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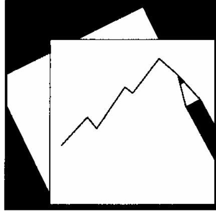

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Bank Behavior in Developing Countries: Evidence from East Africa

Martin Čihák and Richard Podpiera

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Bank Behavior in Developing Countries: Evidence from East Africa

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Abstract

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We analyze the structure, performance, and role of banking systems in the three member countries of the East African Community—Kenya, Tanzania, and Uganda—against the backdrop of recent financial sector reforms. Focusing on the behavior of different types of banks, we find no support for the argument that the presence of large international banks would have an adverse effect on the effectiveness and efficiency of banking sectors in developing countries. International banks are generally more efficient and more active in lending than domestic banks. However, as suggested by the Kenyan experience, the presence of international banks may not lead to increased competition and provision of banking services if weak institutions are allowed to remain in the system.

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I. INTRODUCTION

The role of foreign banks in developing countries—and associated policy implications—has been hotly debated.[2] Some argue that foreign banks and particularly large international banks should be allowed to operate in developing countries because they increase the capacity of local banking sectors to lend and support development and introduce international practices and know-how, which spills over to domestic banks and increases the efficiency of financial intermediation.[3] Others maintain that international banks are too powerful and thus their presence deprives the domestic banking industry of a chance to develop.[4] At the same time, several observers note that international banks typically favor large and foreign-owned corporations at the expense of local entrepreneurs.[5]

The empirical literature tends to find a positive effect of foreign entry on bank performance. A number of case studies support this conclusion, for example Barajas, Steiner, and Salazar (2000) for Colombia, and Koyeva (2003) for India. The first comprehensive cross-country analysis of how foreign bank presence affects domestic banking markets was presented in Claessens et al. (2001), who studied data on 80 countries from various parts of the development spectrum, and found that foreign banks have higher profits than domestic banks in developing countries, while the opposite is true for developed countries. Their estimates suggest that increased presence of foreign banks is generally associated with a reduction in profitability and margins for domestic banks. In a follow-up paper, Claessens and Lee (2003) focus on financial systems in 58 low-income countries. They find that increased presence of foreign banks seems to have had benefits for local banking systems by reducing financial intermediation costs and making systems more efficient and robust. Clarke et al. (2001), using data from a large cross-country survey of enterprises, find that foreign bank penetration improves financing conditions for all enterprises, although it seems to benefit larger firms more.

We analyze bank behavior and performance in three East African countries—Kenya, Tanzania, and Uganda—the members of the East African Community. In Kenya, foreign-owned banks have always played an important role, while in the other two countries, entry of foreign banks was a part of their recent financial sector reforms. For all three countries, systematic evidence on the role of various groups of banks appears to be scarce. Brownbridge and Harvey (1998)

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[2] Throughout the text, “foreign banks” mean all banks owned by investors from other countries, while “international banks” stand for major banks with international operations.

[3] For example, Levine (1996) argues that benefits of entry, in terms of improved service and regulation, outweigh potential costs (cream skimming, foreign market dominance, destablizingly rapid outflows of capital).

[4] This is the usual infant industry argument, used more generally in international trade. Surveys of the argument, such as Grossman (1990) or Rodrik (1994), attest to the mixed nature of the evidence on whether and how intervening in trade improves a country’s welfare in the short or in the long run.

[5] For example, Stiglitz (2002, p. 31) says: “When global financial institutions enter a country, they can squelch the domestic competition. And as they attract depositors away from the local banks in a country like Ethiopia, they may be far more attentive and generous when it comes to making loans to large multinational corporations than they will to providing credit to small businesses and farmers.”

offer some country-by-country discussion of the impact of financial sector reforms on banking since independence, using information generally up to early 1990s. The recent cross-country studies either omit East African countries (Claessens et al., 2001), or include only a limited sample of bank data based on the BankScope database (Claessens and Lee, 2003).

We study the behavior of international banks as compared with the domestic banking sector and examine some of the potential problems that may be caused by the entry of international banks. These include lower financial intermediation due to limited and only short-term lending by large foreign banks, increased risks for domestic borrowers due to a preference of international banks for lending (and taking deposits) in foreign currency, and large lending spreads due to the large market power of international banks.

All three countries have recently participated in the joint IMF-World Bank Financial Sector Assessment Program (FSAP), and reports summarizing information about the financial systems and reforms in Uganda and Tanzania have been published.[6] The purpose of this paper is to study the topic of bank behavior and provide a regional perspective on the banking systems in the three countries. The analysis of banking sector behavior and performance in this region is very topical, considering the intention of the authorities in the three countries to "cooperate in monetary and financial matters and maintain the convertibility of their currencies" as a basis for establishing a monetary union.[7]

The structure of the paper is as follows. The second section summarizes recent developments and financial policy reforms in Kenya, Tanzania, and Uganda. The third section examines the structure of the financial systems in the three countries. The fourth section compares bank behavior and performance in the three systems. The fifth section summarizes main conclusions and discusses policy implications.

II. Financial Sector Reforms and Recent Developments

In all three countries, despite a number of financial sector reforms, a great deal still remains to be done to further strengthen the environment for the development and efficient functioning of the financial system.

A. Kenya

The banking sector in Kenya operates in a relatively deregulated environment. Foreign bank entry was never a substantial issue in Kenya, as the banking system after independence consisted only of foreign-owned banks; their dominance has been eroded since then, but they still account for a substantial part of the system (Table 2). A variety of reforms to the financial

[6] The Financial System Stability Assessment (FSSA) reports for Uganda and Tanzania, were published in 2003 (IMF, 2003a,b). The FSSA report for Kenya was discussed in the IMF Executive Board in December 2004.

[7] The intention to work towards establishing a monetary union is expressed in the Treaty for the Establishment of the East African Community, signed by the authorities of the three countries in November 1999.

system were introduced in the early 1980s to the mid-1990s (Brownbridge and Harvey, 1998). Monetary policy reforms during the 1990s have entailed liberalizing interest rates and replacing direct controls on lending with open market operations.

The efforts to enhance the efficiency of intermediation were also undermined by the presence of large, weak government-owned banks, which accounted for most of the banking system's nonperforming loans (NPLs). The National Bank of Kenya (NBK, the sixth largest bank) has been insolvent for many years. The Kenya Commercial Bank (KCB, the second largest) has fared better, but also has suffered considerably from its bad loan portfolio.

