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Tajikistan: Boosting Access and Development

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Asian Development Bank

TAJIKISTAN'S FINANCE SECTOR

Boosting Access and Development

FINANCE SECTOR DEVELOPMENT / 2013

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Currency Equivalents

Currency Unit	=	TJS
(6 March 2013)		
TJS1.00	=	\$0.2103
\$1.00	=	TJS4.7541
(31 December 2012)		
TJS1.00	=	\$0.2099
\$1.00	=	TJS4.7644
(as of 16 December 2011)		
TJS1.00	=	\$0.2101
\$1.00	=	TJS4.7589

Foreword

Tajikistan is the poorest of the former Soviet-bloc countries and is heavily reliant on remittances from its citizens working abroad, which amounted to more than 41% of gross domestic product (GDP) in 2012. Poverty declined from about 72% of the population in 2003 to about 47% in 2009, but it remains high and is vulnerable to external shocks, such as the 2008/2009 global financial crisis, in part because of those remittances. The economy is also reliant on narrow base of exportable commodities and production, with a traditional focus on agriculture.

A move to higher and more sustainable growth is needed. To achieve this, the country needs stronger infrastructure and services, a better business and investment climate, and diversified agricultural output. This requires a deeper and more sophisticated finance sector featuring a more diverse array of financial products designed for the particular needs of Tajikistan's people.

Yet, the finance sector is small, dominated by a few banks holding a significant portfolio at risk, and there is virtually no capital market, no secondary market in government securities, and effectively no private sector pension funds. Banking sector loans outstanding increased only slightly from 14.1% of GDP in 2003 to 15.0% by the end of 2012, or TJS 5,421 million (\$1,139 million), including 121.4 million (\$25.5 million) by the central bank.

Since 2006, most of the increase in overall lending has been in microcredit, which has grown more than 10% a year on average (in US dollar terms), compared with a growth rate of less than 2% for all other lending. From December 2010 to November 2012, 96% of the increase in finance sector lending was in microcredit, with microfinance institutions responsible for 52% of lending growth.

Improving the finance sector remains a challenge, not least in the lack of confidence on the part of a population still inclined to distrust its financial institutions and, indeed, the local currency. A low inflation rate and a stable somoni (Tajikistan's currency) are needed to encourage depositors to hold more deposits in somoni rather than in foreign currency. Over the 4 years through 2012, annual inflation averaged 7.2% and the somoni depreciated against the US dollar by an average 4.5% per year. Although individual deposits almost doubled in the 2 years through the end of 2012, the proportion held in US dollars changed little.

This is in part because the range of loan and deposit products on offer is limited, restricting the use of domestic resources. As a result, money outside the banking system is almost twice that in similar economies. Indeed, much of the inflow of remittances bypasses the banks.

Financial institutions need to consider offering a more comprehensive range of financial services to fit the requirements of households and businesses, including links among services that include credit, deposits, and insurance.

This report presents an overview of Tajikistan's finance sector and the underlying economic context and looks at ways to improve it. Among other things, it recommends improving rural outreach and developing a broader range of attractive financial services through efficient microfinance institutions and banks. It encourages developing micro-insurance services, assisting financial institutions in their development of financial service products, and expanding and diversifying e-banking services.

Abbreviations

ADB	–	Asian Development Bank
AMFOT	–	Association of Microfinance Organizations, Tajikistan
EBRD	–	European Bank for Reconstruction and Development
GDP	–	gross domestic product
GIZ	–	Gesellschaft für Internationale Zusammenarbeit
IFC	–	International Finance Corporation
IMF	–	International Monetary Fund
KfW	–	Kreditanstalt für Wiederaufbau
M0	–	money in circulation
M2 and M3	–	broad money supply
MDO	–	microfinance deposit organization
MFI	–	microfinance institution
MLF	–	microloan fund
MLO	–	microloan organization
MSE	–	micro and small enterprise
NBT	–	National Bank of Tajikistan
NGO	–	nongovernment organization
PAR	–	portfolio at risk
SMEs	–	small and medium-sized enterprises
UNDP	–	United Nations Development Programme
USAID	–	United States Agency for International Development
VAT	–	value-added tax

The fiscal year of the government and its agencies ends on 31 December.

Executive Summary

Micro and small enterprise (MSE) lending in Tajikistan has improved substantially over the last 5 years. Four commercial banks and at least five viable microfinance institutions now have rapidly growing and sustainable loan portfolios. These institutions provide a solid base for growth in household and MSE lending.

Tajikistan's real gross domestic product (GDP) grew an average of 7% annually during 2007–2012. GDP per capita was estimated at around \$900 at the end of 2012. Remittances from workers abroad, mainly men working in the Russian Federation, has come to about 40% of GDP per year. During 2006–2012, formal employment positions declined 3.9%, including 9.1% fewer agricultural employees, even as the working-age population increased more than 10.0%. This lack of job creation has fueled worker migration.

Bank lending, 14.1% of GDP in 2003, was little changed at 15.0% at the end of 2012, while deposits grew from 5.1% to 13.3% of GDP in the same period. Most of the increase was held in foreign currency: individual depositors kept around 84.0% of their deposits in foreign currency, and more than half of bank lending was denoted in foreign currency (60.0% at the end of 2012 and 55.0% at the end of 2011). Banks are therefore vulnerable to foreign exchange and credit risks. For banks, portfolios at risk (PAR) for more than 30 days (PAR > 30 days) reached 10.8% in September 2011, compared with 4.9% for microfinance institutions. PAR > 30 for banks declined to 6.4% by the end of 2012.

Since 2006, most of the increase in lending has been in microcredit, which has grown more than 10% a year on average (in US dollar terms), compared with a growth rate of less than 2% for all other lending. From December 2010 to November 2012, 96% of the increase in finance sector lending was in microcredit, with microfinance institutions responsible for 52% of lending growth. Banks held 57% of the aggregate microloan portfolio of \$458 million (as of the end of December 2012), and this share has been declining each year. Most of the microloan growth has been through large, donor-driven microloan organizations and new microfinance deposit organizations. The five largest microfinance institutions hold 72% of the aggregate microfinance institution loan portfolio, with this share increasing each year. The European Bank for Reconstruction and Development (EBRD) funds four of these microfinance institutions (compared with two in 2010) and expects to fund all five during 2013. The older microcredit loan funds—which have a structure similar to nongovernment organizations—have shown almost no growth. The average microloan size through a bank is \$2,140, compared with \$845 for microfinance institutions.

The microfinance sector comprises 35 microfinance deposit organizations, 44 microloan organizations, and 46 microloan funds. Most asset growth occurs within fewer than 10 microfinance deposit and/or microloan organizations, especially those with lower operating costs and better access to the international and domestic borrowing needed for sustained growth. The National Bank of Tajikistan (NBT) expects amalgamations and dropouts among the smaller, less efficient microfinance institutions to gradually reduce their number.

Overcrowding in the sector led to market inefficiencies in the past, although more intense competition in the sector is correcting this. The large number of institutions, many with inadequate reporting systems, has also added to the cost and difficulty of regulatory supervision. Until now, most asset growth has been through borrowing, largely in foreign currencies and through retention of earnings. Little has been funded through

deposits. There are indications that the larger microfinance institutions are close to their borrowing limits. Much of the required growth in assets will need to come from deposit-taking that, in turn, should match the domestic currency borrowing needs of micro clients. The largest microfinance institution recently became a microfinance deposit organization.

A low inflation rate and a stable somoni (the Tajikistan currency) are needed to encourage depositors to hold more deposits in somoni, rather than in foreign currency. Over the 4 years through 2012, annual inflation averaged 7.2% and the somoni depreciated against the US dollar by an average 4.5% per year. Although individual deposits almost doubled in the 2 years through the end of 2012, the proportion held in US dollars changed little.

The range of loan and deposit products on offer is limited, restricting the use of domestic resources. And money outside the banking system is almost twice that in similar economies; much of the inflow of remittances, for example, bypasses the banks. Financial institutions need to consider offering a more comprehensive range of financial services to fit the requirements of households and businesses, including links among services that include credit, deposits, and insurance. Assistance in identifying and testing new products and the provision of longer-term finance would be useful. Indeed, the EBRD, through its institutional microfinance institution and bank borrowers, became more active in these areas during 2012.

Electronic banking (e-banking) could help expand financial services, particularly through the use of mobile financial services. To realize this potential, several constraints need attention, including

- (i) a lack of supporting regulations, which directly influences the market's ability to innovate;
- (ii) the need to build e-banking financial literacy among consumers, merchants, financial institutions, and NBT supervisory bodies;
- (iii) infrastructure constraints, including poor quality power supply, a limited network of ATMs and point-of-sale machines, and limited availability of mobile and internet access, particularly in rural areas;
- (iv) an NBT restriction on financial institutions preventing the operation of an agency outlet unless it is fully staffed by bank personnel;
- (v) a lack of robust systems in some microfinance institutions and utility companies, preventing the processing of electronic payments; and
- (vi) the slow uptake of electronic payments from merchants due to limited knowledge of the benefits of these payment options.

Steps to address these constraints include (i) analysis of agent banking models, (ii) regulatory review and development of mobile financial services, (iii) support for the piloting of mobile financial services, (iv) building links between mobile and card-based payment systems, and (v) support for the increase of transaction volume through all electronic channels.

The report recommends the following interventions:

- (i) Improve rural outreach and develop a broader range of attractive financial services through efficient microfinance institutions and banks. This will involve policy and regulatory support to encourage efficient microfinance deposit organizations to expand service outreach through branch and e-banking services.
- (ii) Encourage the development and provision of micro-insurance services through microfinance institutions acting in an agency capacity.
- (iii) Assist financial institutions in their development of financial service products, particularly to encourage longer-term lending, including for energy efficiency and renewable energy investment, improved mobilization of deposits, and better user access to deposits.
- (iv) Expand and diversify e-banking services to reduce administrative and transaction costs for financial institutions and their customers and to improve the outreach of financial services, leading to more effective use of domestic financial resources.

The report identifies several areas that could require support in the short to medium term.¹ These include the following:

- (i) Provide policy and regulatory support to the government, including the NBT, to improve the efficiency, outreach, and range of microfinance services. At present, the NBT is monitoring market developments since the issuance of amended legislation and regulations.
- (ii) Support financial institutions and the government in market surveys, financial product development, and testing for loan, deposit, and micro-insurance products on a cost-sharing basis. EBRD is providing technical and financial support to its institutional borrowers in these areas.
- (iii) Help communities develop social and legal arrangements such as associations, partnerships, and cooperatives that would facilitate lending and savings programs and ownership and use of assets, including inventories, buildings, machinery, and equipment. The second phase of KfW's Rural Financial Sector Program, which will expand activities through a larger number of microfinance institutions and outreach, may provide assistance in this area.
- (iv) Provide long-term financing and possibly grants to financial institutions to stimulate renewable energy and other lending for innovation. At present, Gesellschaft für Internationale Zusammenarbeit and the nongovernment organization Groupe Energies Renouvelables, Environnement et Solidarités (GERES) are providing small-scale assistance for energy conservation investments.
- (v) Provide long-term financing for financial institutions to improve the outreach of their financial services, especially in rural locations. EBRD and KfW are helping in this area. KfW is likely to establish an €8 million revolving fund through the Ministry of Economic Development and Trade to finance agricultural lending through microfinance institutions.

