CHAPTER 9

Financial Sector Stability: A Regional Approach

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This chapter looks at the issue of financial stability in the envisaged East African Monetary Union (EAMU) and the responsibility for it among East African Community (EAC) authorities. Signatories to the EAC Treaty undertook to establish a customs union, a common market, a monetary union, and ultimately a political federation. With the ratification of the Customs Union Protocol in 2004 and the Common Market Protocol in 2010, work is now under way to draft a monetary union protocol. In this connection, the EAC Council of Ministers has adopted as a blueprint the European Central Bank study on the Establishment of a Monetary Union among the Partner States of the EAC (European Central Bank, 2010).

Under monetary union, the EAC would establish a regional central bank entrusted with the formulation and implementation of monetary and exchange rate policy and promotion of financial stability. This chapter presents a framework for financial stability within the EAC and the preparatory work needed to ensure regional and national authorities are well prepared to carry out their responsibilities in this regard.

The next section outlines the prerequisites of a financial stability framework, followed by reviews of the arrangements in place in the EAC states to identify areas that need attention, and a discussion of key elements of a framework, taking account of adaptations suggested by a regional rather than purely national setting.

PREREQUISITES OF A FINANCIAL STABILITY FRAMEWORK

A financial system must first be stable before it can be developed, implying certain preconditions and institutional arrangements. At the macroeconomic level, appropriate mechanisms for implementing and coordinating monetary and fiscal policies—alongside appropriate macroeconomic policies—are needed. Central banks must pursue price stability and governments’ prudent management of fiscal policy, supported by appropriate institutional arrangements. A well-designed financial stability framework must also comprise the following:

• Effective financial sector regulation and supervision (microprudential oversight) is essential for limiting the risk of instability in the financial system.
• Macroprudential analysis and policy, focusing on system-wide risks and using prudential tools to minimize disruptions of financial services that can harm the real economy.

• Institutional arrangements and infrastructure and the capacity to conduct regular analysis and assessment of financial stability. This includes the legal frameworks and payment systems designed to mitigate risks and encourage proper coordination.

• Arrangements for crisis preparedness and management, including systemic liquidity arrangements, financial safety nets, and resolution mechanisms.

Such elements can prevent a crisis or manage and resolve one when it occurs. A financial stability framework is needed in a regional setting because of the financial market integration that follows from monetary union. The financial stability framework is aimed at controlling the systemic risk that arises from contagion between institutions or from macro-financial linkages. In a regionally integrated system, financial institutions and activities are permitted and encouraged to operate across borders, increasing the risk of systemic and spillover effects.

The challenges of cross-border operations in a range of legal, regulatory, and supervisory systems are well-known. Individual countries may promote their national institutions by providing less stringent regulation, including licensing policy, encouraging institutions to locate in the jurisdiction with the lightest requirements (regulatory arbitrage). Authorities are naturally more concerned with protecting their own institutions and citizens and are likely to give less attention to spillover from nationally based institutions that affect foreign jurisdictions.

With different supervisory systems, institutions operating cross-border can also face different requirements from home and host supervision, raising their costs (which will be passed onto clients) and potentially engendering perverse incentives. Although cooperation and information exchange are stressed in effective cross-border supervision, even in the presence of agreements, the incentives to supply information may be perverse when problems arise in the financial system. In addition, features of safety net arrangements in a regional setting would need to be carefully considered and reinforced by strong supervision given the potential for moral hazard.

The establishment of an appropriate financial stability framework for the EAMU will present significant challenges and opportunities. A number of the member states are still developing their frameworks and building capacity for the analysis and assessment of financial stability. Conceptually, the optimal design of a framework for financial stability in a monetary union is as yet undefined, especially given shortcomings revealed in the recent financial crisis. At the same time, still-evolving national arrangements in the region provide the opportunity to harmonize national frameworks for a coherent regional arrangement. Although financial market integration is still limited, the EAMU can help encourage the defining of a regional framework for financial stability, establishing harmonized
minimum requirements, and promoting capacity building in this area. Specific areas for action include the following:

- **Common legal framework.** For the harmonization of supervision, both regulations and supervisory practice must converge. The European Union (EU) model of common directives is one way to do this. Common regulations, as well as manuals and toolkits, would help to bring about the common supervisory culture that would support financial stability in the region as a whole.

- **Coordination mechanisms.** Consolidated and cross-border supervision in banking and group-wide supervision in insurance with arrangements in place to ensure exchange of information and cooperation between supervisory authorities and central banks on macroprudential monitoring, responses to financial market developments, and crisis management.

- **Monitoring complex institutions.** As more complex financial institutions emerge in the region, they may expose financial markets and payment and settlement systems to greater risk. Effective monitoring of financial risks in such institutions would be crucial for maintaining systemic stability, and will require that data deficiencies in the household and corporate sectors be addressed.

- **Locating supervisory powers.** The location and distribution of supervisory powers in a monetary union require careful consideration. Several options are possible: centralized supervision in the regional central bank or in a separate regional body for financial supervision, and national-level supervisors with coordinating mechanisms or with more formal arrangements for joint action. Clarity on the preferred option is important, along with the process for updating regulations/arrangements governing cross-border cooperation in the areas of prudential supervision and crisis management.

- **Nonbank supervision.** Coherent arrangements for the supervision of nonbank financial institutions in a regional setting will be necessary to contain systemic risk emanating from this segment. Supervision of the nonbank sector is inadequate throughout the EAC region, in particular, in the regulation and supervision of insurance and securities markets and pension funds.

