MONEY AND REAL ECONOMY RELATIONSHIP:
THE CASE OF SAUDI ARABIA

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Abstract: The money-economy relationships for Saudi Arabia are theoretically conceptualized and empirically estimated to derive the nature of such relationships in the perspectives of economic-stabilization and sustainable development of Saudi economy. The M1 supply of money is found to be the predominant component of money supply in Saudi Arabia contributing to real sectoral linkage between money and development. Yet changes in other components of money supply, M2 and M3, are found to indicate a growing trend towards a regime of long-run savings as opposed to spending in the Saudi Economy. Policy recommendations are derived. The statistically significant relationship of M1 supply of money in Saudi Arabia indicates the prominent role of money in circulation in the real economy. This is a strong feature of endogenous money. Endogenous money is referred to here as the resource mobilization of money into real economic activities. Money therefore established a systemic general equilibrium relationship with other real sector variables.
1. Introduction
The principal objective of this study is to undertake a theoretical and empirical analysis of monetary components in the Saudi Arabian money equations in relations to economic variables. Thereby, we will study the relation of money to the economy in terms of economic stabilization and sustainable development as measured by price stability, sustained economic growth, investment and low interest rates. In doing so we will consider the role of various components of the aggregate money supply that affect economic stabilization and real sector growth. The study will thereafter derive the theoretical and empirical results to examine relevant economic policy recommendations for Saudi Arabia. The quantitative part draws heavily on published data from SAMA Annual Report. Least Square Regression method is used for estimation purpose and statistical analysis is conducted to determine the reliability of results both in empirical context and the corresponding theoretical perspectives.

2. Empirical Evidence For Saudi Arabia
Since our principal objective in this paper is to study which monetary aggregate is the most explanatory one for economic change in Saudi Arabia in view of the causal interrelationship between money and real economic change, we will therefore explore the corresponding monetary policies that should be adopted for realizing economic stabilization and money-real economy linkages according to that very component of money supply. This objective will be accomplished by testing the relationship between monetary aggregates and critical macroeconomic variables, namely real income, interest rate, price level, and investment. The interest rate variable is retained to examine the extent to which a given component of money supply is being affected by interest rate. The result here will help to establish the importance of money-real economy linkages in phasing out interest rates and thereby realizing an Islamic economic transformation.

2.1. Money-related Equations For Saudi Arabian Economy
a. Growth of Money Supply
The general movements of money in circulation (M1), short-run saving deposits (S), and large time saving deposits (MD) for Saudi Arabia are plotted in Figure 1. Our estimation is based on annual data over nineteen years from 1980 1998 obtained from the Saudi Arabian Monetary Agency. The following indicators are defined:
M1 is currency plus demand deposits.
S is short-term time saving deposits.
MD is long-term time saving deposits and money-like deposits in foreign currency.
M3 is broad money.
t is time variable over twenty-nine years from 1969-1998.

b. Specification of the money-economy linear relations
To study the growth trend of M1 relative to S and MD we examine the following trends over time by using simple linear regressions:
\[ \frac{M1}{(S + MD)} = f_1(t), \]
\[ \frac{S}{(M1 + MD)} = f_2(t), \]
and \[ \frac{MD}{(M1 + S)} = f_3(t). \]
The corresponding estimated equations are,
\[ \frac{M1}{(S + MD)} = 81.59 - 0.04 t, \]
\[ \frac{S}{(M1 + MD)} = -7.69 + 0.004 t, \]
And,
\[ \frac{MD}{(M1 + S)} = -13.73 + 0.007 t. \]