Brownbridge and Harvey (1998) find some evidence that the liberalization during the 1990s has lead to more vigorous competition among banks for deposits and in providing services. However, it is not clear that the liberalization has improved the efficiency of credit allocation in the presence of widespread distortions elsewhere in the economy.

A government elected in December 2002 prepared an economic recovery strategy containing important structural measures for strengthening the financial sector, including through maintaining free competition among banks.

B. Tanzania

In Tanzania, poor performance of the state-owned financial sector in late 1980s forced the government to search for new policy directions. NPLs were above 65 percent of the loan portfolio, fiscal and financial operations were not separated, and an appropriate regulatory framework was missing. In 1990, a special presidential commission recommended: (i) increasing competition by encouraging entry of foreign banks; (ii) strengthening the existing financial institutions; (iii) developing management accountability; and (iv) recovering NPLs. Based on these, the government has issued a policy statement on financial sector reform with the aim of creating a market-based financial system, efficient in mobilizing and allocating resources and supporting long-term economic growth.

With substantial donor support, the reform effort started in 1991 and has been ongoing since. Domestic financial intermediation has been substantially liberalized. A new regulatory framework has been introduced, organizational and financial restructuring of the two largest (formerly state-owned) banks, the National Bank of Commerce (NBC) and the Cooperative and Rural Development Bank, has been implemented, and the sector has been opened to the entry of financial services providers.[8] The new Banking and Financial Institutions Act approved in the second half of 1991 allowed licensing of new banks, including subsidiaries of foreign banks. The first major foreign bank (Standard Chartered) started operations in 1992, with other

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[8] The largest bank in the system, the state-owned National Bank of Commerce, was split in 1997 into the new National Bank of Commerce Limited (NBC), with most of the loan portfolio and city branches, and the National Microfinance Bank (NMB), with extensive branch network outside main cities and virtually no loans. The South African banking group ABSA bought a majority stake in the NBC. The NMB remains government-owned. It is temporarily being managed by a U.S. consulting firm, which is preparing the bank for privatization.

international banks following—Stanbic (1993), Citibank (1995), and Barclays (2000). Several other smaller foreign banks set up their subsidiaries during 1995–2002.

These major reforms have created a new market-based financial system and limited direct fiscal costs, but so far have not yielded an improved access to financial services by economic agents. The loss of convenient access to banking services, because of the closure of some loss-making bank branches and through an initial increase in minimum balance requirements by some banks under new ownership reduced access to banking services, as witnessed by recent household budget survey data, which show a substantial decline of the number of household bank accounts and loans. The history of non-repayment explains banks' slow replacement of the stock of NPLs by new credit. Instead, as discussed in more detail below, banks have been accumulating extensive holdings of government paper and off-shore deposits in foreign exchange, limiting the amount of credit available to the private sector.

Having recognized the need to create an environment more conducive to lending and financial sector development overall, the authorities have recently introduced wide-ranging reforms in the areas of legal, judicial, and information infrastructure, including the Land Act 1999 and the Companies Act 2002. Judicial and court reform is one of the basic priorities to which increasing attention is being paid. However, comparatively little progress has been made, with training and facilities still remaining in need of special attention. Furthermore, land registries, company registries, and registries of mortgage interests are inefficient, and considerable improvements are needed before they will provide a useful information basis for credit decisions.

C. Uganda

Civil disturbances in Uganda during the 1970s and 1980s led to a significant decline of financial intermediation, and financial services became concentrated only in few commercial banks in the capital. Aleem and Kasekende (2001) find that nonprofessional management became common in financial institutions and normal business discipline collapsed. Financial repression in the form of interest rate controls and directed credit contributed to disintermediation; parallel markets in foreign exchange, trade, and credit developed; and the use of credit instruments declined. By 1991 the volume of broad money (M2) stood at only 6 percent of GDP.

In the early 1990s, the government started a comprehensive financial system liberalization program. The main objective of the program, as in Tanzania, was to enhance the efficiency of the financial sector and promote economic growth. The government decided to reduce its role in the financial sector and allow the market to play a more substantial role in resource allocation. Brownbridge and Harvey (1998) and Aleem and Kasekende (2001) provide detailed descriptions of the financial system reform in Uganda and its early results.

The first important financial reform measures were introduced in 1992 and included liberalization of interest rates, phasing out of subsidies and removal of directed credit, allowing entry (and exit) of banks (including foreign banks). These measures were complemented by the introduction of new legal and regulatory framework, efforts to strengthen banking supervision, and an upgrade of market infrastructure. The government gradually sold most of its shares in

financial institutions.[9] The number of banks increased from 9 in 1991 to 20 in 1996, when a two-year moratorium on banking licenses was imposed.

While the reforms did improve the performance and depth of the financial system in Uganda, it is still small even by regional standards. Weak infrastructure, problematic legal and institutional environment, and weak credit culture continue to hamper financial sector development. The authorities have recently tried to address important financial sector issues. The banking system has been strengthened by preventive actions by the Bank of Uganda (BOU) in closing four banks in 1998–1999.

D. Recent Trends in Financial Intermediation

Basic indicators of financial intermediation reflect the developments described above. The figures below depict the development of broad money and credit to the private sector. They suggest that—despite the recent decline—the Kenyan financial system continues to play a considerably larger role in the economy than the financial systems in the other two countries, which are only gradually recovering from the history of state ownership (Tanzania) and civil disturbances combined with financial repression (Uganda).

In Kenya, the degree of monetization of the economy, as measured by broad money to GDP, grew through 1996, to almost 50 percent, but recent problems in the financial sector caused it to return back to the proximity of 40 percent of GDP. In Tanzania, the initial impact of financial sector reforms led to a decrease of broad money to approximately 18½ percent of GDP, but financial deepening started in the late 1990s, with broad money gradually increasing to some 23 percent of GDP. Financial disintermediation in Uganda left this country with the lowest ratio of broad money to GDP among the three countries, but the steady and significant financial deepening seen since 1994 has almost entirely closed the gap between Uganda and Tanzania (Figure 1).

