Agricultural Finance –
Trends, Issues and Challenges
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Preface

Agriculture is, and will remain, a major global building block in achieving the Millennium Development Goals. Recent statistics show that by 2050 at least a 70% increase in agricultural production will be required to feed the world, while climate change, soil degradation and urbanisation will reduce cultivable land areas.

Volatile food prices, record price peaks, food shortages, frequent natural disasters, persistently high poverty levels in rural areas and predictions of a steadily growing world population with a more sophisticated demand structure have increased the political pressure on many emerging and developing countries to act immediately. There is now broad consensus that rural development and agriculture investment require more support to increase food production and to combat poverty.

There is a strong need to sustainably modernise agriculture in developing countries, combined with increased value addition in the processes following primary production. This, however, comes with a heavy demand for investment capital.

After more than a decade of low recognition, the issue of agricultural finance is back – and frequently tops the international development agenda. International donors, politicians, and specifically the G20 are placing renewed focus on this long neglected topic. Within the Global Partnership for Financial Inclusion of the G20 development working group, Germany co-chairs the G20 sub-group on small and medium enterprise finance, which also focuses on agricultural finance. The overarching goal of this working group is to develop concrete policy recommendations and risk reduction mechanisms to replicate and scale up best practices. These recommendations are then to be integrated into national SME development plans.

It appears to be a blessing in disguise that German development cooperation never gave up on rural and agricultural finance during the 1990s when most other donors fully subscribed to commercialised microfinance. Today, German development cooperation is well positioned to lead in rural finance and promote innovative approaches, which it had supported for many years. Examples include linkage banking, agriculture development bank reform, rural cooperative banking. On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is a key facilitator in the current G20 process of developing concrete approaches and instruments in agricultural finance. Within this mandate, GIZ has prepared this paper which provides a timely and systematic overview of the key areas and the main challenges in agricultural finance.
The past few years have proven that neither commercial banks nor the emerging microfinance industry alone can meet the key financial needs that arise along agricultural value chains. Many farmers are left unserved. However, to meet medium and long-term demand, the international development community strongly warns against reverting to the old, unsustainable paradigms of interest rate subsidies and short-term direct credit lines.

Fortunately, this renewed focus on rural and agricultural finance is emerging in a more enabling environment. Partner countries and donors are concentrating on developing appropriate financial products and services, such as value chain finance and weather insurance schemes, and on innovative delivery channels, such as mobile financial services, to increase outreach to the rural poor. In this context, it is important to go beyond credit and to widen the range of services to include savings, leasing, payments and insurance models.

Furthermore, it will not be sufficient to limit activities to financial services alone. A successful approach will combine these with the technical and commercial capacity building of all actors within agricultural value chains.

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<tr>
<td>ACBA</td>
<td>Agricultural Cooperative Bank of Armenia</td>
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<td>AFR</td>
<td>Agricultural Finance Revisited</td>
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<td>AFRACA</td>
<td>African Rural and Agricultural Credit Association</td>
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<td>ALIDE</td>
<td>Asociación Latinoamericana de Instituciones Financieras para el Desarrollo</td>
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<td>APRACA</td>
<td>Asia and Pacific Rural and Agricultural Credit Association</td>
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<tr>
<td>ATM</td>
<td>Automated Teller Machine</td>
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<td>bn</td>
<td>Billion</td>
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<td>BNDA</td>
<td>Banque Nationale de Developpement Agricole</td>
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<td>BRI</td>
<td>Bank Rakyat Indonesia</td>
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<tr>
<td>CGAP</td>
<td>Consultative Group to Assist the Poorest</td>
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<td>CRDB</td>
<td>Cooperative Rural Development Bank</td>
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<td>CRMG</td>
<td>Commodity Risk Management Group</td>
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<td>DFI</td>
<td>Development Finance Institution</td>
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<td>EBRD</td>
<td>European Bank for Reconstruction and Development</td>
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<td>ECA</td>
<td>Europe and Central Asia</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>GNP</td>
<td>Gross National Product</td>
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<td>GTZ</td>
<td>Deutsche Gesellschaft für Technische Zusammenarbeit</td>
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<tr>
<td>IADB</td>
<td>Inter-American Development Bank</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
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<td>KAFC</td>
<td>Kyrgyz Agricultural Finance Corporation</td>
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<td>KfW</td>
<td>Kreditanstalt für Wiederaufbau</td>
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<td>MFI</td>
<td>Microfinance Institution</td>
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<td>mn</td>
<td>million</td>
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<td>NBFI</td>
<td>Non-Bank Financial Institutions</td>
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<td>NENARACA</td>
<td>Near East-North Africa Rural and Agricultural Credit Association</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>POS</td>
<td>Points Of Sale</td>
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<td>RFI</td>
<td>Rural Finance Institution</td>
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<td>SHG</td>
<td>Self-Help Group</td>
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<td>VAT</td>
<td>Value Added Tax</td>
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<td>VBARD</td>
<td>Vietnam Bank for Agriculture and Rural Development</td>
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<td>WOCCU</td>
<td>World Council of Credit Unions</td>
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Introduction

Rural and agricultural finance are among the most challenging fields of banking, which have notoriously been lagging behind in the overall development of financial systems. Earlier attempts during the 1960s and 1970s based on subsidised and directed agricultural credit did not achieve the desired results in a sustainable way. Then, during the 1980s and 1990s, the attention of the governments and donors shifted away from agricultural credit towards overall financial systems development and microcredit. Financial liberalisation and the closure of agricultural development banks led to a contraction of rural and agricultural finance in many parts of the developing world, which has not yet been fully reversed by new entrants. Although there has been significant progress in overall financial systems development since then, large segments of the rural population remain without access to essential financial services, such as loans for productive and consumptive purposes, deposit facilities, payment services and insurance. Even the ‘microfinance revolution’ has had limited impact in rural areas and has largely bypassed the agricultural sector. Moreover, existing rural financial services are often of low quality and do not respond adequately to the demand of diverse rural markets.

Given the importance of the rural economy and the agricultural sector for economic growth and poverty reduction, rural and agricultural finance are now being widely acknowledged as the main frontiers of financial systems development. Moreover, the recent food price crisis forcefully evidenced the consequences of decades of underinvestment in agriculture and rural infrastructure. Given that about 70% of the poor in the developing world still live in rural areas, rural and agricultural development is essential for achieving the Millennium Development Goals. Finance has an important role to play as it helps rural households and enterprises in making productive investments, smoothing consumption, managing risks and coping with shocks.

This paper provides an overview of the current state of rural finance, summarising recent advances and highlighting the remaining gaps and challenges. It is targeted at a broader audience of policy-makers, experts and practitioners in the fields of rural and agricultural development, financial sector development and microfinance who want a quick overview of the subject. Chapter 1 introduces the topic by defining core concepts and highlighting the specific issues and challenges of financial services provision in rural areas. This is followed by a brief overview of the changing approaches to rural finance over the past few decades and a snapshot of the current status and recent trends in different regions.
Chapter 2 discusses the key areas and hotspots of rural finance development, which have been in the spotlight over the last decade and highlights the main issues, achievements and challenges ahead. These areas are grouped into three broader categories: Advances in financial products and services development (1), advances in developing institutions (2) and delivery mechanisms (3) to expand sustainable rural outreach. Chapter 3 presents conclusions and highlights priorities for further advancing the rural and agricultural finance agenda.
1 Rural and Agricultural Finance: Current Status and Recent Trends

1.1 Rural, Agricultural and Micro Finance: Differences and Overlaps

**Rural finance** is a spatial concept, which encompasses the provision of different financial services to households and enterprises in rural areas for both productive and consumptive purposes. Rural financial services include loans, savings, payment and money transfer services, and risk management (e.g. insurance, hedging and guarantees).

**Agricultural finance** is a sectoral concept which comprises financial services for agricultural production, processing and marketing, such as short, medium and long-term loans, leasing, and crop and livestock insurance. Recently, the concept of **agricultural value chain finance** was introduced to emphasise the vertical dimension of agricultural finance to and between different segments of agricultural value chains. Although agricultural finance can largely be regarded as a subset of rural finance, some larger companies operating on both ends of agricultural value chains are also located in bigger towns and cities.

**Microfinance** can be broadly defined as financial service provision to poor people in urban and rural areas. Microfinance only partly overlaps with rural finance given that most microfinance customers are in urban areas. **Agricultural microfinance** (as defined by Christen and Pearce, 2005) refers to the provision of financial services to small farmers and poor rural households for agricultural production, marketing and processing.

Figure 1: Rural Finance, Agricultural Finance and Microfinance
Rural financial services are provided by a continuum of institutions with different levels of formality ranging from informal grassroots financial institutions such as Rotating and Accumulating Savings and Credit Associations (ROSCAS and ASCAS) to formal financial institutions such as banks, leasing and insurance companies, investment funds and non-bank financial institutions. Financial NGOs, mutualist financial institutions such as credit unions, savings and loan cooperatives, and financial services associations (sometimes called ‘semi-formal’ institutions), are somewhere in between. Although more structured and with higher levels of functional differentiation and professionalization, their regulatory framework and supervision are often weak or non-existent.

Non-financial institutions such as traders, input suppliers, processors and exporters have always played an important role in providing short-term finance for agricultural production and marketing. The role of agribusiness as a provider of agricultural credit might even have increased recently, in response to the decline of bank lending and as part of an overall trend towards increased vertical coordination and integration.

The demand side is equally diverse, ranging from semi-subsistence households to micro and small enterprises engaged in agricultural and non-agricultural activities, and medium/large companies engaged in production, manufacturing, trade and services. Their financial needs differ widely in terms of amounts, terms and conditions as well as the degree of sophistication of financial services required.

1.2 Specific Challenges for Financial Service Provision in Rural Areas

Given the peculiarities of rural areas and rural economic activities, rural financial services provision has to tackle several specific challenges, in addition to those inherent in any financial intermediation. These specific challenges are related to seasonality, covariant risks and low population densities.

Many rural economic activities are subject to seasonality and gestation periods, which often lead to a slow rotation of the invested capital and are reflected in the cash flows of rural entrepreneurs. This applies to farming as well as to other related activities such as agro-processing, input supply and service provision. Gestation periods can last from a few months (seasonal crops, small livestock) up to several years (tree crops). Investments in lumpy assets such as farm equipment require larger capital outlays, which need to be repaid over several years. Longer loan maturities and irregular repayment schedules are more risky and present additional challenges to liquidity management. Moreover, the slower rotation of capital results in a lower profitability of agriculture and related activities if compared to other sectors such as trade and services with a quick turnover of funds. Hence, lenders need to offer
longer loan maturities and less frequent repayment instalments to match the cash flow of borrowers. This not only requires strong appraisal skills and efficient loan monitoring and borrower supervision to manage credit risk; lenders also need to mobilise sufficient long-term funding sources to minimise asset liability mismatches and the associated risks. Moreover, the seasonal variations in the demand for funds from rural clients, reflected in the demand for loans and supply of deposits, pose additional challenges to the liquidity management of rural financial institutions.

More than in any other sector, the profitability of agricultural enterprises depends significantly on external factors such as the weather, major pest and disease outbreaks or prices of inputs and outputs, which are largely beyond the farmers’ control. In addition to idiosyncratic risks affecting individual clients (e.g. illness or death of family members, theft of productive assets, etc.), agricultural enterprises are exposed to covariant risks arising from the abovementioned external factors, which may simultaneously affect numerous farmers in a given area. Due to the various forward and backward linkages between agriculture and other sectors of the rural economy, these covariant risks can also have a significant impact on non-agricultural enterprises in rural areas (Klein et al. 1999; Hoellinger, 2004). For rural financial institutions, this translates into considerable portfolio and solvency risks, which require a strong capital base and sound risk management practices, including sufficiently high sectoral and regional diversification of their loan portfolios.

Low population densities and poor infrastructure (transport, communications, power supply) result in high transaction costs for rural financial service providers and for their clients. This reduces enterprise profitability and increases the costs of financial services. Consequently, the returns of rural enterprises often do not permit them to fully pay cost-covering interest rates, thereby reducing the effective demand for loans.

Finally, agriculture is a politically sensitive sector prone to government interventions. Although permanent interventions through lending quotas, interest rate ceilings or direct government provision of financial services have been reduced substantially in the last few decades, governments continue to intervene on an ad hoc basis. Such interventions include loan rescheduling or forgiveness and preferential lending programmes for specific target groups, which are often granted after major economic downturns or natural calamities, and especially in the advent of elections. They create additional uncertainties for financial institutions and tend to weaken the repayment culture.

Despite these additional challenges, rural financial services providers have fewer instruments at their disposal to manage the various risks and reduce operational costs than their urban counterparts. Many rural financial institutions (RFIs) try to protect themselves against the various risks through excessive credit rationing and
over-reliance on collateral. However, rural assets are less suitable as loan collateral than for example urban real estate. Due to legal and administrative impediments as well as cultural factors, land and other rural assets are often not registered and may be more difficult to foreclose and sell. Even where these constraints do not apply, collateral is a poor protection against massive default due to covariant risks. However, other more appropriate instruments for managing covariant risks, such as crop insurance or hedging, are rarely available.

