The authorities of the East African Community (EAC) countries envision strengthening and integrating the banking and financial systems in the hope that greater regional integration will increase the scale of financial operations and competition. This would reduce the cost of financial services, increase the efficiency of financial intermediation, and stimulate investment. International donors have been supportive.

The beneficial effects of opening financial sectors are well documented (de Mello, 1999; Fry, 1995). Indeed, greater integration facilitates risk-sharing and diversification, allows better allocation of capital among investment opportunities, and helps deepen financial markets. One could also expect greater competition, which in turn might help lower margins and reduce prices for financial services. But it is not free. As the recent global financial crisis has shown, increased financial linkages also expose financial systems in individual countries to shocks originating elsewhere. Understanding and effectively managing these risks is the key to sustaining robust growth and encouraging financial deepening in the region.

This paper analyzes financial linkages and flows in the EAC region to understand the associated risks of greater interconnectedness and implications for supervision. In the absence of data on financial flows (including on cross-country lending in the EAC), it does so by analyzing flows of trade, foreign direct investment (FDI), and remittances—as financial flows usually correlate well with these flows, cross-country ownership in the banking sectors, and the so-called sigma-convergence and beta-convergence measures of interest margins (lending rates—deposit rates or lending rates—Treasury bill rates).

The following conclusions emerge from the analysis. First, the EAC banking systems are linked through cross-country ownership of banks. This leaves the region vulnerable to crises through contagion. Second, weaknesses in banking supervision in both home and host countries increase the risk of contagion. In particular, some home and host supervisors do not have the capacity to supervise complex financial institutions. Finally, the emergence of financial conglomerations requires closer cooperation among agencies supervising different types of financial institutions.

The chapter concludes that improved supervision would enhance the resilience of the financial sectors in each country, which would also facilitate greater regional integration. Specifically, the paper suggests a more regional approach to banking supervision and managing vulnerabilities, including through supervisory colleges to supervise regionally active banks, jointly undertaking risk assessments and conducting stress tests, and extending coverage of the existing and future memorandums of understanding (MOUs) to cover the management of a financial crisis. Other measures include conducting a crisis simulation, which could help identify weaknesses in communication channels and procedures and improve understanding of responsibilities within and between countries and clarify the nature of information and data needs. The chapter also argues for building constructive cooperative relationships with all home- and host-country supervisors, phasing out remaining capital controls (relevant to other EAC countries to benefit from better allocation of capital and economies of scale), and promptly implementing the recommendations of the recent financial sector assessment program updates, which would increase the resilience of EAC financial systems.

In the chapter, the next section analyzes trade linkages, FDI flows, and remittances. The following section analyzes financial sector linkages, and the final section summarizes the policy implications of the analysis.

Trade Linkages, Foreign Direct Investment Flows, and Remittances

Trade Linkages

While they have low export capacities, the EAC countries are moderately open. In 2013, the import-to-GDP ratio averaged 30 percent, with Kenya recording the highest (45 percent) and Uganda the lowest (21 percent). The countries have small export bases. Kenya has the highest export-to-GDP ratio (14 percent), followed by Tanzania (12 percent), and Uganda (8 percent). Exports from Burundi and Rwanda are much smaller: about 4 percent of GDP and 6 percent of GDP.
The EAC countries trade mostly outside the region. The European Union (EU) is the largest export destination, accounting for about one-third of total exports (outside of the region), followed by Africa (18 percent excluding the EAC), and developing Asia (15 percent). Developing Asia accounts for about 28 percent of imports, followed by the Middle East (21 percent), the EU (19 percent), Africa (9 percent excluding the EAC), and developed Asia (8 percent, including Japan, Singapore, South Korea, and Taiwan Province of China). The largest individual trade partner countries include China, Germany, India, the Netherlands, Saudi Arabia, the United Arab Emirates, the United Kingdom, and the United States.

Official data suggest that trade linkages among the EAC countries are modest and imbalanced (Figure 10.1). In particular, intraregional trade is characterized by large exports from Kenya to the other countries, while Kenya’s imports from its neighbors are small. This outcome broadly reflects the countries’ industrial development, as Kenya has a larger and more advanced manufacturing sector, which exports to the region. Although agricultural products account for a significant portion of cross-border trade in the region, a large share of this is informal and not captured in official statistics (EAC Development Strategy, 2006–10, 7). This underreporting suggests that official data underestimate actual cross-country trade flows.

The implementation of the EAC customs union (in 2005) and the common market (mid-2010) that reduced tariffs and nontariff barriers may have significantly strengthened trade linkages among the EAC countries. Indeed, exports from Tanzania and Uganda to the region more than doubled and tripled in the seven years of the union, although at low levels. However, increases in regional trade have been in line with increases in total trade flows. This outcome suggests that the region benefited from earlier, broad structural reforms and liberalization efforts alongside regional efforts.