The development of private sector credit relative to GDP has been similar (Figure 2). Credit has been declining as a percentage of GDP in Kenya in recent years and increasing in Uganda and Tanzania, following a decline in Tanzania caused by the restructuring of state-owned banks. The gap between Kenya, on the one hand, and Tanzania and Uganda, on the other hand, is even larger in terms of lending, however, as the Kenyan banks appear to be able to deliver considerably more credit to the private sector, despite the recent decline.[10]

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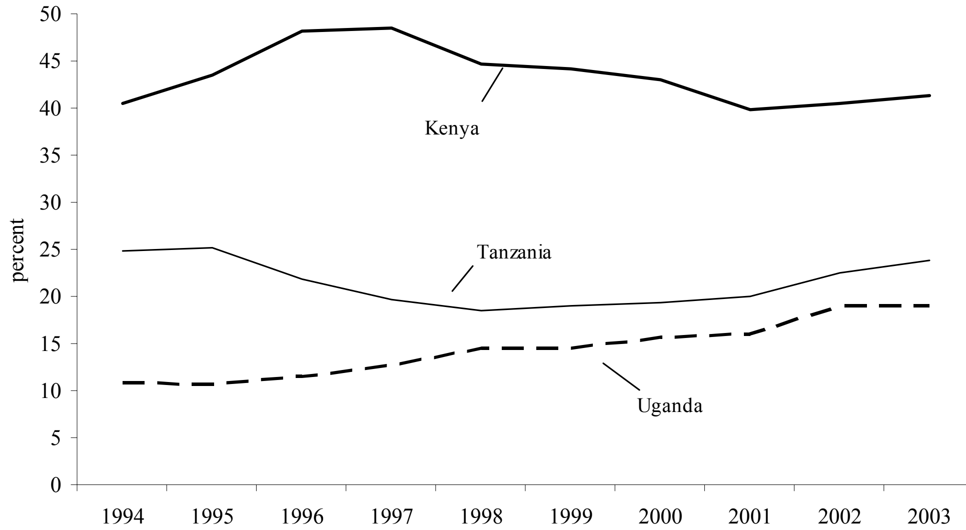
[9] The privatization of the largest state-owned bank (Uganda Commercial Bank, UCB) was competed in late 2002 after an earlier (1997) sale was nullified.

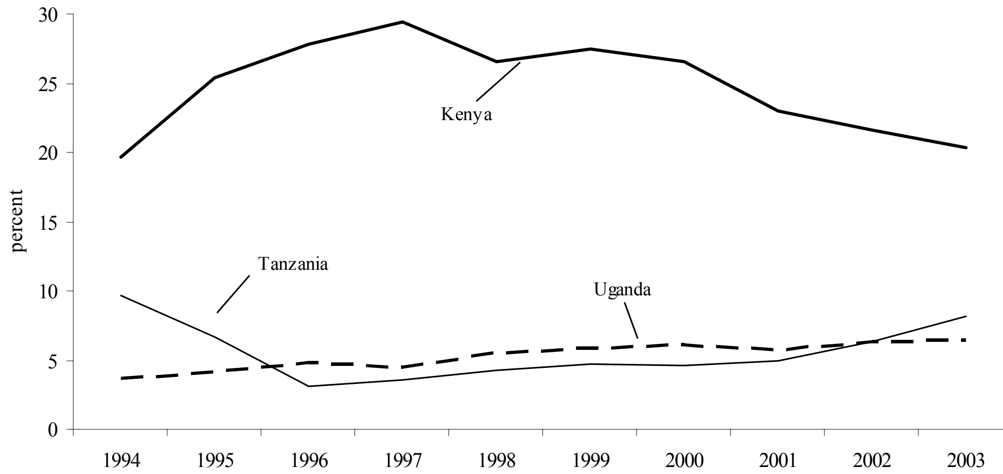
[10] Private sector credit grew very fast (from a low base) in Tanzania in recent years, nearly doubling between end-2001 and end-2003 to 9.5 percent of GDP. The increase of borrowing was generally broad-based and so far has not had any negative impact on bank soundness. The reforms described in the previous section likely played an important role in supporting this credit expansion.

Figure 1. East Africa: Broad Money to GDP, 1994–2003
(Percent)



Source: IFS and authors' calculations.

Figure 2. East Africa: Private Sector Credit to GDP, 1994–2003
(Percent)



Source: IFS and authors' calculations.

III. Structure of the Banking Systems

The East African financial systems are diverse, but concentrated in commercial banking and very small in relation to the economy. The Kenyan financial system is by far the largest by total assets, being about 3½ times and 6 times the size of the financial systems in Tanzania and Uganda, respectively. Measured relative to the economy, total assets of the financial system are equivalent to 56 percent of GDP in Kenya and approximately 30 percent in both Tanzania and Uganda. The larger size of the Kenyan financial system reflects the higher industrialization of the economy, the somewhat higher level of GDP per capita (about US$350 for Kenya compared with roughly US$270 in Tanzania and US$260 in Uganda), as well as the fact that the Kenyan system has been opened to private banks since independence. The East African financial systems also include a wide array of nonbank financial institutions (Table 1). The Kenyan system is the most diverse of the three in terms of the types and numbers of financial institutions. In all three countries, banks account for 60–80 percent of total financial systems' assets and have by far the largest number of customers.

Table 1. East Africa: Financial System Structure, 2002

	Kenya			Tanzania			Uganda 1/		
	Number	Assets US$ mn	% of total assets	Number	Assets US$ mn	% of total assets	Number	Assets US$ mn	% of total assets
Depository institutions	2,729	7,550	76	957	2,330	83	125	1,452	89
Commercial banks - total	43	5,831	58	21	2,176	78	17	1,321	81
Large domestic banks	3	1,472	15	3	1,058	38	1	294	18
Major foreign banks	3	2,377	24	4	897	32	4	672	41
Other banks	37	1,981	20	14	222	8	12	355	22
Development banks	2	61	1	-	-	0	...	...	...
Credit unions and cooperatives	2,664	911	9	927	16	1	...	...	...
Microfinance institutions	10	49	0	...	...	...	101	17	1
Mortgage finance companies	2	183	2	...	...	...	...	...	...
Building societies	3	119	1	...	...	...	...	...	...
Other non-bank depository institutions	5	396	4	9	138	5	7	114	7
Non-depository intermediaries	853	2,423	24	17	477	17	14	179	11
Insurance companies	44	856	9	14	101	4	4	34	2
Pension funds	780	1518	15	3	377	13	1	145	9
Collective investment schemes	...	...	...	...	-	0	...	...	...
Finance companies (incl. leasing)	3	36	0	...	...	...	1	...	...
Securities firms	26	13	0	...	...	...	8	...	...
Total financial system	3,582	9,973	100	974	2,807	100	139	1,631	100
Memorandum items:									
Foreign-owned or controlled banks	13	3,165	32	9	1,365	49	11	812	50
Subsidiaries of foreign banks	5	2,352	24	8	955	34	7	751	46
Total assets as percent of GDP	...	...	56	...	...	30	...	...	30

Sources: Central banks and staff estimates.
1/ Data for June 2002.