Classical microfinance techniques to cope with delinquency risks include highly standardised loan products based on small credit amounts, frequent (often weekly or bi-weekly) repayments without grace periods, short maturities, and collateral substitutes such as joint liability mechanisms. While these techniques still work rather well in peri-urban areas and for a few rural economic activities, they are difficult to apply in rural economies characterised by strong seasonalities and low population densities, and they are unsuitable for larger loan amounts and longer maturities which is typical for agricultural finance.

1.3 Changing Paradigms in Rural Finance

In view of the abovementioned challenges, commercially oriented financial institutions tend to avoid rural and agricultural finance, as long as other, less risky business opportunities are available. Due to the importance of the rural economy for overall economic growth, employment and poverty reduction in most developing and transition countries, expanding rural and agricultural finance used to be a major concern for governments and donors. However, policies and instruments for enhancing rural finance have evolved considerably over the past decades, reflecting fundamental changes of the underlying paradigms: during the 1960s and 1970s, the emphasis was on addressing market failures through massive public intervention in the form of directed and subsidised credit. The overall objective was to accelerate the modernisation of agriculture through the adoption of Green Revolution technology packages combined with farm mechanisation and irrigation. Credit was considered as an input for agriculture production and specific institutions such as agricultural development banks and cooperatives were established to make cheap credit widely available to farmers. Rather than financial intermediation, the main purpose of these institutions was to channel loans at subsidised interest rates to farmers. Outreach, not loan repayment, was the main concern, and little attention was paid to the financial health of the lending institution.

Although subsidised and directed credit helped some developing countries, especially in Asia, to improve agricultural yields, it proved to be a high-cost approach, which scored poorly on efficiency and sustainability. All too often, state-owned agricultural banks and credit funds were fraught by poor management, political
interference and rent-seeking elites. Interest rates were set too low to cover operational costs, and high loan losses further undermined the financial health of the lending institutions. Politically motivated loan forgiveness following major natural calamities or price slumps weakened the repayment culture in rural areas. Hence, periodic capital injections were required to keep the lending institutions alive. Notwithstanding the sizeable amounts of public funds invested, outreach to small farms and landless households often remained limited. Like other financial institutions, agricultural banks preferred lending to medium and large farmers with sufficient collateral who could be served at lower transaction costs. Hence, in many countries the majority of rural households still did not have access to credit, let alone other financial services (Meyer and Nagarajan, 2005; FAO/GTZ, 1998).

During the 1980s, major donor organisations and many governments started reviewing their agricultural credit policies. In the wake of structural adjustment programmes and fiscal austerity, funding for agricultural banks and credit project declined sharply. Many countries, especially in Latin America and Africa, liberalised their financial markets, closed down agricultural development banks and phased out credit lines to agriculture and other priority sectors. Meanwhile, microfinance gained popularity amongst donors and governments. Pioneers like the Grameen Bank, Banco Sol, Bank Rakyat Indonesia (BRI) and others demonstrated that many poor households that were deemed unbankable could be serviced in a cost-covering way and that lending institutions were able to become financially sustainable (at least in the medium term) if appropriate institutional arrangements and financing technologies were put in place. In addition, a new strand of research based on the concepts of new institutional economics provided fresh insights into the functioning of rural financial markets and the financial management practices of poor households, including a better understanding of their demand for financial services.

During the 1990s, these trends converged into a new paradigm in development finance, focusing on the development of efficient and inclusive financial systems and markets. The Financial Systems Approach acknowledges the importance of efficient financial intermediation for economic development and poverty reduction. The development of stable, efficient and inclusive financial systems is regarded as a development objective on its own, rather than a means to achieve other development objectives.

According to the Financial Systems Approach, governments should refrain from directly providing financial services or intervening in financial markets. Lending quotas, interest rate ceilings or subsidised funding to priority sectors should be avoided as they would distort resource allocation and crowd out private financial institutions. The governments’ main role is to provide conducive framework conditions and an enabling environment for the development of competitive and transparent financial markets and effective financial intermediation. This includes sound macroeconomic policies that keep inflation and domestic borrowing rates
Box 1: Basic Principles and Assumptions of the Financial Systems Approach

- Financial institutions must be allowed to charge cost-covering interest rates to grow and provide loans in a durable way.
- Poor clients value reliable and quick access to loans more than their costs.
- Financial liberalisation creates competition amongst financial institutions, which stimulates product innovations and a gradual expansion of financial service provision (the ‘frontier of formal finance’) towards rural areas, low-income clients and riskier economic activities such as agriculture.
- Savings, insurance and payment services are at least as important as credit for poorer rural households. Moreover, deposit mobilisation can be an important source of funds for financial institutions.
- Due to problems regarding governance, efficiency and political interference, governments should refrain from directly engaging in financial services provision.
- Subsidised funds bear the risks of distorting financial markets and crowding out private service providers, and undermine the incentives for deposit mobilisation.

low and exchange rates stable. Governments should further create a strong legal and regulatory framework for different types of financial institutions coupled with effective supervision to stimulate competition while safeguarding the stability of the financial system.

Further important areas for public sector investments are transport and communication infrastructure, which reduce transaction costs and enhance the profitability of both economic activities and financial services provision in rural areas. Subsidies to financial institutions should be limited to institutional strengthening and capacity building, with a view to enhancing outreach, financial sustainability and poverty reduction impact. Subsidised funds for on-lending might only be justified for a limited time period to compensate financial institutions for the higher initial costs and risks of launching financial innovations. Interest rates for clients should not be subsidised. According to the Financial Systems Approach, victims of wars or natural disasters should be given direct grants rather than subsidised loans (World Bank, 2006a; Klein et al., 1999; Meyer and Nagarajan, 2005).
1.4 The Current State of Rural Finance

During the 1990s, the Financial Systems Approach was officially adopted by all donors and International Financial Institutions and by the majority of developing and transition countries. However, the fruits of financial market liberalisation have been slow to materialise in rural areas. Government withdrawal from financial service provision and the closure of agricultural banks led to a contraction of formal financial services in rural areas. The entry and expansion of private financial institutions have been slow and uneven and largely confined to a few high-potential areas and non-agricultural rural activities. Commercial banks have rarely entered rural areas due to safer and more profitable business opportunities elsewhere. Microfinance has proliferated mainly in urban or densely populated rural areas focusing on non-agricultural activities in the trade and services sector. Hence, especially more remote rural areas and the agricultural sector continue to be heavily underserved by financial institutions. This has even been the case in countries which implemented far-reaching financial sector reforms more than a decade ago and have followed sound macroeconomic and financial sector policies for many years.4

The trends described above do not apply to all regions equally. An in-depth review of each region is beyond the scope of this paper and would also be quite challenging in view of data limitations and methodological issues.5 Nevertheless, the following section provides a brief overview of some key regional features:

**East and South Asia** is still characterised by higher degrees of government intervention in rural financial markets compared to other regions. Instruments vary between countries and include lending quotas for commercial banks to priority sectors, reinsurance facilities from second-tier institutions and direct lending through publicly owned banks. The performance of public banks is highly variable, but some of them have been successfully reformed and are now achieving impressive outreach in rural areas combined with high levels of efficiency and financial sustainability. Rural banks and savings and credit cooperatives play an important role in some countries (e.g. the Philippines, Indonesia and Nepal).

South Asia hosts some of the pioneers and flagship organisations in microfinance (e.g. Grameen Bank and BRAC in Bangladesh). Experiences show that sustainable rural microfinance is greatly facilitated by high population densities and therefore their approaches might not easily be replicable elsewhere. In South-East Asia, there are several public agricultural banks, which have been successfully reformed (e.g. BRI in Indonesia, BAAC in Thailand) or have made important progress in achieving sustainable outreach (e.g. VBARD in Viet Nam, the Land Bank of the Philippines). Linkage models between formal and informal financial institutions are being implemented in several countries, including Indonesia, India, Mongolia and Nepal. Linkages between banks and Self-Help Groups (SHGs) have achieved huge outreach in some countries, especially in India.

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4) Examples of such countries include Bolivia, Uganda, Nicaragua and South Africa.

5) Many rural financial institutions are non-regulated and self-reported data is often incomplete and questionable making consistent data aggregation difficult. Moreover, the distinction between rural and urban is somewhat arbitrary as different financial institutions and countries may use different criteria for classifying loan portfolios and branch locations. The same applies to the sectoral classification, for example, loans for agricultural marketing and processing might either be classified under agriculture, commerce or manufacturing. At the micro level, fungibility issues render tracking of loan uses difficult or impossible.
In the Middle East and North Africa, little progress has been made in reforming rural financial markets, which are still characterised by high levels of state intervention including interest rate caps and subsidised credit. This is partly attributable to government priorities to stimulate food production and curb rural out-migration in the face of adverse climatic conditions and limited water resources, which severely constrain agriculture and rural development. Therefore, publicly owned agricultural banks continue to be the main formal financial service providers in rural areas. Their financial performance is generally poor and their financial products and lending requirements exclude significant parts of the rural poor. Only a few banks have initiated reform processes and the National Agricultural Bank of Tunisia is arguably the only successful reform case in the region so far.

Eastern Europe and the New Independent States have witnessed the most radical change of their financial infrastructure over the past 20 years: more than in other regions, state banks were either closed or restructured and privatised following transition. Many countries, especially in the former Soviet Union, have maintained a highly dualistic agrarian structure characterised by an emerging class of large corporate farms and vertically integrated holdings on one end and myriad small and micro-holdings on the other. Medium-sized farms and SMEs engaged in agri-related upstream and downstream activities are only slowly emerging in parts of the region. Moreover, the rural non-farm economy is less developed than in other regions.

The sources of finance of rural enterprises reflect the dichotomy of the rural economic structure: ‘mega farms’ and vertically integrated agro holdings in Russia, Ukraine and Kazakhstan (RUK) receive debt finance from national and international banks and some of them are listed in stock markets. Private equity investors and investment funds are also targeting farmland and agribusiness assets in RUK and some Eastern European countries. In addition, the RUK countries have introduced large-scale interest rate subsidy schemes for their agricultural sectors, which are accessible through commercial banks (with the latter carrying the portfolio risk). They also operate large publicly supported crop insurance schemes.

Smaller farms, rural households and microenterprises mainly have to rely on self-finance and remittances, especially in the smaller and less developed ECA countries. Financial NGOs and credit unions have some outreach in rural areas although most of them are still small. Only a few financial NGOs have been transformed into Non-Bank Financial Institutions (NBFIs). Overall, commercial banks play a limited role in rural SME finance but some progress has been achieved by various downsizing projects with commercial banks funded by EBRD, IFC and KfW. So far, their operations have mainly been concentrated in urban areas and have barely touched the agricultural sector. However, commercial banks in Georgia and Azerbaijan have started introducing agricultural lending as part of their downsizing activities. Moreover in late 2007, EBRD launched the USD 35 mn Tajik
Agricultural Finance Facility in Tajikistan, assisting commercial banks and MFIs to develop and expand agricultural lending.\(^6\)

A few other notable success cases of unsubsidised rural and agricultural finance exist in the region: The Agricultural Cooperative Bank of Armenia (ACBA), Kyrgyz Agricultural Finance Corporation (KAFC) in Kyrgyzstan and the Agricultural Bank of Mongolia have achieved considerable rural outreach and financial sustainability.

In sub-Saharan Africa, agricultural banks used to be the dominant rural financial institutions in most countries prior to the structural adjustments commenced in the 1990s. In addition, marketing boards and cooperatives operating as single-channel marketing outlets were important sources of agricultural production credit. Such credit was largely provided in-kind through agricultural inputs and recovered at source through deductions from the sales proceeds. In the wake of structural adjustment programmes, governments largely withdrew from the provision of both financial and agricultural support services and marketing. With the liberalisation of agricultural trade and the dismantling of marketing boards, most of these value chain finance arrangements fell apart. Moreover, most governments divested from their agricultural banks and the privatised banks closed many of their rural branches. As a result, the availability of formal rural financial services, especially agricultural credit, declined drastically.

Over the past two decades, many African countries have undertaken serious efforts to reform and strengthen their financial sectors. Reforms included the modernisation of banking laws, strengthening of regulation and supervision, privatisation of state-owned banks and increased entry of foreign banks. However, the expected results of these reforms have been slow to materialise in rural areas and the outreach and quality of rural financial services is still very low. In many countries, the banking sectors are still characterised by low levels of competition and poor product quality. In addition, high treasury bill rates have been crowding out bank lending to productive sectors in several countries. Commercial bank lending has largely been confined to medium and large enterprises in urban areas, with the exception of some estates and large agribusinesses. Overall, it is estimated that only about 20% of the African population has access to formal financial services (Honohan and Beck 2007).

The above is partly attributable to the particularly challenging business environment facing banks in rural Africa. More than in other regions, banks have to grapple with high levels of informality of clients and business transactions, limited availability of loan collateral, poor enforceability of contracts, limited scale in small markets and high transaction costs due to poor infrastructure and low population densities. Moreover, the liberalisation of agricultural input and output markets, despite its positive impact on farm gate prices, has also increased risks and uncertainties in the sector.
Despite the overall bleak picture of rural finance in Africa, there are promising examples of innovative banks and microfinance institutions venturing into rural and agricultural lending, especially in the more advanced countries. Moreover, new technologies such as mobile phone banking help to cut transaction costs especially for payment and deposit services. Contract farming has helped to overcome the lack of inputs and support services (including finance) in some areas. Moreover, some agribusiness companies are providing seasonal credit under contract farming arrangements and there are some promising approaches of value chain finance in sub-sectors such as dairy, sunflower, maize, tea, coffee, cotton and others.

