	30.1	19.5	14.6	14.9	17.3		15.5	16.5	18.8	20.0	17.8	17.9		16.8
1955	5.7	47.9	12.4	32.9	19.3	15.1	14.6	17.1		15.4	16.3	19.4	19.5	18.5	17.7		17.4
1956	6.0	43.5	12.9	35.3	19.3	15.4	14.2	17.3		15.7	16.5	20.4	19.3	18.6	17.7		18.1
1957	6.8	34.1	14.5	36.2	19.8	15.6	13.5	17.8		16.2	17.2	21.0	19.3	19.1	17.7	11.9	18.8
1958	8.1	21.3	15.8	37.3	20.4	16.0	13.5	18.1		16.6	18.0	22.1	19.3	20.4	17.8	12.7	19.3
1959	9.3	15.9	16.6	36.9	20.8	16.6	13.6	18.1		16.8	19.1	22.7	19.9	22.0	17.9	13.2	19.4
1960	10.5	15.1	17.5	36.9	21.5	17.0	14.0	18.1	16.2	17.4	20.1	23.1	20.1	22.4	18.2	13.4	19.8
1961	11.6	14.1	18.7	36.8	22.0	17.5	14.5	18.0	17.0	18.1	20.6	23.2	20.2	23.7	18.5	13.6	20.5
1962	12.4	13.4	20.7	36.2	22.9	17.8	15.3	17.8	17.7	18.6	20.8	23.5	20.9	23.9	18.5	14.2	21.8
1963	13.5	12.5	22.9	34.3	23.3	18.2	15.2	17.9	18.4	18.9	20.5	23.1	21.2	22.9	18.3	13.8	22.9
1964	14.3	11.8	24.8	27.2	23.9	18.3	15.3	18.2	19.1	18.9	20.1	23.2	21.4	22.6	17.8	13.8	24.0
1965	14.8	11.3	27.4	31.5	25.0	18.6	15.8	18.3	19.8	19.0	20.0	23.4	21.8	22.7	17.9	13.9	24.6
1966	15.0	11.1	29.3	30.3	25.7	18.9	16.8	18.5	20.5	19.1	20.0	23.6	22.5	21.9	18.2	14.9	27.7
1967	15.1	11.0		29.9	26.1	19.3		18.9	21.4	19.3	20.3		23.5	21.7			
1968	14.9												24.4				
1969																	
1970																	

1. C. Currency Velocity: Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El.Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1950	7.5	17.2	12.2	27.1	14.7	13.3	14.7	16.9		13.1	20.1	17.4	27.6	12.5	17.3		13.3
1951	7.6	21.7	11.4	27.8	17.7	13.8	16.8	14.4		17.7	18.5	18.0	21.9	14.3	18.3		16.0
1952	6.8	25.4	12.1	28.0	19.5	13.8	16.3	18.3		16.4	17.5	18.3	22.6	16.2	18.2		16.4
1953	6.1	39.9	12.4	25.9	19.9	13.7	15.2	17.8		14.2	17.3	17.3	20.4	19.4	17.1		15.8
1954	5.8	44.4	9.1	31.2	17.9	15.0	15.5	15.7		13.9	14.2	18.7	18.5	19.5	17.6		16.2
1955	4.6	79.2	11.3	34.0	19.7	15.1	14.4	16.6		16.1	16.7	19.5	19.3	18.0	18.3	11.1	16.9
1956	5.8	41.0	14.5	37.2	20.3	15.6	13.5	17.9		16.8	16.6	20.0	19.2	15.9	18.4	12.0	18.7
1957	6.3	17.6	14.9	36.3	18.8	16.0	14.4	17.7		16.0	16.7	21.3	20.0	19.9	17.0	12.3	19.3
1958	7.5	17.6	15.1	37.8	19.9	15.4	13.1	18.4	14.6	15.7	18.1	22.6	19.4	19.6	17.3	11.6	19.5
1959	9.7	15.2	16.8	35.8	20.1	16.1	12.3	18.6	15.3	16.5	18.3	21.7	18.7	21.9	17.3	12.6	19.6
1960	11.4	15.5	17.9	39.3	22.7	17.0	14.2	18.1	15.9	17.8	20.5	24.9	20.4	24.6	18.8	15.2	19.6
1961	11.6	14.0	18.5	35.5	22.6	18.4	13.9	17.5	17.3	18.0	22.0	23.2	21.4	24.0	19.0	14.3	18.9
1962	12.2	13.1	19.2	36.0	22.0	18.2	16.5	17.9	18.1	18.8	21.6	23.3	20.6	22.1	18.7	13.5	21.4
1963	13.0	12.8	21.3	37.4	22.7	17.7	15.6	18.0	18.6	19.3	20.8	22.9	19.8	25.7	18.7	12.6	23.0
1964	13.8	11.8	26.7	32.6	24.3	17.6	16.2	17.7	18.7	19.3	19.1	23.1	22.3	23.0	17.1	15.5	25.9
1965	16.1	10.9	28.6	29.9	24.9	18.9	13.6	18.6	19.3	19.4	18.9	22.9	22.1	19.7	17.9	13.0	25.2
1966	15.9	10.2	28.4	29.4	25.8	19.1	14.7	18.9	21.0	17.8	19.9	24.0	22.2	22.4	16.5	14.4	24.6
1967	15.2	10.8	32.1	28.2	27.3	19.9	18.9	18.2	21.2	19.1	21.5	24.4	22.7	22.7	19.6	14.1	24.3
1968	14.1	11.6	30.5	31.2	26.2	19.1	20.6	19.1	22.3	19.9	20.8	23.8	23.4	21.7	19.8	17.4	23.6
1969	14.1	11.7		31.0	26.3	19.4		19.8	23.2	20.2	20.6		27.2	21.9			
1970	15.1												26.4				

1. D. Currency Velocity: Middle Eastern Countries

	Iran		Iraq		Jordan		Kuwait		Lebanon		Syria		Turkey	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1950			5.3						5.2					
1951			6.2						5.1					
1952			8.1	7.3					5.4	5.3				
1953			8.8	7.7					5.6	5.3			13.6	
1954			8.0	8.0					5.1	5.3			12.7	
1955			7.3	8.1					5.2	5.1			13.3	12.6
1956			8.0	8.0					5.0	4.6			11.8	12.5
1957			8.5	7.5					4.3	4.3	7.2		11.6	12.9
1958			8.2	7.4					3.2	4.1	5.6		12.9	13.3
1959	22.1		5.7	7.3	6.2				4.0	4.0	6.0	5.9	14.8	13.3
1960	23.5		6.6	7.2	6.4				4.0	4.0	5.6	5.6	13.5	13.7
1961	22.9	22.0	7.6	6.9	7.3	6.6			4.4	4.2	4.9	5.5	13.5	14.2
1962	21.9	21.7	7.7	7.2	6.9	6.8			4.5	4.6	6.1	5.3	14.0	14.2
1963	19.8	21.3	6.7	7.3	6.4	6.9	15.7		4.3	5.0	4.8	5.0	15.0	14.2
1964	20.3	20.7	7.6	7.1	7.0	6.3	16.6		5.8	5.4	5.0	4.9	14.6	14.1
1965	21.4	20.6	7.0	6.7	6.8	6.3	18.2	16.2	6.1	5.3	4.3	4.4	13.4	14.3
1966	19.9	20.9	6.3	6.6	6.5	5.7	17.2	16.3	6.4	5.4	4.1	4.1	14.7	14.4
1967	21.6	21.2	5.9	6.2	4.9		13.2	17.3	4.0	5.3	3.8		14.4	14.3
1968	21.4		6.3		3.2		16.2		4.8		3.4		14.2	14.1
1969	21.9		5.7				21.8		5.2				13.8	
1970														