The banking sectors in all the three countries consist of three main segments—large domestic banks, subsidiaries or branches of international banks, and small (domestic and foreign) banks. The international banks play a key role in each of the three countries (Table 2). In Tanzania, large domestic banks and subsidiaries of international banks are comparable in size and dominate the system; approximately half of total banking assets is in banks majority owned by foreign banks. In Uganda, international banks account for half of system assets and deposits. In Kenya, international banks account for about 40 percent of the banking system's assets and deposits, while large domestic banks account for about 25 percent.

The share of state-owned banks in total assets of the banking systems has been declining. In Tanzania, the government currently owns only one large domestic bank (NMB), which accounts for approximately 12 percent of total assets of the system; two other government-owned banks (formally classified as non-bank financial institutions) are considerably smaller. In Uganda, the government's share in the largest bank (UCB) has been diluted to 10 percent as part of a merger with Stanbic; with this privatization transaction completed, there will be no state-controlled banks in Uganda. The share of state-owned banks is the highest in Kenya, currently standing at about 28 percent. This ratio has also declined in recent years, but this was mainly due to the stagnation in the state-owned banks rather than their privatization.

Table 2. East Africa: Banking Sector Structure, 2002
(Market shares in percent)

	Kenya			Tanzania			Uganda 1/		
	Assets	Deposits	Loans	Assets	Deposits	Loans	Assets	Deposits	Loans
Large domestic banks	18	17	21	46	54	24	22	23	5
International banks	46	47	40	39	32	57	51	51	65
Small banks and major NBFIs	36	36	39	15	15	19	27	26	30
Memorandum items:									
Share of five largest banks	60	60	65	72	75	72	73	74	70
Herfindahl index 1/	947	1,025	1,045	1,169	1,279	1,169	1,434	1,513	1,597

Source: Central banks and staff calculations.
1/ Data for June 2002.
2/ The sum of squared market shares.

Concentration in Kenyan and Tanzanian banking systems is rather low—calculations using the Herfindahl index for total assets suggest that concentration in lending is broadly equivalent to a system with eleven and nine banks of equal size, respectively (ten and eight, respectively, for deposits). In Uganda, the degree of concentration is relatively high, and it is bound to increase further following the merger of UCB, the largest bank with Stanbic, which is to create a bank accounting for one-third of the system. After the merger, the four international banks will account for three-fourth of the banking system and the Herfindahl indices will be close to 2,000. It should be noted, however, that the Herfindahl index measures concentration and not competition. Competitiveness of banks depends not only on their market shares, but also on other factors, such as the financial fragility of the banks (see the discussion in section IV.B).

IV. Bank Behavior and Performance

A. Balance Sheet Structure

Banks in East Africa are generally not very active in lending to the private sector. The structure of banks' balance sheets reflects their strong preference for liquid, low-risk assets. This is more pronounced in Tanzania and Uganda, where loans constitute only about one-fourth of their balance sheets. In Kenya, banks are lending more actively, with loans accounting for about half of their total assets (Table 4). The aggregate loan to deposit ratio of the banking system is about 80 percent in Kenya, but only about 30–35 percent in Tanzania and Uganda. In all three countries, however, sector liquidity is generally high.

In Kenya, the large domestic banks are the most active lenders, while in the other two countries, they currently lend the least (Table 3). In Kenya, the large domestic banks have the highest loan to deposit ratios, above 80 percent. However, the quality of the lending portfolio is much worse than in other banks. In Tanzania and Uganda, the large domestic banks are the least active lenders, with loan to deposit ratios close to 20 percent. In both countries, the low lending of large domestic banks is partially caused by delayed privatization and lack of capital. In Tanzania, the second largest bank by assets in the system is being prepared for privatization, and its loans amount to only 3 percent of deposits. A supervisory limit on lending by this bank was imposed to ensure that the bank concentrate on recovery of overdue loans as it moves towards privatization. In Uganda, the failure to rapidly privatize the country's largest bank led to its placement under statutory management by the central bank and drastic restrictions on lending were introduced; in June 2002, its loans stood at only 6 percent of deposits.

Table 3. East Africa: Loan to Deposit Ratios, 2002
(Customer loans in percent of customer deposits)

	Kenya	Tanzania	Uganda
Large domestic	83	15	6
International	45	70	38
Other	73	56	36
All	80	34	30

Source: Central banks and authors' calculations.

Debt securities—mostly government bills and bonds—are the largest major asset class held by banks in Tanzania and Uganda (Table 4). In both countries, by far the biggest holders of these securities are in both cases large domestic banks. In Kenya, the holdings of government bills and bonds have been increasing recently, but remain considerably lower than in the other two countries and international banks are the largest holders of government securities.

Table 4. East Africa: Structure of Assets, 2002
(Percent of total assets)

Kenya	All (43)	Large domestic (3)	International (3)	Small (37)
Cash and balances with central bank	1	2	2	1
Balances with banks	7	8	7	6
Loans and advances	46	54	42	46
Government and other debt securities	24	12	29	26
Other assets	22	24	21	21
Tanzania	All (23)	Large domestic (3)	International (4)	Small (16)
Cash and balances with central bank	10	12	8	10
Balances with domestic banks	6	6	2	17
Balances with banks abroad	24	14	41	9
Loans and advances	25	13	36	32
Government and other debt securities	27	46	7	20
Other assets	8	10	5	13
Uganda	All (17)	Large domestic (1)	International (4)	Small (12)
Cash and balances with central bank	11	12	10	10
Balances with domestic banks	3	1	2	5
Balances with banks abroad	22	9	29	19
Loans and advances	22	5	29	25
Government and other debt securities	35	60	25	31
Other assets	8	14	5	9

Source: Central banks and authors' calculations.
Note: The number of banks in each category is provided in parentheses.