Given problems with official trade data and potentially large underreported trade flows, an alternative methodology based on the law of one price is used to gauge trade linkages. In particular, an autoregressive model of bilateral real exchange rates is used to analyze price convergence in the region. The idea is that prices of traded goods across countries will tend to equalize if there are significant trade linkages.

### Foreign Direct Investment Flows

Most FDI inflows in the EAC countries come from outside of the region. Available data suggest that Tanzania and Uganda have attracted significant FDI inflows, while Kenya and Rwanda lag behind. Burundi has attracted limited inflows (Table 10.1). Most of the inflows have gone to tourism and mining (EAC Development Strategy, 2006–10, vi). Kenya is the only country with significant capital outflows, most of which were invested in the region. However, outflows from Kenya are much smaller than inflows to the other countries in the region, suggesting that most inflows to the EAC countries come from outside the region (there is no data on FDI flows among the EAC countries). The authorities in the region have been trying to harmonize the investment incentives, which they hope will boost intraregional investments (IMF, 2008).

### Table 10.1

<table>
<thead>
<tr>
<th>Country</th>
<th>Inward FDI flows (average)</th>
<th>Inward FDI Stock in 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990–2000</td>
<td>2001–12</td>
</tr>
<tr>
<td>Burundi</td>
<td>1.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Kenya</td>
<td>29.1</td>
<td>162</td>
</tr>
<tr>
<td>Rwanda</td>
<td>4.3</td>
<td>58</td>
</tr>
<tr>
<td>Tanzania</td>
<td>135.4</td>
<td>875</td>
</tr>
<tr>
<td>Uganda</td>
<td>89.3</td>
<td>615</td>
</tr>
</tbody>
</table>


### Remittances

While political tensions, wars, lack of job opportunities at home, and the possibility of earning higher income abroad force hundreds of thousands of people in EAC countries to migrate to other countries, official data suggest that the region is a net recipient of immigrants. In relation to total population, stocks of emigration have been the highest in Burundi (4.2 percent of total population) and Rwanda (2.6 percent) (Table 10.2). While emigration is higher than migration in Burundi and Uganda, the other countries recorded large net inflows of immigrants—reflecting large numbers of refugees to Kenya from Sudan, Somalia, and Ethiopia; to Rwanda from the Democratic Republic of Congo and Burundi; and to Tanzania from Mozambique, Republic of Congo, and Malawi.
Deepening, rapid credit growth can give rise to prudential and macro-economic risks (see percent, in part reflecting low wholesale funding (and a regulatory ceiling of 80 percent in Tanzania). Although most of this growth reflects the process of financial deposits. Domestic banks had been growing rapidly, tapping into the low-income and rural markets. Nevertheless, loan-to-deposit ratios remain well below 100 percent of total assets.

Bank credit grew rapidly over the few years before the global financial crisis started, especially in Burundi and Tanzania, but had been financed mostly with foreign financing in Uganda (5.6 percent of GDP), Kenya (2.5 percent of GDP), Burundi (1.6 percent of GDP), and Rwanda (1.3 percent of GDP). The World Bank estimates (using migrant stocks, host country incomes, and origin country incomes) suggest that the largest flow of remittances are from Kenya to Uganda (about 1 percent of Ugandan GDP and other flows are small or negligible).

There has been significant migration of people within the EAC region, including significant forced migration. For example, the other EAC countries are among top source countries for immigration to all EAC countries. Reportedly, about 40 percent of the immigrants in EAC countries are refugees (70 percent in Tanzania).

Data on transfers and remittances in the EAC countries are sketchy. Migrants often use unofficial channels to transfer money because of tax issues and the high cost of bank transfers. Available data suggest that net inflows of remittances (both from the EAC and the rest of the world) constitute an important component of foreign financing in Uganda (5.6 percent of GDP), Kenya (2.5 percent of GDP), Burundi (1.6 percent of GDP), and Rwanda (1.3 percent of GDP). The World Bank estimates (using migrant stocks, host country incomes, and origin country incomes) suggest that the largest flow of remittances are from Kenya to Uganda (about 1 percent of Ugandan GDP and other flows are small or negligible).

Implications for East African Community Financial Systems

Modest intraregional trade, FDI flows, and remittances suggest that financial flows among EAC countries are not large. Thus, if EAC countries establish a currency union as they currently envision, impact on banks’ income from foreign exchange operations will not be large. Modest intraregional trade and FDI flows and remittances mean that (1) an individual country’s vulnerability to regional contagion through these channels is limited, and (2) there is room for strengthening trade links and boosting cross-country investments, which would create more business opportunities for banks’ clients, and thus more financial flows. On the other hand, limited intraregional trade also means that gains from reduced transaction costs (for traders) in a currency union would be limited.

