

DEVELOPMENT OF SHORT-TERM MONEY MARKETS IN AFRICA: OVERVIEW OF ISSUES *

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1. Introduction

During the past three decades, the world's financial system underwent a major structural transformation. The last vestiges of the age-old convertibility of currency into metal disappeared.¹ The electronic data processing and telecommunication technologies revolutionized banking and the trading of financial claims and liabilities, stimulating new sources of competition in a traditionally very conservative industry (World Bank 1995).² Partly as a result of these changing pressures, the removal of numerous controls on credit, pricing of financial services, foreign exchange transactions, and entry into the financial industry, transformed the purpose of regulation and the role of supervisory authorities (World Bank 1989, Ch 9; Hviding 1995): the new role of regulation and supervision is not to restrict and counteract markets, but on the contrary to reinforce the efficiency of market mechanisms by providing the institutional infrastructure - contract enforcement mechanisms, prudential regulation and supervision - needed for private transactions to develop.

For the world as a whole, as well as for Africa, this transformation resulted in a clear trend of financial deepening (as measured by the increase of the ratio of M2 to GDP, the inverse of the income velocity of money). Furthermore, this financial deepening was accompanied by a growing importance of commercial banks relative to central banks as the issuers of monetary liabilities, as shown by the fall in the ratio of reserve money to M2 (or the increase in the so-called money multiplier). Key indicators are reported in Table 1.

Table 1: Financial Deepening and Diversification, 1965-90

	1965	1990	Percentage of countries showing increase in indicators	Sample size (number of countries)
Indicator of financial deepening**				
Median for the World	100	141	83%	76
Median for Africa	100	158	86%	21

(*) The paper presents the views of the author only. Therefore, the findings, interpretations and conclusions do not necessarily represent the views and policies of the institutions the author is associated with.

1. In 1968, the sales of gold to the private sector by the monetary authorities through the London Gold Pool were eliminated, and in 1971 the United States declared the "temporary" suspension on the convertibility of the dollar into gold even for the monetary authorities (Solomon 1977).

2. World Bank (1995, page 45), in an analysis of the causes of the rapid growth in trade in services, provides an estimate of the dramatic reduction in costs of information processing and telecommunication. The price index of information processing is in 1995 1/1000 of its 1975 level; the cost of a 3 minute telephone call from New York to London fell from about \$50 in 1990 to \$3.32 in 1990.

Indicator of diversification***

Median for the World	2.33	3.00	74%	89
Median for Africa	1.89	2.38	66%	29

Source: Computations based on International Financial Statistics, 1994 Yearbook, World Tables "Income Velocity of Money plus Quasi-Money" and "Ratio of Reserve Money to Money plus Quasi-Money".

** Inverse of income velocity, expressed as an index, base 1965=100.

*** Ratio of money plus quasi money to reserve money ("money multiplier").

Table 1 suggests that, over a quarter of a century, the quantity of liquid assets held by the public grew faster than income, and that commercial banks, rather than monetary authorities, provided a growing share of these assets, extending the scope of financial intermediation. Africa is no exception to this general evolution, but with one important qualification. Although the median ratio of money and quasi-money to reserve money did increase noticeably for Africa too, it was at the end of 1990 still at about the same level as the median for the world as a whole a quarter of a century earlier.

In this context, to review the main issues related to the development of short term money markets in Africa, the paper will address three questions. First, why does the development of financial markets matter to growth? Second, can we identify the main obstacles that need to be overcome for the markets for short-term instruments to develop? Third, what are the main policy conclusions that this review suggests?

2. Why the Development of Financial Markets Matters to Growth.

The financial system matters a great deal to growth, for three reasons.³ First, the financial sector provides important services to producers and to consumers. Innovations allow producers of financial services to cut costs, or to provide new services that were not available before. Thus innovations in the financial sector, like in any other real sector producing goods and services, open new avenues for productivity gains and improved competitiveness, in the sector itself and all the sectors that purchase its production - here, financial services - as intermediate inputs (World Bank 1989, Chapter 2; Roe, 1991, p. 8; Collier 1991, p. 1). The financial sector becomes more efficient in the production of financial services.

3. Fry (1995) presents a treatise surveying the relevant literature. King and Levine (1993) present empirical evidence on the relationship between growth and financial system development. Current policy thinking is found in World Bank (1989); a useful critical assessment of the views articulated in World Bank (1989) is found in Collier and Mayer (1989).