In view of the low outreach of the formal financial system, informal and semi-formal financial institutions continue to play very important roles in rural Africa. There is a wealth of member-owned financial institutions, starting from informal institutions such as Rotating and Accumulating Savings and Credit Associations (ROSCAs and ASCAS) to more structured and formalised institutions such as savings and credit cooperatives, village banks, financial services associations and others. Despite their institutional weaknesses, these grassroots financial institutions are often the only providers of financial services in rural areas. Particularly in Western Africa, member-based decentralised financial institutions have a strong rural tradition. In some countries such as Mali, Burkina Faso and Madagascar, these decentralised financial institutions have grown into large networks with two- or three-tier structures. In Central Africa, member-based and other microfinance institutions are less developed and mainly concentrated in urban areas. In East Africa, many rural savings and credit cooperatives (SACCOs) are concentrated in smallholder cash crop production zones and are often linked to major agricultural value chains such as tea, coffee, cotton, sunflower and dairy.

In Latin America and the Caribbean, many agricultural development banks were closed down during the 1980s and 1990s leading to a marked credit contraction in rural areas and for the agricultural sector. Since the 1990s, donor support has mainly focused on financial NGOs, which have grown considerably in some countries. Several large financial NGOs have been transformed into regulated financial institutions. Although microfinance institutions have proliferated mainly in urban areas, some have diversified into rural areas as well and introduced agricultural loans. This has partly been due to increasing competition in traditional urban microfinance markets and partly due to the expectations from their funders and shareholders. Overall, the number of these MFIs has remained limited and largely confined to a few countries (notably Bolivia, El Salvador, Nicaragua, Paraguay and Peru). Member-based financial institutions such as village banks play a larger role in more remote rural areas and among the rural poor.

The growth of microfinance has been most notable in the smaller and poorer countries (e.g. Bolivia, Nicaragua) while remaining relatively insignificant in larger and more developed countries like Brazil, Mexico and Chile. In most countries,
savings and credit cooperatives and banks (including development banks) continue to be the main providers of rural financial services. Overall, public banks still play a more important role in rural finance and agricultural lending than commonly believed. Several countries have restructured or re-established agricultural banks including first and second-tier institutions (e.g. Peru, Colombia, Guatemala, Mexico) or are in the process of doing so (Bolivia, Nicaragua). Brazil recently made notable advances in the use of branchless banking, expanding access to financial services to remote, previously unbanked areas.

1.5 Recent trends after the food price crisis

The recent trends in agricultural commodity prices have not only put agriculture back on the international agenda but have also changed the governments’ and private investors’ perception of the sector. The basic premise is now that of a looming imbalance between supply and demand of food commodities, which will result in a prolonged period of higher food commodity prices. The extreme food price hikes since 2006 were caused by a culmination of longer-term structural trends, combined with short-term factors, especially the impact of weather conditions on harvests, and superseded by the effects of the global financial and economic crisis. Structural trends and weather impacts (climate change) are likely to remain in force or even increase in the foreseeable future. The main drivers underpinning demand growth are population growth coupled with rapid urbanisation and rising incomes, especially in China, India and other emerging economies. Higher incomes alter the structure of food consumption with a shift from starch-rich towards protein-rich diets leading to an increased demand for livestock products and processed foods. In turn, increasing meat and dairy consumption requires more grain. Moreover, as fossil fuels become scarcer, biofuels will increasingly be competing with food production over a declining natural resource base.

On the supply side, production growth has to grapple with a declining natural resource base, in particular agricultural land and water, due to urbanisation, competition from other economic sectors, desertification, soil fertility losses and climate change. Agriculture yield gaps between the most advanced countries and the majority of developing and transition countries suggest considerable scope for productivity increases. Closing these gaps however, requires significant investments in rural infrastructure, support services, education and applied research, and can only be implemented over longer time periods. In view of these trends, the 2009 FAO/OECD Agricultural Outlook projects average crop prices in real terms (adjusted for inflation) to be 10-20% higher over the next 10 years compared to the reference period 1997-2006 (FAO/OECD, 2009). This marks a reversal of the long term declining trend of agricultural commodity prices.
As a consequence, higher agricultural commodity prices lead to higher food expenditures for consumers. Especially poor households which spend a proportionally large share of their disposable income on food products, have to struggle with constant price increases. Against this background, poor households are forced to make use of all financial services available, including those of microfinance institutions. The food price crisis and the increasing competition within the microfinance sector have led to an increase in credit lending. As demonstrated in rural India, loose credit granting may lead to over-indebtedness with severe consequences. Governments and donors are thus strongly promoting the concept of responsible finance, with strict microfinance regulation and consumer protection principles. Especially in the agricultural sector, where income streams are seasonal, it has become clear that microfinance services should be granted according to the cash flow of agricultural clients. Microfinance might contribute significantly to food security of rural households, by providing a variety of income sources, such as savings or investment capital. However, strict responsible finance practices are the precondition for successfully serving poor rural and agricultural clients.

The increasing demand for food and the tightened supply of agricultural products have alerted governments and donors. The trend of the agriculture sector’s declining share in Official Development Assistance (ODA), which was prevalent since the 1980s, has been reversed. Influential publications such as the World Development Report 2007 (World Bank, 2006c) made a strong case for increasing investments in agriculture highlighting the strong multiplier effects on poverty reduction and rural economic development. Governments of net food importing developing countries are increasingly concerned about food security after the 2008 boom revealed that poor importing countries could easily be priced out of the international markets. In 2003, under the Comprehensive Africa Agriculture Development Programme (CAADP), African countries committed to significantly increase the share of national budgets allocated to agriculture and rural development to at least 10%. After a somewhat slow start, the CAADP process has been gaining momentum and more countries have signed national compacts and are developing investment plans.

Moreover in response to the food price crisis, a High-Level Task Force was established in April 2008, bringing together heads of the UN specialised agencies, funds and programmes, Bretton Woods Institutions and relevant parts of the UN Secretariat. At the G8 Summit in L’Aquila on 10 July 2009, the Heads of State pledged USD 20 billion to be mobilised over three years through the L’Aquila Food Security Initiative in support of sustainable agriculture and rural development in poor countries.7 As a follow up, in April 2010, the Global Agriculture and Food Security Programme (GAFSP) was set up as a multilateral trust fund at the World Bank to provide immediate additional funding to public and private entities supporting national and regional strategic plans for agriculture and food security.

7) However, it appears that only about USD 6 billion are additional resources, with the remainder consisting of already committed funding.
New sources of finance are also emerging: sovereign wealth funds of high-income food deficit countries from the Gulf have been acquiring large land concessions in Africa and elsewhere. Since early 2000, China and India have undertaken strategic investments in rural infrastructure in Africa, ECA and elsewhere partially to secure access to natural resources but also to develop new markets for their farm machinery and processing equipments and other related sectors. Moreover, private capital is increasingly flowing into the agri-food sector of developing and transition countries. In addition to conventional forms of foreign direct investment of corporates, an increasing number of investment funds are now targeting the sector. In view of the fundamentals outlined above, private equity is attracted by growing markets for higher value products promising higher margins and returns on investment in agricultural value chains. Moreover, farmland is considered under-valued in many resource-rich developing and transition countries such as Ukraine, Russia, Brazil, Argentina, Paraguay, and several African countries if compared with OECD countries. Investors increasingly perceive farmland as an opportunity for capital appreciation, as a counter-cyclical asset and inflation hedge, given that it is not correlated with other asset classes. This is why land is rapidly becoming a speculative asset for investors, especially after the recent financial crisis.

Yet, apart from the important opportunities foreign direct investments (FDI) in land may pose for many developing countries – if based on fair and development-oriented contract provisions – the risks they carry need also be considered with due caution. Large-scale purchases of land and long-term leases by investors involve extensive socioeconomic risks, such as intensifying conflict over land, relocation or displacement of the local population and increasing migration into cities. Particularly in countries struggling with weak legal systems and uncertain land rights and corruption, land acquisition by foreign investors can pose a threat to long-term food security, national stability and peace. Often, investors import labour from their own countries or use largely mechanised production methods, which means that no additional income sources are created for the affected local population. Consequently, small farmers can become even more marginalised and run the risk of losing the basis of their livelihood. Similar risks apply when land is treated only as a speculative asset, subject to investors’ interests, and completely detached from its importance for global food production and local livelihoods. As these new sources of finance have only been massively emerging in the past few years and reliable data is still scarce, their full impact at global level and in the involved or affected countries cannot yet be assessed but needs to be viewed individually.

Unfortunately, publicly available information on any of these new capital flows is rather limited making it difficult to assess their full scale and destinations. Information obtained from industry experts and internet sources reveal a total of over USD 4.5 billion active or committed investments in sub-Saharan Africa alone. IFAD (2011, p. 88) reports that ‘the amount of land under negotiation for investment funds targeting agriculture in Africa range from 15 to 20 million hectares. Most of the land being considered is in Africa, Latin America and certain parts of
Asia. Since the majority of land and agri-investment funds have been established during the past three or four years, it is still too early to evaluate their financial sustainability, let alone their ability to divest their capital and their impact on local economies. Available evidence seems to suggest that a first wave of speculative investments targeted mainly at land appreciation has cooled down and investors are now turning towards longer term strategies including substantial investments in on-farm infrastructure, working capital and farm management.

Selected investment funds targeting agriculture in Africa

<table>
<thead>
<tr>
<th>LAND AND CROPS</th>
<th>Committed amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergent Africa Agricultural Land Fund</td>
<td>USD 2,800 mn</td>
</tr>
<tr>
<td>Future Growth Agri-Fund</td>
<td>USD 650 mn</td>
</tr>
<tr>
<td>Silverlands Fund</td>
<td>USD 140 mn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GENERAL FOOD AND AGRI FUNDS</th>
<th>Committed amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Agriculture Fund</td>
<td>USD 135 mn</td>
</tr>
<tr>
<td>Citadel Capital</td>
<td>USD 560 mn</td>
</tr>
<tr>
<td>Agri-Vie</td>
<td>USD 110 mn</td>
</tr>
<tr>
<td>Actis Africa Agribusiness Fund</td>
<td>USD 100 mn</td>
</tr>
<tr>
<td>Silk Invest Ltd</td>
<td>USD 615 mn</td>
</tr>
<tr>
<td>ManoCap Soros Fund</td>
<td>USD 30 mn</td>
</tr>
<tr>
<td>Africa Seed Investment Fund</td>
<td>USD 8 mn</td>
</tr>
<tr>
<td>Nauvu Investments</td>
<td>USD 208 mn</td>
</tr>
</tbody>
</table>

Over ~USD 5.4 billion active or announced

Sources: Miller et al. 2010; GRAIN 2009 and own research

Please note that this table can only provide a snapshot of a random selection of investment funds and committed amounts (not actual investments) at the time of publishing. Currently, agricultural investment funds are evolving very dynamically and information is not always publicly available, which renders a comprehensive illustration impossible.

A recent FAO study on Agricultural Investment Funds (Miller et al., 2010) has identified a total of 31 funds operating in developing and transition countries, including several microfinance investment vehicles financing Rural Finance Institutions. Most of the investment funds have been established during the last three to four years. Capitalisation ranges from USD 8 million to USD 2.3 billion with the majority of the funds being in the USD 50 – 150 million ranges. About two thirds of the sampled funds have a double bottom line, combining commercial with developmental objectives. However, as the authors acknowledge, this high percentage is at least partly due to a sample selection bias, since the study was based on self-reported information collected mainly from the internet. Only funds seeking investment from the public have an incentive to make such information available.

Despite this caveat, the results of the FAO study point to an increasing number of development oriented investment funds targeting agriculture and agribusiness.
Many of these funds are set up as Public-Private Partnerships (PPP) seeking a combination of financial, social and environmental returns. Their shareholders vary in their return expectations and risk appetites and include private commercial investors, International Financial Institutions, foundations and individuals. PPP funds use different variants of ‘patient’ capital, whereby public or social investors assume first-loss tranches to ‘crowd in’ private capital. Most PPP funds claim to target the ‘missing middle’: SMEs, which are too small for attracting commercial investors but whose financing requirements domestic financial institutions do not meet. Their main role is to provide medium and long-term finance, often combined with technical assistance and participation in company management and supervision. More in depth information and independent research is needed to assess to what extent these funds are able to fill some of the gaps in rural SME finance in a sustainable way and what can be learnt about promising fund structures and business models.

Only recently, pension funds are appearing as key players in this context, starting to invest in commodities, including food and farmland. Pension funds’ investments in commodities are currently estimated to amount to USD 100 billion. Of this money in commodities, between USD 5-15 billion are reportedly going into farmland acquisitions. The current share of, on average, 1-3% of pension funds’ portfolios being invested in commodities like farmland may sound small – however, in total terms these are already significant figures, which are expected to double by 2015 (GRAIN 2011).