Regional Financial Linkages and Integration

Overview of the Financial Sectors

The financial sectors in the EAC countries are small and dominated by the banking sectors. In all five countries, banks’ cred to the private sector in percent of GDP is smaller than the average for sub-Saharan African countries. This remains the case even when South Africa and Nigeria, the two most financially developed African countries, are excluded from the average.

Banks in the region pursue a traditional commercial bank business model. Funded mainly with retail deposits, banks provide loans and invest in government securities. On average, about half of total assets are loans, and 13 percent are invested in government securities. Compared with the averages, the share of loans is significantly lower in Uganda (37 percent), whereas the shares of government securities are significantly higher in Uganda (21 percent) and Kenya (20 percent). The shares of wholesale funding are only 4.4 percent in Tanzania, 9 percent in Uganda, and 12 percent in Kenya. Interest income is the major source of earnings, but banks also have significant income from fees and foreign exchange transactions.

Bank credit grew rapidly over the few years before the global financial crisis started, especially in Burundi and Tanzania, but had been financed mostly with deposits. Domestic banks had been growing rapidly, tapping into the low-income and rural markets. Nevertheless, loan-to-deposit ratios remain well below 100 percent, in part reflecting low wholesale funding (and a regulatory ceiling of 80 percent in Tanzania). Although most of this growth reflects the process of financial deepening, rapid credit growth can give rise to prudential and macro-economic risks (see lossifov and Khamis, 2009)

| Source: World Bank, Migration and Remittances Factbook 2011. Note: This table reports officially recorded remittances. The true size of remittances is believed to be larger. Data on outward remittances are for 2009. Source: World Bank, Migration and Remittances Factbook 2011. Note: This table reports officially recorded remittances. The true size of remittances is believed to be larger. Data on outward remittances are for 2009. |
The banking sectors are characterized by a combination of wide spreads, high interest rates, and high profitability. While high interest rates are in part related to macroeconomic and country risks, including high fiscal deficits and credit risks, they also point to efficiency problems. In particular, continuing high spreads suggest that competition is not strong in the region, despite the entrance of many new banks. Also, banks have high liquidity ratios, reflecting high shares of investments in government securities and balances with foreign banks.

Recently, some banks started to form groups with nonbank financial institutions. Several such groups, where banks have invested in securities and insurance firms, can be detected in Kenya, the most developed of the five EAC countries. This business model, which raises the issue of coordination among different agencies supervising different sectors, could also be emulated in other EAC countries.

All countries except Burundi have introduced risk-based banking supervision. The authorities have also stepped up their efforts to comply with the Basel Core Principles for Effective Banking Supervision (BCPs). In the longer term, some authorities intend to adopt Basel II.

Nonbank financial sectors, typically associated with long-term financing, remain underdeveloped. Pension funds, mostly state-controlled institutions, suffer from investment policies determined largely by the needs of the state rather than the needs of beneficiaries (World Bank, 2007). Their investments are generally limited to government securities, real estate (often in state-sponsored projects), and locally listed shares. The insurance sectors have extremely low penetration rates. This outcome reflects a combination of factors, including low per capita income, income distribution, lack of understanding of insurance products, and traditional social structures that provide individuals with informal insurance; high operating costs, including high payment costs in the banking system; and a lack of important elements needed for an effectively working insurance sector such as banking, capital markets, and legal infrastructure; and fraud cases that erode public confidence in the sector. On the other hand, weaknesses in supervision and gaps in the licensing regime have allowed the entry of many firms in the insurance sector in some countries.

Payment systems in EAC countries are expensive to use. For example, the average cost of making cross-border transfers, reportedly, is about 10–45 percent. As a result, individuals and small businesses use mostly informal transfer mechanisms and cash payments, which risk losses. Moreover, they tend to avoid financial companies’ services, which facilitates tax evasion and deter economies of scale that could allow reducing the costs of providing financial services. In recent years, however, EAC countries have taken measures that will increase the efficiency of payment systems and may reduce the cost of transfers. In particular, all countries but Burundi have established national real-time cross-settlement systems. The founding members of the EAC have also integrated these systems with central securities depositors to achieve simultaneous delivery and payment for government securities (European Central Bank, 2010). Importantly, an East African Cross-Border Payment System (linking the real-time cross-settlement systems in Kenya, Tanzania, and Uganda) was due to be operational in 2012. In addition, recently, novel techniques such as mobile phone payments have become very popular.