The key to innovation is competition. If competition is promoted, the enterprises in the financial sector that will prosper and expand are those that are able to produce new services that the public find useful, or to offer existing services to new markets, or to produce traditional services in new, less costly ways; the others will loose ground and may be forced out of business. It is thus important for the supervisory authorities to ensure competition within the sector. At the same time, as discussed below, it is also important to provide a regulatory and prudential framework such that competition does not undermine the stability of the financial system and the confidence of the public that the financial service enterprises will remain solvent and be able at all time to meet their commitments (Polizatto 1991).

The second reason why the development of the financial system matters to growth is that the financial system has an overwhelming influence on the allocation of the resources it mobilizes: improvements in financial intermediation lead to a more efficient use of resources in the economy as a whole, and this improved allocative efficiency will generate a greater return on the capital accumulation resulting from a given saving rate.⁴ The emphasis here is not on the cost efficiency of the financial intermediaries as suppliers of specific services to the public, but on the role of financial markets in the mutual interactions of the economic agents with each other in their efforts to manage risks and cash flows in a decentralized market economy.

Improved allocative efficiency by the financial system raises three main policy issues. First, the allocative efficiency will be influenced by the skills of financial intermediaries in mobilizing resources and choosing the best uses of these resources while reducing the intermediation costs as much as possible: as discussed above, competition should play a large role in ensuring a natural selection process in favor of the most efficient enterprises.

Second, the institutional framework should be designed taking into account its incidence on the cost of intermediation and thereby on the efficiency of financial intermediation. Thus, the large literature on financial repression emphasizes the deleterious effects of interest ceilings, excessive unremunerated required reserves and other quasi-fiscal constraints on the portfolios of financial intermediaries.⁵

The third and much more complex issue related to the allocative efficiency of financial intermediation springs from the market failures that emerge from the interaction of

4. King and Levine (1993) and Lynch (1995) present empirical evidence supporting the positive effect of financial liberalization and deepening on the productivity of investment.

5. The classical references are McKinnon (1973) and Shaw (1973).

information asymmetries and sociological or institutional obstacles to contract design and enforcement. As finance is but a trade in promises, confidence in the sustained ability and willingness of the promisor to perform is essential. The costs associated with the mechanisms needed to generate this confidence - formulation of contracts, collateral, monitoring activities - are important components of the transaction and intermediation costs. The importance of the role of confidence for the allocative efficiency of the financial system has two implications. First, the State may have a key role to play to the extent that it defines property rights, may have the monopoly of the power to coerce, defines the legal and judicial system, and can provide some types of information as a public good through its prudential regulation and supervision. Second, not only does financial deepening foster growth: growth itself, in turn, may foster the development of the financial system. Growth fosters the development of the financial system because, in a richer society, collateral may be more easily available, thereby reducing the risk and cost of lending⁶; and because, in an environment of rapid growth, the opportunity cost of being cut off the credit markets increases, so that borrowers have a stronger incentive to secure their future access to external finance by establishing a track record of trustworthy behavior and maintaining their creditworthiness.

The third reason why the development of financial markets matters to growth is that these markets have the potential to facilitate the conduct of monetary policy and to generate important externalities in terms of greater macroeconomic stability as well as better information on risks and opportunities to economic agents.⁷ First, the existence of an active market for suitable securities allows the central bank to manage the economy's liquidity quickly without undermining the competition among banks and without creating the market distortions inherent to direct controls.⁸ It also provides monetary authorities, as well as the other economic agents, with a market-determined level of interest rate useful to assess inflationary expectations and the prevailing tensions on the markets for money and credit. Second, by providing a market for risk capital and long term financing, the securities markets help to strengthen the financial structure of corporations and improve the general solvency of the financial system (Popiel, 1991, p.201). Third, the availability

6. Dhonte (1995), Gertler and Rose (1994).

7. Hviding (1995), p. 31, also raises the concern that deregulation may negatively affect financial stability due to the vulnerability of banks to depositor runs, the risk in the payment system when a large participant fails to meet clearing obligations, and destabilizing trading practices based on computerized execution of trade automatically triggered by programs.