3. Analyzing the time-varying equations
From the estimated equations given above we note that money supply through
M1 in volume is the most predominant one in Saudi Arabia monetary mechanism today. Yet the roles of M2 and M3 are fast increasing. The latter case indicates the growing role of savings, S, and monetary deposits, MD, in economic activity. This point is shown by the fact that over time the volume of money in circulation increases less than the increase in the amount of both short-
\[ \]term and long-term time saving deposits (Saudi Arabian Monetary Agency, 1998). This is albeit the fact that M1 is found to be higher in volume than M2 and M3 for Saudi Arabia. Consequently, on a relative trend over time, money in circulation as a ratio of total short-term and long-term time saving deposits is found to be decreasing.
\[ \] The equation for \[ \frac{S}{(M1 + MD)} \] shows that short-term saving deposits as a proportion of total monetary deposits are increasing over time. Such a result confirms our inference on the predominance of M1 in the total supply of money in Saudi Arabia, although we also note that Saudi Arabia is fast moving into a heightened savings regime as S increases in proportion to (M1+MD).
\[ \] We find the same confirmatory result with respect to the ratio, \[ \frac{MD}{(M1 + S)} \], over time. The result here suggests that MD as another component of higher denominations of savings is increasing on a trend albeit the fact that both S and MD remain lower than M1 in volume.
Figure 1 shows that the percentage of money in circulation to both of the saving deposits was higher than the percentage of short-term and long-term saving deposits and total money, \((S + MD)\). We thereby infer interesting results both from the higher role of \(M1\) in the level of economic activity in Saudi Arabia at present and the increasing role of both short-term and long-term savings on economic activity in the future. If these trends as estimated were to continue, future economic activity in Saudi Arabia will be increasingly hinged on the need for savings to finance her investments. These will have to be generated both domestically as well as through foreign investments. But as of now the endogenous nature of money-real economy relationship is brought out by the high volume of \(M1\) over all other money supply components. We will analyze these results further below.

3.1. Interrelations Among Critical Economic Variables

3.1.1. Economic indicators of money supply equations

In this section we will study the relationship between money supply equations and the macroeconomic variables - total output, interest rate, price level, and investment as a first step. In the second step, we will examine the reliability of the money equations relating to these variables. Our statistical method is based on analyzing the relationship between the monetary aggregates as the dependent variable and real GDP, interest rate, price level and investment over nineteen years from 1980 to 1998, as the explanatory variables. Data were obtained for the following variables:

- \(M1\) is money in circulation and equals money in transactions plus demand deposits.
- \(S\) is short-term saving deposit.
M2 is equal to M1 plus short-term saving deposits (S).
MD is long-term saving deposit or monetary deposit.
M3 is broad money and equals M2 plus long-term saving deposit.
Y is total real output or real GDP.
i is the interest rate on the Eurodollar. It is used instead of the interest rate on the
Saudi Riyal because there is not enough data here.
P is the price level measured by percentage changes in CPI.
I is total gross fixed capital formation as a measure of investment expenditure.
The money equations are treated as functions of Y, i, P, and I:
M1 = f₁(Y, i, P, I),
S = f₂(Y, i, P, I),
M2 = f₃(Y, i, P, I),
MD = f₄(Y, i, P, I),
M3 = f₅(Y, i, P, I).

On theoretical grounds of the money-real economy relationship, Y as total output or total GDP in real value is supposed to be positively related with all money supply equations. 'i' as interest rate on the Eurodollar is supposed to be negatively related with M1 and positively related with S and MD. However, the relationships between interest rate and M2 and M3 depend on the amount of short-term and long-term saving deposits. P as the price level would be negatively related with all components of money supply in the presence of price stability in the context of non-inflationary economic growth. 'I' as total investment expenditure is expected to have positive relationship with M1 and negative relationship with S and MD. This would also be indicated by the results of the time-dependent ratios of monetary components given above.

3.1.2. The estimated equations
The estimated equations of money-economy relations in terms of the various components of money supply are as follows.
M1 = -15331.08 + 2.498.Y - 224666.87.i - 1498.58.P + 0.010784.I,
S = -73684.29 + 2.53.Y + 69425.76.i - 3478.22.P - 0.255.I,
M2 = -89015.37 + 5.029.Y - 155241.11.i - 4976.8091.P - 0.244.I,
MD = 1512.36 + 1.41.Y - 147587.77.i - 307.70.P - 0.3029.I,
M3 = -87503.01 + 6.44.Y - 302828.87.i - 5284.51.P - 0.5471.I.
The goodness of fit, t-statistic and tests of hypothesis are noted in Table 1. On the basis of the reliability of the equations toward explaining the dependent variables (M1, S, M2, MD and M3) in terms of the explanatory variables (Y, i, P, I) that affect and determine the former, we will now analyze each of these components separately.
3.1.3. Economic Interpretations In The Money-economy Estimated Equations

a. Effect of GNP
Total output, which represents the total value of all final goods produced in the economy consists of consumption expenditures (C), government expenditures (G), investment expenditures (I) and net exports (E-M), E as exports, M as imports. The estimated equations reflect the expected positive sign of the relation between money supply components and the level of real output (Y). That is, as output increases the amount of currency in circulation, short-term saving deposits and monetary deposits increase in response. Thus the level of economic activity causes the monetary base (total money supply) to increase.

\[
\text{As } \uparrow M1 \text{ or } \uparrow S \text{ or } \uparrow M2 \text{ or } \uparrow MD \text{ or } \uparrow M3 \leftrightarrow \uparrow Y
\]

Figure 2: The real GDP in Saudi Arabia, 1980-1998.