### Banking Sector Linkages and Associated Risks

Foreign-owned banks have a strong presence in the EAC. The shares of foreign-owned banks in the total assets of banking sectors are more than half in Uganda, Rwanda, Tanzania, Kenya, and Burundi. To a large extent, the presence of foreign-owned banks reflects the colonial history of EAC countries and their trade linkages, and was facilitated by improvements in international communications (airline and telecommunications) and reform efforts in the host countries, including privatization of insolvent state-owned banks. For example, Barclays Bank and Standard Chartered have been present in Kenya for more than 90 years. The presence of banks owned by investors from India and the Middle East may be related to significant trade linkages between these countries and the EAC.

Subsidiaries of a few large foreign banks are of systemic importance in the region. In particular, Barclays and Standard Chartered (United Kingdom), Stanbic/Standard Bank (South Africa), and Citibank (United States) are prominent. For example, Barclays accounts for about 14 percent of banking sector assets in Kenya and Uganda, and about 5 percent in Tanzania. In addition, pan-African banks—such as Bank of Africa (Mali), Ecobank (Togo), Access Bank (Nigeria)—and from India (Bank of India and Baroda) and the Gulf countries have significant presence. All foreign banks in Burundi and Rwanda can be considered large given the small size of the banking sectors in these countries: in these two countries, the shares of individual foreign-owned banks in total assets of banking sectors vary between 6 percent (Ecobank in Burundi) and 28 percent (Bank of Africa in Burundi).

Some large multinational banks operate on a regional basis and have centralized key business functions. For example, the World Bank (2007) notes that Citibank manages its operations in East Africa (including Zambia) from its regional headquarters in Nairobi, Kenya, and has centralized its back office operations there. Stanbic Bank set up its regional processing center in Kampala, Uganda. When necessary, the bank syndicates credit to its other regional subsidiaries, and Stanfield Chartered Bank manages all its EAC operations from Nairobi, where it has also centralized its operations and credit control.

Foreign-owned banks in the EAC countries do not depend on funding from parent banks or from borrowing on international markets. Low-cost retail deposits have been the main financing source in the EAC countries. Moreover, banks keep sizable balances with foreign banks (8 percent of their total assets on average). The shares of assets with foreign banks are particularly large (exceeding 20 percent of total assets) for some subsidiaries of foreign banks. This practice limits the risk of rolling over the foreign debt of banks, as was recently observed in Eastern Europe and other markets. In terms of leveraging, loan-to-deposit ratios suggest that foreign banks have been more conservative than local banks. International banks tend to be more profitable than local banks. While this outcome largely reflects their better organization and cost control, it may also reflect market power.

In Uganda, for example, the share of income from foreign exchange operations was 19 percent for foreign-owned banks, compared with 3 percent for domestic banks, suggesting the former take advantage of their large networks (and sizes) to provide services for most foreign trade–related operations. Foreign-owned banks also have higher liquidity ratios than local banks, which mainly reflects the higher shares of government securities and assets abroad in their portfolios.

Nevertheless, foreign bank dominance in EAC financial systems exposes the region to capital repatriation or contagion. High profitability in foreign banks’ EAC operations and the unlikelihood that they will withdraw from the region limit this risk, but problems in their home countries or third countries (where they also have operations) could force them to abandon their EAC subsidiaries. Bank of International Settlements (BIS) data, which covers bank exposure in 30 BIS reporting countries (including the United Kingdom, the United States, and India) illustrate the possible contagion channels.

- As of December 2012, the EAC countries had net claims on the BIS reporting banks of about $11 billion (Table 10.3); deposits (including deposits with subsidiaries of BIS reporting banks) were about $14.2 billion, whereas borrowing was about $5.2 billion. In percent of the host country’s GDP, Kenya’s net claims were the largest (22.8 percent), followed by Burundi (11.4 percent) and Rwanda (7.6 percent). Net claims in Uganda were 7.3 percent of GDP and Tanzania 2.4 percent. These exposures suggest that any liquidity and solvency problems in large foreign-owned banks would have severe consequences.
- In liabilities to the BIS reporting banks, Kenya has the largest exposure, about $1.4 billion or 5 percent of GDP, and about half of its international reserves. Although the country also has large claims on the BIS reporting banks, it is clear that a liquidity shock in combination with any difficulty in realizing foreign assets could cause serious financial problems.
- On the other hand, the BIS reporting banks’ exposures to the EAC relative to their home countries’ consolidated balance sheets is far smaller. The EAC’s largest exposure is to the United Kingdom (at 59 percent of total liabilities to all BIS reporting banks), which represents only 0.2 percent of its GDP. The region’s second and third largest exposures are to the United States and France, respectively, which are also small in relation to consolidated bank balance sheets of the home countries. Hence, it is possible that the parent groups and their home supervisors do not focus on the potential risks banks’ activities may pose to the EAC countries.
Risks of contagion from other countries should be considered in the context of serious weaknesses in the policies and processes for identifying, measuring, monitoring, and controlling country risk and transfer risk in the international lending and investment activities of banks in the EAC countries. In particular, none of the countries in the region is compliant with the relevant BCPs, such as BCP 12, which deals with country transfer and risks under the 2006 BCP methodology.3