8. Johnston and Brekk (1991), pp. 98-99; Leite and Sundararajan (1990), pp. 744-745.

of markets for a large range of maturities help diffuse the effect of short-term shocks - say, an increase in interest rates - into different combinations of constraints (changes in income streams, changes in capital value) more likely to match the capacity of the wealth holders and borrowers to handle the consequences. It facilitates the management of market risk, i.e. the risk associated with fluctuations of prices. Fourth, by providing new sources of financing and new assets for wealth accumulation, the development of these markets help reduce risk - notably funding risk - by allowing a diversification of the counterparts the borrowers deal with (Federal Reserve Bank of New York 1990, p. 81).

The previous paragraph argues that the development of financial markets facilitates the movement towards more efficient, indirect tools of monetary policy. As importantly, experience shows also that movement to more flexible tools of monetary policy and a willingness to allow fluctuations in interest rates is often a factor that contributes to the development of short term money markets and more efficient bank intermediation (Caprio and Honohan 1991a,p.3). For example, the elimination of variability in interest rates may prevent the emergence of brokers and dealers; too frequent issues of Treasury bills at a set interest rate and easy access to central bank refinancing may destroy the incentives that would lead to the development of an active interbank market; and of course the presence of a captive market for government securities may segment and distort the money market.

3. Development of Money Markets in Africa: Identifications of the Obstacles

A comparison of our indicator of financial diversification - the ratio of M2 to reserve money - across the main groups of countries reveals that Africa's financial systems, as a group, tend to be the least diversified ones (see Table 2).

Three types of factors explain why Africa is lagging relative to the rest of the world in terms of diversification of its financial systems⁹: macroeconomic factors, institutional factors, factors related to transaction costs.

9. One notable exception is South Africa, which has a deep and diversified financial system. The ratio of M2 to Reserve Money in 1990 was 9.4, in line with the median of industrial countries. South Africa stock market ranks first in the world according to ratio of market capitalization to GDP, and 10th according to the number of listed companies (1986-93 average). Demircuc-Kunt and Levine (1995), Table 1.

Table 2: Financial Diversification by Region: Median of the Ratio of M2 to Reserve Money

	1965	1990	Nuber of countries of sample
Africa	1.89	2.38	29
Asia	1.93	2.67	11
Middle East	2.03	3.33	10
Western Hemisphere	2.35	2.66	15
Industrial Countries	3.98	9.30	20
World	2.33	3.00	89*

* Includes all the countries of the subgroups in the table plus four countries classified as European developing countries by IFS.

Source: Same as in Table 1.

3.1. Macroeconomic Factors

Table 3 shows that Sub-Saharan Africa shares with South Asia the lowest GNP per capita (1990) among the 6 broad geographic groups for which data are presented.¹⁰ It has, in 1990 as in 1965, the lowest saving rate and the lowest investment rate. It has the lowest annual growth rate of per capita GNP over the entire period 1965-90. As argued earlier, higher growth, higher incomes and higher saving rates can be expected to foster the development of financial markets, not only because these factors stimulate the demand for instruments of wealth accumulation but also because the existence of wealth and the incentives associated with growth help strengthen the confidence that is the necessary foundation of all financial transactions.

3.2. Institutional Factors

The financial system in Sub-Saharan Africa is dominated by banks.¹¹ Financial markets, particularly short term money markets, are in their infancy. In marketable securities and a dearth of marketable securities. Chant (1992 p. 59) provides an important clue on the source of the distinction between two types of securities. The distinction

10. Low- and middle-income countries of Sub-Saharan Africa, East Asia and Pacific, Europe, Middle East and North Africa, Latin America and Caribbean.

11. In a sample of 11 representative countries selected for a comparative study of the financial system of the region, Popiel (1994, p. 43) reports that, with the exception of Kenya, commercial banks represent 85 to 95 percent of the systems' total assets. Popiel (1994) reports also that even in the case of Kenya, most of the non-bank financial institutions that developed rapidly in the 1980s did so to take advantage of loopholes in the monetary, credit and prudential regulations and are "near-banks".

between marketable and non-marketable securities corresponds to the degree to which information required to verify and monitor the value of the investment is publicly available (for example, it is publicly and credibly supplied by the borrower).

While the matter is one of relative emphasis, marketable securities are identified with those for which the bulk of the information required by the investor is publicly available. In the case of non-marketable securities, the lender gathers more of the information, at his own cost. Thus the dominance of banks relative to the securities markets in the African financial systems is rooted in the lack of publicly available and credible information needed to assess and monitor the value of investments.