2. A. Money Velocity: African Countries

	Egypt		Ghana		Morocco		Nigeria		Sudan		Tunisia	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1952	2.7											
1953	2.7											
1954	3.0	3.0										
1955	3.4	3.1										
1956	3.3	3.3										
1957	3.1	3.4	8.3									
1958	3.6	3.6	10.2						11.2			
1959	3.8	3.7	10.1	9.4	4.3				9.5			
1960	4.1	3.8	9.6	9.2	3.6		8.9		10.7	10.3	4.1	
1961	4.0	3.8	8.9	8.8	3.4	3.7	9.4		11.0	9.8	3.8	
1962	3.5	3.8	7.4	8.3	3.5	3.5	10.7	10.5	9.0	9.6	3.7	3.7
1963	3.7	3.7	7.9	7.7	3.5	3.5	10.4	11.0	8.6	9.2	3.4	3.5
1964	3.5	3.6	7.6	7.5	3.5	3.5	12.7	11.4	8.5	8.5	3.3	3.5
1965	3.6	3.6	6.6	7.7	3.6	3.5	12.0	11.0	8.8	8.1	3.7	3.3
1966	3.6	3.7	8.0	7.8	3.4	3.5	11.3		7.5	7.8	3.3	3.3
1967	3.7	3.7	8.3	8.4	3.4	3.5	8.5		7.0	7.5	2.8	3.4
1968	3.9		8.7		3.6				7.3		3.5	
1969	3.9		10.2		3.6				6.7		3.6	
1970												

2. B. Money Velocity: Asian Countries

	Bur.	Cey.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1948			3.8				5.0			
1949	6.1		4.1			6.6	5.5			
1950	6.8	5.9	4.9			6.5	5.8			
1951	6.5	4.6	4.9			5.5	6.1	15.5		
1952	6.9	4.9	5.3			5.8	7.3	17.7	6.2	
1953	6.0	5.3	6.0			5.7	7.5	17.5	6.3	
1954	5.8	5.8	5.3	13.9		5.2	7.6	13.9	6.3	
1955	5.5	6.0	5.0	16.6	3.8	4.6	7.9	12.1	5.3	
1956	4.3	4.9	5.4	13.6	3.9	4.5	6.8	13.0	5.4	
1957	4.7	5.3	4.9	15.4	4.0	4.9	6.8	11.6	5.9	
1958	4.9	5.9	5.3	13.9	4.0	4.9	6.8	10.9	5.9	
1959	4.1	5.8	5.1	10.7	4.1	4.7	6.8	9.6	6.1	
1960	4.5	5.7	5.2	11.9	4.5	5.0	7.2	10.6	6.1	5.4
1961	4.7	5.5	5.2	11.8	4.5	5.	8.0	10.8	5.8	4.8
1962	4.2	5.4	5.1	11.1	4.6	5.6	8.2	10.5	6.2	5.1
1963	3.7	5.1	5.1	13.6	5.4	5.5	7.7	10.6	6.1	4.5
1964	4.4	5.0	5.3	17.6	5.4	5.2	8.6	8.5	6.1	4.5
1965	3.8	4.9	4.9	16.6	6.1	5.2	8.9	8.1	6.5	4.2
1966	3.4	5.0	5.1	17.0	5.9	4.9	8.5	8.0	6.5	3.9
1967	3.7	5.3	5.7	16.0	6.1	5.4	8.9	7.6	6.5	4.9
1968		5.8	5.2	11.4	7.1	5.6	8.9	6.9	7.5	3.6
1969		6.1	5.1	12.3	6.4	5.5	9.0	7.2	7.9	3.9
1970				10.2	6.2		8.7	7.1	8.1	5.1

2. B. Money Velocity (5-year moving average): Asian Countries

	Bur.	Cey.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1950			4.6			6.0	5.9			
1951	6.5		5.0			5.7	6.4			
1952	6.4	5.3	5.3			5.4	6.9			
1953	6.1	5.3	5.3			5.2	7.3	15.3		
1954	5.7	5.4	5.4			5.0	7.4	14.8	5.9	
1955	5.3	5.5	5.3			4.8	7.3	13.6	5.8	
1956	5.0	5.6	5.2	14.7		4.7	7.2	12.3	5.8	
1957	4.7	5.6	5.1	14.0	4.0	4.8	7.0	11.4	5.7	
1958	4.5	5.5	5.2	13.1	4.1	5.0	6.8	11.1	5.9	
1959	4.6	5.6	5.1	12.7	4.2	5.1	7.1	10.7	6.1	
1960	4.5	5.7	5.2	11.9	4.3	5.3	7.4	10.5	6.1	
1961	4.2	5.5	5.1	11.8	4.6	5.4	7.6	10.4	6.1	
1962	4.3	5.3	5.2	13.2	4.9	5.4	8.1	10.2	6.1	4.9
1963	4.2	5.2	5.1	14.1	5.2	5.3	8.3	9.7	6.1	4.6
1964	3.9	5.1	5.1	15.2	5.5	5.2	8.4	9.1	6.3	4.4
1965	3.8	5.1	5.2	16.2	5.9	5.2	8.3	8.6	6.3	4.4
1966		5.2	5.2	15.7	6.1	5.2	8.8	7.8	6.6	4.2
1967		5.4	5.2	14.7	6.3	5.3	8.8	7.6	7.0	4.1
1968				13.4	6.3		8.8	7.4	7.3	4.3
1969										
1970										

2. C. Money Velocity (5-year moving average): Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1950																	
1951																	
1952	3.1	18.2	3.9	8.7	7.6	6.2	7.2	8.2		10.1	9.5	8.9	10.5	9.1	7.1		7.4
1953	3.1	22.4	3.8	8.8	7.8	6.1	7.1	8.4		10.5	9.5	8.9	9.5	9.8	7.0		7.5
1954	3.2	25.7	4.1	10.0	7.6	6.2	6.9	8.8		10.3	9.4	9.1	9.1	10.2	7.4		7.3
1955	3.2	25.4	4.2	11.1	7.3	6.4	7.0	8.9		9.8	9.5	9.2	8.7	10.8	7.6		7.2
1956	3.5	23.2	4.3	12.1	7.1	6.5	6.9	9.1		9.4	9.8	9.6	8.6	11.0	8.0		7.0
1957	3.8	20.0	4.4	13.0	6.9	6.5	6.6	9.1		9.4	10.2	9.6	8.9	11.3	8.3	6.4	6.8
1958	4.5	16.3	4.4	13.9	6.9	6.7	6.7	9.1		9.3	10.6	9.8	9.2	12.1	8.6	6.5	6.8
1959	5.0	12.7	4.4	13.5	6.9	6.9	6.5	8.9		9.5	11.1	9.9	9.4	12.8	8.6	6.7	6.7
1960	5.5	12.3	4.4	13.5	6.9	7.0	6.8	8.8	7.2	9.8	11.4	9.9	9.4	13.0	8.9	6.7	6.8
1961	5.9	11.7	4.6	13.5	7.0	7.1	7.3	8.7	7.6	10.0	11.4	9.8	9.3	13.4	9.2	6.9	7.2
1962	6.1	11.1	5.0	13.1	7.1	7.1	7.9	8.5	7.7	10.0	11.3	9.7	9.1	13.4	9.3	7.3	7.5
1963	6.3	10.3	5.2	12.7	7.3	7.1	8.1	8.5	8.2	9.9	10.8	9.6	8.7	12.9	9.5	7.4	7.5
1964	6.4	9.5	5.4	12.6	7.4	7.0	8.8	8.5	8.4	9.6	10.4	9.4	8.3	12.6	9.8	7.6	7.5
1965	6.5	9.0	5.6	12.1	7.5	6.9	9.1	8.4	8.5	9.5	10.0	9.3	8.3	12.6	10.0	8.0	7.5
1966	6.4	8.7	5.7	11.5	7.5	6.8	9.0	8.3	8.6	9.5	9.8	9.3	8.5	12.2	10.3	8.7	7.4
1967	6.3	8.4		11.5	7.4	6.7		8.3	8.8	9.7	9.5		8.8	12.1			
1968	6.0												9.2				
1969																	
1970																	