The share of foreign currency deposits is moderate by international standards, ranging from 16 percent in Kenya to 37 percent in Tanzania (Table 5). For comparison, the average ratio of foreign currency deposits to total bank deposits is about 33 percent in Africa and 48 percent in emerging market countries (De Nicoló et al., 2003). In Tanzania, dollarization of deposits has been increasing, accompanied by a fall in the ratio of deposits held offshore by residents, suggesting that part of the increase in onshore dollarization reflects a repatriation of dollar funds after financial sector liberalization and an entry of foreign banks. In Kenya and Uganda, dollarization has been generally stable.

The dollar deposits are typically held at international banks and, as is the general practice in such cases, a large part of these deposits are not invested onshore but placed in the international money markets. The international banks are typically stretched to meet their customers' demand for loans in domestic currency and borrow on the domestic money market even as they are placing large funds abroad. Indeed, foreign currency deposits account for more than two thirds of deposits in international banks in Tanzania; and in Uganda and Kenya, their share is much larger than in large foreign banks.

The share of loans in foreign exchange to total loans is below 30 percent all three countries and this share is not high in any type of bank. Even international banks, which have relatively large foreign deposits do not have more than one-third of their loans denominated in foreign

currency.[11] Discussions with banks suggest that this is due to limited number of potential borrowers with natural hedges against foreign currency risk (i.e., foreign exchange revenues) and their recent adverse experience with lending in foreign currency to unhedged borrowers.

Table 5. East Africa: Dollarization of Deposits and Loans, 2002–03
(Percent)

Kenya (May 2003)	All (43)	Large domestic (3)	International (3)	Small (37)
Forex deposits/total deposits	16	4	21	19
Forex loans/total loans	13	5	23	15
Tanzania (Dec 2002)	All (23)	Large domestic (3)	International (4)	Small (16)
Forex deposits/total deposits	37	17	68	27
Forex loans/total loans	29	24	33	22
Uganda (June 2002)	All (17)	Large domestic (1)	International (4)	Small (12)
Forex deposits/total deposits	29	6	40	29
Forex loans/total loans	29	0	32	27

Source: Central banks and authors' calculations.
Note: The number of banks in each category is provided in parentheses.

There are no dramatic differences in the structure of lending among large domestic, international, and small banks (Table 6).[12] Trade and manufacturing are important sectors for all three types of banks. In all three countries, agriculture is less important and banks' lending exposures to the agricultural sector are much lower than the share of this sector in overall economic activity, which reflects the fact that agriculture is more risky than other sectors. Also, agricultural borrowers, mostly small farmers, often lack the necessary collateral and have limited credit education, and this makes their ability to properly manage borrowed resources weak. There does not seem to be a clear pattern by groups of banks: in Kenya, international banks are the least active in lending to agriculture, while in Tanzania, their share of lending to agriculture in total lending is about twice the corresponding ratio for large domestic banks.

Reflecting banks' preference for liquid assets, lending tends to be short term. In Tanzania, virtually all lending by both large domestic and international banks is within one year (Table 7). In Uganda, most lending is also short-term. In Kenya, loans have generally longer maturity, with almost 50 percent of loans having maturity above one year (Table 7). This is, however, mostly due to long-maturity lending from the large domestic (state-owned) banks, which also have the highest share of nonperforming loans. In all three countries, there is a

[11] International banks have a higher share of foreign exchange loans to total loans, reflecting their higher share of foreign exchange deposits. An OLS regression covering all banks in the three countries at end-2002 suggests that the share of foreign exchange loans in total loans is about 14 percentage points higher for international banks. However, the difference becomes insignificant if the regression is adjusted for the share of foreign exchange deposits. We find that an increase in the ratio of foreign exchange deposits by 1 percentage point increases the ratio of foreign exchange loans by 0.64 percentage points (t-statistics: 6.35).

[12] Table 6 has data only for Kenya and Tanzania. For Uganda, only aggregate data are available.

relatively widespread use of overdraft facilities as opposed to regular loans; the share of overdrafts in total loans is about 55 percent in Tanzania and about 45 percent in Kenya and Uganda.

Table 6. East Africa: Structure of Lending for Bank Groups, 2002
(Percent)

Kenya	All (43)	Large domestic (3)	International (3)	Small (37)
Agriculture	10	10	6	14
Trade	13	10	11	16
Mining	1	1	1	1
Manufacturing industry	19	21	20	16
Building and construction	7	11	2	7
Hotels and restaurants	4	3	5	5
Transport, storage, and communications	6	4	9	6
Financial intermediation	3	3	3	3
Real estate and leasing	3	2	3	3
Other sectors	35	35	41	29
Tanzania	All (20)	Large domestic (3)	International (3)	Small (14)
Agriculture	14	9	17	16
Trade	25	27	23	26
Mining	1	2	0	0
Manufacturing industry	26	25	33	13
Building and construction	4	7	0	10
Hotels and restaurants	2	1	0	6
Transport, storage, and communications	13	12	15	10
Financial intermediation	6	8	7	2
Real estate and leasing	0	0	1	0
Other sectors	8	10	3	17

Source: Central Bank of Kenya, Bank of Tanzania, and authors' calculations.
Note: The number of banks in each category is provided in parentheses.

Table 7. East Africa: Maturity of Loans, 2002
(Percent of total loans)

Kenya	All (43)	Large domestic (3)	International (3)	Small (37)
0- 30 days	29.4	10.6	32.0	41.9
31-90 days	11.3	2.5	25.3	9.1
91-180 days	4.5	1.4	3.7	7.3
181 days-1 year	7.5	3.9	4.9	11.9
1-3 years	26.8	43.9	21.0	17.6
3-5 years	8.5	8.0	8.6	8.8
Over 5 years	12.0	29.7	4.6	3.3
Total	100.0	100.0	100.0	100.0
Memo item: Overdrafts	45.2	62.9	26.6	43.8
Tanzania	All (23)	Large domestic (2)	International (4)	Small (16)
0- 30 days	...	12.0	55.3	...
31-90 days	...	12.0	2.5	...
91-180 days	...	25.3	31.5	...
181 days-1 year	...	50.7	6.1	...
1-3 years	...	0.0	4.7	...
3-5 years	...	0.0	0.0	...
Total	...	100.0	100.0	...
Memo item: Overdrafts	56.1	57.6	52.4	65.2

Source: Authors' calculations and estimates based on data provided by the country authorities.
Note: The number of banks in each category is provided in parentheses.