Table 3: Regional Macroeconomic Indicators: Low- and Middle-Income Countries, 1990

	Sub-Saharan Africa	East Asia and Pacific	South Asia	Europe	Middle East and North Africa	Latin America and Carib.
GNP per capita (US \$)	340	600	330	2,400	1,790	2,180
Growth 1965-90*	0.2	5.3	1.9	n.a.	1.8	1.8
Saving rate**	16	35	19	21	n.a.	22
Investment rate	16	37	21	25	n.a.	19

* Annual growth rate of GNP per capita, 1965-1990.

** Ratio of gross domestic saving to GDP.

Source: World Bank 1992, World Development Indicators, Tables 1 and 9.

Further, the banking sector is often characterized by an oligopolistic structure, reinforced by the close relationship of the banks and the monetary authorities that is part of a system of financial repression and of management of monetary policy through direct controls of credit aggregates. In most countries, until the attempts at liberalization of the late 1980s and early 1990s, interest rates were in fact administered and credit ceilings were the main tool of monetary policy. In this context, the development of markets for short term securities other than government paper (commercial paper, banker acceptances) was as rule discouraged¹² because (i) they were perceived by the authorities as ways to

12. Notable exceptions are South Africa and Zimbabwe, where the trading in financial assets is rooted in tradition.

evade credit controls and complicating the task of monetary management; and (ii) the banks understood that the development of such markets and instruments could lead to competitive pressures and to the erosion of their privileged position. Thus, while the development of markets for long term securities was seen as desirable to provide long term or equity finance to foster development, and led sometimes to the creation of stock exchanges¹³, the need for the development of money markets has not been, until recently, the focus of attention. Only in South Africa, in Zimbabwe, in Ghana and, since 1993, in Kenya do money markets play a significant role.

The main impetus for developing money markets comes from the need for banks to manage their liquidity. To handle unexpected fluctuations in liquidity, banks normally exchange reserves in an interbank market. To handle the credit risk associated with the interbank market, prudence demands that the transactions on this interbank market be made against collateral or in the form of final sale and purchase of a riskless asset. This impetus will not develop if (i) banks can conveniently manage their liquidity through direct transactions with the central bank at known interest rates that are not penalizing¹⁴, (ii) a cost effective mechanism to handle the credit risk among the main players is lacking, for example because no risk-free marketable security is available, or because the procedures to transfer it are cumbersome and costly. As it happens, the two obstacles to the development of money markets feed on each other. The lack of a marketable security justifies the development of special arrangements for the management of the banks' liquidity through transactions with the central bank; these arrangements in turn make the development of a market for a security redundant from the point of view of individual banks and destroy the banks' incentives to seek the establishment of such a market.

3.3. *Transaction Costs*

The function of the money market is to provide the private and public sectors with means to raise short-term money and invest cash for short periods with the understanding

13. There are 12 stock exchanges in Africa south of the Sahara (South Africa, Zimbabwe, Nigeria, Kenya, Ghana, Mauritius, Côte d'Ivoire, Uganda, Botswana, Namibia, Swaziland and Zambia. The exchange in Côte d'Ivoire is being developed into a regional exchange for the 7 countries of the West African Economic and Monetary Union). The creation of a stock exchange in Tanzania and in Malawi is under consideration.

14. The most extreme case was the BCEAO managed "interbank market" where banks excess liquidity could be deposited at a fixed interest rate with the central bank, and where banks could in effect borrow, at a slightly lower rate, to meet their short term liquidity needs. The system was reformed in 1993. The fixed rate of interest was replaced by an interest rate determined in principle by the banks' demand and supply on this "interbank market".

that assets can be liquidated quickly, so that the financial intermediaries, the public and the Treasury can adjust their liquidity position frequently.

However, economic agents will engage in frequent adjustments in their liquidity position only if the transaction costs are kept very low. If not, they will prefer to manage their liquidity simply by holding large liquid balances. Banks, for example, would want to hold enough excess reserves with the central bank to cover the maximum possible cumulative clearing deficit over several days. This passive strategy has two important consequences. First, it will increase the cost of intermediation, and thereby reduce the efficiency of the financial system, as agents hold large amounts of idle balances. Second, the effectiveness of indirect tools of monetary policy is undermined, as the changes in reserves initiated by the central bank are very slow to influence interest rates and to induce portfolio adjustments by the banks.