¹ Initially, it was suggested that much of this support be provided through an apex body.

The Finance Sector: An Overview

General Outline of the Finance Sector

Economic and Financial Growth

During 2003–2010, real gross domestic product (GDP) growth averaged 7.6% per year, to reach \$1,050 per capita by the end of 2012. Construction was the fastest-growing sector, and accounted for 8.4% of GDP at the end of 2012. The trade sector was second fastest, reaching 15% of GDP, followed by transport and communications, at 15% by the end of 2012. Agriculture maintained its share of GDP within a range of 19%–24% over that period, but in real terms growth in agriculture has been less than 2% per year (Appendix 1, Table A1.1).¹ Remittances, mainly from the Russian Federation, have had a huge impact on Tajikistan's economy. Total remittance inflows were 35.1% in 2009 (about \$1.7 billion), 40.0% in 2010 (about \$2.2 billion), 41.4% in 2011 (about \$2.7 billion), and 41.1% in 2012 (about \$3.1 billion).²

Tajikistan is the poorest of the former Soviet-bloc countries, and is heavily reliant on remittances. Although poverty declined from more than 72% of the population in 2003 to almost 47% in 2009, with extreme poverty falling from 42% to 17%, poverty is still widespread.³ Poverty reduction remains heavily reliant on remittances, the decline of which was keenly felt in the 2009 global downturn. A move to higher and more sustainable growth is needed. The economy is also reliant on few exportable commodities and a narrow production base. The country needs to strengthen infrastructure and services, improve the business and investment climate, and diversify agricultural output. Private investment has been stagnant at less than 5% of GDP over the past 5 years through the end of 2012, reflecting an unfavorable business environment and a lack of investor confidence. To boost economic activity, the government needs to focus on reducing risks to private investors, for example, by providing and enforcing property rights, reducing corruption, and enhancing supporting infrastructure. Improving the security situation and maintaining stability are also important.⁴

Table 1 shows selected financial indicators for Tajikistan compared with similar countries, the extent to which it lags behind them (albeit some with much higher incomes), and therefore the potential for finance sector growth.

¹ The migration of rural workers to other countries has depleted agricultural human resources.

² United Nations Development Programme. 2012. "Remittance Inflows: Europe and CIS." Excel document. <http://europeandcis.undp.org/data/show/764B8C40-F203-1EE9-BFDC15D354BE9F85>.

³ World Bank. 2011. "Country Brief." <http://www.worldbank.org/en/country/tajikistan>.

⁴ Asian Development Bank (ADB). 2010. *Tajikistan: Country Partnership Strategy 2010–2014*. Manila: ADB.

Table 1: Country Finance Sector Indicators (relative to GDP, 2011)

Country	GDP per Capita (\$)	Broad Money (%)	Credits to Private Sector (%)	Deposits (%)	Banking Assets (%)
Tajikistan	836	23.7	14.6	14.7	27.4
Armenia	3,305	29.5	34.8	20.4	54.1
Azerbaijan	6,916	27.8	18.0	12.0 ^a	44.0 ^a
Georgia	3,203	30.4	33.5	24.4	52.3
Kazakhstan	11,357	35.7	32.2	30.7	46.9
Kyrgyz Republic	1,075	29.1	12.2	10.1	24.4
Uzbekistan	1,546	18.0 ^a	17.0 ^a	19.4 ^a	30.5 ^a

GDP = gross domestic product.

Note: As of the end of 2012, Tajikistan's GDP per capita was estimated at around \$900.

^a Data are for 2010; remaining data are for 2011.

Sources: United Nations Development Programme. 2012. "Remittance Inflows: Europe and CIS." Excel document (GDP tab). <http://europeandcis.undp.org/data/show/764B8C40-F203-1EE9-BFDC15D354BE9F85>; National Bank of Tajikistan. 2012. Banking Statistics Bulletin 12 (209). http://www.nbt.tj/en/statistics/stat_bulletin.php; World Bank. 2012. "World Development Indicators." Database. <http://data.worldbank.org/data-catalog/world-development-indicators>.

Asian Development Bank (ADB). 2011. Asian Development Outlook 2011: South–South Economic Links. Manila: ADB; International Monetary Fund (IMF). "Country Reports." Washington DC: IMF.

The number of people in formal sector employment declined from about 1.07 million in December 2006 to about 1.04 million in May 2010.⁵ Employment in agriculture shrank from 557,000 people in 2006 to 506,200 by May 2010. During this time, there was an estimated increase of 440,000 in the working-age population.⁶ The working-age population that stayed at home increased steadily from 1.07 million in 2000 to 1.49 million in 2007. Employment creation is clearly a critical issue.

Impact of Foreign Worker Remittances on the Finance Sector

It is estimated that more than 810,000 people from Tajikistan are working abroad, 90% in the Russian Federation and the rest mainly in Kazakhstan. About 95% of these workers are male and half were unemployed before going overseas. Remittance inflows increased from \$79.0 million in 2002 to about \$3.1 billion in 2012, or about 41.1% of GDP (Figure 1). The greatest impact of the global financial crisis on remittances was in 2009, yet they remained at 36.7% of GDP. In the first 6 months of 2011, remittances from the Russian Federation alone amounted to almost \$1.2 billion, an increase of 35% over the same period in 2010. It is estimated that 87%–89% of remittances from the Russian Federation are sent through banks and money transfer offices. The average value of a remittance is \$366.0.⁷

Remittances are lowest in winter and highest in summer (Figure 2), reflecting the large number of overseas workers hired on construction sites for 3–9 months. In 2010, January and February remittances averaged \$110 a month per worker, rising to \$166 a month in July through October. Even the low months show quite substantial remittance inflows.

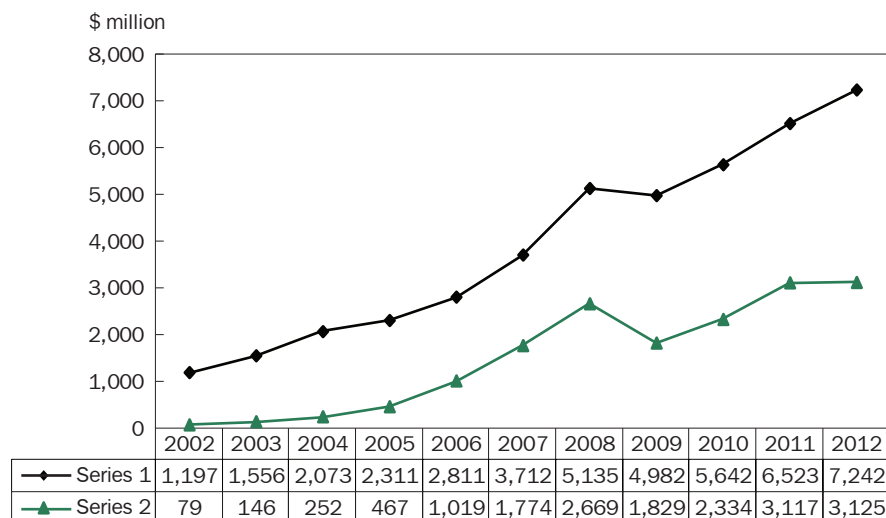
An International Labour Organization study in 2010 covering 1,267 households indicated that 23% of remittances were saved—12% for less than 6 months and 11% for more than 6 months—37% of households save no part of their income, while about 51% manage to save up to 20%.⁸ About 9% of households reported saving 21%–40% of remittances and about 3% save 41%–60% of their income.

⁵ Statistical Agency under the President of the Republic of Tajikistan. 2010. "Database: Employment 2000–2010." <http://stat.tj/en/database/real-sector/>.

⁶ Statistical Agency under the President of the Republic of Tajikistan. "Real Sector: Labor Resources and Employment 1988–2011." <http://stat.tj/en/analytical-tables/real-sector/>. Much of the employment data are shown only up to 2007.

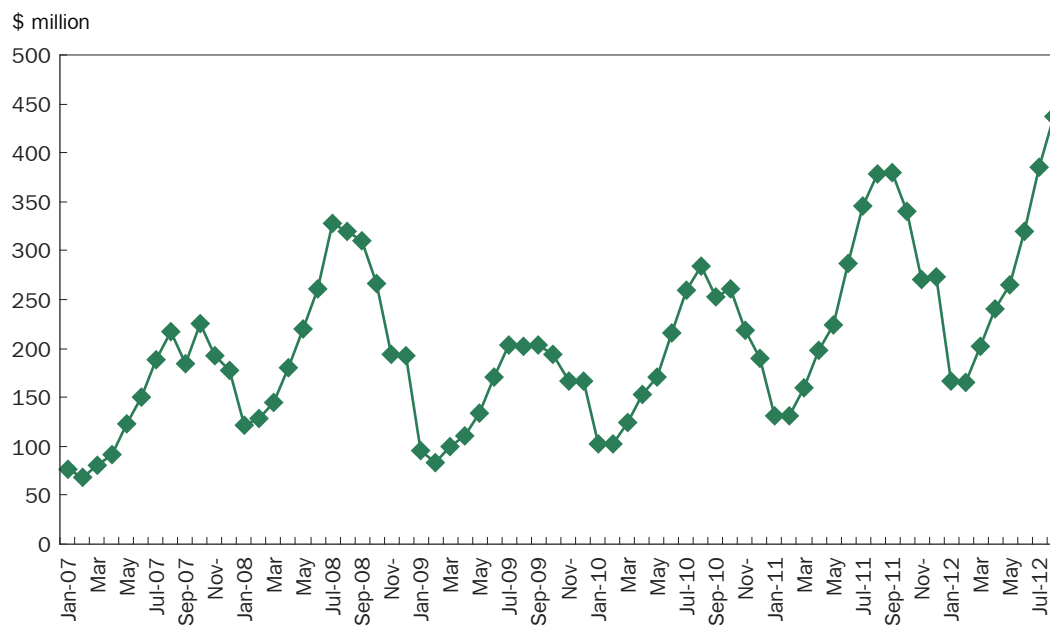
⁷ Central Bank of the Russian Federation. October 2011.

⁸ International Labor Organization (ILO). 2010. *Migrant Remittances to Tajikistan. The Potential for Savings, Economic Investment and Existing Financial Products to Attract Remittances*. 7 (2) pp. 190–202. Geneva: ILO.

Figure 1: GDP and Remittance Inflows (2002–2012)

GDP = gross domestic product.

Sources: World Bank. 2011. "Migration and Remittances Factbook." Washington DC: World Bank; United Nations Development Programme. 2012. "Remittance Inflows: Europe and CIS (excel document)." <http://europeandcis.undp.org/data/show/764B8C40-F203-1EE9-BFDC15D354BE9F85>; For the remittances estimate for 2012: Central Bank of the Russian Federation [in Russian]. <http://bankir.ru/novosti/s/lichnye-perevody-iz-rossii-v-strany-sng-v-2012-g-vyrosli-pochti-na-22-do-20-1-mld-10041446/>.