<table>
<thead>
<tr>
<th>Loans</th>
<th>Deposits</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>In millions of U.S. dollars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burundi</td>
<td>46</td>
<td>205</td>
</tr>
<tr>
<td>Kenya</td>
<td>1,381</td>
<td>8,991</td>
</tr>
<tr>
<td>Rwanda</td>
<td>10</td>
<td>642</td>
</tr>
<tr>
<td>Tanzania</td>
<td>344</td>
<td>1,517</td>
</tr>
<tr>
<td>Uganda</td>
<td>329</td>
<td>1,709</td>
</tr>
<tr>
<td>Total</td>
<td>2,110</td>
<td>13,064</td>
</tr>
</tbody>
</table>

| In percent of GDP |
| Burundi | 3.3 | 14.5 | −11.3 |
| Kenya | 4.6 | 29.8 | −25.2 |
| Rwanda | 0.2 | 12.8 | −12.6 |
| Tanzania | 1.6 | 6.8 | −5.3 |
| Uganda | 2.1 | 10.9 | −8.8 |

| In percent of total for the region |
| Burundi | 2.2 | 1.6 | 1.5 |
| Kenya | 65.5 | 68.8 | 69.5 |
| Rwanda | 0.5 | 4.9 | 5.8 |
| Tanzania | 16.3 | 11.6 | 10.7 |
| Uganda | 15.6 | 13.1 | 12.6 |
| Total | 100.0 | 100.0 | 100.0 |

Sources: Bank for International Settlements (BIS); and IMF staff estimates.

Furthermore, risks of contagion for subsidiaries in the EAC of banks not reporting to the BIS banks should be considered in the context of serious weaknesses in banking supervision in some home countries and relative sizes of the subsidiaries. Assessments of BCP 3 (on bank licensing) for some African countries that have presence in the EAC banking sectors, for example, revealed weaknesses in the licensing criteria used in these (home) countries.3 Assessments of BCP 24 (on consolidated supervision) suggest that operations of some foreign-owned banks may not be subject to supervision from home countries.

By size, the operations of most banks in the EAC not reporting to the BIS are significant relative to the worldwide operations of these banks. For example, deposits with subsidiaries of Ecobank (in Burundi, Kenya, and Rwanda) are more than 3 percent of total deposits of the group and more than 16 percent of capital.

Among local banks, several Kenyan banks and a Tanzanian bank have presence outside of their home countries: 10

- Prime Bank, with the opening of a subsidiary (First Merchant Bank) in Malawi in 1995, was the first Kenyan bank to expand outside of Kenya. The subsidiary subsequently acquired 51 percent of shares of Capital Bank Limited in Botswana in 2008.
- The Kenya Commercial Bank is one of the country’s oldest banks and has the most developed network in the region: it opened its subsidiary in Tanzania in 1997, in Southern Sudan in May 2006, in Uganda in November 2007, in Rwanda in December 2008, and in Burundi in 2011. The bank is listed on the Nairobi Stock Exchange, the Uganda Securities Exchange, the Dar-es-Salaam Stock Exchange, and the Rwanda Stock Exchange.
- The Commercial Bank of Africa has a subsidiary in Tanzania (through the purchase of the First American Bank of Kenya in July 2005).
- Equity Bank, which focuses on microfinancing, has subsidiaries in Uganda (it bought Microfinance Limited in June 2008), Sudan (established in October 2008), and Rwanda (2009), and plans to expand into Tanzania. The bank, previously a building society, was licensed as a bank in August 2006.
- Fina Bank has subsidiaries in Rwanda through the purchase of the insolvent BACAR that was under central bank supervision due to managerial issues. It also has subsidiaries in Uganda, with the opening of two branches in Kampala in October 2008 and plans to open three more in 2009. It also plans to expand into Burundi and Tanzania. It targets service to small and medium enterprises in the region.
- Investments and Mortgages Bank, in February 2008, bought 50 percent of the shares of the First City Bank of Mauritius, which was renamed Bank One Limited.
- Tanzania’s FBME Bank has operations in Cyprus.

The balance sheets of Kenyan bank subsidiaries in other EAC countries are quite large relative to those of their parent banks and are significant compared with consolidated bank balance sheets for host countries. For example, the net assets of a subsidiary of Bank A were more than the capital of the parent company. The sum of net assets of Bank B subsidiaries, for which data are available, was about half of the parent bank capital.11 Net assets of a subsidiary of Bank C were about 7.4 percent of the total net assets of all banks in the host country. No data are available on operations of a subsidiary of Bank D, but anecdotal evidence suggests that they are quite large compared to the parent bank’s operations.
The balance sheets of some recently established subsidiaries (of Kenyan banks in other EAC countries) are small, but they are growing fast. For example, from end-2008 to June 2009, deposits and loans of a subsidiary of Bank B doubled, although from low levels. In the same period, deposits of a subsidiary of Bank E grew by about 40 percent.