B. Intermediation Role

The limited extent of lending in East Africa can be associated with high intermediation costs. Interest rate spreads and margins in East Africa are not only much higher than in developed economies, but also higher than the average of sub-Saharan African countries (Table 8).

Table 8. Cross-Country Comparison: Interest Rates, Spreads, and Margins, 2002
(Percent)

	Real lending rate	Real deposit rate	Interest spread	Interest margin
Kenya	16.5	3.5	13.0	9.2
Tanzania	12.0	-1.2	13.1	7.5
Uganda	19.4	5.9	13.5	12.7
Sub-Saharan Africa	9.9	-1.5	11.5	8.1
Low-income countries	10.8	-1.6	12.4	7.8
OECD countries	4.6	0.5	4.1	3.6

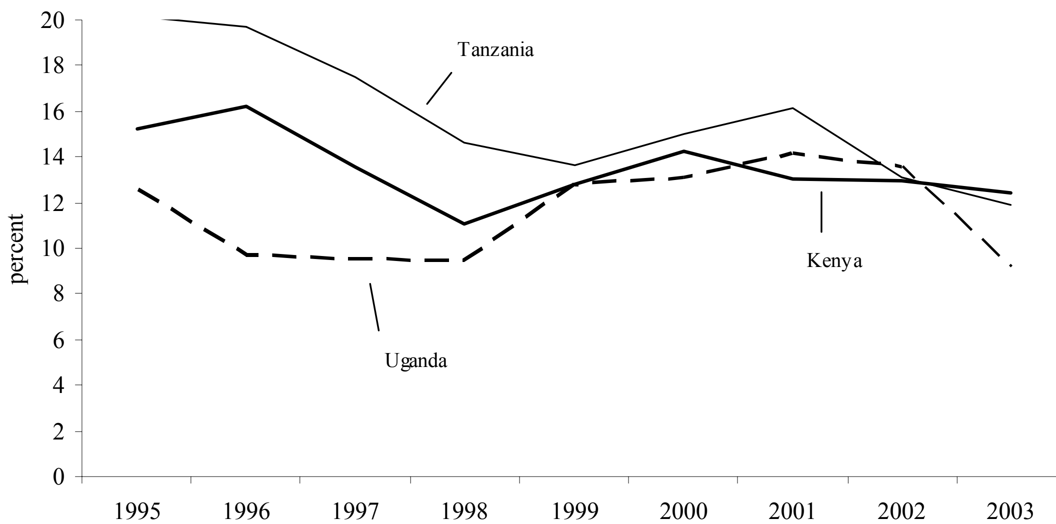
Source: Beck and Fuchs (2004). Real lending (deposit) interest rates are the difference between average lending (deposit) interest rates for 2002 and the log of CPI inflation for 2002. The interest spreads are the difference between deposit and lending rates. Net interest margins are from the World Bank Financial Structure Database based on raw data from BankScope, for 2001.

There are noteworthy differences across groups of banks in the average interest rates on loans (Table 9). In all three countries, the rate in large domestic banks was higher than that paid by the apparently higher-quality clients of international banks. As in most markets there is keen competition for the best credit risks and the largest depositors, with very modest spreads (and even more so for dollar loans). Small banks, on the other hand, were charging substantially more

on average, most likely because they were left with higher-risk clients. Large domestic banks tend to pay the lowest interest rates on their deposits. The branch network, which allows them to access cheaper funds, however, creates additional non-interest costs. In Tanzania, for example, the ratio of non-interest costs to total gross income stood at 63 percent in 2002. International banks paid over 3 percent of total revenues to other banks for the funds they borrowed, but were able to keep non-interest expenses below 50 percent of total gross income. Overall, international banks were able to earn a higher net operating margin than large domestic banks. Small banks have relatively expensive deposits and high non-interest expenses, which reduce profitability. There is, however, larger differentiation among small banks than in the other two segments, with some banks posting healthy profits and others operating deep in the red.

Over time, interest rate spreads in East Africa have shown only a very slow, if any, decreasing trend. In the past decade, interest rate spreads declined slightly in Tanzania, while they remained mostly unchanged in Kenya and Uganda (Figure 3).[13]

Figure 3. East Africa: Interest Rate Spreads, 1995–2003
(Difference between lending and deposit rates, percent)



Source: IFS and authors' calculations.

[13] This finding differs from that of Mlachila and Chirwa (2002) for Malawi, who found that interest rate spreads there increased significantly after financial sector liberalization. The different developments in Malawi and East Africa are likely due to differences in market structure and macroeconomic environment, as the increase of spreads in Malawi was found to be due to high monopoly power, reserve requirements, discount rate, and inflation.

Explaining the interest rate spreads: accounting decomposition

To assess the relative importance of the factors behind the high intermediation spreads, we decompose the average spread between deposit and lending rates into (i) the interest paid to recover the interest costs of funds deposited as required reserves, (ii) loan loss provisions, (iii) operating costs allocated based on the share of loans in total assets, and (iv) pretax profit margin on lending (Table 9).

The costs associated with required reserves account for a very small portion of the interest spread in the three countries, with the required reserves ratio at 10 percent in Tanzania and Uganda and below 10 percent in Kenya. The decomposition suggests that a reduction in reserve requirements would lead to little, if any, decline in spreads.

About 2–3½ percentage points of the spreads can be attributed to loan loss provisions. A clean-up of state-owned banks before their privatization and favorable macroeconomic environment in recent years have had a positive impact on the aggregate loan quality in Tanzania and Uganda. Gross NPLs are below 10 percent of total gross loans in both countries (Table 10); rather strict provisioning requirements in Tanzania lower the ratio of net NPLs to total loans to just over 1 percent. The Kenyan banking system, in contrast, is still struggling with high NPLs, more than half of which are concentrated in the large state-owned banks. In all three countries, international banks have the best credit quality as measured by the ratio of gross NPLs to total gross loans.