Figure 2: Monthly Remittance Inflows (\$ million)

Sources: United Nations Development Programme. 2012. "Remittance Inflows: Europe and CIS." Excel document. <http://europeandcis.undp.org/data/show/764B8C40-F203-1EE9-BFDC15D354BE9F85>. For total remittance inflow estimate for 2012: Central Bank of the Russian Federation, (in Russian). <http://bankir.ru/novosti/s/lichnye-perevody-iz-rossii-v-strany-sng-v-2012-g-vyrosli-pochti-na-22-do-20-1-mld-10041446/>.

These savings, however, are almost never kept in the banks (98% of households with savings hold no portion of them in the banking sector), with 95% of households unaware of the savings products available. Moreover, most of those aware of existing financial schemes do not keep their savings in banks because the amounts are too small.⁹ Study responses indicate that this attitude is compounded by a tradition of keeping savings at home and a general distrust of banks.

In 2010, individual deposits in the banking sector increased to \$82.8 million, or 3.5% of official remittances. If 14.0% of remittances were placed in the banking sector (the proportion of deposits to GDP), this would have amounted to \$330.0 million during 2010, or four times actual deposits.

Some banks, especially those that cooperate with money transfer organizations or host money transfer organization points, are developing new remittance-backed financial products. Tojik Sodiro Bank, with vigorous product cross-selling, saw a 61% increase in individual deposits during 2010–2011. Amonatbank, in contrast, which has attracted less than 1.5% of its handled remittances into deposits, has seen an increase in deposits of only 5%. Agroiinvestbank, with a remittance inflow similar to Amonatbank's, has attracted 10% of remittances into deposits and seen a 46% increase in total deposits. The expansion of ATM outlets and plastic cards is encouraging better customer access to remittances held within banks.

The fall in remittances in 2009 affected microfinance lending. Among the five large donor-supported microfinance institutions, with 70% of rural borrowers, the aggregate loan portfolio of \$58.0 million in 2008 dropped to \$46.6 million in 2009, recovered to \$61.2 million in 2010, and reached \$93.0 million by the end of 2011.

The quality of loan portfolios was also affected: recorded loan losses were less than 1% of the loan portfolio in 2008 and 2010, but jumped to 4% in 2009. This indicates that variations in remittance inflows affect rural and less wealthy households most. It also suggests an opportunity to provide a deposit instrument that would reduce fluctuations in remittance flows, and to link to financial services provided by banks or microfinance deposit organizations. This would require product testing before rollout. Small financial transactions at relatively high costs, difficulty in reaching rural communities, and establishing trust between communities and the financial institutions that serve them are related issues that need addressing. It is suggested that the larger microfinance institutions that have been serving rural markets for around 10 years (or more) are best positioned to develop this market.

Gender Issues

Background

Prior to independence in 1991, 70% of women and 78% of men were in formal employment.¹⁰ After independence, with the closure or shrinkage of state-owned enterprises, only 29% of women and 40% of men were registered as employed. Women have increasingly been working in agriculture and jobs that lack secure employment and social protection, whereas men are more likely to work in private companies that offer more stable employment and social benefits. Poorer education also restricts women's economic choices.

Given poor job creation and high unemployment, a large number of migrant workers have traveled to the Russian Federation in search of work. These workers, 95% male, are generally fluent in Russian. In the agriculture sector, the exodus has pushed women further into low-paid or unpaid family agricultural work and threatens the ability of children, girls in particular, to receive adequate education.

⁹ The minimum initial deposit a bank requires depends on the savings product. The minimum is TJS100 (\$22) and can be up to TJS1,000. Tax identification is required to open an account. People in rural areas face an average cost of travel to and from a bank of around TJS20 (\$4.20).

¹⁰ Alexander M. Danzer and Oleksiy Ivaschenko. 2010. "Migration Patterns in a Remittances Dependent Economy: Evidence from Tajikistan during the Global Financial Crisis." *Migration Letters*. 7(2). 190–202. <http://www.migrationletters.com/>; Jane Falkingham. 2000. "Country Briefing Paper: Women and Gender Relations in Tajikistan." Manila: Asian Development Bank.

The global financial crisis of 2008–2009 highlighted the vulnerability of women, whose risk of unemployment increased by 20%, compared with 8% among men. A review of the five largest microfinance institutions, all highly supportive of women,¹¹ showed a decline of 24% in the number of loans to them in 2009, compared with no decline in loans to men.¹² This indicates that during uncertainty, self-employment is seen as financially more risky, with a greater tendency among women to revert to unpaid family labor.

Use of Financial Services

There is a paucity of gender-disaggregated data for the finance sector. National Bank of Tajikistan (NBT) statistical bulletins do not show gender data, and the content of gender information from banks and microfinance institutions, as shown in their reports and in the MIX Market database, is highly variable.

Association of Microfinance Organizations Tajikistan (AMFOT) data for microcredit in 2010 showed that women received 38% of disbursements from microfinance institutions (by number) and 31% by amount. The average microloan to women was \$810, compared with \$1,090 to men. Among the banks, women received 34% of microcredit disbursements and 20% of total bank disbursements. The average microloan to women was \$2,220, compared with \$4,650 to men.

There were substantial differences between the banks: whereas Bank Eskhata followed the averages for banks, the average loan to women from Agroinvestbank was \$2,260 and \$2,800 to men. This ratio is comparable to the microfinance institutions. In microcredit, there is little apparent discrimination against women, who have a choice of financial institutions to use.

No data are available on larger loan sizes relevant to small and medium-sized enterprise (SME) requirements. Whereas microcredit can be secured with business revenues and inventories, larger loans require marketable assets as security. Anecdotal information suggests that women have fewer property rights and less ownership of fixed assets, which would restrict their access to SME borrowing. The now-improved legislative environment for leasing should improve the access of women to SME financing. The role of women in the ownership and management of assets, such as land-use rights and farm machinery cooperatives, still needs clarification and encouragement. Poor education and low financial literacy among women together constitute a major barrier that needs to be overcome through training to broaden access to financial services.¹³

Legal and Regulatory Framework

General Legislation

The legislative and regulatory framework for financial institutions is based on the Law on the National Bank of Tajikistan, Law on Banks and Banking Activities, and the Law on Microfinance Organizations. A bankruptcy law for credit institutions is being drafted that would allow for their orderly liquidation.

Under the supervision of the NBT, there are 16 commercial banks (of which one, Amonatbank, is state-owned), 1 credit society, 35 microfinance deposit organizations, 44 microloan organizations, and 46 microloan funds. The latter are noncommercial in operation.¹⁴ At least seven of the microcredit loan funds are

¹¹ Many microfinance institutions began their operations as nongovernment organizations to support women, such as women's advocacy support and women's savings groups. Loan products are now gender-neutral.

¹² In 2008, 44% of loans were to women, compared with 33% in 2009. The share increased to 38% in 2010.

¹³ In a farm workshop in Vose District in 2006, most of the participants were girls and women aged 12–25. Of this group, more than 50% were not able to read and write their names and many did not understand the meaning of a signature. Asian Development Bank (ADB). 2007. "Tajikistan: Farm Analysis and Awareness-Raising for Debt Resolution." Technical Assistance Consultant's Report. Manila: ADB.

¹⁴ The Law of the Republic of Tajikistan on Microfinance Organizations designated three types of microfinance institutions: (i) a microcredit deposit company that was a commercial microfinance institution involved in borrowing, deposit-taking, providing microcredits and other activities through a license from the NBT; (ii) a microloan company that was a commercial, microfinance organization providing loans and other services (but not deposits) under NBT license; and (iii) a microloan fund that was a noncommercial, microfinance organization performing its lending activity under an NBT-issued certificate issued.

shareholders in microloan organizations and do not carry out credit operations as microcredit loan funds.¹⁵ The minimum required regulated capital is TJS30 million (\$6.85 million) for commercial banks, TJS50 million (\$11.40 million) for newly formed banks, TJS20 million (\$4.60 million) for credit societies, TJS4.0 million (\$842,000) for microfinance deposit organizations, and TJS1.0 million (\$210,000) for microloan organizations. There is no minimum capital requirement for microcredit loan funds. Only nine microloan organizations met minimum capital requirements. Credit societies were created in 2005 as a temporary solution for banks that could not meet the \$5.0 million (equivalent) capital requirement at that time. Since then, several of these institutions have been liquidated; the remaining still violate prudential requirements.

Parliament approved the new Law on Microfinance Organizations in March 2012. Donors had earlier expressed concerns about a draft presented in October 2011. The three most important issues raised included (i) the right of microcredit loan funds to hold a stake in a commercial microfinance institution, (ii) the ability of microfinance institutions to hedge foreign-currency funding with local banks (back to back), and (iii) improved consumer protection, particularly the disclosure of the effective interest rate to borrowers. In December 2012, the government removed the clause that prevented microloan funds from holding ownership in a commercial microfinance institution. Many of the foreign funding institutions now offer loans in domestic or foreign currencies. Following the passing of the new law, the NBT has drafted regulations that apply separately to microfinance deposit organizations, microloan organizations, and microloan funds.¹⁶

The new instructions place limits on loan sizes. Microloans extended by microfinance deposit organizations should not exceed TJS250,000 (\$52,600) for individuals, TJS500,000 (\$105,200) for legal entities, and TJS1,500,000 (\$315,700) for other microfinance institutions. Microloans extended by microloan organizations should not exceed TJS250,000 for individuals and TJS400,000 (\$84,000) for legal entities. Similarly, microloans extended by microloan funds should not exceed TJS250,000 for individuals and TJS350,000 (\$73,600) for legal entities. Previously the microloan limit was prescribed as \$20,000 for all lending. Instruction No. 198 for microfinance deposit organizations, from the NBT, limits a single borrower loan to not more than 20% of regulated capital. The minimum paid-up capital for a microfinance deposit organization is TJS4 million and TJS1 million for a microloan organization. The minimum capital adequacy ratio for a microfinance deposit organization is 12%.

Monitoring of Financial Institutions

Additional data would be useful for analysis and for recommending improvements of micro and rural financial services. At present, there is no breakdown of rural versus urban lending, although many microfinance institutions do keep such data. NBT data show the number of loans disbursed by each category of financial institution, but does not show the number of active borrowers at the end of each year. Information on deposit-taking would be improved if the number of individual deposit accounts was published. While there is consolidated balance sheet data for banks, no similar data are available for microfinance deposit organizations, microloan organizations, and microloan funds. All this information would improve knowledge of the outreach and depth of financial services.

E-Banking

As a result of the 2007 Financial System Assessment Program prepared by the World Bank and the International Monetary Fund (IMF), the government passed Resolution No. 261 on 28 May 2010, bringing into effect the Tajikistan Banking Sector Development Strategy and Action Plan 2010–2015. The plan included upgrading the regulatory framework for Tajikistan's payment system, for which work has been partially completed. The World Bank supported this action with assistance to prepare a draft law addressing

¹⁵ The microloan fund might also carry out charitable functions in the name of the fund.

¹⁶ NBT Instruction No. 196 for microfinance deposit organizations, Instruction No. 197 for microloan organizations, and Instruction No. 198 for microloan funds.