From Figure 2 we note that the total output in Saudi Arabia shows an upward trend during the study period. The positive relationships between Y and money supply components imply that money supply is endogenously related with the improving level of economic activity in Saudi Arabia over the time period under study (Desai, 1989).

b. The effect of interest rates
Data on interest rates were derived for the three-month deposits on Eurodollar. This series is used in place of the interest rate in Saudi Arabia since published data on interest rates in Saudi Arabia are not sufficient for our time horizon. According to monetary theory a negative relationship between interest rate and
M1 and a positive relationship between interest rate S and MD are expected. However, the relationships between interest rate and M2 and M3 depend on the volumes of M1, S, and MD. Our estimated equations show negative relationships between interest rate and M1, MD and M3. These results are consistent with theory. Besides, the same confirmatory result is found for the positive relationship between interest rate and saving, S. The negative relationship between interest rate and M1 conveyed in the model M1 is compatible with results found in the literature. An increase in money in circulation leads to more funds made available for loans and investments. Financial institutions now compete with each other to attract customers to their unused excess reserves. This drives down the rate of interest. Interest rate is positively related with short-run saving deposits (S). This result is compatible with theory and literature. A higher rate of interest leads to higher propensity to save rather than to spend. Interest rates are thus positively related with short-term saving deposits. The equation of monetary deposits or large time saving deposits (MD) is found to be negatively related with interest rates. This is not compatible with the results found in the literature. The result points to Saudi Arabia's early experience in moving into a savings focused regime in the future. The propensity to savings as opposed to spending in economic transformation is not confirmed yet. Only in most recent years we notice a growing trend of savings and MD relative to M1, albeit that M1 still continues to play the more pronounced role in the level of economic activity in Saudi Arabia. Money in circulation is thus still found to be the endogenous money in nature in terms of its causal relation with the level of economic activity and economic stabilization. The model of M2 shows a negative relationship between interest rate and M2. This relation is compatible with theory and that found in the literature. This relationship is due to the proportionately high volume of money in circulation (M1) which is included with M2. The estimated equations show that interest rate is negatively related with broad monetary aggregate M3. This result is understandable since the estimated equations show that M1 and MD are negatively related with rates of interest.

As ↑M1 or ↑M2 or ↑MD or ↑M3 → ↓i; ↑S → ↑i
b. Effect of price level
The estimated equations show negative relationships between price level and money supply components. That is, as price level increases the rate of interest is expected to increase, thus causing total money supply to decrease. The relationship shown in the equation is compatible with results found in the literature.

\[ \text{As } \uparrow \text{M1 or } \uparrow \text{S or } \uparrow \text{M2 or } \uparrow \text{MD or } \uparrow \text{M3 } \iff \downarrow \text{P} \]

Figure 4: Movement of price level in Saudi Arabia, 1980-1998

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c. The effect of investment
Investment spending, which comprises a flow of new capital during the year in which it is added to the stock of capital is one of the component variables of total output. As money in circulation increases this leads to more funds available for loans and investment. However, the increase in saving deposits leads us to a shortage of funds available for investments due to withdrawal. The estimated
equations show a positive relationship between money in circulation and investment. That is, as money in circulation increases there will be more funds available for investment. The reverse relationship from the side of investment to M1 is also true. The sign of I-coefficient is conformable with theory and literature. Likewise, the estimated I-coefficients for M2 and M3 money components and with savings and MD are conformable with theory and literature. The latter case denotes the inverse relationship between investment expenditure and various kinds of savings that draw upon interest rates and thus cause withdrawal from real economic activity. These results also strongly point out the prevailing endogenous nature of money in the Saudi economy with M1 playing the predominant role in the level of economic activity. On the same score the estimated equations show that short-term and long-term saving deposits are negatively related with investment. As S and/or MD increase(s) this leads to an increase in the rate of interest, causing investment to decrease.