Table 9. East Africa: Decomposition of Interest Rate Spreads, 2002

Kenya	All (43)	State-owned (3)	International (3)	Small (37)
Interest earned on loans and advances	18.3	19.8	17.7	17.2
Interest paid on customer deposits	3.4	2.9	2.2	4.7
Spread	14.9	16.9	15.5	12.5
Interest paid to cover required reserves	0.3	0.3	0.2	0.4
Loan loss provisions/loans	2.5	4.9	1.8	1.5
Operating costs/loans	5.9	4.6	7.0	5.6
Pre-tax profit	6.2	7.1	6.5	5.0
Return on assets (after tax)	1.4	-0.4	1.0	3.0
Tanzania	All (23)	Large domestic (3)	International (4)	Small (16)
Interest earned on loans and advances	12.8	13.7	11.3	16.2
Interest paid on customer deposits	1.4	1.1	1.3	2.6
Spread	11.4	12.6	10.0	13.5
Interest paid to cover required reserves	0.1	0.1	0.1	0.3
Loan loss provisions/loans	2.1	2.1	2.1	1.9
Operating costs/loans	7.5	7.0	6.6	11.5
Pre-tax profit	1.7	3.4	1.1	-0.1
Return on assets (after tax)	1.5	1.7	1.7	0.5
Uganda 1/	All (17)	Large domestic (1)	International (4)	Small (12)
Interest earned on loans and advances	16.4	18.5	13.0	23.5
Interest paid on customer deposits	1.9	0.7	1.8	3.5
Spread	14.4	17.8	11.2	19.9
Interest paid to cover required reserves	0.2	0.1	0.2	0.4
Loan loss provisions/loans	3.5	13.8	-0.1	9.3
Operating costs/loans	8.7	10.0	5.7	13.3
Pre-tax profit	2.1	-6.0	5.5	-3.0
Return on assets (after tax)	0.6	0.4	0.7	0.5

Source: Authors' calculations based on data from country authorities. The underlying data for Kenya are the same as used in Beck and Fuchs (2004); the decomposition in their paper is somewhat different.
1/ Based on data for June 2001-June 2002; average assets for the period, sum of quarterly income statements.
Note: The number of banks in each category is provided in parentheses.

Table 10. East Africa: Nonperforming Loans, 2002–03
(Percent)

Kenya (May 2003)	All (43)	Large domestic (3)	International (3)	Small (37)
Gross NPLs to total gross loans	32.7	52.5	20.2	23.4
Net NPLs to total net loans	8.5	14.6	7.0	5.4
Tanzania (Dec 2002)	All (23)	Large domestic (3)	International (4)	Small (16)
Gross NPLs to total gross loans	9.2	10.1	7.1	12.0
Net NPLs to total net loans	1.1	2.4	0.5	0.7
Uganda (June 2002)	All (17)	Large domestic (1)	International (4)	Small (12)
Gross NPLs to total gross loans	6.8	5.3	5.1	10.6
Net NPLs to total net loans	3.8	1.5	3.0	5.6

Source: Central banks and authors' calculations.
Note: The number of banks in each category is provided in parentheses.

The overhead costs are by far the most important component of the interest rate spreads, accounting for about 6–8¾ percentage points of the spread. The high overhead costs are related to the low productivity and overstaffing of East African banks (Table 11). Compared to banks in other sub-Saharan African countries and other emerging market countries, East African banks seem to be overstaffed and their employees less productive. East African banks have more than three times as many employees for a given amount of assets, loans and deposits than other banks in emerging market countries, and the average East African bank employee earns only half of the net interest revenue as the average employee in emerging market countries. In Kenya, state-owned banks are significantly overstaffed and less productive compared to private domestic banks, which are in turn overstaffed and less productive than foreign-owned banks. This indicates a significant potential for productivity improvements.

Table 11. East Africa: Bank Productivity
(Thousands of U.S. dollars)

	Net interest per employee	Assets per employee	Loans per employee	Deposits per employee
Kenya	36	581	295	458
State-owned banks	23	303	187	222
Private domestic banks	31	577	317	447
Foreign banks	50	770	349	625
Tanzania	25	509	208	279
Uganda	...	...	...	...
Memorandum items				
Sub-Saharan Africa	49	1,073	505	742
Emerging market countries	60	2,040	911	1,620

Source: Beck and Fuchs (2004).

Profit margin and competitiveness

The interest rate spread decomposition in Table 9 suggests that the banks have a relatively high profit margin on lending. While this has contributed to profitability of the banks, a large part of the profit margin can be explained by high risk premia charged by the banks for credit risk, weak market infrastructure, and difficulties in enforcement of creditor rights. Banks' aggregate return on assets (last row in each of the panels in Table 9) is substantially lower than the profit margin on lending.

Profit margins typically reflect the intensity of competition. Due to financial sector reforms, the banking systems in East Africa have been rather open to entry and as such appear generally contestable. Although the different groups of banks do concentrate in different submarkets (multinational corporations, domestic corporations, regional, household/micro) there is sufficient overlap to prevent the market being quite segmented in terms of service provision. This would be likely to push profit margins down.

In Kenya, however, competition is hampered by the number of weak banks. The relatively high profit margin after accounting for overhead costs and loan loss provisions are symptoms of deficiencies in competitiveness (Table 9). The lack of competition is mainly caused by the presence of many weak banks, which are not able to exert competitive pressure on the few stronger banks, and by deficiencies in the legal infrastructure. This leads to a reputational bias

against small banks, since many small banks are fragile and weak. Given that the state-owned banks are not profit-oriented, competition is effectively limited to international banks. As a result, the international banks are largely insulated from more vigorous competition by their size, reputation for deposit safety, extensive local branch networks, and international links (this is consistent with the conclusions of Brownbridge and Harvey, 1998). Competition is mostly limited to the top tier corporate clients, while most other customers in Kenya are often effectively tied to one bank, with very high switching costs.

The large domestic banks are the least profitable group of banks (Table 9). This is particularly pronounced in Kenya, where the large domestic banks are all government owned and are, in total, making losses. The situation is similar in Uganda, where the only large domestic bank has been state owned and recorded losses. The spread decomposition suggests that the Tanzanian large domestic banks (privately owned or managed) are more profitable than international banks. However, their limited amount of lending needs to be taken into account. In fact, the international banks in Tanzania have the highest operating profit, followed by large domestic banks.