- (i) the licensing of payment institutions;
- (ii) authorization of payment and settlement systems; and
- (iii) establishment of the duties of payment institutions toward customers in the use of payment instruments such as ATMs, point(s) of sale, the internet, and mobile phones.

This same law is expected to address the issues of electronic money (e-money) and potentially the use of agents and outsourcing for retail payment systems, which could affect the options available for branchless banking.

World Bank assistance in this area also sought to strengthen the oversight of the payments system within the NBT, which was identified as an area of weakness. A dedicated unit with capacity and responsibility for supervision of the payment system has been implemented, with support from the World Bank through capacity building.

The regulatory environment for electronic banking (e-banking) should aim to provide a level playing field through a consistent regulatory framework that allows service providers to innovate. This should involve regulation both of the mobile channel and any new payment instruments, such as e-money, that these channels offer. Consideration should be given to the operational risk associated with use of a mobile phone as an e-banking channel, which should provide standards for security and availability.

Where mobile money transfer is to be allowed, regulators will first have to decide if such services can be offered only by banks or whether nonbanks will also be allowed to participate. Where banks offer mobile money transfer and all payments are ultimately linked to an existing bank account, they will typically be covered under existing prudential guidelines, although some changes may be required to cater for cash in/out services at banking agent locations.

By contrast, if nonbank players are allowed to provide mobile money transfer and associated e-money products, new prudential regulations are needed to guide and supervise these providers. Such regulations will typically need to deal with topics such as deposit protection of stored e-money, know-your-customer protocols (for accounts opened via agents), anti-money-laundering requirements for mobile payments, payment of interest on e-money deposit accounts, and the general licensing eligibility for these providers. Stored e-money presents the biggest challenge for regulators because it requires development of a set of risk mitigating measures to protect funds stored through electronic channels. More advanced mobile financial services markets can offer some valuable suggestions based on experience. These include the following:¹⁷

- (i) Fund safeguarding: the storage of the equivalent amount of e-money issued with a prudentially regulated bank, or possibly a government security, to ensure that customer demand for 'cash out' of e-money can always be met. Some regulations (such as in Afghanistan) include requirements to diversify this deposit base to protect against the risk of bank failure.
- (ii) Restrictions on use: prohibiting issuers from using funds for purposes such as meeting operating expenses or for the extension of credit.
- (iii) Fund isolation: a requirement that the funds underlying issued e-money be insulated from institutional risks of claims by issuer creditors, such as claims made in the case of issuer bankruptcy. E-money funds are legally owned by the issuer and as such could be at risk in the case of bankruptcy. Use of trust accounts provides protection against this risk (such as in Kenya).
- (iv) Minimum initial capital requirements for providers: screening out unfit service providers or ensuring an adequate financial cushion, mitigating the risk of provider failure or bankruptcy.
- (v) Dedicated providers: some regulators require service providers to offer e-money services as a sole business line or from a separate legal entity to facilitate regulator supervision and to insulate the e-money business from institutional risks posed by other activities.
- (vi) E-money limits: set limits control the maximum amount of stored value and the transaction limit.

¹⁷ Michael Tarazi and Paul Breloff. 2010. "Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds." *CGAP Focus Note No. 63*. Washington, DC (CGAP).

(vii) Deposit insurance: the eligibility of funds for protection under any available deposit insurance schemes. For example, the United States protects all stored value cards as a 'deposit' as long as such funds are placed in an insured institution.¹⁸

In addition to the ongoing regulatory work on payment systems, the government has demonstrated its commitment to promoting the use of noncash payments through the creation of an interministerial working group charged with creating an action plan by May 2013. On agreement of the plan, it is expected that the NBT will be required to implement the agreed strategy. It is anticipated that mobile-based payment systems will feature heavily in this strategy given high mobile penetration in Tajikistan.

Lending by Financial Institutions

Overview of the Finance Sector

The finance sector in Tajikistan is small. Since 2003, banking sector loans outstanding increased only slightly from 14.1% of GDP to 14.9% by the end of 2010, or TJS3,728.0 million (\$851.2 million), including TJS205.0 million (\$46.8 million) by the central bank. Total banking sector loans were TJS4,800.0 million (\$1,041.1 million) and 16.0% of GDP at the end of 2011 and an estimated TJS5,421.0 million (\$1,139.0 million) and 15% of GDP at the end of 2012.

Prior to the restructuring of lending to the cotton industry, bank loans as a percentage of GDP had reached 40% in 2009.¹⁹ The restructuring reduced total banking sector loans outstanding by TJS2,299 million. Banks have substantially increased lending for foreign trade, construction, food catering and restaurants, and consumption (Appendix 1, Table A1.3).

Among microfinance institutions, loans have increased to agriculture, industry, and consumption. Since 2006, most of the increase in lending has been in microcredit, which has grown in US dollar terms at an average of 10% a year, compared with less than 2% a year for all other lending. Bank assets accounted for only 25.5% of GDP as of December 2012, reported return on assets 0.8%, and return on equity, 3.8%. There are 16 banks with 274 branches, 1 credit society, 125 microfinance institutions, and 14 insurance companies (Table 2).

The banking sector is concentrated. The four largest banks—Agroinvestbank, Orienbank, Amonatbank, and Tojik Sodiro Bank—held more than 75% of banking system assets, more than 90% of household deposits, and 75% of loans. At the end of 2010, the portfolio at risk (PAR) for more than 1 day amounted to 17.2% of the gross loan portfolio, and 7.45% for more than 30 days. As of the end September 2011, the overall PAR > 30 days had risen to 10.77%, of which 12.6% was in local currency loans (54% of all lending) and 9.4% was in foreign currency loans. Most classified loans were held by Orienbank and Agroinvestbank. For the microfinance deposit organizations, in comparison, at the end of 2010, the share of PAR > 1 day was 4.85% and PAR > 30 days was 1.82%. Consolidated data for all microfinance institutions are not shown, but analysis of the five largest microfinance deposit organizations and/or microloan organizations, holding 62% of all microfinance lending, indicates that PAR > 1 day was less than 4% at the end of 2010. These five have a total of 40 branches and 130 subbranches.

The two largest banks (Orienbank and Agroinvestbank) still have a large part of their loan portfolios in poorly performing agricultural loans, despite an infusion of TJS350 million (\$84 million) in government securities in May 2010 to offset mandatory lending in agriculture. The large depreciation in the value of the somoni in 2009

¹⁸ Federal Deposit Insurance Corporation. 2008. "Insurability of Funds Underlying Stored Value Cards and Other Nontraditional Access Mechanisms." New General Counsel's Opinion No. 8. Washington, DC: FDIC. <http://www.fdic.gov/news/news/financial/2008/fil08129.html>.

¹⁹ Restructuring led to the closure of a major cotton financier, KreditInvest, and the allocation of TJS350 million (\$84 million) in government securities to banks, bearing an interest rate of 2%, to offset cotton debt write-offs. Cotton investors (traders) are also expected to repay their outstanding loans from KreditInvest to the NBT, improving the central bank's equity position.

Table 2: Financial Institutions (by size, 2012)

Type of Financial Institution	Number	Net Loans Outstanding		Total Assets		
		Amount (TJS '000)	Share (%)	Amount (TJS '000)	Share (%)	GDP (%)
Banks	16	4,355,084	82.30	9,227,914	87.30	25.50
Credit societies	1	1,289	0.02	1,394	0.01	0.00
Microfinance institutions	122	935,397	17.70	1,300,264	12.30	3.60
Insurance firms	30	n.a.	n.a.	40,000 ^a	0.40	0.10
Total	169	5,291,770	100.00	10,569,572	100.00	29.20

GDP = gross domestic product, n.a. = not available, TJS = Tajikistan somoni.

^a Data as of June 2009.

Source: National Bank of Tajikistan (NBT). 2012. *Banking Statistics Bulletin* 12 (209). http://www.nbt.tj/en/statistics/stat_bulletin.php; Strategic Research Centre of the President of the Republic of Tajikistan. 2011. *Tajikistan and Contemporary World* [in Tajik]. Dushanbe.

also had a substantial impact on the banks because they held 52% of their lending in foreign currency, leading to increased credit risk and liabilities; 58% of deposits were held in foreign currency as of the end of 2010.

The insurance sector has not grown since 2007, when collected premiums amounted to 0.7% of GDP shrinking to 0.4% of GDP by 2010. In US dollar terms, the premiums amounted to \$25.0 million in 2007 and \$24.2 million in 2010. Several factors contribute to low insurance penetration, including poverty, income distribution, poor understanding of insurance products, low public confidence in the sector, poor accounting standards, inadequate supervision, and an out-of-date legal framework.²⁰ Insurance payouts from 2007–2010 were only 13% of collected premiums. Over the same period, the expenses-to-revenue ratio of the sector was 97.8%, reflecting low financial efficiency.²¹ Some local companies retain risks exceeding their financial capacity without adequate reinsurance protection.

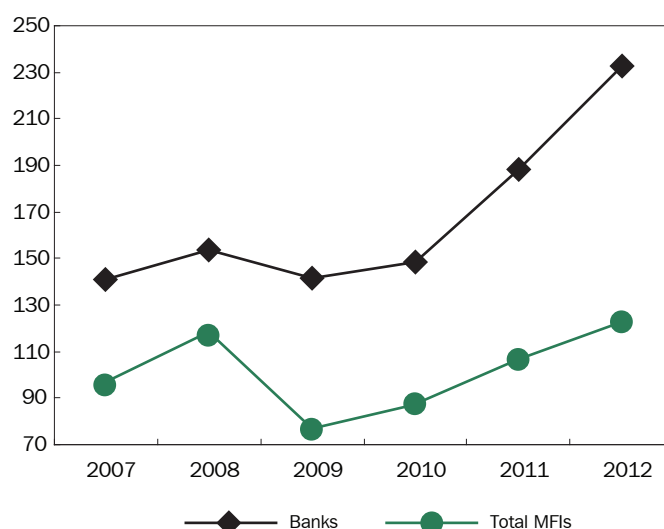
A deposit insurance law now covers individual deposits up to a value of TJS7,000 (\$1,470), including interest.²² Deposit-taking financial institutions are required to become members of the Deposit Insurance Fund by paying a membership fee of 0.5% of their minimum authorized capital plus 0.5% of the average balance of eligible individually held deposits for each previous quarter. No provision in the law allows for assessing the fee according to the different risk levels posed by each financial institution. The cost of this insurance appears to be excessive for a well-performing microfinance deposit organization, with PAR < 3%, compared with banks that have close to 10% PAR and much larger deposit bases relative to the size of their loan portfolios.

Tajikistan has virtually no capital market, no secondary market in government securities, and effectively no private sector pension funds. The interbank money market is restricted to a few banks in relatively good standing, with little availability or use of government securities as collateral for interbank trading. The NBT issues small volumes of certificates of deposit, for which no secondary market exists. In 2012, NBT certificates in circulation amounted to TJS402.90 million (\$84.65 million), equal to 1.1% of GDP. There are TJS3.99 million T-bills, with an average maturity of 91 days and an average weighted yield of 1.25% per year.