**FINANCIAL STABILITY FRAMEWORKS IN EAST AFRICAN COMMUNITY PARTNER STATES**

All five EAC states are building capacity for assessing financial stability, although their approaches differ. And they all face challenges in data availability and skills for the application of analytical tools. The EAC financial integration process allows the raising of supervisory effectiveness to international standards across all partner countries, consideration of appropriate crisis management, and safety net arrangements. It also encourages the harmonization of payments systems, which are crucial in a monetary union.
Regulation, Supervision, and Financial Stability Analysis in the East African Community

All the EAC central banks have explicit financial stability oversight arrangements with dedicated departments, or subunits, and four of the five countries issue financial stability reports. Some of these take account of the financial sector indicators for other member states. Coordination arrangements among the regulatory agencies and the ministry of finance exist in Kenya, Tanzania, and Uganda, and informal exchanges take place in Burundi. The National Bank of Rwanda is the single regulatory agency of the country, excepting the very limited securities market (Annex Table A9.1 summarizes the financial stability frameworks in the community).

Regular discussions and meetings between the staff of the central banks, with sharing of methodologies, could help in the development of a common framework for the region. An integrating regional market necessitates that the jurisdictions carry out a joint financial stability assessment, taking account of potential spillover arising out of the macroeconomic and institutional environments. Close collaboration in developing individual country frameworks would be of particular importance. Technical assistance from the IMF is helping to build these systems, and the EAC member states should be proactive in forging a common framework able to harmonize national systems.

Banking Supervision

The EAC countries have begun harmonizing their regulatory and supervisory frameworks, using compliance with international standards, such as the Basel Core Principles as the harmonizing mechanism (Basel Committee on Banking Supervision, 2012). In all five, central banks conduct banking supervision. Banking supervision assessments in recent Financial Sector Assessment Programs found there was almost full compliance with objectives, independence, powers and transparency, capital adequacy, and the supervision of credit risk. But abuse of financial services, country and transfer risk, and market risk all required considerable additional work for the jurisdictions to achieve uniformly adequate supervision.

Since the Financial Sector Assessment Programs in 2009–2011, the jurisdictions have worked to address the gaps identified in Basel Core Principle compliance, although challenges remain. Of the areas important for cross-border oversight, supervision of country and transfer risk remains a major challenge, consolidated supervision could be improved, and a better understanding of the links between institutions is needed. Financial institution ownership structures can be opaque, which could limit the understanding of the national, and even more so, the regional supervisors. These issues have given rise to proposals for regional supervisors—such as in Schoenmaker and Oosterloo (2007) and European Central Bank (2008)—but because understanding of banks often requires local knowledge, centralized supervision will still need to rely on local supervisors, and effective cooperation between the two will remain crucial.
All five central banks signed the EAC’s 2009 memorandum of understanding (MOU) for cooperation in the supervision of financial institutions. It lays down a framework for information exchange and rules for sharing licensing and information between home and host supervisors with regard to concerns about cross-border establishments and enforcement actions. It also recognizes the benefits of coordinating onsite inspection, and central banks in the region have already carried out such joint inspections. The provisions of the MOU closely track the good practices recommended by the Basel Committee on Banking Supervision for MOUs. Additional content is likely to be helpful in two areas: (1) dealing with a problem cross-border institution and crisis situations, and (2) cost sharing in some situations, for example, where a supervisor needs to incur costs to conduct an investigation for a requesting supervisor.

Obtaining the benefits of a common supervisory culture, which would help ensure harmonized supervision, requires taking a common approach to supervision. The EAC jurisdictions are all moving toward risk-based supervision, but some do not yet have the supervisory arrangements and skills to implement this consistently. Four have similar risk-based supervision approaches and a similar approach to consolidated supervision, although gaps exist in the implementation of the latter.

Three jurisdictions subscribe to the Bank Supervision Application, which provides a generic information system allowing institutions to report to their supervisors. It is intended to help harmonize banking supervision. The supervisors may wish to consider whether it would be helpful for EAC members to all adopt this platform for supervisory reporting. It would be important to adopt similar data definitions, though these should take account of the peculiarities of each jurisdiction. For example, comparison of capital adequacy is impaired by differences in measured capital—at least one EAC jurisdiction has a nonstandard definition of nonperforming loans, with implications for provisioning and capital measurement. Annex Table A9.2 demonstrates that the jurisdictions publish different financial soundness indicators, making for limited comparison at even this basic level.

**Insurance Supervision**

The regulatory regimes in place in the region for other sectors reflect the development of the sectors. Insurance regulation and supervision in the EAC is generally lagging behind that for banking. Three countries have specialized insurance supervisors, and the other two have units in the central bank or ministry of finance. Insurance regulatory skills and supervisory capacity are lacking. Besides shortcomings in legal and regulatory provisions, there are differences in the provisions between jurisdictions. Examples include minimum capital requirements, the calculation of solvency margins, corporate governance requirements, and recognition of microinsurance. The scope for regulatory arbitrage and the

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1This was initiated in 1997 by the Eastern and Southern African Banking Supervisors Group.
2Annex Table A9.3 provides an indication of the financial institutions and markets of the EAC.
difficulty comparing the financial health of insurance companies across the jurisdictions are evident.

Member states are using the International Association of Insurance Supervisors (IAIS, 2008) core principles for insurance supervision, but progress toward implementation of international standards of insurance oversight has been slower than in other sectors. Regulators in the five countries (all members of the East African Insurance Supervisors Association) signed a multilateral MOU for the regulation and supervision of insurance in August 2010. But even though it establishes a framework for cooperation and coordination, national arrangements constrain its effectiveness. The Common Market Protocol is encouraging the cross-border establishment of insurance companies (in addition to banks). As insurance laws, regulations, and their implementation are very constrained, the sharing of information may be limited because the national regulators themselves may lack the necessary data and detailed knowledge of their industries. In several member states, weak or insolvent insurance companies continue to operate, illustrating the weak nature of insurance sector oversight.

**Microfinance Institutions and Cooperatives**

These institutions are growing in the region and welcomed as a means of increasing access to finance. That some have grown large enough to be registered as banks is evidence of their success. In general, the central banks oversee microfinance institutions, particularly the deposit-taking, under separate legislation, and separate bodies oversee microfinance institutions and cooperatives. Their similarities to banks (both are credit institutions) warrant central bank oversight, as does their potential to compete directly with banks as they grow. Their numbers, however, may stretch central bank resources. It is also likely that the oversight of microfinance institutions and cooperatives is lighter than optimal.