While this analysis suggests that the region’s bank sectors are well linked, analysis of integration using standard methodologies yields mixed results (Box 10.1).

- As can be seen from Figure 10.2, there was a trend decline in interest margins in Kenya, Tanzania, and Uganda, from 2000 to 2007, but there are no clear trends after 2007. Margins in Burundi and Rwanda were broadly stable with a shift in the level in 2006–07.

- Sigma-convergence measure of integration using data on (1) interest margins (between lending rates and deposit rates) and (2) margins between lending rates and three-month Treasury bill rates suggest that significant convergence took place in 2000–07, but this trend reversed somewhat after 2007. In particular, dispersion in margins across the EAC countries declined until 2007, but since then it has remained unchanged or even increased (Figure 10.2B).

- Beta-convergence evaluates whether spreads have converged toward a mean. In particular, the estimation of equation (10.1.2) (Box 10.1) yields a counterintuitive sign for the coefficient of $\beta$, which is statistically not significant in most specifications. These findings may be related to the fact that regionally active banks operate in niche markets, and that competition among banks operating in different niche markets has been weak (Table 10.4).

### Figure 10.2 Interest Margins (A) and Their Dispersion (B) in East African Community Countries (in percent)

Sources: Country authorities; and IMF staff estimations.

### Table 10.4 Beta Convergence

<table>
<thead>
<tr>
<th></th>
<th>Simple OLS</th>
<th>Fixed-effect</th>
<th>Simple OLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta</td>
<td>0.002</td>
<td>0.125</td>
<td>0.009</td>
</tr>
<tr>
<td>p-value</td>
<td>0.58</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Country dummies</td>
<td>(not shown)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend</td>
<td>–0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.13</td>
<td>0.19</td>
<td>0.13</td>
</tr>
<tr>
<td>Number of observations</td>
<td>739</td>
<td>739</td>
<td>739</td>
</tr>
</tbody>
</table>

Sources: East African Community portal; and IMF staff estimates. Note: OLS = ordinary least squares.

### Box 10.1 Measuring Financial Integration

Here, following Adam and others (2002), integration is measured using the sigma-convergence and beta-convergence measures. The former measures cross-sectional dispersion using standard deviation. More specifically, it is calculated as follows:

- where $R_t^i$ represents margin (lending rate-deposit rate) in country $i$ at time $t$.

The beta-convergence measure is borrowed from the growth literature to measure the speed of convergence. It is calculated as follows:

- where $\alpha$, stands for country dummies, and $\Delta$ is the difference operator. A negative $\beta$ coefficient indicates that convergence takes place, and the size of $\beta$ is the direct measure of the speed of convergence.

### Securities Markets and Pensions and Insurance Sector Linkages

Securities markets in the EAC countries are small and illiquid. Kenya has the most developed securities market in the region, with 60 companies listed on the Nairobi Stock Exchange and the market capitalization of 49 percent of GDP in 2013 (Table 10.5). Its outstanding government bond market was about 17 percent of GDP, and the corporate sector bond market and derivatives markets are at nascent stages. In 2013, the stock exchanges in Tanzania and Uganda had only 17 and 16 listed companies, respectively, with market capitalization ratios of 31 percent of GDP and 35.7 percent of GDP, respectively. In Rwanda, there were four listed companies, with market capitalization of 24 percent of GDP. Burundi is at a nascent stage of developing capital markets.

### Table 10.5 East African Community Countries: Stock Exchanges in 2013

<table>
<thead>
<tr>
<th></th>
<th>Burundi</th>
<th>Kenya Dec-13</th>
<th>Rwanda Sep-13</th>
<th>Tanzania Dec-13</th>
<th>Uganda Feb-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of listed companies</td>
<td>…</td>
<td>61</td>
<td>4</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Market capitalization in millions of US$</td>
<td>…</td>
<td>22,334</td>
<td>1,919</td>
<td>10,306</td>
<td>8,137</td>
</tr>
<tr>
<td>Market capitalization in percent of GDP</td>
<td>…</td>
<td>49.1</td>
<td>25.8</td>
<td>31.7</td>
<td>35.7</td>
</tr>
<tr>
<td>Value traded in millions of US$ (year to date)</td>
<td>…</td>
<td>407.3</td>
<td>10.3</td>
<td>65.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Sources: African Securities Exchanges Association; and IMF staff estimates. Note: “…”indicates that data is not available.