²⁰ World Bank. 2009. *Financial Sector Assessment Program*. Joint IMF-World Bank Financial Sector Assessment Program of March 2009. Washington DC: World Bank. <http://documents.worldbank.org/curated/en/2009/03/10342018/tajikistan-financial-sector-assessment>.

²¹ Calculated as operating expenses divided by revenues less reinsurance expenses.

²² Law on Insurance of Deposits of Individuals, No. 758, 2 August 2011. The fund is exempt from this law.

Figure 3: Number of Microcredit Disbursements (by year, '000)

MFI = microfinance institution.

Source: National Bank of Tajikistan (NBT). 2012. "Banking Statistics Bulletin" 12(209). http://www.nbt.tj/en/statistics/stat_bulletin.php.

Microlending

Banks and microfinance institutions generally define microlending as covering loan sizes of less than \$10,000. Since 2007, most of the growth in bank lending has been in microlending, amounting to an increase of \$164 million, with average annual growth of at least 15% (Appendix 1, Table A1.4). At the end of 2012, micro and small enterprise (MSE) lending of TJS2,182 million (\$458 million) comprised 41% to "was about 41% of all banking lending of \$5,300 million (\$1,113 million). Microfinance institutions, mainly microloan organizations and microfinance deposit organizations, have been responsible for \$91 million of this growth, with banks making up the balance.²³ This demonstrates the government's successful promotion of the microfinance industry through legislation and supervision. Nongovernment-organization-driven microloan funds held only 4% of total MSE lending at the end of 2010 and only 2.9% by the end of 2012.

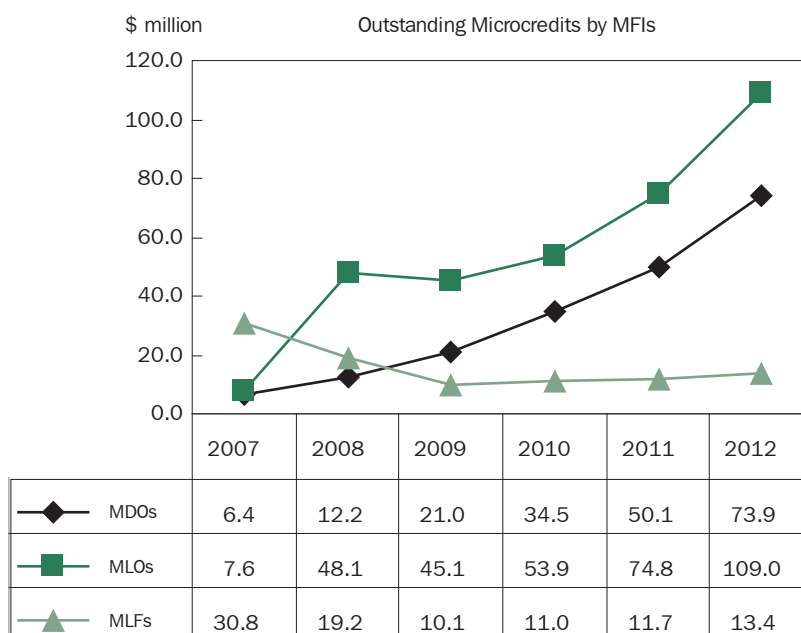
Bank disbursements to MSEs increased to 122,398 in 2012, from 95,480 in 2009, while microfinance institution disbursements increased to 232,656 from 140,877, recovering after a decline in exports and remittances in 2009, when the global financial crisis temporarily reversed this growth (Figure 3). Bank disbursements fell to 76,400 in 2009 from 117,000 in 2008, while microfinance institution disbursements fell to 141,700 from 153,800.²⁴ Foreign worker remittances are clearly an important economic factor in MSE development, including the number of loan disbursements.

Active borrowers are estimated at around 80% of the number of loan disbursements: that is 98,000 borrowers for banks and 186,000 borrowers for microfinance institutions. At 284,000 MSEs financed in total, this is about 55% of MSEs operating and about 17% of total households. The European Bank for Reconstruction and Development (EBRD) estimates that more than 500,000 MSEs operate in Tajikistan, the number supported by a study from the Microfinance Centre on microfinance deposit organization deposit services discussed later.²⁵ The study also indicates that 24% of households had an independent source of income.

²³ There is an element of double counting as many microfinance institutions receive overdraft and short-term loan facilities from the banks.

²⁴ The value of remittances fell 31.3% in 2009 compared with the previous year.

²⁵ Justyna Pytkowska and Piotr Koryński. 2010. *The Market for MDO Deposit Services in Tajikistan*. Warsaw: Microfinance Centre. <http://www.microfinancegateway.org/p/site/m/template.rc/1.9.53274>.

Figure 4: Microfinance Institution Lending by Category (\$ million)

MDO = microfinance deposit organization, MLF = microloan fund, MLO = microloan organization.

Source: National Bank of Tajikistan (NBT). 2012. *Banking Statistics Bulletin 12* (2009). http://www.nbt.tj/en/statistics/stat_bulletin.php.

Banks have seen major growth in MSE finance in food catering (including restaurants), construction, and foreign trade; the microfinance institutions have seen growth in transport and construction. By sector, the microfinance institutions not only have the larger share of total MSE lending for industry and services, but also a significant agricultural loan portfolio of TJS279 million (\$58.7 million), which is 30% of their total loan portfolio (Appendix 1, Table A1.3). There is almost no commercial lending for investments in renewable energy.²⁶

In the past, there was little overlap between the banks and microfinance institutions in targeted borrowers. This may change as the stronger microfinance institutions provide more loans closer to \$10,000, and compete with banks for this lower end of the market. It is expected that two of the donor-supported microfinance deposit organizations will apply for banking licenses within by about 2014. Since 2008, average loan disbursement for banks and microfinance deposit organizations, focused on urban areas, has been close to \$3,000, compared with less than \$1,200 for donor-supported microfinance deposit organizations and microloan organizations, and \$500 for microloan funds. There has been little change in these loan sizes since then. In 2007, banks held 76% of the microlending portfolio, compared with 57% at the end of 2012. Most of the growth in microlending has been through the microfinance institutions, in particular through the microfinance deposit and microloan organizations (Figure 4).

From 2007–2008, there was a decline in microloan fund lending portfolios as the larger funds became microloan organizations. Since 2009, there has been almost no growth in the aggregate microloan fund loan portfolio. AMFOT data for 69 microfinance institutions show wide variation in loan size and the dominance of 2 microfinance deposit organizations and 3 microloan organizations among the microfinance institutions.

The five largest microfinance institutions (all established with donor assistance) hold 72% of the microfinance market share. AMFOT's microfinance institution members had a total loan portfolio of TJS409.5 million (\$93.5 million) and 113,213 active borrowers, with an average loan balance of TJS3,617.0 (\$825.8) at the end of 2010. AMFOT does not show the use of loan funds by number of borrowers. Trade takes up 46.0% of lending,

²⁶ KfW earmarked €5.0 million for household borrowing to install mini-hydropower stations, but this was cancelled due to lack of interest.

followed by agriculture (livestock and crops) at 27.0%, consumption at 12.0%, services at 10.0%, manufacturing at 5.0%, and migration at 0.4%.²⁷ It is likely that the consumption loans are twinned with productive investment loans, reducing the number of active borrowers. The measure of PAR for 30 days for all 69 AMFOT-member microfinance institutions is less than 3%. Among the five large microfinance institutions, women comprised 53% of borrowers, 38% among AMFOT-member microfinance institutions, and held 30% of total lending. For three banks monitored by AMFOT—Agroinvestbank, Eshkhat Bank, and The First MicroFinanceBank—the comparative figures are 25% and 12%, respectively. For the banks, this includes all lending, whereas for the microfinance institutions it is only microlending.

Small and Medium-Sized Enterprise Lending

The State Statistics Committee defines SMEs as companies with less than 200 employees, but not by annual turnover. Financial institutions generally define SMEs according to a loan size of \$10,000–\$50,000, with microenterprises below \$10,000. Substantial SME lending is in the MSE category according to data gathered by the Tajikistan MSE Finance Facility, an EBRD-supported program. The EBRD estimates the potential market size for SME lending at \$447 million, compared with an estimated \$93 million in lending at present.²⁸

Eshkhat Bank made 132 loans to private companies totaling \$5.8 million, with an average loan size of \$43,900; 3% of Eshkhat Bank borrowers are in the SME category.²⁹ Extrapolated over the banking sector, this would indicate that there are 3,000–5,000 bank-financed SMEs in Tajikistan. These numbers are similar to estimates in an International Finance Corporation (IFC) study, which indicated that 70% of SMEs do not have a relationship with a bank and that there were about 4,000–7,000 SMEs.³⁰

SMEs identify access to electricity, high and uncertain tax rates, and access to finance as major business obstacles (Table 3). About 25% of businesses in Tajikistan identify access to finance as the major barrier to growth. High borrowing costs, with interest rates of 30% to 39%, and collateral requirements of 130% to 150% of the loan amount, are cited as key constraints on loan demand.

Tajikistan ranked among the top 10 reforming countries in the World Bank *Doing Business* surveys for 2010 and 2011, improving its ranking to 139th out of 183. Reforms in 2011 included the creation of one-stop business registration, improved corporate disclosure requirements, better access to information for minority investors, and a lowering of corporate profit tax. Several additional measures are under way to improve the investment climate. Parliament passed a law cutting the number of permits by more than 80%, which is expected to significantly reduce the time and cost for processing new ones. A private credit bureau is being set up, with banks and microfinance institutions as shareholders. To improve access to finance, a registry for movable assets to be secured as debt collateral is being established with a stronger legal basis.

Agricultural Lending

In 2008, the government introduced a temporary and ad hoc cotton financing mechanism through which it extended budget-financed domestic credit to commercial banks to on-lend to cotton farmers. This credit amounted to TJS140.0 million (\$40.8 million) and TJS180.0 million (\$43.5 million) in 2008 and 2009, respectively. In 2008, it charged the banks an interest rate of 12%, with the on-lending rate capped at 18%. PAR > 30 days on this lending was 51%. These interest rates were lowered to 10% and 14% in 2009. The banks were required to repay the loans to the Ministry of Finance by 31 December 2011. Agroinvestbank, the largest participant, had TJS88 million (\$20 million) of this financing on its balance sheet at the end of 2010.

²⁷ This is a surprisingly small amount for migration. The comparative figure for three banks is 3.6%.

²⁸ This estimate includes lending by the Tajikistan MSE Finance Facility, which had an average loan size of \$3,885 per borrower, and lending from the EBRD-supported Tajik Agricultural Finance Framework, with a similar average loan size.

²⁹ The EBRD is providing financial and technical support to Eshkhat Bank, the fifth-largest bank (EBRD is already an equity partner) to increase SME lending.

³⁰ International Finance Corporation (IFC). December 2009. *Business Environment in Tajikistan as Seen by Small and Medium Enterprises*. Washington DC: IFC. This includes microenterprises and *dekhans* farms within the SME category.