**Pension Sector Oversight**

Only three EAC jurisdictions have regulatory bodies for overseeing pensions, two of them only recently established, but only in Kenya and Tanzania does the sector appear important. The Tanzanian authority covers only social security funds. The capacity for oversight is consistent with this institutional structure, though even the longest-established regulatory body needs to strengthen its offsite analysis. Authorities should introduce minimum standards for actuarial evaluation and funding rules, and ensure that they have the capacity to analyze the effect of shocks on the financial positions of the schemes. Though they are largely government schemes, the fiscal impact of a failure could be serious.

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Securities Regulation

Four of the five EAC partner states have organized securities exchanges and capital market regulatory authorities, though the market and its regulator are nascent in one case. Measures are required to improve market transparency. Processes have been agreed or are in train for the demutualization of the Dar es Salaam Stock Exchange, the Nairobi Stock Exchange, and the Uganda Securities Exchange. The EAC treaty calls for harmonization of capital market policies and legal frameworks, cooperation of the exchanges, and the promotion of cross-border listings and trades, as well as the development of a regional rating system. The four states’ capital market regulatory authorities are all members of the East African Member States Securities Regulatory Authorities, a forum set up in 1997 to share information among regulators, provide for mutual assistance and cooperation, and to advance the integration of the capital markets. They are undertaking initiatives to regionalize capital markets while developing the regulatory framework.

As was done in the banking sector, regulators are harmonizing and coordinating oversight on the basis of the International Organization of Securities Commissions’ objectives and principles. Member states are reviewing their legal and regulatory frameworks and have identified the amendments to bring them in line with the standards. Kenya, Tanzania, and Uganda have signed the International Organization of Securities Commissions multilateral MOU. The East African Member States Securities Regulatory Authorities is also planning a program of regional certification for industry professionals.

The member regulatory authorities of the East African Member States Securities Regulatory Authorities should, under its auspices, undertake other measures to coordinate regulatory oversight in the region. These include agreeing to an MOU to define home-host supervisory responsibilities for capital market intermediaries, exchanges, central securities depositaries, and institutional investors; implementing common licensing standards for market intermediaries; and adopting common prudential standards for institutional investors. Common standards for accounting and auditing and uniform requirements for reporting and disclosure are also needed.

Infrastructure

The overall legal and judicial framework for financial infrastructure in the region requires strengthening in the EAC member states, and most have reform programs in place. But implementation can be slow. In the area of payments, the EAC has established the East African Payments System Harmonization Committee and work is under way for interconnection of Kenya's, Tanzania's, and Uganda's real time gross settlement systems. Technical specifications have been agreed and submitted to vendors, and draft agreements, rules, and operational procedures circulated. Burundi still lacks a real-time gross settlement, although work has begun on developing this, and Rwanda implemented an
integrated payment processing system in 2011. The authorities are implementing an integrated regional payments system that would allow regional payments to be settled in national currencies. It would be desirable to put real-time gross settlement systems in place, as rapidly as possible in all the partner states. Mobile payments system are growing throughout the region, and although none appear to be operating cross-border yet, a harmonized approach to their oversight should be instituted.

**Crisis Management and the Safety Net**

The financial safety net provided by deposit insurance and emergency liquidity assistance (or lender of last resort) helps the system avoid severe instability by preventing rumors of institutional difficulty from becoming self-fulfilling prophecy. In a regional context, ex ante cooperative agreements among supervisors can prove insufficient to deter supervisors from taking action in their own jurisdiction’s narrow interest.

The arrangements for crisis management in the EAC are ambiguous and need to be developed. A comprehensive approach to crisis management seems to be lacking in most member states. For instance, in one country, lender-of-last-resort arrangements are governed by the central bank law, while the banking law establishes intervention modalities for bank insolvency situations. To better guide decision makers, additional regulations and definitions would benefit from clarification. For example, systemic establishments, which can benefit from exceptional facilities, are not defined. A second state has broad powers of intervention for the central bank in the banking act, deposit protection, and emergency liquidity assistance functions available to the central bank.

Safety nets and crisis management are still to be addressed in another country, but the introduction of deposit insurance (so far only allowed for in the financial institution law) will require effective supervision. In a fourth member state, the operational framework for lender-of-last-resort facilities functions appears adequate and a new legal framework for deposit insurance was adopted in 2006. A fifth has the basic elements of the financial safety net—deposit insurance and lender-of-last-resort facilities—but needs to do more on domestic and regional contingency planning for crisis management and arrangements for dealing with failed institutions.

The EAC can take several steps in this area. Each jurisdiction could implement legislation and measures for prompt corrective action to extend the options available to the supervisor to deal with weak banks. A joint review of their emergency liquidity facilities should facilitate discussion of how to proceed if a cross-border bank were to experience difficulties, as well as an ex ante agreement. Finally, a joint crisis management plan should be worked out among the central banks, other supervisors, and the ministry of finance. Such planning is best done before periods of instability occur.
A FRAMEWORK FOR FINANCIAL STABILITY

Financial Stability Analysis

Financial stability analysis aims to identify threats to stability and devise appropriate policy responses. Its core elements include (1) macro-financial analysis, (2) assessment of the financial supervision framework, and (3) evaluation of the robustness of financial infrastructure and crisis management and safety net arrangements.

Macro-Financial Analysis

Macro-financial analysis is focused on the potential impact of macroeconomic factors on the soundness and stability of financial systems. It assesses the likelihood of shocks to the financial system stemming from financial market and macroeconomic developments, and of how changes in financial soundness may themselves affect macroeconomic and real-sector developments. Macroeconomic and financial market risk factors feed into the assessment of the soundness of the financial sector, including thorough evaluation of financial soundness and market indicators, stress testing, and analysis of the structure of the financial system (including its efficiency and competitiveness).