In Africa, with the exception of South Africa and Zimbabwe, three factors tend to increase transaction costs on the money markets. First, the payment systems are not performing well. The transfer of funds outside of the capital city is often slow¹⁵, which hinders the centralized management of its liquidity by each bank, defeats the purpose of time-sensitive short-term portfolio adjustments, and in effect creates market segmentation. Second, the clearing and settlement procedures for assets that can be bought, sold or used as collateral in transactions on the money market are not well developed, may be slow, or involve cumbersome handling of paper. Given the state of financial distress that plagues many banks in several countries, it is neither feasible nor desirable to develop a true money market without the support of a secure and efficient mechanism for the transfer and custody of these assets. Third, the lack of available skills in treasury management, as well as the absence of quick and transparent information that would enable the treasurers to assess and forecast the developments influencing the liquidity of the system, tend to increase the cost of treasury functions for the financial intermediaries.

4. Policy Towards the Development of Money Markets in Africa

The brief survey of obstacles to the development of money markets in Africa in the previous section suggests the following policy agenda.

15. For example, in Madagascar, the clearing of cheques may take up to 10 days when deposited in a branch located outside of the area covered by the regional clearing house of the bank branch on which the cheque is drawn (World Bank 1993, p. 167). In Zimbabwe, on the contrary, arrangements exist for quick clearing and settlement of large transactions and all large transactions are settled overnight for same day value.

First, sound macroeconomic policy is essential to the development of the financial system. Policies that promote sustainable growth and rapid wealth accumulation through high saving rates do also promote financial development, allowing a virtuous circle where growth promotes financial deepening and financial deepening fosters growth. Particularly important to the strength of the financial sector is the maintenance of a sustainable real exchange rate, as this relative price is a key factor in determining the relative profitability of different activities within an economy and therefore in allocating the productive resources among productive sectors. When the real exchange rate is adjusted after a long period of misalignment, the change in environment usually results in losses in some sectors that can spill over into the financial sector and create widespread financial distress throughout the economy. The first symptoms of this problem are usually sharp increases in the short term interest rates on the money market as lenders engage in distress borrowing and "distressed lenders" engage in evergreening.

In the specific case of money markets, the need for a safe asset around which transactions can be structured calls in particular for budgetary rigor. Without confidence in the ability of the government to raise enough revenue to service its debt, the securities issued by the government, either directly by the Treasury or indirectly through the central bank¹⁶, will not provide the needed safe asset. Concerns about the timing of payments or about possible capital losses linked to the uncertainty of nominal interest rates in an inflationary environment will outweigh the absence of bankruptcy risk.

As part of the sound macroeconomic management, financial repression, if it exists, should be terminated. The path chosen to implement this policy will depend on the prevailing conditions. In countries where financial distress is widespread, or where the prudential regulatory framework and bank supervision are weak or do not exist, the move away from financial repression could be implemented by increasing administered interest rates above the expected rate of inflation to ensure positive post tax return to savers and positive cost of funds to borrowers in real terms. In countries free from financial distress and with strong prudential regulation and supervision in place, a broader liberalization of the financial markets can be pursued. In either case, moving away from financial repression can be expected to increase the cost to government of its internal debt service and should therefore be accompanied by fiscal measures to increase government revenue or reduce expenditures.

16. The central bank is usually owned by the state. One exception is the central bank of Belgium, that is 50% privately owned.

Second, the central role of information has to be recognized. A key for the development of marketable securities is the market participants' access to a wide range of publicly available information useful in assessing and monitoring the value of investments. Thus publication of timely and reliable data on the economy, on government finance, on the money and credit aggregates, on interest rates, exchange rates, and other prices is an essential component of an environment supportive of the development of markets. Simultaneously, banks, that have a natural advantage in collecting information on their clients, should be encouraged to "cash in" on this advantage in other ways than by lending directly to them. Thus bankers acceptances are instruments by which banks, for a fee, make publicly and credibly available to third parties their own assessment of the creditworthiness of a borrower.

Third, the development of the money market will require some investment in institution building. A "social infrastructure" is necessary for markets and competition to function; this social infrastructure is the combination of a legal and regulatory framework, effective enforcement mechanisms, and a critical mass of skills and expertise that needs to be acquired and developed. Institution building is an evolutionary process that must be spread over time, and not a measure that can be decreed once and for all.