**Figure 4:** The movements of investment in Saudi Arabia, 1980-1998.

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d. **Reliability Of Estimates For Money-economy Equations**

Testing statistical reliability is important in order to know which ones of these estimated equations are significant in explaining the role of explanatory variables in affecting money supply components. t-statistics and R-square are used to test the level of statistical reliability of each equation with respect to the estimated variables. (See table 1)
Table 1: The reliability of interrelations among critical economic indicators of money supply equations

<table>
<thead>
<tr>
<th>Money Variab.</th>
<th>M1</th>
<th>S</th>
<th>M2</th>
<th>MD</th>
<th>M3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low 99%</td>
<td>High 99%</td>
<td>Low 99%</td>
<td>Upp 99%</td>
<td>Low 99%</td>
</tr>
<tr>
<td>Y</td>
<td>4.7</td>
<td>4.85</td>
<td>1.18</td>
<td>3.9</td>
<td>0.37</td>
</tr>
<tr>
<td>I</td>
<td>-2.2</td>
<td>2459</td>
<td>-487</td>
<td>0.5</td>
<td>-3619</td>
</tr>
<tr>
<td>P</td>
<td>-1.4</td>
<td>3300</td>
<td>4175.</td>
<td>-2.63</td>
<td>-7878</td>
</tr>
<tr>
<td>I</td>
<td>0.07</td>
<td>0.67</td>
<td>-0.36</td>
<td>-1.40</td>
<td>-0.86</td>
</tr>
<tr>
<td>R²</td>
<td>0.92</td>
<td>0.76</td>
<td>0.88</td>
<td>0.93</td>
<td>0.91</td>
</tr>
</tbody>
</table>
Table 1 shows that the estimated variables are significant at the 99% level according to t-statistic with respect to the money-real economic variables relations as shown. The R-square values are at about 92%. Short-term saving deposits are significant at the 95% level with the estimated variables, namely, total output (Y), interest rate (i), the price level (P). It is not significant with investment (I). R-square is about 78%. The last two results point out that there is a spurious relation between savings and investment. This is particularly due to the still early stages of a interest-based savings-oriented regime in Saudi Arabia and due to the proportionately much stronger role played by M1 supply component on the level of economic activity historically. Long-term saving deposits are found to be significant at the 95% level of significance in its relationship with interest rate and price level, but it is not significant with the total output and investment. The value of R-square is 92.56. The same arguments hold here as for short-term savings and investment relationships. M2 and M3 are estimated variables at the 95% level of significance with all variables. R-square values are between 89% and 91%, respectively. These signs appear as they are expected in the face of present economic reality in Saudi Arabia, wherein the interest-based savings-oriented regime is seen to be in its early period of appearance and that too is not confirmed yet. Endogenous money in circulation (M1) is still the predominant carrier of economic activity and change.

From our above analysis we note that money in circulation (M1), which is the most reliable variable in the money equations, is significant with all the estimated economic variables and has the highest t-statistic and R-square values. Also, the volume of money in circulation is higher than the total of both short-term saving deposits (S) and long-term saving deposits (MD). Consequently, where economic stabilization and real economic change are of the essence, with stable prices following productivity and efficiency of production, investment and employment creation coming about with sustained economic growth and an inverse relationship between savings and money supply as well as savings, there M1 gives us the best measure of money supply-real economy interrelationship.

4. **Summary Of The Empirical Results**

The important inference drawn from our empirical work is that money supply plays an important role in economic stabilization in Saudi Arabia. But here two different patterns are found to be emerging. The first is the continuing reliance on the importance of M1 money supply component that promotes real sector
activities. The equation so estimated indicates this fact through the endogenous relationship between money in circulation and the macroeconomic variables. Symptoms of effective economic stabilization are noted to exist with low and steady inflation rate, a sustained non-inflationary economic growth of output, increase in investment and spending and a negative relationship of interest rate to money in circulation M1. The inference is that as opposed to spending, short-term and long-term interest-based savings have not been the major contributors to economic change in Saudi Arabia. The second picture emerging from the estimation of the M2, M3 components of money supply equation brings out the recent resurgence of a interest-based savings-oriented economy toward financing future investments and economic growth. This is albeit the fact that M1 still remains proportionately higher in volume than the total savings (S + MD). This same explanation of the relative movements in M1, M2 and M3 is supported by the movements in the various savings components relative to M1. The estimated results are found to be statistically robust at good levels of statistical significance according to the t-statistic. The goodness of fit of the equations is shown by the high values of R-square, showing thereby, that specification of and inferences from these money-economy relations may be correct.