2. C. Money Velocity: Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1950	2.7	10.5	4.4	8.7	6.6	6.4	7.4	7.8		8.1	9.7	9.0	13.6	6.7	7.6		6.9
1951	3.1	13.0	3.3	8.3	7.8	6.3	7.4	7.5		10.6	10.2	8.6	10.5	8.0	6.9		8.3
1952	3.5	14.8	3.8	8.8	8.1	5.8	7.1	9.0		11.2	9.6	9.4	11.4	9.0	6.8		7.6
1953	3.2	24.3	3.7	8.4	8.0	6.1	7.1	8.3		10.8	9.4	8.2	9.0	10.8	6.8		7.0
1954	3.1	28.3	4.1	9.3	7.5	6.5	7.2	8.6		9.7	8.6	9.4	8.2	11.1	7.2		7.1
1955	2.8	31.6	4.3	9.4	7.5	6.0	6.5	8.8		10.2	9.5	9.1	8.6	10.1	7.4	6.2	7.3
1956	3.4	29.7	4.5	13.9	7.1	6.6	6.8	9.4		9.5	9.7	9.4	8.5	10.1	8.7	6.3	7.7
1957	3.6	12.9	4.5	13.5	6.6	6.6	7.2	9.4		8.9	10.1	9.8	9.0	11.9	7.9	6.9	6.9
1958	4.4	13.3	4.0	14.4	6.9	6.8	6.6	9.2	6.5	8.8	11.0	10.3	8.8	12.0	8.7	6.3	6.2
1959	4.9	12.5	4.5	14.0	6.5	6.6	5.8	8.7	6.8	9.5	10.8	9.6	9.7	12.4	8.6	6.4	5.9
1960	6.1	12.9	4.4	13.9	7.4	6.8	7.1	8.7	7.0	10.0	11.6	9.8	9.8	14.0	8.9	6.8	7.5
1961	6.2	11.7	4.5	11.5	7.2	7.7	6.0	8.6	7.6	10.2	12.0	10.0	9.9	13.7	8.9	6.9	7.1
1962	5.8	10.9	4.6	13.6	6.7	7.3	8.5	8.9	8.3	10.5	11.7	10.0	8.8	12.9	9.8	7.1	7.5
1963	6.3	10.4	5.1	14.4	7.0	7.1	9.0	8.4	8.4	9.7	10.7	9.5	8.2	14.0	9.8	7.4	7.8
1964	6.0	9.6	6.3	12.3	7.3	6.6	9.1	7.9	8.2	9.6	10.3	9.4	8.7	12.4	9.3	8.5	7.8
1965	7.0	8.9	5.5	11.9	8.3	6.9	7.9	8.6	8.4	9.7	9.5	9.0	7.9	11.4	9.6	7.2	7.4
1966	6.8	7.9	5.5	10.9	7.6	7.3	8.6	8.9	8.6	8.6	9.7	9.3	7.9	12.5	10.5	7.6	7.1
1967	6.3	8.3	5.6	11.0	7.3	6.8	9.8	8.1	8.7	9.8	9.9	9.4	8.6	12.5	10.9	9.5	7.3
1968	5.7	8.7	5.5	11.6	6.9	6.4	9.5	7.9	9.1	10.0	9.4	9.3	9.2	12.1	11.1	10.6	7.2
1969	5.5	8.3		11.9	6.9	6.1		8.2	9.2	10.4	8.9		10.4	12.1			
1970	5.9												10.0				

2. D. Money Velocity: Middle Eastern Countries

	Iran		Iraq		Jordan		Kuwait		Lebanon		Syria		Turkey	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1950			3.9						2.6					
1951			4.4						2.4					
1952			5.3	5.0					2.6	2.6				
1953			5.9	5.2					2.8	2.6			9.6	
1954			5.5	5.4					2.6	2.6			8.6	
1955			5.1	5.4					2.5	2.5			8.9	8.7
1956			5.2	5.2					2.3	2.2			8.2	8.6
1957			5.4	4.9					2.1	2.0	3.0		8.3	9.0
1958			5.0	4.8					1.6	1.8	4.3		9.2	9.1
1959	7.9		3.8	4.8	3.9				1.6	1.6	4.5	3.9	10.2	9.5
1960	7.7		4.5	4.7	4.0				1.5	1.5	4.0	4.1	9.8	9.9
1961	8.7	8.3	5.1	4.7	4.4	3.9			1.5	1.4	3.5	3.9	9.9	10.3
1962	8.6	8.4	5.1	5.0	3.6	3.9			1.5	1.5	4.0	3.8	10.3	10.5
1963	8.7	8.6	4.9	5.2	3.7	3.9	4.7		1.1	1.7	3.6	3.7	11.2	10.4
1964	8.5	8.5	5.6	5.2	3.9	3.7	5.9		2.1	1.8	3.8	3.6	11.1	8.4
1965	8.7	8.4	5.4	5.1	3.8	3.6	6.6	5.5	2.2	1.9	3.4	3.4	9.6	10.6
1966	7.9	8.3	4.9	5.1	3.3	3.3	5.7	5.8	2.2	2.2	3.2	3.3	10.6	10.4
1967	8.4	8.2	4.8	4.9	3.2		4.5	6.2	2.1	2.3	3.3		10.7	10.0
1968	7.9		4.9		2.4		6.1		2.3		2.9		10.0	
1969	8.1		4.5				7.9		2.6				9.2	
1970														

3. A. Broad Money Velocity: African Countries

	Egypt		Ghana		Morocco		Nigeria		Sudan		Tunisia	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1952	2.4											
1953	2.5											
1954	2.9	2.7										
1955	3.0	2.7										
1956	2.6	2.8										
1957	2.6	2.8	6.6									
1958	2.9	2.8	7.6						7.0			
1959	3.0	2.9	7.5	7.1	4.0				8.3			
1960	3.0	2.9	7.0	7.1	3.4		6.9		9.0	8.1	3.8	
1961	3.1	2.9	6.6	6.8	3.1	3.4	7.3		8.0	8.1	3.5	
1962	2.6	2.7	7.0	6.4	3.2	3.3	6.6	7.1	8.0	8.0	3.3	3.3
1963	2.6	2.7	6.0	6.0	3.3	3.3	6.5	7.2	7.4	7.7	3.0	3.1
1964	2.4	2.6	5.6	5.9	3.3	3.3	8.0	7.2	7.4	7.3	2.8	2.9
1965	2.6	2.6	4.9	5.7	3.5	3.3	7.5	7.2	7.5	6.9	2.8	2.7
1966	2.6	2.6	5.8	5.8	3.2	3.3	7.4		6.4	6.6	2.7	2.6
1967	2.6	2.6	6.2	6.1	3.2	3.2	6.5		5.9	6.2	2.2	2.6
1968	2.7		6.3		3.3				5.9		2.7	
1969	2.6		7.2		3.0				5.4		2.8	
1970												