Table 3: Financial Market Development—Selected Indicators (rankings, 2011–2012)

Country	Availability of Financial Services	Affordability of Financial Services	Financing through Local Equity Market	Ease of Access to Loans	Venture Capital Availability	Soundness of Banks	Regulation of Securities Exchanges	Global Competitiveness Index (Rank)
Armenia	76	48	115	69	89	51	106	82
Azerbaijan	119	70	63	57	59	133	101	46
Georgia	100	85	126	93	104	92	119	77
Kazakhstan	79	78	109	110	105	120	100	51
Kyrgyz Republic	136	137	139	137	133	131	134	127
Pakistan	95	99	54	65	55	85	55	124
Tajikistan	103	88	88	49	50	100	123	100
Estonia	43	59	62	67	33	36	40	34
Latvia	65	58	103	72	43	106	64	55

Source: World Economic Forum. 2012. *The Global Competitiveness Report 2012–2013*. Geneva: World Economic Forum.

The government issued promissory notes to compensate banks for the mandatory writing off of cotton-sector loans acquired up to the end of 2007, carrying an interest rate of 2% and raising it to 8% in 2011. The notes mature in tranches of equal size during 2014–2018. They do not improve bank liquidity. This restructuring allowed the banks to classify underperforming loans as performing, lowering their PAR ratios. It is difficult to ascertain the true position of banks that held large portfolios of cotton lending. The restructuring of the cotton debt appears to have reduced the liquidity of Agroinvestbank and left the bank with an unsatisfactory PAR.

In 2010, agricultural loans through microfinance institutions amounted to 27% of the total (30% in 2012), while almost none of this went to the cotton industry. Among the three largest microfinance institutions (IMON INTERNATIONAL, Humo and Partners, and OXUS Group), rural lending substantially exceeds urban lending. Among the four banks that participate in donor programs, lending varies widely: agricultural loans comprised 21% of total lending at Agroinvestbank, 12% at Tojik Sodiro Bank, 3% at Eskhata Bank, and 29% at The First MicroFinanceBank.

Due to a lack of liquidity and (earlier) disinterest in agricultural lending, the Tajik Agricultural Finance Framework, an EBRD project, has been restricted by the small number of financial institutions involved in the development of agricultural finance. Currently, Agroinvestbank, Eskhata Bank, Tojik Sodiro Bank, and AccessBank Tajikistan benefit from project credit lines in addition to technical assistance. The Tajik Agricultural Finance Framework also works with four microfinance institutions (IMON, Humo, OXUS, and Arvand), three of which (IMON, Humo, and Arvand) have benefited from an EBRD credit line. Despite these constraints, the framework has helped its partner banks to achieve an agricultural loan portfolio, including 3,885 farms and amounting to TJS41.0 million (\$9.3 million), with a PAR > 30 days below 2%. The reemergence of a trader providing “free” and non-transparent finance to farmers in exchange for their cotton crop has been a matter of concern.

The Tajik Agricultural Finance Framework project and partner donors have identified further opportunities in agriculture investment, including beef, dairy, aromatic herbs and spices, fruit orchards, warehouse receipt financing, and farm machinery.

Small-Scale Renewable Energy Investments

While 73% of the population lives in rural areas, electricity consumption ranges from about 8% to 11% of the total for Tajikistan. Because power supplies are low and unreliable, the focus of renewable energy investments is in rural areas. United Nations Development Programme (UNDP) surveys suggest that 1 million people, or 129,000 rural households, are without adequate electricity.

Under the umbrella of the Communities Program, UNDP in 2009 proposed the \$3.5 million Promotion of Renewable and Sustainable Energy Use for Development of Rural Communities in Tajikistan subproject. It included a proposal for at least 30 pilot renewable energy projects to demonstrate the viability of different technologies (gas, hydro, solar), delivery models, financing mechanisms, and operation and ownership models (possibly cooperatives) in selected communities. But \$2.3 million of the proposal (still in the pipeline), mainly for the 30 pilots at \$72,000 each, was unfunded and expected to come from donor sources that had yet to be identified.

Tajikistan is one of nine countries participating in the Pilot Program for Climate Resilience. Under it, Tajikistan received \$1.5 million in grant funds to enable it to submit its own Strategic Program for Climate Resilience in October 2010. The program includes the following investments (with supporting donors given in brackets): (i) Improvement of Weather, Climate and Hydrological Service Delivery (World Bank), (ii) Enhancing Climate Resilience of Energy Sector (EBRD), (iii) Building Capacity for Climate Resilience (ADB), (iv) Agriculture and Sustainable Land Management (World Bank), (v) Climate Science and Modeling Program (ADB), and (vi) Building Climate Resilience in the Pyanj River Basin (ADB). The requested funding is \$47.5 million (which is standard for the pilot countries in the program), with a limit of \$7.9 million per project. The source of funding may be through the UN Framework Convention on Climate Change. Details are not clear, but the funds could be available for a term of 40 years, with an annual interest rate of 2% for the first 20 years and 4% thereafter.

Solar Power. A draft ADB report in October 2011 indicated substantial interest among households in better energy supply for lighting, radio and television, and water heating.³¹ Households considered solar panels more reliable than wind turbines for generating electricity given unpredictable wind strength. Tajikistan gets about 280–330 days of sunlight each year.

On average, houses off the electricity grid spend \$25 per month on a range of energy sources that includes kerosene, batteries, candles, and cow dung. Even houses on the grid, given the unreliability or scarcity of electricity, expressed an interest in better supply. Many pay an average of \$11.5 per month for alternative energy sources in addition to their \$7.5 per month average electricity bill. Electricity tariffs are expected to rise because they do not allow for full sustainability of supplies.

The report estimated that \$18–\$25 per month would be available for households to repay loans linked to the purchase of solar panels costing from \$150 for 20 watts of peak power to \$480 for 80 watts.³² Banks and microfinance institutions have shown interest in participating in the financing of such microcredit investments. The benefits of renewable energy investments include (i) lower greenhouse gas emissions, (ii) better health arising from lower “soot emissions” within dwellings and less eye strain due to bad lighting, and (iii) improved education of children through better lighting for studying and greater access to media.³³

Factors requiring resolution or more detail to prove commercial viability, include the following:

- (i) None of the financial institutions (apart from a small trial by The First MicroFinanceBank) has experience in renewable energy lending.
- (ii) Some of the financial institutions that expressed interest face financial concerns and constraints and will not be able to participate as anticipated.
- (iii) The financing mechanism (ADB→government→financial institutions→household borrower) has yet to be decided and detailed.
- (iv) Details on product life, maintenance, and resale value (if any) need to be clarified.
- (v) A bigger household survey is needed to determine the scope of demand and packaging of loan products.

³¹ Asian Development Bank (ADB). 2011. “Microfinance for Renewable Energy: Feasibility Report”. Manila: ADB.

³² These prices are quoted “free on board France.” Their retail prices in Tajikistan, with the inclusion of taxes, duties, value-added tax, and retail markup could be 60%–70% higher.

³³ Replacing kerosene lamps with electric lighting produced daily health benefits estimated at \$2.50 per household, according to World Bank. 2008. *The Welfare Impact of Rural Electrification: A Reassessment of the Costs and Benefits*. Washington DC: World Bank.

- (vi) Further details are needed, such as household equity contribution to the investment and the terms of repayment.
- (vii) The multiple income sources of many households, including foreign remittances, need to be taken into account.
- (viii) Possible household loan repayment mechanisms need to be assessed: repayment through local branches of financial institutions should be compared with the feasibility of repayment through e-banking options.

House Insulation and Heating. In the Pamir region, Germany's Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is supporting the Warm Comfort: Microloans for Thermal Insulation project, which provides microfinance loans to households for solar water heating and to improve insulation through double glazing, improved doors, ceiling insulation, and the plugging of gaps. Loans of up to \$500 are available for a 12-month term with monthly interest charged at 2.5% of the loan balance. Some poor households are also receiving these loans, with interest paid by a donor. A \$500 loan carries monthly principal and interest payments amounting to an average of about \$46. Loans are "in-kind," in that the money is paid to local suppliers of insulation materials and joinery, and booked as a loan to the household. The local suppliers are also supported through business loans and technical advice. Households participating in the project have reported 30% savings in winter fuel costs, amounting to TJS1,500 (\$340), with investment costs and interest fully recovered within two winters.

In Murgab, it appears that about 2% of households have taken insulation loans. The microfinance partners in the program are the microloan organizations Madina va Hamkoron, Haqiqi Jahon, Rushdi Ishkoshim, and Rushdi Vodii Zarafshan. None of these would be financially sustainable without soft funding.³⁴ Since none of the larger viable microfinance institutions operate in the Gorno-Badakhshan Autonomous Province at present, donors have worked with these weaker microfinance institutions.

A GERES Tajikistan project in the Asht and Aini districts, Bioclimatic Houses and Support for Agricultural Development, aims to raise awareness of saving energy and the dissemination of energy-efficient equipment and methods (such as better cook stoves and passive solar houses).³⁵ The mobilization and involvement of local authorities, communities, and civil society in the planning of the region's economic and social development will bolster this effort.

The project aims to build 250 insulated houses with passive solar techniques, 100 passive solar greenhouses enabling vegetable production to continue in the winter season, 30 solar poultry farms, and 22 bioclimatic cellars. The house insulation package is expected to reduce biomass energy use by 50% and increase indoor temperatures 5 °C in winter. GERES will also establish two cooperatives to improve market access for small farmers.

The initial investment cost per household for insulation and double glazing ranges from TJS2,601 to TJS4,101 (\$590–\$1,050) with annual fuel-cost savings of \$75–\$125. The pilot program is testing the costs and benefits, based on a fuel saving of 20% to 30%. An improved stove, priced at about \$155, is expected to save \$50 annually. The expected benefits from the enterprise investments are much greater. A solar greenhouse, costing about \$2,130, is expected increase annual net income by more than \$1,000, while a small poultry farm investment of \$1,700 would produce a net annual income of \$850, and a bioclimatic cellar for apples with an investment of \$2,800 would provide a net annual income of \$1,600.

Hydroelectric Power. A UNDP study recommends the construction of up to 1,000 mini hydropower stations, each costing about \$100,000, to supply 100 households with year-round energy.³⁶ Surplus energy would be sold back to the national grid (the pricing for this has yet to be agreed). The study mentioned two operational

³⁴ For example, Rushdi Vodii Zarafshan, with 8,878 borrowers and a loan portfolio of TJS10.5 million (\$2.2 million) received grants of \$986,000 in 2006 and \$900,000 in 2009. The operating costs of Madina va Hamkoron were 44% of the average loan portfolio in 2009. None of these microfinance institutions are providing full, public disclosure of financial statements as required by NBT regulation.

³⁵ GERES is the Groupe Energies Renouvelables, Environnement et Solidarités, a French non-profit nongovernment organization.

³⁶ UNDP. 2011. "Energy and Communal Services in Kyrgyzstan and Tajikistan: A Poverty and Social Impact Assessment, and Tapping Small Hydropower in Tajikistan". Edited by Ben Slay. UNDP Bratislava Regional Centre.

constraints: water flows freezing during the winter when the power is needed most, and the periodic drying up of small streams due to climate change. Because the investment is outside the scope of microcredit, the source of financing is unclear, and there are climatic uncertainties, this proposal is not considered further in this paper.