In summary, it can be concluded that the changed fundamentals have improved the framework conditions for investment in agriculture, as evidenced by the increased flow of private capital into the sector. Moreover, there is an increase in public spending for rural infrastructure and support services tackling core bottlenecks to rural economic development. This enhances the scope for the sustainable expansion of rural and agricultural finance. However, there are also some risks connected to rapidly increasing investments in the agriculture sector, for example, over-indebtedness of borrowers and growing inequalities due to further land concentration.
2 Key Areas and Hotspots

This chapter presents key areas and hotspots of rural finance, which have been the main concerns of practitioners, governments and development partners over the past decade. These are grouped into three categories:

1) Advances in financial products and services development:
   - Agricultural lending
   - Rural savings mobilisation
   - Payment services and remittances
   - Insurance and other risk management instruments.

2) Advances in developing institutions to expand sustainable rural outreach:
   - Reforming agricultural banks
   - Strengthening member-based financial institutions
   - Enhancing outreach through financial linkages

3) Advances in delivery mechanisms:
   - Value chain finance
   - Banking beyond branches

Although some encouraging progress has been made in each of these areas, the scale is often limited. Some of these product and delivery mechanisms are new to the world of development finance, but not to the world of commercial finance, such as index weather insurance and branchless banking, and they are still confined to a few institutions or countries. Hence, the scope for scaling up and replication under different institutional and country conditions still needs to be proven. Other products and delivery mechanisms have been used and tested for many years in some parts of the world but still require up-scaling and adaptation to different country and institutional environments.

A comprehensive and in depth review of these areas is beyond the scope of this paper. The focus here is on providing a synthesis of the core issues in each area, the progress made and challenges ahead. It should also be noted that, despite efforts of donors and practitioners to enhance knowledge sharing, important knowledge gaps remain in understanding the specific conditions and reasons for success or failure of certain product or institutional innovations in a given country context. Often, case studies are produced at an early stage when the longer-term impact and sustainability cannot yet be assessed. Moreover, promoters, donors or implementing institutions that sometimes lack critical distance and methodological rigour,
frequently write them. Overview and ‘state of the art’ papers commissioned by donors tend to significantly draw on these sources. Hence, as Meyer and Nagarajan (2005) state, an important part of the available documentation lacks the theoretical and empirical rigour needed to address important issues regarding product and institutional design and to carefully assess the impacts of the ideas being tested. A more balanced approach is needed between supporting short-term summary documents and rigorous longer-term studies.

2.1. Financial products and services

2.1.1 Agricultural Lending and Leasing

Agricultural lenders have to address issues on both sides of the balance sheet: in view of the longer maturities of agricultural loans and the seasonal loan demand, lenders need to carefully manage their liability structure to minimise liquidity and interest rate risks. Nevertheless, the main challenges are on the lending side: dispersed clients and long distances increase costs and the time required for appraising loans and monitoring borrowers. At the same time, quick loan processing and timely disbursements are crucial in view of the time-bound nature of agricultural activities. Delayed planting, pest control or harvesting due to late fund disbursement may lead to severe yield penalties which might jeopardise the client’s ability to repay. Hence, agricultural lenders require a highly efficient operational model, which allows a proper assessment of risks while keeping distribution costs low.

The above issues are compounded by the characteristics of most farm households, which resemble those of typical microfinance customers: no written records, lack or insufficient tangible loan collateral, fungibility of money, etc. However, conventional micro-lending technologies and product features that cope with these client characteristics are only suitable for certain types of agricultural enterprises and farm households and are difficult to apply in areas with low population density. Given the diversity of agricultural producers and activities, a variety of loan products and lending methodologies are needed.

Very simply, two broad categories of farmers can be distinguished with regard to their financial demand patterns. The first category consists of a vast number of small, subsistence-oriented farmers with highly diversified income sources. For these rural households, farming activities form part of a diverse set of livelihood activities but are often not the main sources of income and may not be the main route out of poverty. They tend to have a low but rather steady farm household cash flow, which enables those with a sufficiently high net cash flow to use and repay conventional micro-loans from their various income sources. Such rural micro-loans typically finance economic activities with low capital requirements and quick turnover: mainly non-farm activities such as trade and service but also some agricultural enterprises like backyard poultry, cattle fattening, dairy production, vegetable gro-

9) Such product features include highly standardised loan terms, small loan amounts, frequent payment instalments, short maturities and high interest rates.
wing and artisanal processing. Given that women often carry out these activities, rural micro loans may contribute to the economic empowerment of rural women, compared to traditional agricultural lending, which was mainly provided to male farmers. Moreover, due to the fungibility of money, parts of rural microcredit are likely to find their way into other agricultural activities, either directly or indirectly by freeing the household’s other resources.

The second category includes market-oriented farmers of different sizes for whom agriculture is the main economic activity. These farmers tend to be more specialised, regard agriculture as a business and invest their profits in the expansion of their farming activities. They usually require larger loan amounts with longer maturities and flexible repayment schedules which are better adjusted to their investment requirements and the cash flows of their main agricultural enterprises. In view of the larger amounts and longer maturities, these farmers tend to be more sensitive to interest rates. The same applies to SMEs engaged in processing, storage and marketing which have substantial, albeit highly seasonal working capital requirements and also demand term finance for expansion and upgrading of equipment. At the top end of the market, well-collateralised farmers and enterprises can access loans from banks. Below this level, there is a sizeable number of SMEs and farmers, the ‘missing middle’, who are neither able to meet the collateral and other requirements of banks nor be adequately served by microfinance institutions. The main challenge is to develop loan products for more specialised small and medium-sized farmers with growth potential in commercial farming.

Several lenders have taken up the challenge of developing specific agricultural loan products and lending technologies and are targeting clients in the ‘missing middle’. These loans often combine elements of micro-lending and conventional agricultural lending. Core features include flexible disbursement and repayment schedules structured according to the seasonality and gestation periods of the main economic activities of farm households. This may include grace periods, irregular and uneven payments and even bullet repayments. Some institutions also offer staggered loan disbursements tailored to the respective and working capital requirements during the cropping cycle, repayable through one bullet payment after the harvest. Different forms of collateral and collateral substitutes are used to secure loans including land, consumer durables and productive assets (farm equipment, livestock etc) 10.

For example, Centenary Bank, a microfinance bank in Uganda, provided seasonal loans to small farmers. Although the loan appraisal considered the entire farm household’s cash flow, repayment plans were fixed according to the cash flow of the main farming activities. The Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand used Joint Liability Groups to screen potential borrowers and monitor loan repayment. Due to its scale and lending technology, the bank achieved high staff productivity 11, which enabled it to service the majority of the farming population. The United Georgian Bank, a commercial bank in Georgia, 10 IFAD and CGAP have reviewed the agricultural lending practices of 30 microfinance institutions, which have developed sustainable products with potential for scalability (Christen and Pearce, 2005).

11 Loan Officers handle between 400 and 500 active borrowers.
introduced agricultural lending in the context of a downscaling project. Farmers were pre-selected by village leaders and clustered according to their main cash crops. This approach allowed a high degree of standardisation of lending procedures that enabled the bank to cut costs and achieve high staff productivity. Equity Bank and several SACCOS in Kenya provided seasonal and medium-term loans to farmers linked to tea, coffee and dairy value chains. ProCredit Banks in El Salvador and Bolivia began as urban microfinance institutions and eventually diversified into rural areas providing short and medium-term loans to farmers. ANED (Bolivia), CECAM (Madagascar) and UML (Uganda; a non-bank MFI partner of the ACCION Network) successfully introduced micro-leasing to rural clients, including farmers (for more information see mixmarket.org and websites of the respective institutions).

Despite these notable advances, their overall number is small and their outreach has remained limited. Most agricultural lenders target diversified farmers, often with off-farm income and irrigation, located in high potential areas with comparatively good infrastructure. Only a few financial institutions offer term loans and leasing for agricultural purposes. The challenge is to scale-up existing loan products and lending technologies, and develop new lending products such as:

- More flexible working capital finance products for repeat clients such as credit lines and overdrafts;
- Medium and long-term loans and leasing;
- Value chain finance products.

Credit lines or overdrafts for established clients further reduce transaction costs and allow farmers, traders and processors to quickly access funds in case of liquidity shortages. Finance secured by alternative collateral, such as lending against warehouse receipts, can be greatly enhanced by an enabling legislation and a system of certified warehouse operators or collateral managers. Value chain finance provides opportunities to reduce some of the credit risks and transaction costs and to reach more specialised farmers in remote areas (see chapter 2.3.1).

The commercialisation of agriculture requires investments in production, processing and marketing. Currently, such investments are largely self-financed using savings or proceeds from other businesses. Term finance products need to be introduced to finance investments in machinery and equipment, buildings, transport, irrigation, and other productive assets. Term loans require more sophisticated skills in loan appraisal and investment analysis. In addition, collateral and asset-liability mismatches are important issues facing term lenders. The use of collateral substitutes is only suitable for smaller term loans, whereas larger loans require real estate or at the least, chattel mortgage.

Leasing helps to circumvent some of the problems related to the registration and foreclosure of collateral and can be used for financing machinery and movable assets such as vehicles and farm equipment. Since the lessor owns the equipment,
repossession in case of default is more straightforward as it does not require court procedures. Leaseback enables rural entrepreneurs to access funds by selling a productive asset to the lessor who then leases it back to the lessee. At the end of the stipulated period, the lessor sells the asset back to the lessee at a pre-determined price. The use of leasing and leaseback is greatly facilitated by a suitable legal framework stipulating the rights and obligations of both parties. Moreover, tax regulations can make leasing less lucrative than lending.\textsuperscript{13} Despite the advantages of leasing in principle, few institutions offer equipment leasing and leaseback to rural customers. Rural lessors face particular issues since the monitoring of assets is more difficult and costly and markets for repossessed assets are sometimes shallow. In order to protect against these risks, some lessors request high down payments or additional collateral, which many would-be investors find difficult to meet. IFC and other donors have supported governments to develop supportive legal frameworks for leasing and addressing taxation-related issues. These efforts should be expanded to other countries but are not enough for spurring rural and agricultural leasing. They need to be complemented by technical assistance for developing a rural leasing portfolio through staff training, improving product features and operational procedures to cater to the rural market.

Access to stable long-term funding sources is a further constraint facing most financial institutions. To avoid imprudent levels of liquidity and interest rate risks, banks have to limit asset-liability mismatches. Hence, short-term deposits can only be used to a limited extent for funding term loans. However, most banks have only limited amounts of term deposits or long-term borrowings. In case of foreign funds, exchange rate risks need to be managed. Hence, banks need to enhance their efforts to mobilise long-term funding sources such as equity, subordinated debt, bonds and term deposits.

2.1.2 Rural Savings Mobilisation

While only a certain share of the rural population needs credit, virtually every rural household has a need to save. Savings enable rural households to better manage seasonal incomes (e.g. seasonal crops) and expenditure (e.g. school fees), accumulate funds for major life events (weddings, funerals, etc.) and build assets. They are also an important cushion against unforeseen events such as illness, death or bad harvests.

Rural people value savings opportunities according to their accessibility, liquidity, safety and return. There are trade-offs between these desired product features and experience suggests that low-income savers are most concerned about accessibility, security and liquidity, rather than returns (CGAP, 2010). However, there is a limited supply of savings products with such features in rural areas. Banks and other formal financial institutions are often not accessible given their limited branch network in rural areas. Moreover, they often regard small deposits as a costly liai-

\textsuperscript{13} In some countries, VAT has to be paid twice for the same asset: first when it is purchased by the lessor and second at the end of the lease period when the ownership of the asset is transferred to the lessee. Whereas interest payments on loans are often tax-exempt, this does not necessarily apply to lease payments.
lity and discourage them through a number of product features such as minimum balances, restrictions on withdrawals, low returns, etc. Non-regulated microcredit providers are not allowed to mobilise deposits. In most countries, the main providers of rural deposit services are mutualist financial institutions and Postal Savings Banks. These institutions are often fraught by governance and management issues which impinge on the safety and quality of savings products (Meyer and Nagaranjan, 2005).

Due to the lack of convenient and safe deposit products, rural people mainly save in-kind, in the form of jewellery, livestock, building materials and harvested crops. Although in-kind savings kept at the farm household are easily accessible, they have a number of disadvantages: assets may not easily be sold or may only be turned into cash at significant discounts, especially in case of emergencies. In-kind savings are not safe and may be lost or stolen. Informal cash savings mechanisms such as ROSCAS and ASCAS allow for little flexibility to withdraw funds and are subject to unsound management and theft (Christen and Pearce, 2005). Nevertheless, the ample use of such mechanisms by the rural poor in the absence of better alternatives illustrates their strong demand for deposit services.

The supply of savings services for low-income populations in rural areas has been expanded and its quality has improved over the last decade. Although introducing savings products for rural low-income households requires significant initial investments, it generates access to a cheap and more stable source of funds for financial institutions reducing their dependency on external borrowings or large depositors. It further provides opportunities for cross-selling, and client acquisition and retention (Deshpande and Glisovic-Mezieres, 2007). Several examples demonstrate that rural deposit mobilisation is feasible, even on a large scale. These financial institutions regard deposit mobilisation not only as a source of funds, but also as a valuable service strengthening the relationship with their clients, and as a means to obtain information on the cash flows of potential borrowers. In some Asian countries, reformed agricultural banks such as Bank Rakyat Indonesia (BRI) and the Bank for Agriculture and Agricultural Cooperatives (BAAC) have achieved huge outreach in rural deposit mobilisation. In India and Nepal, banks have been successfully using linkage banking approaches for mobilising deposits even in remote rural areas.