4.1. Policy Conclusions

This paper has brought out several important theoretical results relating to components of money supply and macroeconomic relations in Saudi Arabia. Our important focus was on inquiring what kind of monetary aggregate has the distinctly most important effect on macroeconomic stabilization and real economic change. The variables theoretically discussed were price stability, sustained non-inflationary growth of output, employment and investment in Saudi Arabia. Our theoretical and empirical results have pointed out the overwhelming role played by M1 component of money supply in activating the level of economic activity, thereby causing economic stabilization. However, we have also found that in recent years the savings regime of economic change is entering the Saudi economy.

Thus, between the above two divergent results and their analysis that we have done, a number of pertinent policy conclusions follow. We will devote this last section to a brief policy analysis of policy recommendations that we can derive from the empirical results.

According to monetary theory, increases in deposits allow banks to expand their money creation mechanism. The result is a stable relationship between M1 component of money supply and the level of real economic activity
in Saudi Arabia. The stability and predictability of these ratios also contribute to economic stabilization and economic development (Choudhury, 1997).

SAMA succeeded in gaining public confidence in the banking system by allowing commercial banks to get in new lines of businesses, such as stock sales, purchases and insurance services. The next step is to prepare these commercial banks to face the globalization challenge by introducing similar products and facilities to those introduced by major international banks. Some areas of policy recommendation to consider are therefore as follows:

a. Economic Diversification.
More than 85% of Saudi revenues come from oil production. Saudi Arabia should diversify its economy to reduce risk of dependence on only one product and its substitutes (Choudhury & Al-Sahlawi, 2000). Money in circulation M1, which is proportionately higher and stable in volume in the monetary base in Saudi Arabia, as estimated in our M1 money model, makes funds available for investment at low cost of capital, there being low and unchanging interest rates in this model. This favors investment in various productive outlets. Consequently, an increase in total output and reduction in risk-exposure occurs. Such money-economic relations, as implied by the endogenous money relationship in our estimated model, can direct the private sector toward investing in projects that can be profitable in the future and enhance economic growth. Our money supply estimation points out that indeed there are two ways of financing the much-needed projects for economic diversification. One is to get into productive investments by the full use of money in circulation, M1 in real economic activity, and thus maintain economic stabilization and growth. The second is to rely also on domestic and foreign risk capital to finance project diversification (Kuczynski, 1999) in the midst of the endogenous money-real economy linkage as implied by the M1 estimation in our model. On the contrary, the function of M2 and M3 components of money supply, which fuel portfolio investments over real investment was shown in our estimated model to be uncertain for Saudi Arabia's economic future.

b. Privatization.
It is time now that the government of Saudi Arabia privatizes large companies so that they can become profitability and productive, as well as corporation debts can be reduced and ultimately cancelled (Shaikh, 1999). Here too we find the importance of monetary policy based on a combination of M1 and marginally of M2 in financing the privatization process. We also feel that this direction of the
money-real economy linkage by the endogeneity of M1 circulation will be the eventual result with the advance of privatization, wherein, foreign investors should become joint partners with domestic ones in making the full use of both M1 and to some degree of M2 forms of money-economy relations. This endogenous result is both the theoretical and empirical conclusion of this paper. The momentum of the recommended endogenous money-real economy linkage can be particularly helpful in the context of the Saudi New Investment Plan (Saudi Arabia Spring 2001 Magazine, May 5, 2002). See also the internet version of the Saudi New Investment Plan (Govt. of Saudi Arabia, internet versions a, b, undated).

c. Foreign Direct Investment (FDI)
The empirical results on narrow and broad money supply equations in relations to critical macroeconomic variables point out that instead of relying on speculative portfolio investments from foreign sources, there should be specific policies to invigorate the flow of real sector FDIs into Saudi Arabia. This momentum will agree with the gaining pace of privatization and economic diversification from oil to non-oil sector, which are now changing the economic landscape of Saudi Arabia. With lower rates of interest and greater mobilization of M1 into real sector activity as shown by our theoretical argument and its supporting empirical results, such a mobilization of funds from domestic and foreign sources should pick up steam in the Saudi New Investment Plan.