Stress testing is a common tool for assessing the vulnerability of a financial system to exceptional but plausible events. Stress tests gauge the sensitivity of a group of institutions (such as commercial banks) or even an entire financial system to a set of common shocks and to stressful scenarios. The analysis identifies the major risks and exposures in the system, defines the coverage and identifies the data required and available, calibrates the scenarios or shocks to be applied to the data, selects and implements a methodology, and interprets the results. In most countries, stress tests primarily focus on banking systems because banks form the core of the financial system. Close monitoring of banking sector financial soundness indicators, including capital adequacy, asset quality, management soundness, earnings and profitability, liquidity, and sensitivity to market risk, would be important for detecting potential vulnerabilities.

A very useful feature in implementing plausible stress tests is a macroeconomic model that can generate scenarios depicting varying macroeconomic conditions. An ongoing methodological challenge is to link such macro scenarios to the balance sheets of financial institutions in order to assess systemic risks. Most EAC countries do not employ macroeconomic models on a regular basis, and efforts should focus on capacity building in this area. Once adequately robust and flexible models are developed at the country level, attention should turn to developing a regional model to gauge the impact of common shocks on the financial system of the region as a whole.

Analysis of key balance sheets in the nonbank sector is an integral part of financial stability assessment. Monitoring the financial condition and vulnerabilities of
the corporate, household, and real estate sectors can enhance capacity to assess risks to the financial sector, particularly where growing incomes and credit are fueling demand. More generally, the importance of the insurance sector for financial stability is increasing because of growing links between insurers and banks and the potential for contagion. These links can include cross ownership (or affiliation), credit risk transfers, and financial reinsurance. In most emerging markets, insurance tends to be a developing industry subject to only rudimentary supervision. Segments of this industry are often characterized by aggressive competition and even fraudulent behavior, such as third-party motor liability insurance. While this is unlikely to be of systemic importance on its own, the reputation risks and lack of confidence generated can have wider and longer-lasting effects.

The ease of movement between markets in a union heightens this risk. Cross-border market links are still very limited in the EAC, but collection of data that allows their development to be monitored is important. Similarly, while securities markets are likely to be systemic only in Kenya, Tanzania, and Uganda, as these markets deepen and develop in the region, households, corporations, and financial institutions can become exposed through investments in primary and secondary markets and trading of risk in financial markets. Monitoring and analysis of these exposures would become critical in the regional context.

A lack of data for systematic analysis is a key challenge in the nonbank sector. Data on financial stability indicators for the insurance sector and key nonbank balance sheets would need to be compiled within the EAC on a uniform basis to facilitate analysis of cross-sector and cross-country links at the regional level. A range of quantitative indicators measuring depth, tightness, and resilience of securities markets would need to be collected.

**Regulation and Supervision—Microprudential**

Effective microprudential (as compared with macroprudential discussed later) regulation and supervision is crucial to help gauge risks and vulnerabilities, protect market integrity, and provide incentives for strong risk management and good governance of financial institutions. At the national level, the assessment of compliance with the internationally agreed standards complements the quantitative macro-financial analysis. The standards provide a benchmark against which country practices can be compared, as the EAC is doing. The standards used are the Basel Committee’s Core Principles for Effective Banking Supervision, the IAIS Insurance Supervisory Principles, and the International Organization of Securities Commissions’ Objectives and Principles for Securities Regulation. These provide qualitative information, including on the effectiveness of institutions’ risk management systems and, thus, on how well the system is positioned to respond to specific risks. Standards assessments also help to interpret financial soundness indicators by clarifying the definitions underpinning the data institutions provide.

Similarly, the analysis and interpretation of soundness indicators in insurance can be complemented by the assessments of compliance with the Insurance Core
Principles. These cover the effectiveness of supervision, qualitative information on regulatory thresholds, the structure and characteristics of companies in the sector, and other useful qualitative information.

Qualitative information from the assessments of the Securities Core Principles can also be helpful in assessing the resiliency of securities markets. This should allow some judgment of the effectiveness of the legal, judicial, and regulatory framework, and governance practices and provide information on the trading systems, price transparency, margining rules, and capital committed by the exchange to support trading.

The challenges for financial regulation and supervision in the region concern the ability of supervisory authorities to keep up with the proliferation of financial services; undertake consistent, risk-based supervision and prompt corrective action; implement consolidated supervision—including cross-border, group-wide, and conglomerate—and cooperate with other domestic and foreign supervisory agencies. The evolving nature of the understanding of financial risks and the international guidance to address them, in particular in capital adequacy and quality and liquidity buffers, compounds these challenges.

All three prudential standards offer guidance on international cooperation. The Basel Core Principles (Basel Committee on Banking Supervision, 2012) specify principles for the supervision of cross-border institutions—Basel Core Principle 3 requires that the laws, regulations, and arrangements provide for cooperation and collaboration, consolidated supervision, and the relationship between home and host supervisors in Basel Core Principles 12 and 13, respectively. Background and additional details are provided among others, by the Basel Committee on Banking Supervision (1992 and 1996), which provide for the division of responsibilities between home and host supervisors, MOUs, and guidance for improving information flows.

One mechanism for better coordination in consolidated supervision is the supervisory college. Such colleges consist of multilateral groups of supervisors from all countries where an institution has substantial operations (see Basel Committee on Banking Supervision, 2010a), and help to ensure host supervisory involvement in the process for banks that are systemically important in their jurisdiction. They allow the sharing of understanding on local conditions, the coordination of supervisory work, and, when necessary, the coordination of stability measures.

Practical decisions must be made about the supervisors to involve; for example, a college for a bank that has a presence throughout the region as well as substantial activities outside should also allow membership from that jurisdiction, even if it is not a member of the union. This allows supervision to benefit from their knowledge and allows a better division of work among the home and host. Box 9.1 summarizes the Basel Committee supervisory college recommendations.