The availability and quality of savings facilities in rural areas can be supported in various ways: i) by strengthening member-based financial institutions and their apex structures through capacity building of members and staff, improved systems, audit functions and supervision; ii) supporting the reform of state-owned financial institutions such as Postal Savings Banks and Agricultural Development Banks; iii) supporting the development of an appropriate legal and regulatory framework for deposit taking microfinance institutions and member-based financial institutions and institutional strengthening of supervisory agencies; iv) supporting the trans-
formation of unregulated MFIs into regulated financial institutions; v) supporting
the establishment or upgrading of deposit insurance mechanisms.

Although the importance of deposit mobilisation has been widely acknowledged,
many donor-funded projects still focus on credit. Supporting financial institu-
tions in introducing new deposit products is a more complex process which often
requires considerable technical assistance to strengthen overall governance and
management, build staff capacity, adjust systems and procedures, etc. In the case
of financial NGOs, their transformation into regulated financial institutions is a
prerequisite for savings mobilisation. This may in some cases conflict with the insti-
tutional priorities of some funding agencies to quickly disburse funds and achieve
tangible outputs.

A key challenge for rural savings mobilisation is the high costs of handling nu-
merous small deposit accounts. A further challenge is to reduce transaction costs
for savers, especially in sparsely populated rural areas. Several RFIs have developed
innovative approaches to address these challenges, including:

- The use of mobile units (e.g. Equity Bank, Kenya) or deposit collectors (e.g.
  Safe Save, Bangladesh; Basix, India);
- Computerisation of back-office operations;
- Various forms of linkage banking between formal and less formal financial
  institutions (e.g. Agricultural Bank and Small Farmers Cooperatives, Nepal;
  Banks and Self-Help Groups, India);
- Piggybacking deposit services onto other delivery systems such as small shops,
  lottery outlets, etc;
- Using new technologies such as Automated Teller Machines (ATM), smart-
  cards, internet and mobile phone banking, among others.

In terms of product development, most advances have been made in developing
flexible but short-term deposits for emergency purposes. However, long-term
deposits for asset building (housing, productive assets) with attractive returns are
rarely available (Mutesasira et al. 2000). Moreover, there is considerable scope
for combining savings with other financial services: for example, savings-cum-
loan products could be designed to enable poor households to finance housing or
productive assets. Savings products could also be combined with money transfer
services aimed at retaining a larger share of remittances in the financial system. A
World Bank Study in Mexico found that clients receiving remittances through a
formal financial institution are more likely to open a bank account. An analysis of
the MIX data of 2009 revealed that MFIs offering remittance services were mobili-
sing a higher level of voluntary savings than MFIs which did not (CGAP 2010).
2.1.3 Payment Services and Remittances

With globalisation and increased migration, the demand for money transfer services has increased considerably. Rural to urban migration has become a central livelihood strategy of rural households in many countries in sub-Saharan Africa, Latin America, China and other Asian countries. Likewise, international migration has grown tremendously. Remittances have become an important source of income for the remaining household members in rural areas, especially for consumptive purposes such as healthcare, education and housing.

According to an IFAD estimate, the number of remittance transactions amounted to more than 1.5 billion in the year 2006, with a typical volume per transaction of between USD 100 and USD 300 (IFAD 2007). In 2010, an estimated 215 million migrants worldwide sent USD 440 billion to their families in developing countries (World Bank, 2011). East Asia and the Pacific has been the biggest recipient region (USD 91 bn), followed by South Asia (USD 83 bn), Latin America and the Caribbean (USD 58 bn), Europe and Central Asia (USD 37 bn), and the Middle East and North Africa (USD 35 bn). Sub-Saharan Africa received the lowest level of remittances (USD 21 bn) (World Bank, 2011).

These figures are based on official statistics and are likely to underestimate real flows given their higher level of informality.

In response to these trends, markets for remittances are growing rapidly. Specialised money transfer organisations compete with formal financial institutions and with informal channels. Due to increased competition, linkages and alliances between different service providers, bundling of services and use of new technologies, costs of remittances have fallen and service quality has improved. However, these advances have been uneven, with considerable variations between regions and between urban and rural areas: in high volume remittance corridors such as those in Latin America, costs have fallen drastically and about half of the transactions flow through the financial system. In other regions, costs are much higher and a large share of remittances still flow through informal channels. Legislation is an issue here: in Central Asia, Africa, the Southern Caucasus, Eastern Europe and parts of south-eastern Asia, regulations only permit banks to make such transfers (IFAD, 2007).

Improving access and the quality of payment services in rural areas remain important challenges. Costs, safety, and speed of transfers are important issues here, exacerbated by the accessibility of service points. Postal Savings Banks or Savings and Credit Cooperatives, which have broader outreach in rural areas often lack required systems and skills resulting in high costs and delays. Most remittances and transfers into rural areas still occur outside the financial system, e.g. through neighbourhood stores, traders, transport operators, travel agents, friends, and relatives. Informal channels however are slow and in some cases, costly and unreliable.
Several banks with branches in rural areas have introduced payment services, often within alliances with international remittance companies such as Western Union. Examples of these banks include the National Microfinance Bank of Tanzania, Equity Bank in Kenya, Centenary Bank in Uganda, Banco Solidario in Ecuador, ProCredit Bank in El Salvador, and PRODEM in Bolivia. Facilitating such linkages would contribute to enhancing quality and access to payment services in rural areas. In addition, improvements of national payment systems may be required (Buchenau, 2004).

The World Council of Credit Unions (WOCCU) has established an electronic funds transfer system (IRnet) connecting credit unions in more than 40 countries in Latin America, Asia, Africa, Europe and the United States. While the senders are required to be credit union members, recipients are not. The Microfinance International Corporation, a private remittance company, uses an electronic settlement system connecting senders in the United States with MFIs in several Latin American countries. The system allows an almost instant transfer, either to the recipient’s savings account or as checks to schools and electricity providers.14

An important challenge for financial institutions is to tap into the increasing remittance flow as an additional source of funds and to offer other financial services to recipients of remittances. Most remittance transfers are cash-to-cash transfers, as opposed to account-to-account transfers. Linking remittances with other financial services is an important area for product innovations as they might include more rural households into the formal financial system, e.g. by opening savings

Box 2: Banco Solidario, Ecuador: Financial Products for Migrants

The Banco Solidario in Ecuador, in partnership with a Spanish bank, has designed a programme named ‘My Family, My Country, My Return’ which serves Ecuadorian migrants in Spain. It provides loans to clients migrating legally to Spain who already have employment there. This product pays for the trip and settling in expenses, and also provides savings and loan products for housing and business purposes. One salient feature of the scheme is that it allows clients in Spain to manage their money from there by designating how the amounts remitted should be used, for savings or to repay loans, for example. Relatives receiving remittances are able to collect the funds sent to them using a Smartcard issued by the bank in Ecuador. Similar programmes have been set up by private banks in El Salvador and elsewhere.

Source: Buchenau, 2003

14) http://www.woccu.org/involved/remittances
accounts. For example, specific savings products could be designed for recipients of remittances. Through periodic savings, recipients of remittances could build a track record, which would enable them to get access to specifically designed loan products. Combined with financial literacy training for senders and recipients of remittances, such products could make an important contribution to leveraging the development impact of remittances.

In 2007, a multi-agency partnership led by IFAD established a USD 10 million Financing Facility for Remittances to support the development of cost-effective and easily accessible domestic and international remittance services within African, European, Middle Eastern, Asian, and Latin American countries. The facility finances projects of up to EUR 200,000 which improve access to remittance transmission in rural areas, link remittances to additional financial services and products, and develop innovative and productive rural investment channels for migrants and community-based organisations.

Technological innovations, in particular mobile phone banking, are currently in the process of revolutionising money transfer services. Rural populations might especially benefit from those innovations, which help to remove access barriers. In Kenya for example, the telecommunication company Safaricom launched a new mobile phone-based payment and money transfer service, known as M-PESA, which has become one of the most successful mobile phone-based financial services in the developing world, with 7.7 million M-PESA accounts in August 2009 (Jack and Suri; 2011).

2.1.4 Insurance and Other Risk Management Instruments

Covariant risks related to weather events or price fluctuations are among the biggest challenges for farmers and agricultural lenders alike. Informal risk management strategies such as savings, social networks and asset sales in case of emergencies are not able to fully protect farmers against major covariate risks. Without more suitable risk management instruments, farmers try to limit their exposure to covariate risks by diversifying into many small-scale activities on and off farm. This strategy however, comes at a substantial cost since it precludes rural households and enterprises from reaping the gains from specialisation and economies of scale (Bryla et al, 2003; World Bank, 2005a). Likewise, financial institutions are forced to diversify their lending operations across regions and activities to limit their exposure to agricultural clients and particular agricultural activities and locations. Especially smaller financial institutions may not be able to reach a volume of agricultural lending which would warrant the development of specific lending products and would enable them to achieve high productivity levels and reasonable lending costs. Agricultural insurance and price risk management instruments such as futures and options constitute a sort of liquid collateral to financial institutions protecting them against certain covariate risks and allowing them to expand their exposure towards the agricultural sector.
Managing Weather Risks

Traditional crop insurance programmes based on individual on-site loss assessments are burdened by high transaction costs, asymmetric information and moral hazard. To keep premium levels affordable, most crop insurance programmes in developed and developing countries are highly subsidised. Only a few developing countries have been able and willing to afford these costs (Skees, Hazell and Miranda, 1999; Roberts, 2005; Hess and Hazell 2009; Stutley 2010). Index-based crop insurance shows some promise in overcoming these flaws. Indemnity payments are triggered by deviations from an independently verifiable indicator such as rainfall data measured at local weather stations, and not by on-site loss assessments. Different variables can be used as indices including rainfall, temperature, wind speed, area yield or livestock mortality, as long as they are highly correlated with farm yields in the surrounding areas and can be measured accurately and objectively.

Financial institutions can play a role in retailing weather index-based crop insurance policies in partnership with insurance companies. Crop insurance can be bundled with agricultural loans or sold as independent products. A lender may also choose to purchase an index-based insurance contract to protect himself against the weather-related losses of his borrowers and recover the costs of the policy through the pricing of agricultural loan products. Due to their transparent and standardised structure, index-based insurance contracts may be sold to international reinsurance markets. Transferring risks to international markets enhances the capacity of local insurers to manage larger covariate risks.

The main shortcomings of index-based insurance are possible mismatches between payouts and actual losses if the correlation between index and farm level yields is not high enough (basis risk). Even if there is a high overall correlation between rainfall data at local weather stations and farm yields in surrounding areas, there may be important differences between farms due to micro-climatic factors. Good data availability and sound actuarial modelling can help reduce basis risk.

Index-based insurance schemes have been piloted in several developing countries including India, Nicaragua, Malawi, Mexico, Mongolia and Morocco. The Weather Risk Management Facility, a joint undertaking of IFAD and WFP, recently reviewed a range of experiences with index insurance programmes worldwide (Hazell et al., 2010). Key actors, product features, and their successes and challenges were analysed. It was found that index insurance – while not a panacea – has strong potential for improving the lives of people for whom weather incidents can mean the difference between survival and catastrophe. The IFAD/WFP paper has shown that success will depend upon work, careful thought and management. Index insurance seems to be more effective when it is part of a larger package of risk management strategies and services. Given the consequences of global climate change, index insurance may also play a role in supporting adaptation strategies in developing countries. Index insurance will require substantial public and private
investment to be successful. There must also be the willingness to measure success objectively and adjust strategies accordingly. The paper further concludes that with government and donor help, infrastructure can be developed to create stable data and a rational market for index insurance. Once the framework is in place, private insurers can step in to extend the market along existing delivery channels, and to stabilise the risk through objective standards and re-insurance. Ultimately, index insurance can not only be a profitable industry, it can help governments make better choices about poverty and disaster management. Interested governments and donors should begin by training and educating key players about the idea of index insurance; and private insurers should begin developing relationships with existing delivery channels. These steps will lay the groundwork for a functioning market.

Box 3: BASIX – Introducing Weather Index-Based Insurance for Smallholders in India

BASIX is a group of companies providing poor people and backward rural areas with financial services, agricultural and business development services, and institutional development services. In 2003, it decided to introduce rainfall-index insurance to manage the main weather related risk affecting its agricultural borrowers and threatening the quality of its agricultural loan portfolio. The product was introduced in partnership with ICICI Lombard General Insurance Company and received technical assistance from the Commodity Risk Management Group of the World Bank. It was the first weather insurance initiative launched in India and the first farmer level of the index insurance offered in the developing world. Extensive monitoring and client feedback helped to improve the product and rapidly expand its outreach from 230 farmers in 2003 to 6,703 customers in 2005. The successful experience has sparked much broader interest in weather-index insurance in India, with several other financial institutions introducing similar products.