3. B. Broad Money Velocity: Asian Countries

	Bur.	Cey.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1948			3.3				4.1			
1949	5.8		4.0			5.5	4.4			
1950	6.4	5.4	4.3			6.1	4.6			
1951	6.1	4.3	4.3			5.1	4.9			
1952	6.4	3.5	4.8			5.4	5.7	11.9	6.0	
1953	5.7	3.7	4.8			4.8	5.4	11.9	5.8	
1954	5.5	4.0	4.2	12.6		4.3	5.2	9.7	5.7	
1955	5.0	4.1	3.9	15.2	3.0	3.8	5.3	8.9	4.8	
1956	3.9	3.4	4.0	11.8	3.0	3.7	4.8	9.7	4.8	
1957	4.4	3.5	3.6	13.8	3.2	4.1	4.6	8.4	5.1	
1958	4.5	3.7	3.7	12.2	3.2	4.0	4.5	7.6	4.9	
1959	3.8	3.7	3.4	9.0	3.1	3.8	4.5	5.8	5.0	
1960	4.2	3.5	3.4	8.8	3.3	4.0	4.6	6.4	5.0	5.0
1961	4.3	3.4	4.8	9.5	3.2	4.3	4.7	5.7	4.7	4.5
1962	3.8	3.4	4.7	6.6	3.2	4.2	4.6	4.8	4.5	4.8
1963	3.4	3.2	3.4	8.7	3.5	4.4	4.2	4.5	4.2	4.2
1964	4.1	3.1	3.7	11.9	3.6	4.0	4.3	3.8	4.1	4.1
1965	3.6	3.0	3.6	10.9	3.8	3.9	4.4	3.7	4.1	3.8
1966	3.4	3.0	3.7	8.5	3.6	3.6	4.3	3.4	3.8	3.6
1967	3.6	3.2	4.1	6.2	3.6	3.8	4.1	3.1	3.7	4.4
1968		4.1	3.7	4.9	3.6	3.7	3.9	3.0	3.6	3.3
1969		4.2	3.5	3.8	3.2	3.7	3.9	3.1	3.5	3.4
1970				3.4	3.1		4.0	2.9	3.4	4.3

3. B. Broad Money Velocity (5-year moving average): Asian Countries

	Bur.	Cey.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1950			4.1				4.7			
1951	6.1		4.4			5.4	5.0			
1952	6.0	4.2	4.5			5.1	5.2			
1953	5.7	3.9	4.4			4.7	5.3			
1954	5.3	3.7	4.3			4.4	5.3	10.4	5.4	
1955	4.9	3.7	4.3			4.1	5.1	8.0	5.2	
1956	4.8	3.7	4.0	13.1		4.0	4.9	8.9	5.1	
1957	4.7	3.7	3.7	12.4	3.1	3.9	4.7	8.1	4.9	
1958	4.3	3.6	3.6	11.1	3.2	3.9	4.6	7.6	4.9	
1959	4.2	3.6	3.8	10.7	3.2	4.0	4.6	6.8	5.1	
1960	4.2	3.5	4.0	9.2	3.2	4.1	4.6	6.1	4.8	
1961	4.1	3.4	3.9	8.5	3.3	4.1	4.5	5.4	4.7	
1962	4.0	3.3	4.0	9.1	3.4	4.1	4.5	5.0	4.5	4.5
1963	4.0	3.2	4.0	9.5	3.5	4.2	4.4	4.5	4.3	4.3
1964	3.8	3.1	3.7	9.3	3.5	4.0	4.4	4.0	4.1	4.1
1965	3.6	3.1	3.8	9.3	3.6	3.9	4.3	3.7	4.0	4.0
1966	3.8	3.3	3.3	8.6	3.6	3.8	4.2	3.4	3.9	3.8
1967		3.5	3.5	6.9	3.6	3.7	4.1	3.3	3.7	3.7
1968				5.4	3.4		4.0	3.1	3.6	3.8
1969										
1970										

3. C. Broad Money Velocity: Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1950	1.9	10.2	3.4	6.7	6.4	5.6	5.9	6.8		7.9	8.7	7.8	12.9		5.7		6.2
1951	2.3	12.7	2.7	6.7	7.4	5.6	6.0	6.6		10.0	9.2	7.7	10.0		5.2		7.4
1952	2.6	14.3	3.2	7.3	7.6	5.2	5.8	8.1		10.4	8.7	8.4	11.0		4.3		6.6
1953	2.4	13.3	3.2	7.1	6.0	5.3	5.7	7.1		9.5	8.3	6.4	8.4		4.8		6.0
1954	2.3	22.0	3.5	7.9	6.0	5.6	5.5	7.1		8.8	7.5	7.3	7.8		5.0		5.9
1955	1.8	31.3	3.7	8.3	5.4	5.2	4.7	6.9		9.1	8.2	7.1	7.9		4.7	3.5	5.8
1956	2.9	29.5	4.0	12.2	5.4	5.5	4.6	7.1		8.5	8.1	7.2	7.8		4.9	2.9	5.8
1957	2.4	17.1	4.0	11.5	5.2	5.4	4.7	7.4		7.5	8.2	7.5	8.3	11.3	4.6	3.1	5.0
1958	2.8	13.2	3.6	11.8	5.7	5.4	4.3	7.0	5.3	7.2	8.8	7.6	8.1	11.3	5.0	3.0	4.3
1959	3.5	12.2	4.2	9.0	5.5	5.1	4.0	6.7	5.0	7.5	8.8	7.1	9.0	11.4	5.1	3.2	3.8
1960	4.5	12.7	4.0	9.0	6.1	5.2	5.1	6.8	4.8	7.7	9.0	7.6	8.9	12.5	5.3	3.9	4.7
1961	4.5	11.4	4.1	7.7	5.8	5.6	4.6	5.8	5.4	7.5	8.9	7.6	7.6	12.0	5.2	3.9	4.9
1962	4.4	10.5	4.3	8.1	5.4	5.5	7.7	6.0	5.1	7.4	8.5	7.8	7.8	10.7	5.2	3.8	5.1
1963	4.6	9.8	4.8	8.8	5.9	5.4	7.1	5.7	4.8	6.8	7.6	7.1	7.3	10.7	4.9	3.3	5.0
1964	4.4	9.0	6.1	7.9	6.9	5.0	6.9	5.9	4.5	6.4	7.2	7.1	7.4	9.3	4.8	3.7	4.9
1965	4.9	8.4	5.3	7.6	5.6	5.1	5.9	6.2	4.5	6.3	6.8	6.7	6.5	8.1	4.6	3.9	4.6
1966	4.9	7.3	5.2	7.2	5.9	5.4	6.6	6.2	4.4	5.2	6.8	6.9	5.9	8.3	5.0	4.4	4.4
1967	4.5	7.4	5.1	6.3	5.9	5.0	6.7	5.6	4.3	5.6	6.2	6.9	6.1	7.3	5.4	5.9	4.6
1968	4.1	7.5	4.9	7.1	5.6	4.7	6.2	6.7	4.6	5.2	5.6	6.8	6.3	6.9	5.8	6.4	4.4
1969	3.9	6.9		6.7	5.4	4.6		5.2	4.6	5.3	5.1		6.8	6.7			
1970	4.1												6.8				