From a regional perspective, IAIS guidelines for cooperation and cross-border supervision can also provide an important guide to regional supervisors. In addition to the principles on information exchange and group-wide supervision Insurance Core Principles 3 and 23, respectively, IAIS (2011/12) provides
principles on supervisory cooperation and coordination, both group-wide and cross-border, with criteria that include guidance on forming supervisory colleges (ICP 25), as well as on cross-border cooperation and coordination on crisis management (ICP 26). They have also formulated a multilateral MOU to provide practical arrangements in cooperation and information exchange and a high standard of confidentiality.

The nature of securities markets suggests that the interests of securities regulators are better aligned for cross-border oversight. As Tafara (2007) notes, the protection of domestic markets turns on the ability to obtain and provide international cooperation, particularly in an increasingly global market. The International Organization of Securities Commissions’ multilateral MOU sets an international benchmark for cross-border cooperation that is effective against violations of securities and derivatives laws. It specifies the types of information a signatory may be asked to provide (such as bank records), the permitted uses of such information, and the confidentiality of nonpublic information.

4 There are two levels for ascribing to the multilateral MOU classified by the Annex in which the member is listed. Annex A members are those whose legal systems have been evaluated and judged to allow them to fulfill the terms of the MOU (there were 94 members listed in March 2013). Those in Annex B have committed to fulfilling the necessary legal conditions.
Financial Infrastructure

The institutional arrangements and infrastructure required to support financial stability includes the legal infrastructure for finance and payments and securities settlement systems. Payment systems are critical because if one or more financial institutions are unable to settle claims against them, they may cause other participants in the system to fail. Financial market infrastructure, including trading systems and payment and clearing and settlement systems, affects financial institutions’ access to funding and ability to liquidate positions. Liquidity and operational risks in the payments and clearing and settlement system can thus have systemic effects.

In this area, as well, international standards for national systems are used as the basis for harmonization: the 2012 Principles for Financial Market Infrastructures established by the Committee on Payments and Settlements Systems, and the International Organization of Securities Commissions cover systemically important payment systems, central securities depositaries, security settlement systems, and central counterparties. Sound cross-border payment infrastructure allows less risky and cost-effective international payment transfers. The June 2008 report of the Committee on Payments and Settlements Systems also recommends actions to address the challenges by interdependencies between systems. The key features of sound cross-border infrastructure for systemically important systems are:

- Harmonization based on national real-time gross settlement systems offering intraday finality for cross-border payments. This reduces the settlement risks associated with deferred net settlement systems and the cross-border structure offers payment speeds similar to cross-border transactions.
- A sound and transparent legal structure that ensures national laws leaves payments immune to challenges based on insolvency laws, including protecting payment transfers against foreign insolvency procedures.
- Effective, accountable, and transparent governance arrangements so that the responsibilities of different organizational levels are clearly defined and separate risk management, oversight, and audit functions are in place.
- Harmonization of rules and procedures that outline the roles and responsibilities of different actors and describe the system and the rules on access and exclusion of participants.
- Clearly defined procedures for management of liquidity and credit risk, avoiding liquidity risk through central bank provision of intraday liquidity with collateral.
- A high degree of security and operational reliability of the national system—the system will only be as strong as its weakest link, and national central banks should address this area together, involving system users. Adequate business continuity plans, including special arrangements to provide minimum services in case of severe disruption.
- Effective oversight of the national systems.
Arrangements for Crisis Management and Safety Nets

The challenges of crisis preparedness and management depend to some extent on the structure of supervision and regulation under the monetary union. Although centralization of supervision may simplify the issue, if resolution laws and regulations and deposit insurance systems remain heterogeneous, coordination issues will remain. In the event that the supervisory responsibilities remain primarily with national authorities, contingency planning would be more complicated and coordinating support and managing conflicts of interest will remain a challenge. The decision of whether to provide emergency liquidity to (part of) a cross-border banking group in one country can have a significant impact on developments in other countries.

Liquidity assistance in situations when solvency of a cross-border group is not assured would also have to involve the ministries of finance. It would seem useful to have ex ante decision making on some principles for burden sharing between countries to avoid delays in negotiations, which is often warranted in times of stress. Furthermore, burden sharing for which authorities plan and agree beforehand may be easier to achieve. To allow flexibility, the authorities in the region could agree on some general guidelines for emergency liquidity assistance (Box 9.2).

It would be desirable to regularly test the arrangements for crisis. Such tests could take the form of regular crisis management exercises that (1) function as a tool to detect any shortcomings in the current arrangements and (2) facilitate common understanding and effective practices in a changing environment.

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**BOX 9.2 Possible General Guidelines for Emergency Liquidity Assistance in the East African Community**

- Not all banks need to be rescued, and public support should only be provided to systemically important banks that would threaten financial stability if they were to fail. Shareholders’ equity in rescued banks should be wiped out and new management should be installed.

- In interventions in cross-border groups, decisions should be made on burden sharing among national authorities. Guiding criteria could include estimates of the costs and benefits of intervention for each country, the extent to which the bank is systemically important in each country, the size of exposure and deposits in each of the countries, the origin of the problem, and the size of the national economies and abilities to provide the necessary resources. It would be preferable if these decisions are made ex ante and agreed in a “crisis memorandum of understanding,” for example.

- The injection of public funds should be reversed soon after the crisis has ended and the rationale for support has gone. To avoid further distortion of competition, state aid should hence be wound down.

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Source: Authors.
The main challenge of safety net arrangements in an integrated market where deposit insurance is a national function, as seems common, will come from differences in insurance design, in addition to the potential for moral hazard. Typically, national authorities are responsible for deposit insurance for locally incorporated subsidiaries, whereas deposits in branches are covered by the home authorities. Design differences such as the definition of insured deposits, the coverage limits, premium, and funding arrangements can distort competition and would need to be consistent across countries. Such differences may influence the movement of deposits in an integrated market (made worse with a single currency), possibly even creating destabilizing flows at just a hint of difficulty in one jurisdiction. It is even possible that jurisdictions attempt to compete on the design of their deposit insurance (e.g., through low premiums) to attract entry. Cross-border arrangements for deposit insurance will need to be developed.