Source: World Bank, 2007a
Managing Price Risks

There have been increased fluctuations and volatility in agricultural commodity prices on domestic and international markets following the termination of buffer stocks, commodity agreements and administered prices. Theoretically however, there are different financial risk management instruments that producers, traders and processors can use to protect themselves against price risks. Forward contracts, futures and options allow sales prices to be ‘locked in’ prior to the actual delivery of the product. Relative to futures, forward contracts can be written for any amount and offer more flexibility to small-scale operators. Any delivery location and product grade can be specified in the contract. They can be written directly between farmers and their trading partners or be facilitated at commodity exchanges. Futures contracts can be used to hedge the price risks of some major commodities such as coffee, cotton, maize, cocoa and sugar at international commodity exchanges. Futures contracts work basically like forward contracts, but are only traded on larger commodity exchanges through a clearinghouse system.

Farmers, traders and processors using price risk management instruments are less risky borrowers and thus more creditworthy. However, several factors constrain the use of futures and options by producers in developing countries: the main commodity exchanges with derivatives trading are located in industrialised countries and a few emerging economies (South Africa, India, China, Malaysia, Brazil and Argentina). Contract specifications are designed to meet the needs of industry country producers, traders and processors and require large volumes with homogeneous quality (World Bank, 2006b). Using commodity exchanges implies high transaction costs and requires good communication technologies and market intelligence.

Banks can play a role in facilitating the local producers’ access to futures markets. For example, CRDB in Tanzania has purchased ‘put options’ for the sale of coffee and cotton in commodity exchanges in New York and London on behalf of its clients, mainly cooperative unions. The unions usually make several payments to their farmers and the first payment is made several months before harvest at a price agreed at the cooperative’s annual meeting. The put option enables the cooperative union to offer a fixed price to farmers prior to the harvest while protecting itself against the risks of declining prices during the cropping season (Bryla et al., 2003).

Commodity risk management instruments are complex and potential users of such instruments in developing countries often lack knowledge about and experience in their use. As most farmers in developing countries lack basic financial literacy, they are not likely to benefit from this kind of risk management in the near future. Basic market information systems that allow farmers to gain valuable information on market and price developments are more realistic in terms of timely implementation and unfolding positive effects.
Donors play a role in raising awareness among financial institutions, agribusinesses, and farmer or exporter associations of these instruments’ potential for managing risks and expanding agricultural finance. Donors can also assist in the piloting of risk management instruments in developing countries and provide training and capacity building of stakeholders, and in linking producer associations and financial institutions in developing countries with providers of price risk management instruments. The latter are mainly international banks with commodity departments, commodity brokers or international commodity traders and processors.

2.2 Institutions

2.2.1. Reform of Agricultural Development Banks
Due to their poor performance in the past, most agricultural development banks disappeared from the radar screen of the international rural finance community during the late 1980s. The dominant view was that state ownership of financial institutions would inevitably lead to institutional failure due to governance problems and political interference in operational management affecting lending decisions, staffing and loan recovery.

This view has been challenged since the late 1990s, when the limited capacity and willingness of private financial institutions to expand into rural areas became apparent and the gaps in rural and agricultural finance following the closure of agricultural banks were not adequately filled by other financial intermediaries. Meanwhile, some large agricultural banks in Asia had achieved much higher levels of outreach and staff productivity than most microfinance institutions, while maintaining financial sustainability. The most remarkable success stories are the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand and Bank Rakyat Indonesia (BRI). In 2001, BAAC had 5.2 million registered borrowers and 2.74 million active borrowers, equivalent to about 90% and 45% of all farm households in Thailand respectively. In addition, 9.57 million savings accounts were held at 1,476 branches and other outlets. BRI had 29 million deposit accounts and 3 million loan accounts in 2003 (Seibel, Giehler and Karduck, 2005). More recently, the Vietnam Bank for Agriculture and Rural Development (VBARD) has been undergoing a rapid reform process and has already achieved high levels of sustainable outreach. With its more than 2,200 branches, it serves rural households and SMEs, but is also diversifying into urban areas and other fields of banking. Further examples of successfully reformed agricultural banks include BNDA in Mali and BANRURAL in Guatemala.

Agricultural development banks continue to be important providers of rural financial services in many countries. This even applies in Africa and Latin America
where several banks have been closed or privatised. Data compiled in the AgriBank Stat\(^{16}\) inventory reveals a total of 87 million savings accounts in 35 banks and 24 million borrowers in 50 banks, excluding the two giants, China and India (Seibel, Giehler and Karduck, 2005). A recent study on Development Finance Institutions (DFIs) in Latin America found that 32 out of 108 DFIs provide credit to the agricultural sector, which represents on average 26% of their total loan portfolio\(^{17}\) and more than half of all agricultural lending in the region (Navajas et al., 2007). The profile and orientation of many of these DFIs have changed considerably over the past 20 years, shifting from an agricultural focus towards a multi-sector approach, and from direct lending (first-tier) towards second-tier functions. Many DFIs have considerably improved their financial performance while still serving hard-to-reach groups in rural areas such as small farmers.

The continuing relevance of public banks in many countries coupled with the impressive performance of some flagship organisations and the limited progress of other financial institutions in rural and agricultural finance have sparked the interest of some donor agencies (notably GTZ, IFAD, World Bank and FAO) to have a fresh look at agricultural banks. Questions were asked as to whether more of these organisations could be transformed into viable financial intermediaries building on their branch network and knowledge on rural clients. A CGAP Working Group was established in 1999 and several regional conferences were held. In 2003, GTZ organised an international conference in Sri Lanka\(^{18}\), based on the experiences of five large public banks in Asia that it had supported. The conference looked into innovative tools and instruments used by these banks for serving rural areas and into the reform measures the banks had undertaken in response to an increasingly competitive financial sector. In 2005, IADB held a conference on Public Banks in Latin America.

The examples of successfully reformed agriculture development banks highlight the potential of well-managed public banks in providing diverse financial services to many clients in rural areas. Their large retail network in rural areas enables them to be close to their clients and offer loans, deposits and payment services at low transaction costs. Due to their size, agricultural banks are able to diversify portfolio risks across regions and enterprises while offering specific loans for different agricultural enterprises and maintaining specialised staff. Their size and status as banks allow them to offer the full spectrum of financial services including loans and deposits of different maturities, payment services, etc. They further have access to various funding sources, including long-term funds like subordinated loans, bonds and debentures.

Experience so far reveals different options to reform agricultural banks and to use their infrastructure to enhance the quality of their products and services: i) a reform of the entire institution, ii) the creation of a specialist unit that utilises bank branches and systems, and iii) adopting a second-tier function and providing

\(^{16}\) AgriBank Stat is an inventory of formal financial institutions offering financial services to farmers. It includes (agricultural) development banks (first and second tier) as well as commercial and cooperative banks with significant agricultural loan portfolio and national coverage. AgriBank Stat was developed by GTZ and FAO http://www.fao.org/ag/ags/agsm/Banks/index.htm

\(^{17}\) By the end of 2004, the 32 DFIs had a total portfolio of USD 87.5 billion, of which USD 23 billion was in agriculture (Navajas et al., 2007).

\(^{18}\) The conference was entitled The Challenge of Sustainable Outreach: How Can Public Banks Contribute to Outreach in Rural Areas?
financial linkages with other financial service providers. The reform of the entire institution is the most challenging option, which requires strong political commitment and extensive technical assistance. One such example is BAAC, whose institutional transformation spanned several decades. More recently, management contracts have been used for the relatively quick turnaround and privatisation of state banks. The Agricultural Bank of Mongolia was turned around from a loss-making into a profitable financial institution over a two-year restructuring period. Now known as Khan Bank, it expanded its rural outreach and was successfully privatised (World Bank, 2006a). The restructuring process of the National Microfinance Bank in Tanzania began in 2003 and is ongoing.

In other cases, public banks established separate microfinance units or programmes. The BRI Unit Desa System in Indonesia is separated from BRI’s overall operations, and branches are run as profit centres. Banco de Nordeste de Brazil introduced a separate microcredit programme called CrediAmigo with separate staff and branches adjacent to the bank’s branches. Piggybacking on the bank’s infrastructure has facilitated the expansion of the programme at low cost (World Bank, 2006a). Although these microfinance units have reached significant outreach in deposit mobilisation (BRI) and micro-lending (CrediAmigo), their agricultural lending has remained limited.

Banks operating as second-tier institutions, such as BNDA in Mali, the Land Bank in the Philippines or Financiera Rural in Mexico, have chosen the linkage option. Some banks also combine first and second-tier lending to serve different geographic areas and types of clients (e.g. BANRURAL S.A. in Guatemala).

Experiences so far suggest that there is no single best way of reforming agricultural development banks. There are different viable approaches to reforming public banks and their success depends significantly on specific country conditions. The key to success is a strong political will to transform public banks into professionally managed financial institutions, which combine a development mandate with efficiency and financial viability. This requires a governance structure, which combines a clear strategic orientation towards a double bottom line with the operational autonomy of management and staff. Depending on the country context and general performance of the public sector, this may be achieved through different ownership structures, including public, private or mixed ownership. Linkage banking or the introduction of microfinance units can be first steps towards the broader reform process of public banks.

Donors can support the reform and transformation of public banks in various ways ranging from policy dialogue to management contracts and piloting of new products and procedures. Longer time horizons and openness are necessary for successful collaboration whereas ideological bias against certain institutional models or ownership structures should be avoided.
2.2.2. Strengthening Member-Based Financial Institutions

Due to their low operational costs, member-based institutions can be viable even in remote rural areas. Members often perform most administrative and management tasks on a voluntary basis or with very low remuneration. Members also provide the funds in the form of shares and deposits. Good knowledge about local conditions, and the character and capacity of community members facilitates loan appraisal, while peer pressure can be used to instil repayment discipline. Informal systems with very poor, illiterate members operate without formal record keeping, such as the savings and loan groups established by CARE under its Mata Masu Dubara scheme in several African countries (Meyer and Nagarajan, 2005).

Despite their comparative advantages in servicing remote rural areas, autonomous member-based financial institutions face a number of limitations and challenges: their ability to mobilise funds for lending is limited and they are highly susceptible to local, covariant risks. Due to the staff’s and board’s lower level of formal schooling, only a narrow range of unsophisticated products and services are provided, usually deposits and short-term loans. Governance and management is the Achilles heel of member-based financial institutions; limited financial management skills, weak internal controls, hijacking by local elites, and insider lending to influential board members are some common problems.

To some extent, these challenges can be addressed by federating member-based financial institutions into networks and tiered structures. Second-tier structures can provide support services such as internal controls and audit, reporting and benchmarking, product development, as well as training and backstopping in different technical areas. Networks can also facilitate liquidity exchange between member institutions and serve as a link to the formal financial system, depositing excess liquidity or accessing loans on behalf of their members. Some networks have reached considerable scale at regional or even national levels and created three-tiered structures including regional federations and a national apex. These networks have become highly professionalised and are financially viable. Examples include the Caisses d’Epargne et de Crédit Agricole Mutuels in Madagascar (CECAM), the Caisses Villageoise d’Epargne et Crédit Villageoise (CVECA) in Mali, and SICREDI and CRESOL in southern Brazil (World Bank, 2007b).

Growth, formalisation and federation into large networks have sometimes been accompanied by ‘mission drift,’ characterised by gradual withdrawal from rural areas and increasing focus on non-agricultural activities. More remote and marginal rural areas are served by semi-formal or informal structures including savings and loan associations (IFAD, 2010). Many large and formalised credit union networks in Latin America have traditionally been centred on urban middle-classes (mainly salaried employees), with little outreach into rural areas and agricultural activities (Meyer and Nagarajan, 2005). Therefore, different types of member-based financial institutions will have to co-exist to serve different market segments.
National and international technical service providers have assisted many successful networks during various stages of institutional development. Institutional development processes are gradual and require long-term technical support, which needs to be well-dosed. Attempts to accelerate these developments, e.g. by providing credit lines for on-lending or introducing sophisticated products, may overstretch human resources and systems and undermine the networks’ viability.

2.2.3. Enhancing Outreach through Financial Linkages

Partnerships between formal and less formal financial institutions have the potential to combine the strengths and overcome the weaknesses of each partner: formal financial institutions have better access to funds, well-trained staff, extensive infrastructure and systems, and better opportunities for managing risks through portfolio diversification. Less formal financial institutions are close to their clients, have good knowledge of local conditions, may use social sanctioning mechanisms to ensure compliance with contracts and tend to be more flexible and innovative.

Initially piloted in Asia with support from GTZ and APRACA, financial linkages are being used in an increasing number of countries across continents. The outstanding country in terms of coverage is India where 6 million self-help groups with about 86 million poor rural households have been formed and linked to banks. FAO recently carried out a review of experiences with financial linkages based on 12 case studies in Africa, Asia and Latin America. The studies show that diverse financial institutions are involved in linkage banking. Formal linkage partners include private or public commercial banks, apex organisations, insurance companies, money transfer firms and utility companies. Less formal partners comprise self-help groups, village banks, savings and credit associations, financial NGOs, and rural/community banks.