Sources: African Securities Exchanges Association; and IMF staff estimates. Note: “…”indicates that data is not available.
The ongoing upgrading of payment systems and declines in the cost of transfers are likely to increase demand for banks’ services, including cross-country transfers. The ratings of securities would allow monitoring financial integration in the EAC. Authorities may need to narrow disparities in tax treatments of investments and dividends. For example, a unified or similar tax treatment of capital gains would improve incentives to save, and reduce inefficiencies in mobilizing savings. In the pension and insurance sectors, reforms at the national level to improve supervision, management of liabilities and investments, and upgrade skills should perhaps proceed either before or at the same time as regional efforts. To avoid tax arbitration and associated distortions, the authorities need to step up efforts to establish contacts and forge similar MOUs with all homes and host supervisors.

Nevertheless, authorities need to step up efforts to establish contacts and forge similar MOUs with all homes and host supervisors. In light of the dominant position of some multinational banks in EAC markets, establishing good cooperation with their home supervisors is particularly important. It may be difficult for individual EAC countries to establish such cooperation, but together they may be able to do so. The authorities could pursue establishing MOUs with all homes and host supervisors.

Up to now, the authorities in the region have dealt with these challenges through MOUs. The Bank of Tanzania signed an MOU with the central bank of Cyprus in 2003, the EAC countries signed an MOU in January 2009, and some central banks in the region have begun to explore the possibility of signing MOUs with the central banks of home countries. The signed memorandums cover a number of areas such as information sharing, licensing, and coordination of on-site inspections, but do not cover the very important area of crisis management. Nevertheless, authorities need to step up efforts to establish contacts and forge similar MOUs with all homes and host supervisors. In light of the dominant position of some multinational banks in EAC markets, establishing good cooperation with their home supervisors is particularly important. It may be difficult for individual EAC countries to establish such cooperation, but together they may be able to do so. The authorities could pursue establishing MOUs with all homes and host supervisors prior to granting permission for cross-border financial operations.

For example, in Tanzania, insurance companies are prohibited from investing or lending abroad without the insurance commissioner’s permission. Furthermore, weaknesses in the basic infrastructure and operational environment of individual countries not only prevent financial institutions from expanding regionally, but also reduce demand for financial products. For example, weaknesses in the enforcement of contracts and expensive payment systems reduce demand for financial services across the region. Market abuses, including unauthorized trading of clients’ securities and theft, have dented public confidence in financial institutions. Weaknesses in laws and regulations relating to financial activities also increase costs of operating in other countries. To date, only one Kenyan insurance company, APA Insurance, has expanded regionally. It has an associate in Tanzania and was preparing to launch a subsidiary in Uganda.

To summarize, significant cross-country ownership in the EAC countries’ banking sectors suggest that their financial systems are increasingly interconnected while standard measures of integration suggest they are not yet well integrated. The latter outcome may reflect remaining barriers in capital flows, expensive payment systems, and the facts that regionally active small banks operate mainly in niche markets and small domestic banks are not in position to compete with multinational financial institutions with large networks and sizes.

Implications for Supervision

Greater interconnectedness of the banking sectors through cross-country ownership makes the region vulnerable to crises, even if the markets are not well integrated, unless the regionally active institutions are not properly supervised. Indeed, as the recent global financial crisis has shown, greater financial linkages can increase the vulnerability of countries to external shocks and contagion. In particular, liquidity or solvency problems of foreign-owned banks could spread to their subsidiaries in the EAC. Furthermore, the predominance of large cross-border banks increases the vulnerability of the region to regulatory arbitrage.

That some multinational banks are of systemic importance in the EAC, but small in relation to parent banks, has both advantages and disadvantages. On the one hand, it would be easy for big parent banks to support their subsidiaries in the EAC in case of liquidity and solvency problems, if the problems are limited to the EAC region. On the other hand, parent institutions and their supervisors may not focus on the potential risks such banks may pose in the host countries, which have limited resources (both human and financial) to deal with the consequences should parent banks abandon their subsidiaries (such as in cases of problems with the parent banks). In this context, some large foreign-owned banks centralizing key business functions in home or third countries would make it difficult for host country supervisors to supervise these banks’ subsidiaries in the host countries and ring-fence the subsidiaries to avoid asset stripping during a crisis.

Risks of contagion are heightened by weaknesses in banking supervision in some home countries and host countries. For example, the shares in consolidated balance sheets of EAC countries of banks whose countries do not fully comply with the BCBS for licensing, abuse of financial services, and consolidated supervision (Core Principles 3, 18, and 24 under the 2006 BCP methodology) are large. In some countries, these shares are large. Moreover, there are weaknesses in banking supervision in the host EAC countries, including in the areas of licensing, identifying country and transfer risks, internal control and audit, and accounting and disclosure. As Claessens and others (2008), note, when banks in countries with weak banking supervision enter other countries with similar problems, “they could introduce new risks and vulnerabilities, since they may be less well supervised both in their home and in the host markets.”