d. Productivity and price stability
The Government of Saudi Arabia should direct the private sector to invest in appropriate technological change, such as information technology and infrastructure development. This would increase the efficiency and productivity of businesses as also implied by our robust money-investment relationship. The result will then be an increase in the profitability of enterprises, and thereby result in an increase in economic growth rate. Our estimated equations point out that under such a policy a good level of sustained economic stabilization can be attained, particularly through the kind of money-real economic relationship presented by the estimated M1-equation in terms of the selected macroeconomic variables in our model. Saudi Arabian monetary authorities should effectively continue to target price stability and low rates of interest. These positive policy measures will yield much money supply in circulation both domestically and through foreign direct investments. A legal framework needs to be developed to promote such a privatization agenda in productive
outlets (Ward, 1999). Metwalli (1989) established empirically the statistical insignificance of interest rate on the spending variable in Muslim countries. To note a summary view of Metwalli’s result pertaining to our endogenous money-real economy linkage we invoke the following inference:

Stable return in investment inflation stabilizes further spending M1 reinforcing causation a strongly endogenous relationship in this reinforcing interrelationship between money and real economic is proven by the 95% level of significance in the t-statistic for the estimated coefficients in Metwalli’s regression system.

e. Monetary Controls

Despite our above policy recommendations our empirical results have also shown that in recent years Saudi Arabian economy is experiencing a shift towards an interest-based savings regime of economic change. This will inevitably create a degree of volatility in the relationship between M2, M3 and economic stabilization goals. To manage the shift from M1 into M2 and M3 components of money supply in the money-economy relationships Saudi monetary authorities will have to device appropriate monetary policies to control the degree of volatility in the money-economy relationships. Some such policies would be to well-determine the composition of the monetary base by means of moral suasion, diversification of risk through Government-private joint ventures and a sustainable balance between the money multipliers with stability maintained on such currency ratios (Marquis, 1996). Such liquidity ratios should be effectively controlled in order to avoid financial volatility. A good way in accordance with our above-mentioned empirical and policy derivations is to promote joint ventures with co-operative and risk-sharing financial instruments rather than interest-based M2 and M3 monetary aggregates and their underlying deposit ratios.

5. Conclusion

The future path of economic change for Saudi Arabia will indispensably lie on the one hand between the lines of an endogenous treatment of the money-real economy relationships of the type shown by our estimation and analysis of the M1-equation. On the other hand, the interest-based savings orientation of the type conveyed by the M2 and M3 equations will emerge. The former is driven by low to zero rates of interest replaced by co-operative venture sharing financial instruments. The latter will involve increasing interest regimes in generate savings. Thereby financial and economic volatility would sink in. These are
issues of importance for the Saudi Government to keep in view within the
precincts of her New Investment Plan. Hence there exists a particular need for
adopting approaches free of interest rates to become active monetary policy
directions in Saudi Arabia. The deepening of M2 and M3 based monetary
policies and economic regimes will increasingly invoke a shift toward
introducing interest rate as a growing monetary policy with increasing financial
and economic volatility. On the other hand, the momentum of sustained
economic growth will always depend upon the use of M1-related policies and
economic relations. This involves endogenous money-real economic
transmission mechanism. This conclusion is brought out in various ways in our
estimated equations of money-economy relationships. Our conclusion supports
the strong relevance of 100 per cent reserve requirement monetary system in
which money as M1 is endogenous money in terms of its causal
interrelationship with real economic activities. The phasing out of interest rate
regimes of savings and their replacement by spending regimes in interest-free
outlets is the sure way for the economy and society to remain along the path of
sustainability. M1 as endogenous 100 per cent reserve requirement monetary
aggregate will play the proportionately higher role in this kind of economic
transition.

The causality in the M1-real economy relationship that was formalized
and empirically tested out in this paper has shown that such a transformation and
its sustainability in the midst of the interest-based regimes of M2 and M3 need
endogenous policies for change, One of these being moral persuasion in
spending-backed money supply. The transformation into such developmental
regimes will of course depend deeply on the continued preferences of the
population, evolution of banking branches and the interactive role played
between the Government, SAMA, commercial banks, private sector and the
clientele at large. Such a collaborative mechanism forms a great knowledge-
induced discursive process of interaction and dynamic consensual ordering of
knowledge generation and the sustaining of the benefits of endogenous money-
real economy interrelationships through the role of a 100 per cent reserve
requirement monetary system. The latter is an issue of great depth that is taken

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Paul International.