Often, financial linkages are used to allow less formal institutions to expand lending, make deposits and manage liquidity. For example, in Mali the Banque Nacionale de Développement Agricole (BNDA) provides refinance facilities and savings accounts, which help institutions like Kafo Jiginew, the largest network of savings and credit cooperatives, and CVECA ON, a large village bank network, to manage liquidity and expand their loan portfolio. CRDB Bank Limited, a private commercial bank in Tanzania, provides loans, deposit accounts and payment services to more than 200 Savings and Credit Cooperatives (SACCOS). Other examples include K-Rep Bank in Kenya, Confianza, a regulated MFI in Peru, and PCFC, the government-owned microfinance apex organisation, all of which are providing credit lines to less formal, rural-based financial institutions.

In other cases, the less formal partner acts on behalf of the formal partner, normally against a fee for the services provided. These facilitating linkages can be used for different financial services and transactions such as payment of remittances or
utilities, mobilising savings, selling insurance products and extending loans. Setting up linkage partnerships requires considerable training and capacity building and mentoring over several years. The formal partner or NGOs and other technical service providers provide these services. For example, Bhartiya Samruddhi Finance Limited (BASIX) in India has become a retail agent for AVIVA, an international insurance company, offering live insurance products for its clients. FADES, a non-regulated Bolivian NGO, entered into a dozen strategic linkages with private and public sector organisations to handle utilities payments (e.g. electricity and water bills), money transfers and pensions (Pagura and Kiresten, 2006).

These examples show that linkages could be used more widely to expand the quality and availability of financial services to poor population groups in rural areas. Donors could support the testing of different types of contractual arrangements, creating accounting system add-ons, and using advanced internet and telecommunication technologies. Less formal institutions could be assisted in identifying formal linkage partners. Further, emphasis should be placed on developing linkages that go beyond the provision of credit and involve other financial services.

Although guarantee mechanisms have a chequered history in donor-funded projects, they constitute important pillars of SME finance in many OECD countries. The main challenge in developing and transition countries is to shift from unsustainable funds towards sustainable guarantee companies as part of the financial sector. The latter could be set up as Non-bank Financial Institutions and structured as public-private partnerships with the participation of the banking sector. Most of the pitfalls of guarantee funds set up by donor projects are owed to poor design, and important lessons have been learnt on the core elements of robust design: they include appropriate coverage levels (between 50–70% of the loan amount) and the use of shared rather than first-loss guarantees to avoid moral hazard. Cost covering guarantee fees, diversification of the guarantee portfolio across sectors and regions, and professional management are further prerequisites for sustainability. Well-managed guarantee companies with low claim ratios can achieve high leverage of their core capital.
2.3 Delivery Methods

2.3.1 Value Chain Financing

In response to the lack of adequate financing sources, several financing tools have emerged between business partners within the agricultural sector and other involved sectors. Outgrower schemes are a well-established example of such arrangements: a financially stronger processing enterprise, for example, would address critical financing bottlenecks of its supplying farmers, say by providing in-kind credit for fertiliser, thus ensuring the supply of its raw material. In this context, the term 'Value Chain', which was coined in the 1980s, is now broadly used when referring to the systematic perspective of business partnerships along a chain from primary production to the consumer.

For example, traders or processors advance funds to farmers for the production of a specific commodity, or wholesalers provide liquidity to assembly traders. In other cases, financial institutions provide loans to farmers who are well-integrated in a value chain whereby marketing relationships secured by contracts serve as the main source of repayment and collateral. Broadly speaking, value chain finance includes financial flows between value chain actors (also called internal finance) as well as flows from financial institutions into the chain (external), or combinations of both (Miller and Jones, 2010).

Internal value chain finance comprises a wide array of financing and marketing arrangements with different levels of formality and sophistication. Credit from traders to primary producers is an important source of informal finance in rural areas and often the only source of credit for agricultural production. In case of interlinked transactions, output buyers provide inputs to farmers on credit, which is repaid through deductions from the sales proceeds. Contract farming and outgrower schemes are more formal variants of value chain finance, based on interlinked transactions. However, even if contracts are in place, trust and market power are important factors that shape the financing relationship. Often finance is passed on through the entire chain, from exporters up to the farmers, or in the opposite direction. Supplier credit is another important source of finance, e.g. for agricultural inputs and equipment.

The prime motivation for non-financial institutions to provide value chain finance is of a commercial nature. Buyers and suppliers provide credit to their customers to promote sales, secure supply and generate customer loyalty, rather than to derive profits from interest payments. A core concern of agribusiness companies (e.g. processing enterprises, supermarkets or exporters) is to secure a constant supply of agricultural products, which meets quantity and quality requirements for processing or export. Hence, pre-financing of inputs is an important instrument in supply chain management, especially if provided in kind, e.g. in the form of seeds, fertilisers and extension services.
Internal value chain finance has several advantages over conventional agricultural finance: first, value chain actors tend to have better knowledge of the key risk and profitability factors in a particular sub-sector; second, the bundling of finance with other services, such as input supply, extension services and off-take contracts, reduces credit risks; third, tying credit with commodity flows can reduce transaction costs of lending; finally, since agribusiness companies do not make their profits from lending but from their commercial activities, they may tolerate higher levels of loan default than financial institutions.

However, internal value chain finance also faces several issues limiting its effectiveness and usage. The most important one relates to the ability to control loan default through side-selling. Pre-financing of production works best in situations with limited competition between buyers. In a liberalised market environment, this mainly applies to i) niche market products (e.g. herbs, medicinal plants), ii) products with a single use (e.g. barley for breweries, export banana), and iii) bulky or highly perishable products which require immediate processing (e.g. sugarcane, milk, fresh palm oil fruit bundles, tea). Although limited competition helps to control side-selling, it may also induce monopsonistic practices such as overpricing of inputs and excessive deductions from sales proceeds resulting in high effective interest rates and even the exploitation of primary producers. However, if the pricing of inputs and services is not transparent or perceived as unfair, the resulting lack of trust undermines the sustainability of the financing arrangements. Even in monopsonistic output markets, farmers usually find ways to default, e.g. by diverting inputs or failing to produce enough to repay the loans.21

The provision of finance by non-financial institutions has several limitations: lending is restricted to a particular crop or livestock activity; while other financing needs of farm households remain unfunded, increasing the risks of input diversion. Moreover, finance is usually restricted to short-term working capital while longer-term investment finance is only provided in exceptional cases.22 In addition, agribusiness companies and other value chain actors generally lack the skills in costing and pricing loans properly and are not well equipped for managing large numbers of accounts. Hence, value chain actors usually prefer to concentrate on their core business and leave the financing to financial institutions.

Multi-partite arrangements between financial institutions, agribusiness companies and farmers are potentially able to address several of these flaws, while overcoming some of the constraints facing financial institutions in lending to the sector. Banks do not only have more funds and better systems for loan processing and monitoring. They can also contribute to improved loan design and more transparent pricing. For example, loans that are disbursed directly to farmers in cash are more transparent and give farmers the choice of where to procure their inputs. Moreover, banks can offer additional financial services beyond the specific value chain activity, such as loans for other productive activities, school fees, housing, etc. as well as savings and payment services.

21) An extremely negative example is the financing arrangements that prevailed until recently in Tajikistan’s cotton sector, where a combination of monopolistic practices of traders and gimmers, coercion by local governments and farmer defaults led to the accumulation of massive bad debt.

22) Examples of value chain term finance include seven-year term loans for the establishment of sugar cane plantations provided by the South African Sugar Association, and the establishment of oil palm plantations in Nucleus Estate – Outgrower Schemes in Indonesia.
For financial institutions, the agglomeration of larger numbers of farmers around a terminal buyer offers interesting opportunities for cross-selling, whereby repayments can be made through deductions at income source. Several member-based financial institutions in Africa have been established around agricultural value chains and managed to provide a range of financial products and services to farmers. The farm-agribusiness linkages reduce agricultural lending risks and serve as collateral substitutes. Extension services and access to quality inputs reduce production risks, while market and price risks are often addressed by forward contracts. Hence, loan appraisals are more focused on assessing the cash flow created by the value chain transactions and the strengths and profitability of the entire chain, rather than on the creditworthiness of the individual borrower as applied in mainstream banking.

A number of external value chain finance arrangements can be distinguished. While, as a common denominator, future sales of the financed commodity are the main source of loan repayment, loans can be secured in various ways: i) by existing stocks of commodities (e.g. warehouse receipts), ii) by flows of commodities being produced or transformed (e.g. forward contracts), or iii) by commodities that have already been sold but not yet been paid (e.g. accounts receivables).

Financing of commodity flows can use relatively simple tripartite contract farming arrangements but also more sophisticated structured finance arrangements covering entire export value chains. Usually, forward or even futures contracting is used to manage price and market risks, which may be supported by risk-sharing and partial guarantee arrangements between off-takers and financial institutions.

Receivables financing and factoring can enhance the liquidity of value chains, especially of the upstream segments of the chain such as farmers. These instruments can be used in situations, where farmers (and processors or exporters) receive delayed payments from their buyers. Risks are comparatively lower given that the obligors down the chain tend to be large companies with better credit ratings.

Collateralised commodity finance based on warehouse receipts and repos is another promising way to enhance working capital finance secured by agricultural commodities. Although it can be applied at different levels including the use of field warehousing and collateral managers, a fully functional public warehousing system has the greatest development impact on both agricultural finance and marketing. Such a system requires an enabling legal framework, proper licensing, inspection and oversight of public warehouses, and an indemnity fund or appropriate insurance cover.

The major disadvantage of value chain finance arrangements lies in their higher set-up costs, given that the financing structure and related contractual arrangements and procedures for monitoring and enforcement need to be tailored to a specific situation. Donors could reduce entry barriers by enhancing the capacity of

23) Examples include the SACCOs in the tea and dairy sub-sectors in Kenya and the FECECAM network in Benin.
financial institutions to understand agricultural value chains, assess risks and opportunities, identify entry points for finance, and design effective tools to monitor and mitigate risks. Moreover, many financial institutions lack sufficient knowledge about value chain financing techniques and the skills to apply them in practice.

The basic prerequisite for value chain finance are profitable and well-functioning value chains rooted in shared long-term vision and trust between the main actors. Donors can prepare the groundwork for value chain finance by upgrading promising chains, e.g. by strengthening industry associations and farmer organisations and supporting specialised service providers acting as value chain integrators. Donors can further act as honest brokers and facilitators, assisting in the design of contractual and financing arrangements backed by risk and profit sharing formulae that are perceived as fair and equitable by all value chain stakeholders. Trust is the essential glue, which allows extending finance against flows or stock of commodities especially in countries where the legal framework and administrative procedures for enforcing such contracts are far from perfect. Donor involvement may contribute to increased transparency and trust. Donors might even consider underwriting parts of the financing risks during the start-up phase, until the financial procedures are proven and a track record has been established, as long as value chain actors and banks shoulder the major part of the risks and there is a clear exit strategy for the donor.

Finally, donors can support governments in establishing an enabling legal and regulatory framework with respect to ownership rights, bankruptcy, and the transferability of warehouse receipts, contracts and export licenses.\(^\text{24}\) One simple and cheap step would be to set up a national electronic registry for warehouse receipts, agricultural pledges and loans. Such a registry could eventually, at very little additional cost, be enhanced to form the basis for a trading system, e.g. for warehouse receipts or for discounting bank loans.

2.3.2. Banking beyond Branches

Several innovations have been introduced to enhance rural outreach by reducing transaction costs and avoiding high fixed costs of maintaining branches. Examples include the use of part-time offices and shared facilities as well as various forms of branchless banking such as mobile banking, automated teller machines (ATMs), points of sale (POS) devices and mobile phone banking. Many of these innovations have been facilitated by new information and communication technologies, which are increasingly becoming available in rural areas of developing countries. Most of these innovations still operate on a limited scale and it is yet too early to comprehensively assess their financial viability, poverty outreach and impact. However, many of these innovations show promise in overcoming the boundaries of conventional financial services provision based on branches and other permanent

\(^{24}\) See for a detailed checklist N. Budd, Legal and regulatory aspects of financing commodity exporters and the provision of bank hedging line credit in developing countries, UNCTAD/COM/56, 1995.
retail outlets. Progress in new delivery mechanisms is rapid and new actors such as mobile phone companies are entering the market.

Mobile banking includes the use of movable vehicles or part-time offices to provide banking services. Vehicles are being used successfully by the Vietnam Bank for Agriculture and Rural Development (VBARD) and by the Equity Bank in Kenya. Part-time offices have allowed the First Microfinance Bank in Tajikistan to reach out into remote rural areas in the Pamir Mountains. Several small rural financial institutions in Indonesia have also used them. Constanta, an MFI in Georgia, uses mobile loan officers who travel between service points set up in rented rooms in local bank branches. The viability of mobile banking is context specific depending on the security situation in rural areas, the road network and regulatory issues, especially with regard to savings mobilisation. The confidence of the rural population in the financial institutions has to be built, if loan officers are to drive away with their savings (Meyer and Nagarajan, 2005).