The regionally active banks are not supervised on a consolidated basis. The existing frameworks give the host country supervisor the ultimate responsibility for subsidiaries. Emergency liquidity assistance and deposit insurance schemes are also organized along national lines. Accordingly, supervisors are unable to accurately assess the risk posed to a regionally active bank’s operations in one country by its operations in other countries. For example, supervisors are unable to accurately assess a bank’s exposure to a single borrower with regional operations that also borrow from the bank’s subsidiaries. In addition, as noted, the centralization of some key business functions makes separate assessments of individual subsidiaries more difficult. Also, supervisory agencies in some host countries may not have the capacity to exercise effective risk assessments over large financial institutions.

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To benefit from economies of scale and better allocation of capital, the authorities need to phase out both general and institution-specific capital controls relevant to other EAC countries and improve supervision of capital market activities. This would allow making prices for financial products more responsive to demand and supply, and reduce inefficiencies in mobilizing savings. In the pension and insurance sectors, reforms at the national level to improve supervision, management of institutions, and upgrade skills should perhaps proceed either before or at the same time as regional efforts. To avoid tax arbitrage and associated distortions, the authorities may need to narrow disparities in tax treatments of investments and dividends. For example, a unified or similar tax treatment of capital gains would reduce incentives to invest through one market rather than another.

Also, the authorities need to collect critical data on cross-country capital and financial flows and monitor the degree of financial integration. In particular, collecting and publishing data on cross-country loans (including bank and interbank loans) and debt, remittances, and FDI and portfolio investments, as well as data on interbank money market rates (including unsecured lending rates and repo rates), interest swap rates, forward exchange rates, yields on government bonds, and ratings of securities would allow monitoring financial integration in the EAC.

The ongoing upgrading of payment systems and declines in the cost of transfers are likely to increase demand for banks’ services, including cross-country transfers.
This will create economies of scale for the banking systems and may help deepen financial intermediation. The upgrading of payment systems is also likely to reduce system-wide risks. However, it is not clear how the newly established cross-border payment system will be supervised.

Finally, in individual EAC countries, the authorities should promptly implement the recommendations of the recent financial sector assessment program updates. These include those relating to regulatory frameworks, crisis management, coordinated early interventions, safety mechanisms, bankruptcy procedures, payment systems, credit information (credit bureaus), and court and arbitration mechanisms. These reform measures would not only make the financial systems in individual countries resilient to shocks, but would also facilitate regional integration.

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5. Insights from the Academic Literature.
6. Conclusions.

IFRS 9 Significance for Financial Stability and Supervisory Rules.

EXECUTIVE SUMMARY.

Background.

In doing so, I emphasise that financial reporting and bank supervision pursue different objectives and the differences in their treatment of impairment losses are reflected in differences in the measurement and supervisory treatment of impairment losses. In addition, I discuss recent studies that exploit cross-bank variation in the application of the incurred loss model or cross-country variation in the extent to which discretionary loan loss provisions and capital are required to be written down. Managerial discretion in loan loss provisions can impact financial stability.

Macro-financial linkages: the role of liquidity dependence.

Summary.

We estimate a panel Bayesian vector autoregression model for a cross-section of seven advanced European economies and produce out-of-sample forecasts of GDP conditional on a smooth transition version of the model and allowing the parameters to vary across economies conditionally on their liquidity dependence (i.e., dependence on the availability of funding from external sources). It is possible to improve the accuracy of the forecasts. The Policy Implications of Transmission Channels between the Financial System and the Real Economy, BCBS Working Paper 20. Bank for International Settlements, Basel. September 14.

President Obama pushed for financial interests and lawmakers to act on proposals to reshape financial regulation to protect the nation from a repeat of the excesses that drove Lehman Brothers into bankruptcy and wreaked havoc on the global economy last year. August 27. The Federal Deposit Insurance Corporation revealed that the number of U.S. banks at risk of failing reached 416 during the second quarter 2009.

2. Effectiveness of Financial Sector Supervision – Assessment of key supervisory standards (e.g., banking, insurance, securities markets).


Macroprudential Surveillance. Analysis of Financial Soundness Indicators.

Streamlining.

In discussions of these banks in the following text, they will be referred to as Bank A, B, C, D, E, F, or G, in no particular order, to avoid revealing market sensitive information.

Measuring cross-border exposures helps assessing the extent of individual countries’ susceptibility to regional contagion.

As noted, there are no data on intraregional capital flows/stocks, but the analysis in this chapter’s first section suggests that they are limited.

This came after a long period of underperformance by the National Security Scheme.

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