3. C. Broad Money Velocity (5-year moving average): Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1952	2.3	14.5	3.2	7.1	6.7	5.5	5.8	7.1		9.3	8.5	7.5	10.0		5.0		6.4
1953	2.3	18.7	3.3	7.5	6.5	5.4	5.5	7.2		9.6	8.4	7.4	9.0		4.8		6.3
1954	2.4	22.1	3.5	8.6	6.1	5.4	5.3	7.3		9.3	8.2	7.3	8.6		4.7		6.0
1955	2.4	22.6	3.7	9.4	5.6	5.4	5.0	7.1		8.7	8.1	7.1	8.0		4.8		5.7
1956	2.4	22.6	3.8	10.3	5.5	5.4	4.8	7.1		8.2	8.2	7.3	8.0		4.8		5.4
1957	2.7	20.7	3.9	10.6	5.4	5.3	4.5	7.0		8.0	8.4	7.3	8.2		4.9	3.1	4.9
1958	3.2	16.9	4.0	10.7	5.6	5.3	4.5	7.0		7.7	8.6	7.4	8.4		5.0	3.2	4.7
1959	3.5	13.3	4.0	9.8	5.7	5.3	4.5	6.7		7.5	8.7	7.5	8.4	11.7	5.0	3.4	4.5
1960	3.9	12.0	4.0	9.1	5.7	5.4	5.1	6.5	5.1	7.5	8.8	7.5	8.3	11.6	5.2	3.6	4.6
1961	4.3	11.3	4.3	8.5	5.7	5.4	5.7	6.2	5.0	7.4	8.6	7.4	8.1	11.5	5.1	3.6	4.7
1962	4.5	10.7	4.7	8.3	6.0	5.3	6.3	6.0	4.9	7.2	8.2	7.4	7.8	11.0	5.1	3.7	4.9
1963	4.6	9.8	4.9	8.0	5.9	5.3	6.4	5.9	4.9	6.9	7.8	7.3	7.3	10.2	4.9	3.7	4.9
1964	4.6	9.0	5.1	7.9	5.9	5.3	6.8	6.0	4.7	6.4	7.4	7.1	7.0	9.4	4.9	3.8	4.8
1965	4.7	8.4	5.3	7.6	6.0	5.2	6.6	5.9	4.5	6.1	6.9	6.9	6.6	8.7	4.9	4.2	4.7
1966	4.6	7.9	5.3	7.2	6.0	5.0	6.5	6.1	4.5	5.7	6.5	6.9	6.4	8.0	5.1	4.9	4.6
1967	4.5	7.5		7.0	5.7	5.0		6.0	4.5	5.5	6.1		6.3	7.5			
1968	4.3												6.4				
1969																	
1970																	

3. D. Broad Money Velocity: Middle Eastern Countries

	Iran		Iraq		Jordan		Kuwait		Lebanon		Syria		Turkey	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1950			3.3						2.6					
1951			3.6						2.4					
1952			4.5	4.2					2.6	2.5				
1953			4.9	4.4					2.5	2.4			5.7	
1954			4.6	4.5					2.3	2.3			4.9	
1955			4.3	4.5					2.1	2.1			5.1	5.0
1956			4.3	4.3					1.9	1.9			4.7	4.9
1957			4.4	4.0					1.8	1.7	4.7		4.6	5.1
1958			3.9	3.8					1.4	1.5	4.0		5.0	5.3
1959	6.3		3.1	3.8	3.4				1.3	1.3	3.9	3.9	5.6	5.4
1960	6.2		3.5	3.7	3.3				0.9	1.2	3.5	3.7	5.4	5.5
1961	6.4	6.1	3.9	3.7	3.6	3.2			1.3	1.1	3.3	3.5	5.7	5.5
1962	6.1	5.8	3.9	3.9	3.0	3.2			1.0	1.0	3.7	3.4	5.4	5.5
1963	5.4	5.6	3.9	4.0	2.9	3.1	2.6		0.8	1.1	3.3	3.4	5.6	5.4
1964	5.0	5.2	4.3	4.0	3.0	2.8	2.7		1.1	1.0	3.6	3.3	5.5	5.2
1965	5.0	4.9	4.1	4.0	2.8	2.7	2.8	2.6	1.1	1.0	3.3	3.2	4.7	5.0
1966	4.5	4.6	3.8	4.0	2.4	2.5	2.5	2.5	1.0	1.1	3.0		4.7	4.7
1967	4.5	4.4	3.7	3.7	2.4		2.2	2.4	1.0	1.1	3.1		4.5	4.4
1968	4.1		3.6		1.9		2.2		1.1		2.8		4.2	
1969	3.9		3.4				2.6		1.2				3.7	
1970														

4. A. Deposit Velocity: African Countries

	Egypt		Ghana		Nigeria		Sudan		Tunisia	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1952	1.4									
1953	1.3									
1954	1.4	1.6								
1955	2.0	1.7								
1956	2.0	1.9								
1957	2.0	2.1	2.2							
1958	2.2	2.2	2.7							
1959	2.3	2.3	2.5	2.4					0.6	
1960	2.4	2.4	2.8	2.6					0.6	
1961	2.7	2.5	2.5	2.6			0.9		0.6	.6
1962	3.6	4.3	2.6	2.6	0.6		0.9			
1963	4.7	6.3	2.6	2.4	0.7		0.8	.8		
1964	8.0	8.4	2.4	2.3	0.8	.8	0.7	.7		
1965	12.6		2.0	2.1	0.9	.8	0.6	.7		
1966	13.2		2.0	2.0	1.0	.9	0.7	.7		
1967			1.7	2.0	0.8	.9	0.6	.7		
1968			1.8		1.0	1.0	0.8	.7		
1969			2.7		1.0		0.7			
1970					1.1		0.8			

4. B. Deposit Velocity: Asian Countries

	Bur.	Cey.	H.K.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1948				0.6				1.5			
1949	0.5			0.8			.43	1.4			
1950	0.6			0.8			.43	1.2			
1951	0.6	1.9		1.0			.45	1.4			
1952	0.6	2.0		0.9			.49	1.5	6.7	2.2	
1953	0.7	2.2		1.1			.48	1.6	6.5	2.5	
1954	0.6	2.0	1.41	1.1			.45	1.9	4.7	2.5	
1955	0.8	2.0	1.40	1.1	10.0	3.8	.47	1.9	5.0	2.2	
1956	0.6	1.6	1.39	1.1	5.3	4.3	.43	1.6	6.2	2.2	
1957	0.7	1.8	1.50	1.0	5.3	5.0	.46	1.4	5.7	2.0	1.0
1958	0.7	1.8	1.34	1.0	5.4	5.1	.45	1.8	5.3	1.9	0.9
1959	0.6	2.0	1.27	1.1	5.0	4.8	.51	1.8	4.8	1.9	0.8
1960	0.7	1.9	1.42	1.2	7.9	4.3	.60	2.1	6.0	1.8	0.8
1961	0.8	1.8	1.48	1.4	6.3	4.6	.66	3.1	4.3	1.8	0.9
1962	0.8	1.8	1.47	1.5	6.3	4.7	.67	3.3	4.8	2.1	0.8
1963	0.7	1.8	1.53	1.4	6.2	4.6	.73	3.5	4.7	2.5	0.8
1964	0.4	1.8	1.62	1.3	9.7	4.5	.80	4.2	4.1	2.3	0.8
1965	0.5	1.8	1.58	1.3	10.0	6.7	.76	4.4	3.6	2.6	0.7
1966		1.7	1.55	1.2	9.8	7.0	.79	4.2	3.6	2.7	1.2
1967		1.7	1.81	1.2	12.7	5.2	.75	4.7	3.9	3.1	1.5
1968		2.1	2.08	1.1	6.4	5.5	.88	4.8	3.9	4.1	1.1
1969		2.3	2.37	1.2	7.9	5.1	.87	5.0	4.1	4.4	1.3
1970			2.51	1.2	5.5	4.9	.85	5.6	4.1	4.0	2.3