No international insolvency regime exists (Lastra, 2007), but the Basel Committee (2010b) has a set of recommendations on cross-border bank resolution and the IMF (2010) has suggested a framework for enhanced coordination. In times of systemic stress, governments often restructure distressed institutions (rather than closing them) and cost sharing becomes an important issue when institutions operate across borders. The outcome in the event of a failed bank will depend on the resolution frameworks of individual countries and the losses to uninsured creditors and to the deposit insurance scheme. Some countries have special bankruptcy laws for dealing with banks, but most appear to use the general corporate code.

A common approach to insolvency resolution is desirable in an integrated market—this would involve similar treatment of creditors, mutual recognition of partner jurisdictions’ bankruptcy procedures, and coordination among the authorities. The common approach would diminish conflicts and allow a faster and less costly solution. It needs to recognize, however, that cooperation deteriorates under adverse conditions. Declaring a bank insolvent may impact the home and the host differently. This is complicated by accounting rules for insolvency that may differ, particularly when the bankruptcy procedures are not specific to financial institutions.

To take account of the differences in bankruptcy legislation applied to financial institutions across jurisdictions and the costs of disorderly bankruptcy and fiscal rescues, special resolution regimes have also been called for (Cihak and Nier, 2009). Internationally, enhanced coordination arrangements would need to accompany these (IMF, 2010).

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5 Under Basel guidelines, solvency of branches is the responsibility of the home jurisdiction, whereas the solvency of subsidiaries or joint ventures is that of the host supervisor or country of incorporation. But the home (or parent) jurisdiction should take account of the exposure of their banks’ foreign subsidiaries and joint ventures because the parent bank has a responsibility for their subsidiaries.
Lessons from the Recent Global Financial Crisis

The global financial crisis highlighted the inadequacies of supervisory frameworks in accounting for systemic risk arising from the interaction between institutions. This section considers two major areas of change arising from this realization: (1) the attention to macroprudential oversight, and (2) the lessons the EU has drawn for the structure and conduct of supervision and contingency planning in their monetary union. While EU arrangements should not be taken as a template or guide for the EAC, the lessons the EU has drawn from crisis should still be of value.

Supervisors are now seeking to adopt a macroprudential approach to regulation and supervision. The concept recognizes that supervision that focuses only on ensuring the soundness of the individual institution will miss the linkages and interactions between institutions, other market components, and the wider economy, and this may constitute the greatest threat to the financial stability. Sound individual institutions do not necessarily imply that the system is sound, as unforeseen interactions may produce systemic risk. Cross-border links are an important aspect of such interactions. The design of a harmonized financial stability framework allows the EAC to consider how the renewed focus on a macroprudential approach could benefit their own financial stability arrangements.

As is clear from the Committee on the Global Financial System’s 2010 paper and Lim and others (2011), the operationalization of macroprudential oversight is still under development. Lim and others (2011) have provided initial inferences on the use of macroprudential instruments. Caps on the loan-to-value and debt-to-income ratios, and on credit or credit growth, as well as reserve requirements, countercyclical capital requirements, and dynamic provisioning, were all found to help dampen procyclicality. Limits on net open currency positions, currency, and liquidity mismatch help reduce exposure. The use of several instruments, and of targeted and time-varying instruments, were also all found to be more effective. Rules-based instruments, such as dynamic provisioning, were found effective, but potentially difficult to design. Potential costs exist, of course, mainly in the form of unintended consequences from inappropriate calibration of the instruments. The inability of macroprudential policy to compensate for poor fiscal or monetary policy is stressed.

To incorporate macroprudential policies into their toolboxes and permit effective arrangements to address systemic risk, countries have been reviewing and adapting their financial stability frameworks. Institutional arrangements should support the identification and monitoring of systemic risks (requiring information and expertise), provide incentives for timely use of policy instruments, and allow for cooperation such that policy functions (macroprudential, microprudential, monetary) can operate autonomously and are effectively coordinated (Nier and others, 2011). Some advanced economies are incorporating prudential functions into their central banks, with separate agencies responsible for conduct-of-business and securities market oversight. In some cases, dedicated overarching committees responsible for macroprudential policy, somewhat analogous to
monetary policy committees, are being created. Emerging markets are also creating similar structures. The choice of institutional structure should depend on country-specific circumstances.

The arrangements the EU made following the crisis reflect the conclusions reached by de Larosière (2009). That is, that in a single financial market, diversity of rules leads to competitive distortions and regulatory arbitrage and that presumably common directives were too often transposed into national options with different provisions and interpretations. Within a single market, similar definitions must apply to institutions, and capital-consistent approaches to risk management and supervision are needed. While some countries may want stricter rules for their specific circumstances, all must observe minimum core standards. As financial support is provided on a shared level, appropriate incentives require that banking supervision must also be shared. Implementing this approach in a sustainable fashion has led the EU toward a banking union (Box 9.3).

EU arrangements in response to the crisis are clearly complex, and their governance and operational details are still being worked out. The EAC should look to the principles underlying these arrangements that are aimed at circumventing perverse incentives arising in a single market with diverse oversight, and establishing and policing appropriate incentives and actions. Similar rules, regulations, and supervision appear necessary in a single market. Harmonization of approaches is likely insufficient because strong national biases are likely to dominate in times of stress, creating negative externalities at a cost to all. As monetary union approaches, the EAC authorities should review their financial stability

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**BOX 9.3 European Union Lessons from the Global Crisis**

A banking union is a single supervisory and regulatory framework, resolution mechanism, and safety net for the euro area (Goyal and others, 2013). A harmonized regulatory setup, harmonized national resolution regimes for credit institutions, and standards for national deposit insurance schemes was planned for 2013.