The legal and regulatory framework must provide the definitions of the financial contracts, the rights and duties of the parties, the procedures to resolve disputes, as usually provided in a business code and a banking law. It is important that the framework be flexible enough to allow innovations, i.e., new types of contracts. Particularly important is the prudential regulation that is essential to protect the stability of the financial system. The prudential regulation, as a minimum, sets minimum capital standards to enterprises seeking to enter and operate in the financial sector, sets standards for the qualifications of key officers, sets standards for the classification of the assets of financial intermediaries according to risks, establishes disclosure requirements, and defines the responsibilities of the directors of financial firms in matters of compliance with the disclosure requirements. Implementation of the prudential framework requires of course the existence of accounting norms and audit procedures.

Enforcement mechanisms must ensure that the regulatory framework is effective. First, the availability of enforcement mechanisms strengthens the confidence that contracts will be honored, and reduces in general the transaction costs on the financial markets.¹⁷ The enforcement mechanism relevant here is the courts system, comple-

17. North (1990), quoted by Stein (1994, p. 1837), emphasizes that continual recourse to enforcement procedures would make transactions too costly, and that the main challenge to reduce transaction costs and foster market development is to create a set of rules that make a variety of informal or customary constraints operational.

mented if appropriate with private arbitration conventions. Second, if prudential regulations have to be enforced, it is essential that compliance with the rule, as well as the soundness of the judgment inherent to asset classification according to risk, be monitored. This supervision function is usually entrusted to the central bank.¹⁸

The third component of the institutional infrastructure is the system of training and certification of the professional qualifications for the various professions needed for the development of the financial markets, particularly in the banking, accounting and auditing fields. Of particular relevance to the development of money markets will be availability of expertise in the treasury function of banks, which requires a different type of skills than those needed to make bank loans. The main function of the loan officer is to assess the credit risk associated with a borrower and its activity; the main function of the treasurer is to forecast the evolution of the bank's liquidity and to assess the market risk and opportunities arising from change in interest rates and the price of safe assets.

The last level of institutional infrastructure needed for the development of the money markets are the "nuts and bolts" that have a strong influence on transaction costs. The two main components are a payment system; and clearing and settlement arrangements for the transfer of securities.

A good payment system for transactions between financial institutions is a priority for the development of an active money market. It requires a safe, reliable, and rapid system of communication to support large value transfers, and a mechanism for the settlement of claims. The central bank usually plays the role of main settlement agent and custodian of the funds of commercial banks and other large financial institutions, but the payment clearing operations are normally handled by the banks and their own clearing house arrangements (one important exception is the Fedwire payment network in the U.S., that is run directly by the Federal Reserve itself); The speed of the clearing and final settlement procedures is a key factor to permit the emergence of new instruments on the money markets, because a faster settlement reduces the counterpart default risks (Humphrey 1995, p. 85). Modernization of the payment system often calls for an investment in the hardware and software needed for telecommunications and data processing, and rules to reduce the systemic risk arising from a party failing to settle its clearing obligations. Such rules could impose limits on the debit position of any participant to the clearing network at any given moment between settlements (for example, the ceiling could be set at the

18. A survey of Fund member countries disclosed that bank supervision is conducted by the central bank in over 60 percent of the countries, and in all African countries except Madagascar (Tuya and Zamalloa, 1994, Table 1).

amount of reserves held by the participants at the central bank¹⁹, or established as function of the bank equity capital²⁰, or require the clearing house to hold collateral sufficient to cover the likely maximum debit position of any single participant in the network.²¹

An efficient clearing and settlement mechanism for the transfer of securities is the second prerequisite for the development of money markets. Whether the support of traded securities is paper (Zimbabwe, Ghana) or entries in the books of the central bank (Treasury bills in Madagascar), the mechanism must be safe, reliable, and rapid. An investment in hardware and software to develop a system based on an electronic registry, for example under the custody of the central bank, may improve the efficiency of the transfer of titles to the securities and help develop the largely inexistent secondary markets for these securities.²² Except in South Africa and Zimbabwe, where secondary markets are active, and to a lesser extent in Kenya, short term securities are typically not traded on the secondary market. Short term securities issued by the Treasury or the central bank can be issued at auctions (for example in Ghana, Madagascar, Malawi, Uganda, and Zambia), but thereafter are usually kept to maturity or used to obtain financing from the central bank through discounting or repurchase agreements.²³