4. B. Deposit Velocity (5-year Moving Average): Asian Countries

	Bur.	Cey.	H.K.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1950				.82				1.4			
1951	.6			.92			.46	1.4			
1952	.6			.98			.46	1.5			
1953	.7	2.0		1.04			.47	1.7			
1954	.7	2.0		1.06			.46	1.7	5.8	2.3	
1955	.7	1.9		1.10			.46	1.7	5.6	2.3	
1956	.7	1.8	1.43	1.06			.45	1.7	5.4	2.2	
1957	.7	1.8	1.42	1.06	6.2	4.6	.46	1.7	5.4	2.1	
1958	.7	1.8	1.39	1.08	5.8	4.7	.49	1.8	5.6	2.0	
1959	.7	1.9	1.41	1.14	6.0	4.8	.54	2.0	5.2	1.9	.9
1960	.7	1.9	1.40	1.22	6.2	4.7	.58	2.4	5.0	1.9	.8
1961	.7	1.9	1.46	1.30	6.3	4.6	.63	2.8	4.9	2.0	.8
1962	.7	1.8	1.58	1.32	7.3	4.5	.69	3.2	4.8	2.1	.8
1963	.6	1.8	1.58	1.38	7.7	5.0	.72	3.7	4.3	2.3	.8
1964		1.8	1.61	1.34	8.4	5.5	.75	3.9	4.2	2.4	.8
1965		1.8	1.62	1.28	9.7	5.6	.77	4.2	4.0	2.6	1.0
1966		1.8	1.76	1.22	9.7	5.8	.80	4.5	3.8	3.0	1.1
1967		1.9	1.88	1.20	9.4	5.9	.81	4.6	3.8	3.4	1.2
1968			2.08	1.20	8.5	5.5	.83	4.9	3.9	3.7	1.5
1969											
1970											

4. C. Deposit Velocity: Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Pan.	Peru	Uru.	Ven.
1950	1.1	0.5	0.7	3.2	3.7	1.9	1.8	3.7	1.2	1.4	1.4	3.8	1.7		2.4	1.0	1.0
1951	1.3	0.6	0.6	3.0	4.0	1.9	1.8	4.0	1.2	1.5	1.5	3.3	1.7		2.1	1.0	1.1
1952	1.8	0.6	0.6	2.2	3.7	1.7	2.1	3.8	1.2	1.8	1.4	3.7	2.0		2.2	1.8	0.9
1953	1.7	0.4	0.6	2.8	3.7	1.9	2.6	3.5	1.3	2.2	1.4	3.0	1.6		2.4	1.6	0.9
1954	1.6	0.6	0.9	1.9	3.5	2.0	2.5	4.3	1.5	1.5	1.5	3.8	1.8	1.5	2.5	1.6	1.0
1955	1.2	0.4	0.8	2.3	3.6	1.8	2.1	4.3	1.6	1.4	1.5	3.5	2.1	1.6	2.6	1.8	1.1
1956	2.0	1.2	0.8	3.0	3.5	2.0	2.2	4.5	1.3	1.3	1.7	4.2	2.0	1.7	3.5	1.8	1.3
1957	2.3	1.4	0.8	3.4	3.5	2.1	2.4	4.8	1.4	1.4	2.0	3.9	2.1	1.9	3.9	2.0	1.3
1958	2.9	1.4	0.8	4.6	3.8	2.2	2.5	4.6	1.4	1.5	2.1	3.9	2.2	1.9	4.0	1.8	1.1
1959	2.6	1.5	1.0	4.8	3.5	2.1	2.1	4.2	1.5	1.6	1.7	3.6	2.5	1.7	3.9	1.7	1.1
1960	3.0	1.3	1.0	4.4	3.9	2.3	2.4	4.3	1.6	1.6	1.9	3.4	2.3	1.9	3.6	1.7	2.7
1961	3.3	1.5	1.1	3.6	3.7	2.6	1.8	4.5	1.7	1.8	1.9	3.3	2.3	2.2	3.6	1.9	3.1
1962	2.8	1.6	1.1	4.5	3.6	2.4	2.8	4.5	2.0	1.7	2.0	3.4	2.2	2.3	4.5	2.3	3.2
1963	2.9	1.4	1.3	4.6	3.7	2.9	3.7	4.4	2.2	1.5	1.9	3.5	2.1	2.2	4.6	2.7	2.6
1964	2.5	1.3	1.4	4.6	3.8	2.4	3.9	4.1	2.7	1.6	2.1	3.7	2.3	2.6	4.4		2.5
1965	2.8	1.1	1.2	5.1	3.9	2.4	4.2	4.4	2.9	1.7	1.9	3.6	2.2	2.6	4.3		2.5
1966	2.7	0.8	1.4	4.8	3.7	2.7	4.3	3.6	2.8	1.6	2.1	4.0	2.4	2.6	5.9		2.5
1967	2.5	0.9	1.4	5.4	3.4	2.5	4.2	3.4	3.0	1.9	2.2	4.1	2.8	2.9	4.9		2.7
1968	2.5	0.9	1.7		3.4	2.5	4.2	3.9	3.1	2.0	2.3	4.3	3.1	3.2	4.8		2.7
1969	2.5	0.7	1.9		3.4	2.2	4.5	3.8	3.2	2.2		4.1	3.1	3.5			2.9
1970	2.7	0.9			3.2	1.9	4.5	4.7	3.2	2.4		4.2	3.0	3.9			2.9

4. C. Deposit Velocity (5-year moving average): Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Pan.	Peru	Uru.	Ven.
1952	1.5	0.5	0.7	2.6	3.7	1.9	2.2	3.9	1.3	1.7	1.4	3.5	1.8		2.3	1.4	1.0
1953	1.5	0.5	0.7	2.4	3.7	1.9	2.2	4.0	1.4	1.7	1.5	3.5	1.8		2.4	1.6	1.0
1954	1.7	0.6	0.7	2.4	3.6	1.9	2.3	4.1	1.4	1.6	1.5	3.6	1.9		2.6	1.7	1.0
1955	1.8	0.8	0.8	2.7	3.6	2.0	2.4	4.3	1.4	1.6	1.6	3.7	1.9		3.0	1.8	1.1
1956	2.0	1.0	0.8	3.0	3.6	2.0	2.3	4.5	1.4	1.4	1.8	3.9	2.0	1.7	3.3	1.8	1.2
1957	2.2	1.2	0.8	3.6	3.6	2.0	2.3	4.5	1.4	1.4	1.8	3.8	2.2	1.8	3.6	1.8	1.2
1958	2.6	1.4	0.9	4.0	3.6	2.1	2.3	4.5	1.4	1.5	1.9	3.8	2.2	1.8	3.8	1.8	1.5
1959	2.8	1.4	0.9	4.2	3.7	2.3	2.2	4.5	1.5	1.6	1.9	3.6	2.3	1.9	3.8	1.8	1.9
1960	2.9	1.5	1.0	4.4	3.7	2.3	2.3	4.4	1.6	1.6	1.9	3.5	2.3	2.0	3.9	1.9	2.2
1961	2.9	1.5	1.1	4.4	3.7	2.5	2.6	4.4	1.8	1.6	1.9	3.4	2.3	2.1	4.0	2.1	2.5
1962	2.9	1.4	1.2	4.3	3.7	2.5	2.9	4.4	2.0	1.6	2.0	3.5	2.2	2.2	4.1		2.8
1963	2.9	1.4	1.2	4.5	3.7	2.5	3.3	4.4	2.3	1.7	2.0	3.5	2.2	2.4	4.3		2.8
1964	2.7	1.2	1.3	4.7	3.7	2.6	3.8	4.2	2.5	1.6	2.0	3.6	2.2	2.5	4.7		2.7
1965	2.7	1.1	1.3	4.9	3.7	2.6	4.1	4.0	2.7	1.7	2.0	3.8	2.4	2.6	4.8		2.6
1966	2.6	1.0	1.4		3.6	2.5	4.2	3.9	2.9	1.8	2.1	3.9	2.6	2.8	4.9		2.6
1967	2.6	0.9	1.5		3.6	2.5	4.3	3.8	3.0	1.9		4.0	2.7	3.0			2.7
1968	2.6	0.8			3.4	2.4	4.3	3.9	3.1	2.0		4.1	2.9	3.2			2.7
1969																	
1970																	