A single supervisory mechanism is to be implemented once legislation is passed. Technical standards on sectoral microprudential regulation are set by the European Banking Authority, the European Securities and Markets Authority, and the European Insurance and Occupational Pensions Authority (all established in 2011). They are tasked with overseeing national supervisors and settling supervisory disputes.

The European Central Bank is to be the principal supervisor for the European Union, accountable to the European Parliament, directly supervising at least the three largest banks in any member, with the power to bring any bank under its supervision. National authorities remain responsible for any banks under their direct supervision.

Macroprudential oversight is assigned to the European Systemic Risk Board, which is to ensure effective recognition of cross-border spillover through risk warnings and recommendations. A single resolution mechanism and authority (including legislation and regulations) deposit insurance and common backstops is also expected.

**Source:** Goyal and others (2013).
frameworks to arrive at a single framework for the union that takes explicit account of spillover, systemic risk, and externalities.

**CONCLUSIONS**

EAC financial integration needs a regional financial stability framework. Key aspects in this regard require considerable collaborative effort. This includes not only harmonization and a unified approach to supervision and regulation across the region, but also development of appropriate legislation and methods for effective consolidated supervision and home-host cooperation. Financial stability analysis could also be undertaken jointly by following review of data definitions and interpretations to assess the potential for cross-border contagion through regionally headquartered banks. A number of challenges will have to be addressed, including the development of macroeconomic models, information, and analytical capacity for the nonbank financial sector, harmonization of supervision and regulation, and arrangements for crisis management and safety nets. The process arising from these arrangements should be sequenced immediately after completion of the negotiation of the EAC Monetary Protocol.
### TABLE A9.1

**Financial Stability Frameworks in the East African Community**

<table>
<thead>
<tr>
<th>Burundi</th>
<th>Kenya</th>
<th>Rwanda</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>National coordination</td>
<td>Informal coordination with other regulators</td>
<td>Coordinated by the Ministry of Finance with responsibility shared by regulatory agencies, though leadership not formalized</td>
<td>BNR is the only regulator of financial institutions and is responsible for the financial stability framework</td>
<td>There are consultations and exchange of information among financial regulators, with an MOU in process</td>
</tr>
<tr>
<td>Responsibility and organizational arrangements</td>
<td>BRB: Banking Supervision and Financial Stability Department</td>
<td>Regulators’ Forum with an MOU monitors financial stability through a Financial Sector Stability Committee of technical staff from the overseeing ministries and the 5 regulators, and an Information and Sharing Committee</td>
<td>BNR has a Financial Stability Directorate that houses the Financial Stability Analysis Division as well as bank supervision, nonbank (insurance, pensions) financial institution, and microfinance supervision departments. Directorate’s work overseen by Financial Stability Committee.</td>
<td>BoT has a Financial Stability Department and is mandated as the responsible authority for macroprudential oversight and facilitates the TFRF whose members include BoT, SSRA, TIRA, Deposit Insurance Board, and Ministry of Finance.</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th></th>
<th>Burundi</th>
<th>Kenya</th>
<th>Rwanda</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FSR</strong></td>
<td>None</td>
<td>FSR</td>
<td>FSR</td>
<td>FSR</td>
<td>FSR</td>
</tr>
<tr>
<td><strong>Tools for risk identification</strong></td>
<td>Financial soundness indicators</td>
<td>Financial soundness indicators, EWS-CAMEL</td>
<td>Financial soundness indicators, CAMEL</td>
<td>Financial soundness indicators, EWS-CAMEL</td>
<td>Financial soundness indicators, EWS, CAMEL</td>
</tr>
<tr>
<td><strong>External risks</strong></td>
<td>No models</td>
<td>Stress testing models, 2</td>
<td>Stress testing</td>
<td>Stress testing</td>
<td>Stress testing</td>
</tr>
<tr>
<td><strong>Contagion risks</strong></td>
<td>No models</td>
<td>No models</td>
<td>No models</td>
<td>No models</td>
<td>No models</td>
</tr>
<tr>
<td><strong>Crisis management arrangements</strong></td>
<td>Liquidity: BRB provides ELA on condition that banks have eligible collateral (government securities and some performing loans). Intervention: Banking act empowers BRB to intervene banks in difficulty through naming a provisional controller who participates in and can override board; and through naming new managers for two months. Decisions regarding resolution taken by commercial court on request of the central bank.</td>
<td>Financial Regulator’s Forum MOU allows for coordinated approach to crisis management. Liquidity: Central bank act provides that CBK can make loans for fixed periods with government securities as collateral, on terms and conditions decided by bank. Intervention: Laws allow for CBK to organize statutory management and liquidation of banks. Safety net: Deposit Protection Fund Board to provide insurance cover and act as liquidator.</td>
<td>No formal crisis management framework. Liquidity: BNR Act gives wide ability to decide on its facilities, including penalty interest rates. Intervention: Banking law provides BNR with enforcement and resolution powers to address individual institutions, including through liquidity and solvency support. Safety net: Law also requires a deposit insurance fund, legislation for which is under way.</td>
<td>Liquidity: BoT is lender-of-last-resort facilities at penal interest rates to solvent but illiquid banks with adequate collateral or government guarantee. Intervention: BoT can appoint an advisor, remove managers, impose fines, merge a bank, transfer assets and liabilities, and reorganize. Safety net: Deposit insurance Fund managed by the BoT.</td>
<td>Liquidity: Act allows BoU loans with collateral of securities specified by board. Intervention: BoU can place bank in receivership, receiver can mandate merger, purchase and assumption, sale of bank, and liquidation of assets. Safety net: Deposit protection scheme managed by bank supervision department.</td>
</tr>
<tr>
<td><strong>Cross-border cooperation</strong></td>
<td>EAC central banks’ MOU, but it does not provide for crisis management.</td>
<td>EAC central banks’ MOU, but it does not provide for crisis management.</td>
<td>EAC central banks’ MOU, but it does not provide for crisis management.</td>
<td>EAC central banks’ MOU, MOUs between BoT and central banks of Kenya, Cyprus, Zimbabwe, Comoros, Uganda, Burundi, Rwanda</td>
<td>EAC central banks’ MOUs, but it does not provide for crisis management.</td>
</tr>
</tbody>
</table>

Source: Websites of the central banks of EAC countries.