Financial and Support Considerations. In summary, renewable energy investment costs for a household are around \$500 for basic insulation, \$200 for an efficient cooking stove, and \$250–\$770 for solar panels, depending on size. Community micro hydroelectric generation for 100 households costs about \$100,000, or \$1,000 per household. Just \$500 per household for 129,000 households would total \$64.5 million. The commercial viability of renewable energy investments, however, remains untested. Furthermore, financially strong banks and microfinance institutions with a network of rural outlets would be needed to meet this demand.

Using renewable energy sources, as noted, would reduce greenhouse gas and soot emissions, improving health, and provide better lighting, improving children's education and boosting access to media. The \$2.50 per household health benefits estimated by the World Bank study would work out to \$375.00 over 150 cool or winter days a year.³⁷

Among the wide range of reported costs and benefits, in Murgab, insulation costs \$500 and produces annual fuel savings of around \$340, whereas investment of \$590–\$1,050 in Asht and Aini produces annual fuel savings of about \$75. Solar power costing around \$800 could produce fuel cost savings of \$11.5 per month, or \$138.0 a year a household already on the grid. A better cooking stove costing \$155 produced annual fuel savings of \$55.

This wide variation suggests a need to proceed cautiously in funding household renewable energy advances. Substantial equity contribution to the investments will be needed. In this respect, the GERES study reported substantial worker remittance inflows into housing construction and repairs in the Asht and Aini districts. Renewable energy technologies appear to provide a greater return on investment when linked to economic production, and a payback period of 2–3 years appears feasible.

Significant support in communities for investment is needed to ensure a commercial scale for the supply and maintenance of materials and equipment. If community (rather than individual household) ownership is envisaged, substantial lead time and technical and organizational support would be needed to decide on the technology and set up the legal ownership and responsibilities for the management of the community investment.

The loan interest rates used in the GIZ pilot studies, of 2.5% a month (30% a year), are generally below those charged by microfinance institutions—usually about 2.8% a month or 39% a year. Because renewable energy loans are new to microfinance institutions, they need to proceed cautiously. Donors should also not pressure microfinance institutions into potential loss-making areas. The product package would need to include the following:

- (i) Household surveys to assess demand for renewable energy products and household willingness to incur debt and repay loans. Cost sharing will be needed for surveys.
- (ii) Based on the analysis of the survey, pilot test loans in locations where necessary retail and technical supports exist. Loan financing will be required.
- (ii) Provision of long-term financing for microfinance institutions to launch the product on a wider scale.
- (iv) An incentive for microfinance institutions to reduce interest charges. An example of this would be for a microfinance institution to set the loan interest rate at 30% a year and grant back to the microfinance institution half of all borrowing used to finance the increase in the loan portfolio as it stands at the end of each year for an estimated 3 years of pilot testing.

³⁷ The World Bank Group. 2008. *The Welfare Impact of Rural Electrification: A Reassessment of the Costs and Benefits*. An IEG Impact Evaluation. Washington DC: World Bank.

Monthly repayments for a \$500, 12-month loan would average \$47 and \$26 for a 24-month term. These repayments could be linked to a deposit account into which remittances are directed or paid under some form of mobile banking, or paid by the borrower travelling to a branch of a financial institution. The cost of return travel for one person to visit a branch is TJS20 (\$4.4), or 9% of a \$47 monthly loan repayment. These options suggest that a deposit-taking bank or microfinance institution with a strong branching network and a good relationship with rural communities is needed for the expansion of renewable energy investments.

In lending for an enterprise investment, a financial institution would need to provide a loan of up to 2 years and link this to a shorter-term working capital loan. Microfinance institutions are not accustomed to this type of lending and will need to test the product before launch on a broad scale. Financial institutions will need a good understanding of the communities in which these investments will occur as there are substantial socioeconomic factors to consider. Issues such as marketing out-of-season and higher-cost produce from greenhouses and bioclimatic cellars need consideration.

Leasing Services

Leasing is governed by the civil code of 2000 and the Law on Financial Rent (Leasing) of 2003. Demand for equipment leasing is big, as manufacturers are in dire need of new equipment to replace existing production lines.³⁸ Although demand for lease financing remains high, local financial institutions still lack long-term and low-cost capital to match the terms of foreign lessors' lease contracts. In the past, a very important reason for the lack of growth in domestic leasing lay in the tax treatment of leases, whereby, under a bank loan, a borrower paid value-added tax (VAT) on purchased equipment, whereas, under leasing, both the lessor and lessee paid VAT.³⁹ Unlike in some other Central Asian countries, Tajikistan provides no tax incentives for leasing. However, the government abolished VAT and customs duties on purchased equipment at the beginning of 2012, making leasing more attractive to financiers and businesses. It is expected that international financial institutions will now become more active in the market for longer-term financing to leasing firms.

Lessors conducted 30 deals with \$5.9 million in leased assets in 2007, compared with 9 leases totaling \$0.7 million in 2006. The leasing portfolio, which had peaked at \$6.7 million by the end of 2007, had shrunk to \$0.62 million by the end of 2010, when leasing loans amounted to less than 0.1% of the banking sector's loans outstanding. There are now nine registered leasing companies, including a subsidiary of IMON INTERNATIONAL. They implement leasing operations using the same interest rates as for commercial loans. Interest rates for dollar-denominated leases made in 2007 were 22% a year, 24% for those in national currency.

Leasing is not a regulated activity. Consequently

- (i) nonbank financial institutions require no license to finance leases;
- (ii) nonbank financial institutions are not restricted by obligatory capital requirements for leasing;
- (iii) there is no obligatory registration of the lease agreement; and
- (iv) government agencies do not supervise leasing as an activity unless the lease is financed by an institution already under supervision, such as a bank.

Funding of Loan Portfolios

A comparison over 2008–2010 of the five largest microfinance institutions (IMON INTERNATIONAL, Arvand, FINCA, OXUS, and Humo) comprising 70% of all microfinance lending, and three of the banks (Agroinvestbank, Eskhata Bank, and The First MicroFinanceBank) for which full data were available, showed the following:

- (i) Banks had an average annual growth in loan portfolios of 38%, in local currency terms, compared with 16% in the microfinance institutions.

³⁸ International Finance Corporation (IFC). Leasing in Tajikistan. <http://www.ifc.org/ifcext/acalf.nsf/Content/TJHome>.

³⁹ A cooperative importing machinery and equipment is exempt from VAT.

- (ii) Growth in bank assets has been fueled largely by deposits (75%), followed by funding by international finance institutions and other financiers (17%), and equity (8%). Growth in microfinance institution assets has been led by funding (62%) and equity (36%), with deposits (2%) playing a minor role.
- (iii) Microfinance institutions are dependent on high levels of retained earnings and donor funding for growth.
- (iv) Because of their reliance on funding from international financial institutions and other financiers, the ratio of the loan portfolio of microfinance institutions to such funding declined from 1:25 in 2008 to 1:13 in 2010.⁴⁰ This indicates limited scope for them to use external borrowing to fund asset growth in the near future because loan portfolios are the main security offered and available against such funding.
- (v) The average return on equity was 17% for one bank and negative for the other two. The average return on equity ranged from 26%–28% for three of the microfinance institutions to negative for two of them.
- (vi) Much of the microfinance funding has been in foreign currency, leading to high foreign exchange risk exposure as the microfinance assets are predominantly in local currency.

For the microfinance institutions, this means that they need to incorporate plans to increase deposit-taking to a significant level—possibly to an amount equal to at least 30% of future increases in their loan portfolio. The corollary is that a donor program to increase the volume of particular loan products within microfinance institutions needs to be linked to their deposit-taking services.

More than six international investment funds and banks have made loans to five of the larger microfinance institutions. These have tended to be loans larger than \$500,000 and made in US dollars. In addition, a regional financier based in the Kyrgyz Republic, Frontiers Microlending Company, has 62 loans outstanding at an average of \$102,000 to microfinance institutions in Tajikistan. To satisfy the financing needs of small microfinance institutions, and to avoid exposure to foreign funding, a local wholesale financier was set up. Bovari va Hamkori was established in September 2008 through AMFOT and Agroinvestbank, with further technical support from GIZ and loans from the Interchurch Organization for Development Cooperation, The First MicroFinanceBank, and AccessBank Tajikistan. As of the end of 2010, Bovari va Hamkori had TJS5.00 million (\$1.14 million) in 21 loans to 11 microfinance institutions with an average balance outstanding of \$103,780 per microfinance institution. The interest rate on lending is 18%–22% plus 1% commission for terms of 12–24 months. The minimum loan size is \$30,000 and the maximum is \$300,000.

The NBT is contemplating the need for legislation for Tajikistan-based apex financing institutions. This legislation may be unnecessary as (i) such an apex serves only the smaller microfinance institutions that could eventually be liquidated as the microfinance sector becomes more efficient and more competitive; (ii) microfinance deposit organizations become successful in deposit-taking, lessening the need for borrowing; (iii) viable microfinance institutions find it cheaper to borrow from foreign financial institutions; and (iv) should the banking sector become more successful in deposit-taking (as is needed), surplus funds would be available for on-lending at reasonable cost to microfinance institutions.

Efficiency of Financial Intermediation

An MSE survey indicates that borrowers consider high loan charges a constraint on investment.⁴¹ Based on a review of financial statements, Table 4 indicates that operating costs as a proportion of the loan portfolio decline as the size of the loan portfolio increases and as the loan size per borrower increases. Due entirely to its scale of operations, Agroinvestbank has a lower operating cost per loan than Eskhata Bank and The First MicroFinanceBank. Tojik Sodiro Bank has a low cost structure because it is a market-focused bank with fewer branches than Agroinvestbank but a loan portfolio larger than both Eskhata Bank and The First MicroFinanceBank. Similarly, IMON INTERNATIONAL has much lower operating costs than its microfinance rivals because it has a bigger loan portfolio and makes larger loans. IMON INTERNATIONAL's more efficient operating costs should enable it to charge borrowers a percentage point less per month than most other microfinance institutions—a potentially direct financial benefit for low-income households. But the transformation of microloan organizations into microfinance deposit organizations may not lead to an automatic

⁴⁰ Generally, a ratio of 1:30 is the minimum standard set by financiers of microfinance institutions.

⁴¹ Conducted through the IFC Tajikistan Business Enabling Environment – SME Policy Project.

Table 4: Institutional Comparisons of Operating Costs (2011)

Financial Institution	Loan Portfolio/ Total Assets (%)	Loan Portfolio (TJS million)	Operating Expenses/ Average Loan Out (%)	Number of Borrowers	Loan Balance/ Borrower (TJS)
Banks					
The First MicroFinanceBank	55.9	114	22.9	12,892	8,854
Agroinvestbank ^a	89.4	1,290	n.a.	25,068	51,481
Bank Eskhata	59.2	311	23.7	16,208	19,030
Tojik Sodiro Bank	49.4	755	n.a.	n.a.	n.a.
Microfinance Institution					
MLF Jovid ^a	n.a.	2.9	n.a.	871	2,861
MLF Zar	94.8	1.6	23.7	488	3,298
MLO Furuz ^b	68.9	1.5	55.9	683	2,228
MLO Humo and Partners	88.3	47	25.1	14,646	3,246
MCO OXUS Microfinance	93.8	50	22.9	8,355	6,027
MDO Arvand	82.2	63	17.7	15,392	4,089
MDO FINCA	74.0	45	39.6	19,991	2,250
MDO IMON INTERNATIONAL	85.9	215	15.9	42,503	5,039

MCO = microcredit organization, MDO = microfinance deposit organization, MLF = microloan fund, MLO = microloan organization, n.a. = not available.