In addition, certain features of the organization of the primary market for securities are relevant to the development of the secondary markets, because these features can influence strongly both the demand for the securities and the readiness of the market participants to buy and sell rather than holding the paper to maturity. First, the supply of securities and its timing should be predictable. If it is not, investors will tend to hold the paper to maturity, particularly if financial intermediaries are faced with requirements to hold part of their portfolio in government securities (secondary reserve ratios). Second, the price of the securities, or the interest rate, must be allowed to fluctuate according to the evolution of the liquidity of the market. These fluctuations may create an incentive for

19. Swiss Interbank Clearing System (Humphrey 1995, p. 49).

20. Fedwire. See Humphrey (1995), p. 59.

21. CHIPS, privately owned Clearing House Interbank Payment System run by large New York banks (Humphrey 1995, pp. 11 and 52).

22. Malawi and Zambia are currently engaged in a transition from a paper based to an electronic book-entry system to record title to T-bills.

23. A limited number of transactions on the secondary market can be the result of distortions created by rules and loopholes in the regulatory framework. Thus, in a country where both banks and discount houses are required to hold various government securities, repurchase agreements have emerged to replace loans of discount houses to banks, allowing both the bank and the discount house to count the same security against their obligation to hold government securities.

certain market participants to hold speculative positions in the securities and to add liquidity to the market. A true auction system can generate the desirable flexibility in interest rate, but the effectiveness of the auction system could be undermined if the securities are available on tap at the average auction rate between auctions.²⁴

5. Concluding Remarks

The policy conclusions proposed in this note suggest that the role of public authorities, far from becoming obsolete, is growing in importance and complexity as countries attempt to liberalize their financial systems. The role of the central bankers in Africa, as elsewhere, is likely to become more challenging, and require more skills, than during the era of financial repression and direct monetary controls. In most countries in Sub-Saharan Africa, the first test by which success in the modernization and development of the financial systems will be assessed is the emergence of a well functioning and competitive interbank money market.

24. In addition to hindering the development of the secondary market, the availability of securities on tap at the average auction interest rate increases the cost of funds to the government or the central bank. Rather than taking the risk to bid for securities at a below average yield, market participants who have excess liquidity have an incentive to refrain from submitting aggressive bids at the auction, given the knowledge that they will be able to purchase the desired securities on tap at the average yield after the auction.