Automated Teller Machines (ATMs) are generally less expensive than the use of branch tellers because cash disbursements and collections are fully automated. They may also avoid crowded branches and long waiting times for customers (Ivatury, 2006). For example, PRODEM in Bolivia uses ATMs with additional features enabling their use by illiterate people. Fingerprints are used for client identification and transactions can be conducted by voice in three languages: Spanish, Quechua and Aimara. However, ATMs have high set up and maintenance costs, and they require continuous electricity and telecommunication connections. These features make them less suitable for more remote and sparsely populated rural areas.

Agent-assisted branchless banking using POS (point of sale) devices, mobile phones and prepaid cards are probably the least expensive delivery channels for financial services. POS terminals are devices, which are connected to a telephone or other telecommunications networks and placed at retail outlets for payments and disbursements. The device can be a card reader, mobile phone, personal computer, barcode scanner, or any hardware that can identify customers and receive instructions for payment transactions. POS devices can be located in any number of retail outlets including grocery stores, post offices, drugstores or lottery outlets, which have cash on hand. In addition to fee income, agents benefit from increased customer traffic. Smart cards and credit cards can be introduced in collaboration with agricultural input suppliers, which would provide farmers with convenient and flexible access to working capital. POS devices have been used most extensively in Brazil, but are also being introduced in other countries.

In countries lacking the technical and commercial infrastructure for ATMs and POS devices, mobile phone banking can be a low-cost way to expand access to financial services in rural areas. The Philippines and South Africa were among the
Box 4: Branchless Banking in Brazil

Banks in Brazil use point-of-sale (POS) terminals, such as bankcard readers, at retail and postal outlets to deliver bill payment, savings, credit, insurance, and money transfer products in nearly every municipality in the country. These terminals can be set up at a cost of less than 0.5% the cost of setting up a typical bank branch. Since about 2000, two private sector banks (Banco Bradesco and Lemon Bank) and two state-owned banks (Banco do Brasil and Caixa Economica Federal) have developed about 27,000 ‘banking correspondents.’ These correspondents are lottery outlets, post offices, supermarkets, grocery stores, petrol stations, and other retail outlets that are present in every municipality in the country, including very rural areas where bank branches would probably be too costly to set up. In small shops, the shopkeeper handles banking services for customers, and in larger stores, a store employee is dedicated for this purpose. At banking correspondents, customers can open current accounts and access a variety of services, including savings, credit, insurance, money transfers, pensions, government benefits, and bill payments. Since banking correspondents first emerged in Brazil in 2000, private and public banks have opened an estimated 8 million new current accounts through this channel.

Source: Ivatury, 2006

pioneers of mobile phone banking, which is also growing in several other countries such as Kenya, the Democratic Republic of Congo, and Zambia. Mobile phone operators, such as Vodafone’s Safaricom (in Kenya), MTN (in South Africa), and Globe Telecom (in the Philippines), are beginning to offer banking services, usually in partnership with banks or MFIs, mainly to increase the volume of their text message traffic and reduce customer turnover. Mobile phone payments may help countries with underdeveloped payment systems leapfrog traditional paper-based ways of making payments (Ivatury, 2006).
Conclusions and Outlook

After more than a decade of decreasing rural aid flows, the issue of rural and agricultural development has recently become a highly discussed topic again in the international donor community and in international politics. Volatile food prices, food supply shortages, an increasing frequency of natural disasters and persistently high poverty levels in rural areas have caused mounting political pressure in many partner countries of German development cooperation. There is now a broad consensus that more support for rural development and agriculture investment is needed to increase the production of basic foods and combat poverty.

This recent paradigm shift also gives new attention to the issue of Rural Finance and triggered debates within the Financial Systems Development (FSD) expert community on effective solutions to sustainably support agricultural development. The main issues of discussion are the development of appropriate new financial products and services as well as the use of new delivery channels and technologies to increase outreach.

While the aid flows that are currently allocated by donors and governments for investments in agriculture are truly breathtaking, the FSD community finds it essential not to fall back into old, unsustainable solutions such as interest rate subsidies and short-dated directed credit lines. 20 years after the abolition of the ‘old paradigm’ of subsidised agricultural credit, rural and agricultural finance are back on the development finance agenda and are now being recognised as the main frontiers of financial systems development.

Fortunately, the renewed attention on rural and agricultural finance comes at a time when many of the framework conditions for their sustainable expansion have improved. Most developing countries have adopted more prudent macroeconomic policies, strengthened their financial systems and reduced direct and indirect taxation of their agricultural sectors. Rural economies are now more diversified, with non-farm enterprises and migration providing additional income sources. Furthermore, the overall outlook for profitable investments in agriculture and related sectors is fast improving, since governments and donors are developing rural and agricultural infrastructures and since the long-term trend of declining agricultural terms of trade has been stopped.

There has been some important progress in rural finance over the past 20 years. Legal and regulatory framework reforms and the reduction of dysfunctional government interventions in financial markets have improved the enabling environment for sustainable financial service provision. Spurred by competition, technology and new delivery models, a broader range of financial services is now
available in rural areas and some promising innovations in agricultural micro-lending, index insurance and leasing have been introduced. There are also more diverse financial institutions serving different segments of the rural population. New information and communication technologies enable the expansion of rural financial services into those rural areas where traditional delivery channels would be too costly. Moreover, an increasing number of financial institutions are using value chain finance and linkage banking to reach out to previously unbanked rural customers.

Despite these encouraging advances, overall progress has been slow and uneven and the outreach of regulated financial institutions in rural areas remains limited. Many of the innovations in products and delivery mechanisms introduced during the last decade are still barely beyond the pilot stage and have been confined to a few institutions and countries. Hence, their commercial viability and replicability under different conditions still needs to be proven. Therefore, large parts of the rural households and SMEs remain without access to reliable financial services and still have to rely on their own funds or on informal solutions.

Agricultural lending in particular has been lagging behind in most countries and its share in overall lending continues to be far below its contribution to GDP and exports. The slow progress is – at least in part – attributable to the fact that after the disappointing results of subsidised agricultural credit schemes in the pre-1990s, the attention of governments and donors shifted towards other areas of financial systems development, especially microfinance, where results could be achieved more rapidly. Banks and MFIs have largely avoided the agriculture sector, as long as other more lucrative and less risky uses for their funds were available. Expansion of sustainable agricultural lending has mainly been confined to small countries with highly competitive urban microfinance markets (e.g. Nicaragua, Bolivia), functioning public banks (e.g. Thailand, Viet Nam) and highly innovative service providers driven by specific missions. The main challenge today is to intensify efforts in scaling-up proven approaches for rural and agricultural finance, while addressing the remaining gaps more vigorously.

More consistent and rigorous monitoring and the evaluation of promising institutional developments, products and delivery models, should accompany these efforts. Performance assessments should be as comprehensive as possible and include the specific socioeconomic, demographic, institutional and cultural conditions which may be key determinants for scalability and replicability. The international rural finance literature and knowledge platforms abound with short case studies, which rarely allow readers to fully understand the reasons and specific conditions for success. Moreover, such assessments are conducted at an early stage; hence the prospects for sustainability, scale and replicability remain unclear. In part, this bias in knowledge management may be owed to the short tenure of most donor projects and their need to show visible results quickly. However, in view of the complexities
involved, rural finance beyond very basic services requires a medium to long-term horizon to achieve sustainable outreach and as such, resources for evaluation and knowledge management should be programmed accordingly.

Two areas of rural finance should receive particular attention in the coming years: agricultural finance and rural SME finance – the main target groups being market-oriented agricultural producers and SMEs inside or closely linked to agricultural value chains. Still, they are characterised by different specifics and financial needs, and require different tools and products. Many of these enterprises fall into the ‘missing middle’, which is served neither by banks nor by MFIs. One major disadvantage of agricultural production in accessing finance is its high exposure to risks. While MFIs will certainly have a role to play in serving this market segment, most funding will have to come from the banking system, given the loan sizes and maturities required by rural SMEs as well as the sheer size of this market segment. Hence, there must be more attention on the core constraints facing banks in expanding their agricultural and rural SME finance. These include insufficient availability and poor enforceability of collateral, limited access to long-term funding sources, poor contract enforcement and limited access to risk management instruments.

Concerning collateral, banks are usually required by prudential regulations to apply appropriate collateral coverage for their loans, often 125% of the loan value or more. The inability of many farmers and rural SMEs to meet such collateral requirements prevents many worthwhile investments from being financed. Addressing the collateral issue comprehensively requires a series of measures, which include the clear definition and demarcation of property rights for land as well as the creation or upgrading of property registries for real estate and movable assets. Moreover, legal and administrative procedures for perfecting and enforcing security interests in rural assets need to be streamlined, along with measures to enhance contract enforcement in general. These measures generally require considerable legal and regulatory reforms as well as substantial investments in institutional infrastructure and administrative systems, which can only be implemented gradually and over a long time period. While these reforms need to be pursued rigorously, they should be complemented by more pragmatic instruments for reducing collateral constraints of rural SME lending, which can be implemented in the short to medium term. Such instruments include leasing, partial guarantees and collateralised commodity finance.

The scarcity of long-term funds constrains the banks’ ability to provide medium and long-term finance. In principle, long-term solutions include capital market development and supporting banks in mobilising long-term sources of funds such as term deposits, bonds and equities. Additionally in the medium term, banks can be supported in the development of long-term loan portfolios through long-term refinance facilities. These facilities should refinance only a part (e.g. 65%) of
outstanding long-term loans to rural SMEs, to leverage rather than substitute the banks’ own resources. Moreover, they should be priced at market rates so as not to discourage long-term fund mobilisation by financial institutions. Such refinance facilities could be made available to all regulated and supervised financial institutions, including NBFIs such as leasing companies or microfinance institutions. The extent to which investment funds are able and willing to provide equity, quasi-equity and long-term loans to rural SMEs in developing and transition countries needs to be further examined.

Finally, capacity development is an important pillar of rural and agricultural finance development both in technical areas, and in the field of social responsibility. Many financial institutions have limited experience in agricultural and rural SME finance and often lack appropriate procedures and products. Moreover, credit officers, credit committee members, management and directors often have insufficient knowledge and understanding of the rural economy and agricultural value chains. This often leads to an exaggerated perception of risks and an insufficient appreciation of the opportunities for agricultural and SME lending. Hence, donors can play a role in developing institutional and human resource capacities in various fields, for example, in the development of products and delivery mechanisms, credit cycle management, risk management, etc. A broader uptake and expansion of agricultural and SME finance does however require complementary measures to enhance access to long-term funds and overcome collateral issues. Partial guarantees can both contribute to the introduction of product innovations as well as to their expansion to customers who are unable to meet the full collateral requirements.

Experience shows that a combination of several instruments is required to realise their full potential. Moreover, perhaps more than in other fields of financial systems development, advances in rural and agricultural finance require an interdisciplinary approach and close coordination with other fields of rural development, such as extension services, business development services, professionalization and support of entrepreneurship in farming, marketing and value chain development, risk management, and rural infrastructure. Enhancing financial literacy and a continuous policy dialogue are further necessary constituents of such a comprehensive approach. To achieve this, there must be increased and improved communication and cooperation between the development finance and the rural development communities, both within donor agencies and in partner countries.

Value chain finance is a concrete example of an interdisciplinary approach where the combination of financial and agricultural sector skills and institutions creates synergies and reduces overall risks and transaction costs. It can bring about a substantial expansion of agricultural finance, even in more difficult operational environments as long as the core principles of fairness and transparency are applied and stakeholders develop a long-term vision based on common interests. Donors
can play the roles of facilitator and honest broker in setting up fair and transparent value chain finance arrangements, which could serve as examples and benchmarks. Such efforts should be combined with support to governments in creating an enabling legal and regulatory environment to facilitate the up-scaling and replication of successful approaches.

Recommendations for German development cooperation:
- In hindsight, it appears to be a blessing in disguise that German DC never gave up on rural and agricultural finance during the 1990s when almost all other donors fully subscribed to commercialised microfinance. Today, German DC is well positioned to lead in rural finance and promote innovative approaches, which it had supported for many years. Examples include linkage banking, agriculture development bank reform, rural cooperative banking, etc.
- Two areas should receive particular attention in the coming years: agricultural finance and rural SME finance – the ‘missing middle’ – which is served neither by banks nor by MFIs. Support measures may focus on legal and regulatory reforms as well as substantial investments in institutional infrastructure and administrative systems, complemented by more pragmatic instruments for reducing the collateral constraints of rural SME lending, such as leasing, partial guarantees, collateralised commodity finance, and value chain finance.
- German DC should offer long-term funding to suitable financial institutions in the form of refinancing facilities, portfolio guarantees or equity investments to finance medium and long-term agriculture loans.
- German DC experience shows that interventions in the field of rural and agricultural finance need a long time to produce sustainable results. Therefore, future interventions should be planned with at least five to seven-year time horizons.
- German DC lacks hands-on experience in technology-driven solutions to rural and agricultural finance. It would be desirable to build up a portfolio in this field and assist selected financial institutions in upscaling their respective programmes, for example mobile phone banking.
- German DC should support or initiate worldwide field research to investigate success stories in rural and agricultural finance to distil key factors in upscaling tested approaches and products.
- The recent turmoil in the world of microfinance should be a warning to German DC: social responsibility must be a key aspect of future rural and agricultural finance interventions. One should also not throw the baby out with the bath water – more conventional issues such as financial management and good governance remain important for success in rural and agricultural finance.
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