Explaining the interest rate spreads: econometric estimation

The interest rate spread decomposition presented in Table 9 is based only on accounting identities calculated at the level of peer groups of banks. A further insight into the factors underlying high interest rate spreads can be obtained by an econometric estimate that attempts to explain the spreads on bank-by-bank level as a function of various parameters. We have estimated the following equation for a pooled sample including banks from all three countries (t-statistics in parentheses):

$$i_L - i_D = \underset{(1.72)}{0.05} + \underset{(3.38)}{0.56}\, h - \underset{(-3.77)}{0.14}\, fxl + \underset{(2.09)}{0.03}\, D_T + \underset{(4.87)}{0.10}\, D_U \qquad (1)$$

$R^2=0.35$, $F=5.45$, No. of observations=81

where i_L-i_D is the interest rate spread, h stands for loan-related overhead costs divided by total loans, fxl stands for foreign exchange loans divided by total loans, and D_T and D_U are dummy variables for Tanzania and Uganda, respectively. The reported t-statistics are based on heteroskedastic-consistent standard errors. All the slope coefficients estimated in (1) are significant at the 5 percent level. The regression explains about one-third of the bank-by-bank variability in interest rate spreads.

Similar to the accounting decomposition, we find that overhead costs are the most important variable for explaining the interest rate spread: the higher the overhead costs, the higher the spread. In addition, we find that the spread is lower when the ratio of foreign exchange lending is higher, likely reflecting the lower risk of foreign exchange lending. Finally, after adjusting for the explanatory factors in (1), interest rate spreads in Tanzania and Uganda are slightly higher, as indicated by the small, but significantly positive slope coefficients for the two dummy variables. This is mostly due to the lower share of lending in foreign currency in Kenya (Table 5).

The most notable potential explanatory variable that does not appear in (1) is the ratio of nonperforming loans (NPL ratio), which could be expected to increase the spread. The equation was estimated with various specifications of the NPL ratio, but the respective coefficient was insignificant. The same holds for variables characterizing the size of the bank and for a dummy variable distinguishing international/foreign banks from other banks. This suggests that neither the NPL ratio by itself, nor a bank's size and ownership, are important factors determining the interest rate spread. In both cases, there are counteracting effects: for example, larger banks benefit from economies of scale, which should push interest spreads down; however, they also tend to have more market power, which may allow them to keep interest spreads up if they do not face effective competition from other banks.

Provision of financial services

Some of the critics mentioned earlier argue that the presence of international banks in developing countries may lead to a loss of convenient access to banking services, through the closure of loss-making bank branches. If we adjust for the size of the international banks, we find that they indeed have fewer branches than would be proportional to their total deposits. This is summarized in the following estimate (t-statistics are in parentheses):

$$\underset{(-0.68)}{b = -1.36} + \underset{(12.58)}{0.11\, dep} - \underset{(-5.57)}{23.97\, D_I} + \underset{(2.26)}{7.26\, D_T} + \underset{(2.36)}{8.08\, D_U} \qquad (2)$$

R^2=0.69, F=39.86, no. of observations=77

where b is the number of branches of the bank, dep are its deposits in millions of U.S. dollars, D_I is a dummy variable that has the value of 1 for an international bank and 0 otherwise, and D_T and D_U are dummy variables for banks in Tanzania and Uganda, respectively. The estimate is statistically significant and explains about two-third of bank-by-bank variability in the number of branches. Being based on cross-sectional data, this estimate does not allow for studying the dynamic impact of international banks on closures of branches, but it suggests that international banks, after adjusting for their size in the local market, indeed have significantly fewer branches (approximately by 24) than other banks.

The estimate in (2) shows that, on average, one branch is generally established per about US$ 110,000 of deposits, which is a relatively small branch size compared to more developed economies, suggesting substantial economies of scale if the GDP per capita grows in the East African economies. Banks in Tanzania and Uganda have about 7–8 more branches than in Kenya, after adjusting for their smaller size. This can be partly explained by the fact that credit unions and other non-bank financial institutions are much larger and more numerous relative to banks in Kenya than in Tanzania and Uganda (Table 1).

V. CONCLUSIONS

Both the effort to open and develop the financial system in Uganda as well as the financial sector reforms in Tanzania are relatively recent. On the other hand, Kenya enjoyed the benefits of a reasonably developed financial system for a number of years and—despite recent decline—its system remains considerably more developed, both in absolute terms and relative to the economy. Also, in Kenya, the openness of the system to foreign banks was never a substantial issue, as these accounted for the majority of the banking system since independence. In this respect, the three countries offer an insight into international bank behavior in two different situations—(i) relatively shortly after the system was opened to foreign competition (Tanzania and Uganda) and (ii) a situation when foreign/international banks have been present for decades.

In the three East African countries, we did not find support for the argument that the presence of large international banks would have an adverse impact on the effectiveness and efficiency of banking sectors in developing countries. Indeed, in Tanzania and Uganda, international banks lend more overall, measured by the loan-to-deposit ratio, and lend more to agriculture—as measured by the share of total loans—than large domestic banks; they have as short a maturity profile of loans as other banks; have lower spreads; and do not have excessive profits as compared to other types of banks. In Kenya, international banks lend less than domestic banks; at the same time, though, they are more efficient and careful in lending than other banks.

The three banking systems, however, remain inefficient and perform only a limited intermediation role, despite recent reform efforts and even with the presence of international banks. This is due to the existence of various impediments to banking sector lending, competition, and development in general. In the Kenyan case, for instance, the presence of foreign banks is not sufficient to improve efficiency in the banking system as a whole, since many weak domestic banks are allowed to operate. The international banks are thus effectively insulated from more vigorous competition, because of their size, reputation for deposit safety, and international links.

Overall, the example of the three East African countries illustrates that solely opening the banking sector to foreigners and privatizing state-owned banks does not solve the problems in banking efficiency, enhance the provision of banking services, or transform the banking sector into an engine of economic growth. A number of structural issues need to be addressed first or simultaneously, in particular, resolving the problems of weak banks by taking remedial actions or closing them and removing impediments to bank lending, including through an improvement of the legal framework for property rights, insolvency, and creditor rights, acceleration of court decisions and enabling information sharing among financial institutions on creditworthiness of borrowers.

Significant further efforts are under way in all three countries—with substantial World Bank and Fund involvement—to deepen financial sector reforms, finalize the privatization process, and address the structural issues hampering financial sector development. Further research should analyze the response of financial systems in East Africa to this reform effort and the substantial development the systems are likely to experience.

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