References

- Baliño, Tomás J.T., and Carlo Cottarelli, *Frameworks for Monetary Stability: Policy Issues and Country Experiences*, International Monetary Fund (Washington, D.C.) 1994.
- Collier, Paul, and Colin Mayer, "The Assessment: Financial Liberalization, Financial Systems, and Economic Growth", *Oxford Review of Economic Policy*, Vol. 4, No. 4 (Winter 1989), pp.1-12.
- Callier, Philippe (editor), *Financial Systems and Development in Africa*, EDI Seminar Series, World Bank (Washington, D.C.) 1991.
- Caprio, Gerard, Izak Atiyas, and James A. Hanson, *Financial Reform: Theory and Experience*, Cambridge University Press (Cambridge, U.K.) 1994.
- Caprio, Gerard, and Patrick Honohan, "The Use of Market Instruments for Monetary Policy", in Caprio and Honohan (1991b), pp. 1-10.
- Caprio, Gerard, and Patrick honohan (editors), *Monetary Policy Instruments for Developing Countries*, World Bank (Washington, D.C.) 1991.
- Chant, John, "The New Theory of Financial Intermediation", in Dowd and Lewis (1992), pp. 42-65.
- Demirguc-Kunt, Asli, and Ross Levine, *Stock Markets and Financial Intermediaries: Stylized Facts*, Policy Research Working Paper # 1462, World Bank (Washington, D.C) May 1995.
- Dhonte, Pierre, *Financial Deepening: Outline*, paper presented at the Seminar on the Development of Financial Markets in Sub-Saharan Africa: Experiences and Policy Options, Graduate Institute of International Studies, Geneva, September 1995.
- Dowd, Kevin, and Mervyn K. Lewis, *Current Issues in Financial and Monetary Economics*, St. Martin's Press (New York) 1992.
- Federal Reserve Bank of New York, *Funding and Liquidity: Recent Changes in Liquidity Management Practices at Commercial Banks and Securities Firms*, A Staff Study, Federal Reserve Bank of New York (New York) July 1990.
- Getler, Mark, and Andrew Rose, "Finance, Public Policy, and Growth", in Caprio, Atiyas and Hanson (1994), pp. 13-44.
- Humphrey, David B., *Payment Systems: Principles, Practice, and Improvements*, World Bank Technical Paper #260, World Bank (Washington, D.C.) 1995.
- Hviding, Ketil, "Financial Deregulation", *The OECD Observer*, June/July 1995, pp. 30-33.
- Johnston, R. Barry, and Odd Per Brekk, "Monetary Control Procedures and Financial Reform: Approaches, Issues, and Recent Experiences in Developing Countries", in Callier (1991), pp. 97-145.
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- King, Robert G., and Ross Levine, "Finance and Growth: Schumpeter might be Right", *Quarterly Journal of Economics*, August 1993.
- Leite, Serge Perreira, and V. Sundararajan, "Issues on Interest Rate Management and Liberalization", *IMF Staff Papers*, December 1990, pp. 735-752.
- Lynch, David, "Does Financial Sector Development Matter to Investment?", *Savings and Development*, XIX (1995), No. 1, pp. 29-60.
- McKinnon, Ronald, *Money and Capital in Economic Development*, Brookings Institution (Washington, D.C.) 1973.
- North, Douglass, *Institutions, Institutional Change and Economic Performance*, Cambridge University Press (Cambridge) 1990.
- Polizatto, Vincent, "Prudential Regulation and Banking Supervision: Building an Institutional Framework for Banks", in Callier (1991), pp. 173-199.
- Popiel, Paul, *Developing Financial Markets in Sub-Saharan Africa*, in Callier (1991).
- Roe, Alan, "Financial System and Development in Africa", in Callier (1991), pp. 5-28.
- Shaw, Edward, *Financial Deepening in Economic Development* Oxford University Press (New York) 1973.
- Solomon, Robert, *The International Monetary System, 1945-1976*, Harper and Row (New York) 1977.
- Stein, Howard, "Theories of Institutions and Economic Reform in Africa", *World Development*, December 1994, pp. 1833-1849.
- Tuya, José, and Lorena Zamalloa, "Issues on Placing Banking Supervision in the Central Bank", in Baliño and Cottarelli (1994), pp. 663-690.
- World Bank, *World Development Report 1992*, Oxford University Press (New York) 1992.
- World Bank, *World Development Report 1989: Financial Systems and Development*, Oxford University Press (New York) 1989.
- World Bank, *Madagascar: Financial Policies for Diversified Growth*, World Bank (Washington, D.C.) 1993.
- World Bank, *Global Economic Prospects and the Developing Countries*, The World Bank (Washington, D.C.) 1995.
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Abstract

This short note reviews the issues related to the development of short-term money markets in sub-Saharan Africa. Traditional indicators show that financial deepening progressed in Africa since 1965, but also that the region lags behind the rest of the world in this respect. The note summarizes the arguments linking financial development to growth, identifies the obstacles to the development of money markets in Africa and draws the policy conclusions. This review suggests that main components of a policy towards the development of money markets in Africa would be (i) sound macroeconomic management; (ii) promotion of transparency and information, and of incentives to act upon available information; (iii) institution building (regulatory and prudential framework, strengthening of professional bodies, improvement and modernization of the payment system and of the clearing and settlement procedures for securities transfers).

LE DÉVELOPPEMENT DES MARCHÉS MONÉTAIRES EN AFRIQUE**Résumé**

Les indicateurs statistiques suggèrent que l'approfondissement financier en Afrique a progressé depuis 1965, en Afrique comme dans le reste du monde. Cependant, une comparaison inter-régionale montre aussi que la diversification financière en Afrique reste en deçà de la moyenne mondiale. Après avoir présenté ces indicateurs statistiques, l'article résume les liens entre le développement du système financier et la croissance, et identifie les obstacles qui ralentissent le développement des marchés monétaires en Afrique. Cet examen suggère que les principaux éléments d'une politique de développement des marchés monétaires en Afrique devraient être une gestion macroéconomique saine et l'abandon de la répression financière, là où elle existe encore; la diffusion d'informations pertinentes et un cadre incitatif encourageant les agents économiques à agir sur la base des informations dont ils disposent; et le renforcement des institutions, telles que le cadre réglementaire et prudentiel, les organisations professionnelles compétentes, l'organisation des circuits de paiement et les procédures de transferts de titres.