Note: BNR = Banque Nationale de Rwanda; BoT = Bank of Tanzania; BRB = Banque de la Republique de Burundi; CAMEL = capital adequacy, management capability, and liquidity; CBK = Central Bank of Kenya; CMA = Capital Markets Authority; EAC = East African Community; ELA = emergency liquidity assistance; EWS = early warning system; FSSC = Financial Sector Surveillance Committee; FSR = Financial Stability Report; IRA = Insurance Regulatory Authority; MOU = memorandum of understanding; RBA = Retirement Benefits Authority; SACCO = Savings and Credit Cooperatives; SASRA = SACCO Societies Regulatory Authority; SSRA = Social Security Regulatory Authority, Tanzania; TFRF = Tanzania Financial Regulatory Authority; TIRA = Tanzania Insurance Regulatory Authority.
### TABLE A9.2

**Financial Soundness Indicators in the East African Community, 2011**

<table>
<thead>
<tr>
<th></th>
<th>Burundi</th>
<th>Kenya</th>
<th>Rwanda</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital adequacy</strong>¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory capital to risk-weighted assets</td>
<td>19.8</td>
<td>19.4</td>
<td>25</td>
<td>17.6</td>
<td>20.3</td>
</tr>
<tr>
<td>Regulatory tier 1 capital to risk-weighted assets</td>
<td>17.3</td>
<td>17.3</td>
<td>22.9</td>
<td>17</td>
<td>17.9</td>
</tr>
<tr>
<td><strong>Asset quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonperforming loans to total gross loans</td>
<td>7.7</td>
<td>4.4</td>
<td>8</td>
<td>6.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Nonperforming loans net of provisions to capital</td>
<td>4.9</td>
<td>3.5</td>
<td>14.7</td>
<td>17.5</td>
<td>—</td>
</tr>
<tr>
<td><strong>Earning and profitability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on assets</td>
<td>3.2</td>
<td>3.3</td>
<td>2.9</td>
<td>0.5</td>
<td>4</td>
</tr>
<tr>
<td>Return on equity</td>
<td>23</td>
<td>32.2</td>
<td>14.1</td>
<td>15.1</td>
<td>27.4</td>
</tr>
<tr>
<td>Interest margin to gross income</td>
<td>175.6</td>
<td>38.6</td>
<td>47.3</td>
<td>52.6</td>
<td>—</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid assets to total assets</td>
<td>—</td>
<td>33.3</td>
<td>30</td>
<td>37</td>
<td>—</td>
</tr>
<tr>
<td>Liquid assets to short-term liabilities</td>
<td>93.1</td>
<td>37</td>
<td>—</td>
<td>40.2</td>
<td>—</td>
</tr>
<tr>
<td>Total loans to total deposits¹</td>
<td>—</td>
<td>77.4</td>
<td>88.1</td>
<td>64.2</td>
<td>78.4</td>
</tr>
<tr>
<td><strong>Sensitivity to market risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net open position in foreign exchange to capital</td>
<td>—</td>
<td>3.3</td>
<td>9.6</td>
<td>0</td>
<td>—</td>
</tr>
<tr>
<td>FX currency denominated assets to total assets</td>
<td>—</td>
<td>11.8</td>
<td>16.5</td>
<td>33.8</td>
<td>—</td>
</tr>
<tr>
<td>FX assets to FX liabilities</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>100.2</td>
</tr>
</tbody>
</table>


**Notes:** Different sources were used to obtain the largest number of comparable indicators, while taking account of possible revisions to the data. FX = foreign exchange.

¹For Tanzania, the denominator for capital adequacy is total risk-weighted assets and off-balance sheet exposures; the ratio of loans to deposits is total loans to customer deposits.

### TABLE A9.3

**Financial Systems in the East African Community**

<table>
<thead>
<tr>
<th></th>
<th>Burundi</th>
<th>Kenya</th>
<th>Rwanda</th>
<th>Tanzania</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Commercial banks</strong></td>
<td>9</td>
<td>43</td>
<td>9</td>
<td>31</td>
<td>24</td>
</tr>
<tr>
<td>Ratio of assets to GDP (percent)</td>
<td>31.6</td>
<td>66.8</td>
<td>28.3</td>
<td>38.2</td>
<td>29.2</td>
</tr>
<tr>
<td>Other banking institutions</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>6</td>
<td>47</td>
<td>8</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>Pension funds</td>
<td>—</td>
<td>23</td>
<td>40</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Microfinance deposit-takers</td>
<td>—</td>
<td>6</td>
<td>11</td>
<td>—</td>
<td>4</td>
</tr>
<tr>
<td>SACCOs</td>
<td>—</td>
<td>123</td>
<td>486</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Stock market capitalization to GDP (percent)</td>
<td>na</td>
<td>28.7</td>
<td>21.3</td>
<td>30.5</td>
<td>468.5</td>
</tr>
<tr>
<td>Bureaux de change</td>
<td>—</td>
<td>118</td>
<td>148</td>
<td>198</td>
<td>176</td>
</tr>
</tbody>
</table>

**Sources:** EAC central banks’ annual reports; supervision and financial stability reports; websites of the stock exchanges (Dar Es Salaam, Nairobi, Uganda); regulatory agencies; and IMF staff reports.

**Notes:** The data in this table may not be strictly comparable because the definition of microfinance institutions and SACCOs may differ across countries. The data may not be complete because it is not always possible to locate an appropriate source. SACCO = savings and credit cooperative organization.
REFERENCES