4. D. Deposit Velocity: Middle Eastern Countries

	Iran		Iraq		Jordan		Lebanon		Turkey	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1950			1.2				0.2			
	1.4		1.4				0.2			
1952	1.1		1.2	1.3			0.3	.22		
1953	1.0	1.4	1.3	1.5			0.2	.24	1.1	
1954	1.7	1.4	1.6	1.5			0.2	.26	1.1	
1955	1.7	1.4	1.8	1.6			0.3	.26	1.0	.98
1956	1.4	1.3	1.7	1.6			0.3	.28	0.8	.94
1957	1.3	1.3	1.6	1.5			0.3	.30	0.9	.88
1958	1.1		1.3	1.5			0.3	.30	0.9	.90
1959	0.9		1.2	1.5			0.3	.30	0.8	.98
1960			1.6	1.5			0.3	.30	1.1	1.1
1961			1.7	1.7			0.3	.28	1.2	1.2
1962			1.8	1.8			0.3		1.4	1.4
1963			2.0	1.9			0.2		1.6	1.5
1964			2.1	2.0	0.6				1.7	1.6
1965			2.0	2.1	0.7				1.4	1.7
1966			2.1	2.1	0.6	.6			1.7	1.7
1967			2.4	2.1	0.6	.6			1.9	1.7
1968			2.0	2.1	0.6				1.7	
1969			2.0		0.6				1.6	
1970			2.0							

5. A. Currency Ratio: African Countries

	Egypt		Ghana		Morocco		Nigeria		Sudan		Tunisia	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1952	.54											
1953	.54											
1954	.51	.53										
1955	.53	.52										
1956	.52	.51										
1957	.52	.51	.60									
1958	.48	.50	.60						.59			
1959	.48	.50	.57	.58	.41				.52		.42	
1960	.49	.51	.59	.58	.35		.57		.58	.57	.40	
1961	.51	.54	.56	.56	.37	.36	.62		.57	.56	.42	.39
1962	.58	.58	.58	.54	.33	.36	.62	.60	.57	.56	.37	.37
1963	.64	.61	.50	.52	.36	.36	.61	.60	.54	.56	.33	.36
1964	.66	.64	.49	.50	.37	.36	.58	.60	.54	.55	.35	.35
1965	.68	.66	.48	.46	.36	.37	.59	.59	.56	.55	.35	.35
1966	.65	.66	.45	.44	.37	.37	.60	.57	.56	.56	.34	.36
1967	.65	.65	.40	.43	.37	.38	.57	.56	.56	.57	.37	.36
1968	.64	.64	.38	.41	.38	.38	.53	.56	.56	.57	.37	.36
1969	.63		.43		.40		.53		.60		.39	
1970	.62		.39		.40		.56		.58		.34	

5. B. Currency Ratio: Asian Countries

	Bur.	Cey.	H.K.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1948				.61				.52			
1949	.67			.65			.66	.53			
1950	.65	.37		.66			.62	.52			
1951	.66	.35		.66			.63	.58			
1952	.65	.35		.66			.67	.57	.59	.73	
1953	.66	.41		.71			.67	.57	.55	.75	
1954	.66	.35	.50	.71	.69		.67	.60	.51	.76	
1955	.69	.41	.49	.71	.69	.70	.68	.58	.49	.75	
1956	.65	.37	.46	.68	.49	.70	.65	.48	.50	.71	
1957	.67	.41	.47	.67	.40	.72	.68	.46	.46	.70	.71
1958	.68	.47	.46	.67	.48	.73	.68	.46	.45	.67	.70
1959	.70	.50	.47	.69	.45	.72	.66	.44	.43	.65	.65
1960	.70	.51	.42	.69	.57	.70	.65	.47	.41	.61	.65
1961	.71	.53	.40	.72	.52	.70	.66	.54	.49	.59	.70
1962	.73	.55	.41	.72	.51	.69	.64	.52	.42	.61	.69
1963	.79	.56	.39	.71	.44	.61	.62	.51	.43	.57	.68
1964	.79	.54	.38	.69	.51	.61	.62	.54	.39	.55	.68
1965	.83	.55	.42	.68	.52	.68	.60	.54	.37	.57	.70
1966	.77	.53	.40	.66	.52	.68	.62	.52	.38	.56	.67
1967	.74	.53	.48	.65	.60	.55	.56	.54	.38	.57	.72
1968	.75	.57	.42	.63	.44	.50	.59	.48	.37	.62	.77
1969	.78	.57	.40	.63	.46	.49	.59	.49	.37	.62	.73
1970		.58	.37	.63	.39	.51	.57	.49	.36	.60	.78
1971		.54	.36	.62	.40	.51	.60	.50	.35		.77

5. B. Currency Ratio (5-year moving average): Asian Countries

	Bur.	Cey.	H.K.	India	Kor.	Mal.	Pak.	Phil.	Tai.	Thai.	V. Nam
1948											
1949											
1950				.65				.54			
1951	.66			.67			.65	.55			
1952	.66	.37		.68			.65	.57			
1953	.66	.37		.69			.64	.58			
1954	.66	.38		.69			.65	.56	.53	.74	
1955	.67	.39		.70			.67	.54	.50	.73	
1956	.67	.40	.48	.69	.55		.67	.52	.48	.72	
1957	.68	.43	.47	.68	.50	.71	.67	.48	.46	.70	
1958	.68	.45	.46	.68	.48	.71	.66	.46	.45	.67	
1959	.69	.48	.44	.69	.48	.71	.67	.47	.45	.64	.68
1960	.70	.51	.43	.70	.51	.71	.66	.49	.44	.63	.68
1961	.73	.53	.42	.71	.50	.68	.65	.50	.44	.61	.67
1962	.74	.54	.40	.71	.51	.66	.64	.52	.43	.59	.68
1963	.77	.55	.40	.70	.50	.66	.63	.53	.42	.58	.69
1964	.78	.55	.40	.69	.50	.65	.62	.53	.40	.57	.68
1965	.78	.54	.41	.68	.52	.63	.62	.53	.39	.56	.69
1966	.78	.54	.42	.66	.52	.60	.62	.52	.38	.57	.71
1967	.77	.55	.42	.65	.51	.58	.59	.51	.37	.59	.72
1968		.56	.41	.64	.48	.55	.59	.50	.37	.59	.73
1969		.56	.41	.63	.46	.51	.58	.50	.37		.75
1970											

5. C. Currency Ratio: Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1950	.36	.61	.36	.32	.45	.48	.51	.46	.55	.61	.48	.52	.49	.54	.43	.38	.51
1951	.41	.60	.29	.30	.44	.45	.44	.52	.52	.60	.55	.48	.48	.56	.38	.40	.52
1952	.51	.59	.31	.32	.42	.42	.43	.49	.53	.63	.55	.51	.51	.56	.37	.55	.46
1953	.53	.61	.30	.32	.40	.44	.47	.47	.53	.76	.54	.47	.39	.57	.40	.54	.44
1954	.53	.64	.45	.30	.42	.43	.46	.54	.59	.69	.60	.51	.44	.57	.41	.54	.44
1955	.51	.39	.38	.28	.38	.39	.45	.53	.56	.63	.57	.47	.45	.56	.40	.56	.43
1956	.57	.72	.31	.37	.35	.42	.51	.52	.45	.57	.59	.47	.44	.64	.47	.53	.41
1957	.57	.73	.30	.37	.35	.41	.50	.53	.44	.55	.60	.46	.45	.60	.47	.56	.36
1958	.58	.76	.27	.38	.35	.44	.50	.50	.44	.56	.61	.45	.46	.61	.50	.54	.32
1959	.50	.82	.27	.39	.32	.41	.47	.47	.44	.57	.59	.44	.52	.57	.50	.51	.30
1960	.53	.83	.24	.35	.32	.40	.43	.48	.44	.56	.56	.42	.48	.57	.47	.45	.38
1961	.53	.84	.24	.32	.32	.42	.43	.49	.44	.57	.55	.43	.46	.57	.47	.48	.38
1962	.47	.83	.24	.38	.30	.40	.51	.50	.44	.57	.54	.43	.43	.59	.52	.53	.35
1963	.48	.81	.24	.38	.31	.40	.58	.47	.45	.50	.51	.42	.41	.54	.53	.59	.34
1964	.44	.81	.24	.38	.30	.38	.56	.45	.44	.50	.54	.41	.39	.54	.54	.55	.30
1965	.44	.82	.19	.40	.29	.36	.58	.47	.44	.50	.50	.39	.35	.58	.54	.57	.29
1966	.43	.77	.19	.37	.29	.38	.59	.45	.41	.48	.49	.39	.35	.56	.64	.53	.29
1967	.42	.75	.17	.39	.27	.34	.52	.41	.41	.51	.46	.38	.38	.55	.56	.67	.30
1968	.40	.75	.18	.37	.26	.34	.46	.41	.41	.50	.45	.39	.39	.56	.56	.61	.31
1969	.39	.71	.20	.38	.26	.31	.46	.43	.40	.52	.43	.38	.38	.55		.65	.31
1970	.39	.75	.19	.38	.27	.33	.45	.43	.40	.53	.45	.37	.38	.55		.60	.29
1971	.38	.75		.42		.31	.44	.41	.37	.52	.46		.36	.55			.27

5. C. Currency Ratio (5-year moving average): Latin American Countries

	Arg.	Bol.	Bra.	Chile	Col.	C.Rica	D.Rep.	Ecu.	El Sal.	Guat.	Hon.	Mex.	Nic.	Par.	Peru	Uru.	Ven.
1952	.47	.61	.34	.31	.43	.44	.46	.50	.54	.66	.54	.50	.46	.56	.40	.48	.47
1953	.50	.57	.35	.30	.41	.43	.45	.51	.55	.66	.56	.49	.45	.56	.39	.52	.46
1954	.53	.59	.35	.32	.39	.42	.46	.51	.53	.66	.57	.49	.45	.58	.41	.54	.44
1955	.54	.62	.35	.33	.38	.42	.48	.52	.51	.64	.58	.48	.43	.59	.43	.55	.42
1956	.55	.65	.34	.34	.37	.42	.48	.52	.50	.60	.59	.47	.45	.60	.45	.55	.39
1957	.55	.68	.31	.36	.35	.41	.49	.51	.47	.58	.59	.46	.46	.60	.47	.54	.36
1958	.55	.77	.28	.37	.34	.42	.48	.50	.44	.56	.59	.45	.47	.60	.48	.52	.35
1959	.54	.80	.26	.36	.33	.42	.47	.49	.44	.56	.58	.44	.47	.58	.48	.51	.35
1960	.52	.82	.25	.36	.32	.41	.47	.49	.44	.57	.57	.43	.47	.58	.49	.50	.35
1961	.50	.83	.25	.36	.31	.41	.48	.48	.44	.55	.55	.43	.46	.57	.50	.51	.35
1962	.49	.82	.24	.36	.31	.40	.50	.48	.44	.54	.54	.42	.43	.56	.51	.52	.35
1963	.47	.82	.23	.37	.30	.39	.53	.48	.44	.53	.53	.42	.41	.56	.52	.54	.33
1964	.45	.81	.22	.38	.30	.38	.56	.47	.44	.51	.52	.41	.39	.56	.55	.55	.31
1965	.44	.79	.21	.38	.29	.37	.57	.45	.43	.50	.50	.40	.38	.55	.56	.58	.30
1966	.43	.78	.19	.38	.28	.36	.54	.44	.42	.50	.49	.39	.37	.56	.57	.59	.30
1967	.42	.76	.19	.38	.27	.35	.52	.43	.41	.50	.47	.39	.37	.56		.61	.30
1968	.41	.75	.19	.38	.27	.34	.50	.43	.41	.51	.46	.38	.38	.55		.61	.30
1969	.40	.74		.39		.33	.47	.42	.40	.52	.45		.38	.55			.30
1970																	

5. D. Currency Ratio: Middle Eastern Countries

	Iran		Iraq		Jordan		Kuwait		Lebanon		Syria		Turkey	
	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.	Ann.	5-yr. avg.
1950			.73						.50					
1951	.46		.70						.47					
1952	.46		.66	.69					.48	.49				
1953	.46	.49	.66	.68					.50	.49			.71	
1954	.54	.49	.69	.67					.51	.49			.68	
1955	.52	.48	.70	.67					.48	.49			.67	.69
1956	.46	.47	.65	.66					.46	.49			.69	.69
1957	.43	.44	.63	.65	.67				.50	.47	.70		.71	.69
1958	.39	.39	.61	.65	.63				.51	.45	.77		.71	.71
1959	.36	.38	.66	.65	.64	.63			.40	.49	.74	.73	.69	.71
1960	.33	.37	.68	.66	.62	.60			.37	.39	.71	.72	.73	.72
1961	.38	.38	.67	.68	.60	.59			.34	.34	.72	.71	.73	.73
1962	.39	.40	.67	.70	.52	.57			.33	.33	.65	.72	.74	.74
1963	.44	.41	.74	.70	.56	.56	.30		.25	.33	.74	.74	.74	.74
1964	.42	.42	.74	.74	.56	.54	.35		.37	.33	.77	.75	.76	.75
1965	.41	.41	.77	.77	.55	.57	.36	.34	.35	.37	.80	.79	.71	.73
1966	.40	.40	.78	.77	.52	.60	.33	.35	.34	.41	.78	.82	.72	.73
1967	.39	.40	.81	.78	.64	.64	.34	.35	.52	.44	.87	.84	.74	.71
1968	.37	.39	.77	.79	.74	.68	.37	.37	.48	.47	.87	.85	.70	.70
1969	.37		.79		.75		.36		.50		.86		.66	
1970	.38		.81		.77		.43		.52		.85		.67	