Note: The substantial inter-year fluctuations in microfinance institution operating costs are not shown in this table.

^a Data are as of March 2011; ^b Data are as of December 2010.

Source: MIX Market. Data as of December 2011. <http://www.mixmarket.org/mfi/country/Tajikistan>. Annual reports of institutions as of December 2011.

Estimates based on the data from annual reports of institutions.

reduction in operating expenses as a proportion of the loan portfolio. Deposit mobilization will entail additional administration costs that for small deposit transactions are often around 4%–6% of deposit volume.

Table 4 indicates that government policy should encourage the more efficient financial institutions to expand and broaden their range of financial services in rural areas since they have lower cost structures and access to the resources that would enable such growth. At the same time, some incentives may be needed to ensure that average loan sizes do not increase beyond the reach of microentrepreneurs and small-scale farmers and that the microfinance institution continues to serve its core market of borrowers and depositors.

Finance Sector Infrastructure for Improving Loan Security

Credit Bureau. In April 2010, six microfinance institutions, four commercial banks, and AMFOT agreed to become shareholders of the Credit Information Bureau in Tajikistan. IFC, in partnership with the NBT and the Swiss government, are promoting the bureau.⁴² For operational implementation, IFC is helping the bureau select a technical partner, and expressions of interest are being evaluated. It is expected that the bureau will commence operations in 2013.

Loan Collateral. Financial institutions generally require collateral equal to at least 130% to 150% of loan amount. This is in compliance with the NBT loss-provisioning requirements. Because no market for the sale and purchase of land-use rights exists, they are not used to secure agricultural production loans, and procedures for the seizure, sale, and purchase of land-use rights are undetermined. Legally registered security against moveable property is contained in a central registry that can be searched upon payment of a fee. But the courts have yet to show consistency in allowing creditors to expeditiously seize and sell such property to recover debt. Larger SMEs generally lack suitable forms and amounts of assets required as collateral for larger loans. Remittances are

⁴² Tajikistan adopted the Law on Credit Histories in March 2009, an amendment to the Licensing Law in October 2009, and the Regulation on Credit Bureau Licensing in February 2010.

underused as loan security for MSE loans, which the banks often see as unreliable income sources. But the data on remittance inflows show otherwise.

Banking Sector Deposits

General Indicators

Deposits as a percentage of GDP increased from 5.1% in 2003 to 18.3% in 2010 and 19.5% in 2012. The increase in foreign currency deposits has been close to three times 2003 balances, compared with two times for somoni deposits. The growth in deposits held by individuals has been twice that of entities, with the result that individuals' holdings rose to 59% of all deposits in 2012, compared with 31% in 2003. But individuals held about 84% of their balances in foreign currency accounts, while entities held 57% of their deposits in local currency. Total deposits at the end of 2012 in the banks amounted to TJS4,817 million (\$1,012 million), of which TJS3,250 million (\$683 million) was held in foreign-currency accounts. Individuals held TJS2,865 million (\$602 million) in deposits, of which TJS2,405 million (\$505 million) was in foreign currencies (Appendix 1, Table A1.5).

Financial depth and confidence in the banking sector can be measured by indicators including broad money as a percentage of GDP and the proportion of money in circulation as a percentage of broad money (Table 5). Tajikistan's financial depth is similar to Uzbekistan's, but well behind other Central Asian countries, highlighting its relative development gap.

With money in circulation (M0) and broad money supply (M3) at 38% in 2011, public confidence in Tajikistan's banking system is below that in Armenia, Azerbaijan, and the Kyrgyz Republic. The M0/M3 figure for Tajikistan in 2004 was also 40%, suggesting little change in attitudes toward the banking system.

From 2006 through 2010, however, the loan-to-deposit ratio improved from 216% to 116% and reached 113% in 2012, putting it within a normal bank sector range of 85%–115%. To reach this ratio, banks have been offering interest rates on term deposits that are more than 7 percentage points above inflation to attract funds (as indicated below, there is little correlation between the consumer price index and deposit rates). This may be a rather blunt instrument, as indicated by the small amounts of foreign remittances that end up as bank deposits. During 2007–2010, individual foreign exchange deposits increased by only 3% of total remittances, indicating the need for better product design and promotion and for enhancing public confidence in the banking system. Growth in individual deposits in 2010–2012 suggests that the banks have had some success in attracting remittances.

Market Potential

A Microfinance Centre (Poland) survey of the potential market in Tajikistan for deposit taking among microfinance deposit organizations stated that less than 5% of households keep savings in financial institutions, while 84% keep savings in cash at home.⁴³ Despite holding licenses to accept deposits, microfinance deposit organizations have shown little deposit-taking activity. The reasons for this are not clear, although the survey indicated people would prefer to place their deposits in banks rather than microfinance institutions.

The survey indicated that (i) households have a marginal savings rate of 19% of their income, (ii) households have on average 2.1 sources of income, (iii) 24% of households have their own sources of income (not reliant on wages), and (iv) 36% of households receive remittances from overseas.

The survey suggested that 230,000 households would be interested in a savings account that provided flexibility of access (with annual savings of TJS175 million [\$40 million]) and 140,000 households would be interested in a term deposit account (with annual savings of TJS250 million [\$57 million]), for combined savings of

⁴³ Justyna Pytkowska and Piotr Koryński. 2010. "The Market for MDO Deposit Services in Tajikistan." Warsaw: Microfinance Centre.

Table 5: Depth and Confidence in the Banking Sector
(2011)

Country	GDP per Capita (\$)	M3/GDP (%)	M0/M3 (%)
Tajikistan	836	14.4	38.0
Kyrgyz Republic	1,075	29.1	59.3 ^a
Uzbekistan	1,546	18.0 ^a	42.0 ^a
Georgia	3,203	30.6	24.3
Armenia	3,305	29.5	55.0
Azerbaijan	6,916	27.8	51.0
Kazakhstan	11,357	35.7	13.0

M3 = broad money, M0 = money in circulation.

^a Data are for 2010.

Sources: National Bank of Tajikistan. 2012. *Banking Statistics Bulletin* 12 (209). Dushanbe, Tajikistan; World Bank. 2011. *World Development Indicators*. Washington DC: World Bank; Asian Development Bank (ADB). *Economic Indicators*. Manila: ADB; International Monetary Fund (IMF). *Country Reports*; Estimates based on data provided by central banks of the selected countries.

TJS425 million (\$97 million). Based on an estimated 1,065,000 households, this would represent outreach to 35% of them.⁴⁴

The NBT data show that the increase in demand and savings accounts from individuals was TJS146.9 million (\$30.7 million) in the 12 months ending 2012, while term deposits increased TJS473 million (\$99.4 million), an increase of TJS620 million (\$130 million) in the same period.

While the survey highlights the need for improved savings products, it appears to underestimate the potential for increased deposit taking by banks and microfinance deposit organizations. The development of a safe and accessible savings deposit account appears to offer the best opportunity for microfinance deposit organizations to increase deposit taking. The survey did not indicate the sensitivity of savings to changes in deposit interest rates, aspects of access and security, or differences in characteristics between rural and urban depositors.

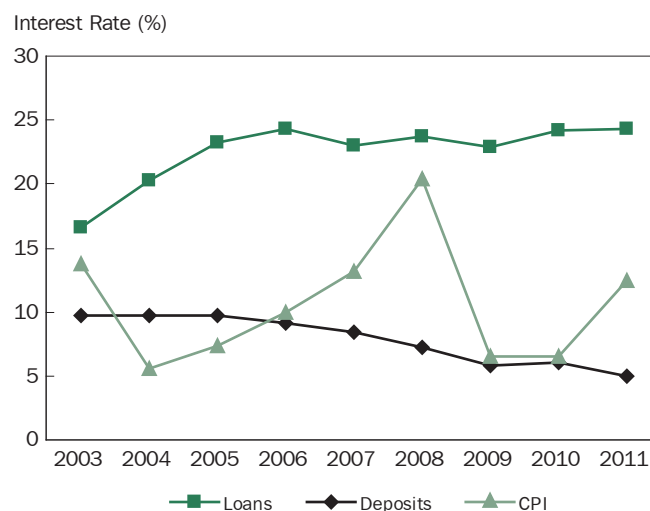
The available data show little consistency in deposit taking by the banks. In 2009, Agroinvestbank had 20,851 individual deposit accounts, with an average balance of \$4,400 (equivalent). In the same year, The First MicroFinanceBank had 6,876 individual deposit accounts with an average balance of \$647. No information was available on whether these funds were held in demand or time-deposit accounts. Information from Eshkata Bank was better: in 2009, it recorded 8,980 individual deposit accounts with an average balance of \$111 in demand-deposit accounts and \$1,377 in time deposits. In 2010, 7,530 individual customers held on average \$745 in demand deposits and \$5,763 in time deposits. These three banks in 2009 held 40% of total personal deposits (\$106 million) in the banking sector, with 37,000 depositors between them. This indicates that there are 94,000 individuals with bank deposits—less than 9% of total households.

Interest Rate Structures

The NBT's refinancing rate was 10.0% in November 2011 and 6.5% as of 15 August 2012. In the past, the banks have relied heavily on central bank liquidity funding for asset growth. The average weighted deposit rate for banks was estimated at 9.41% at the end of 2011, while the average weighted interest rate on bank lending was 22.21%—a spread of 12.80%. The inflation rate for 2011 was 9.30%. The somoni depreciated from TJS1.80 per \$1.00 in 2000 to TJS4.75 at the end of 2011, and TJS4.76 by the end of April 2012, or a 9.2% average annual

⁴⁴ Based on an estimated population of 7.5 million, 73.7% live in rural areas (7.77 people per household) and the balance in urban areas (with 5.64 people per household). A 7.6 million population estimated in December 2010 comprised 1,065,000 households, 714,000 of them rural and 351,000 urban.

Figure 5: Inflation, Loan, and Deposit Rates
(2003–2011)



CPI = consumer price index.

Sources: National Bank of Tajikistan, 2012, *Banking Statistics Bulletin* 12(209), http://www.nbt.tj/en/statistics/stat_bulletin.php. International Monetary Fund (IMF) 2012, *World Economic and Financial Surveys: Regional Economic Outlook, Middle East and Central Asia*, Washington DC: IMF.

rate of depreciation against the dollar. In the past 5 years, the average annual depreciation rate of the somoni has been 7.4%, which includes the depreciation of 20.7% in 2009.

During 2003–2009, domestic inflation appeared to affect neither loan interest rates nor deposit interest rates (Figure 5). The inflation rate has increased over the past 18 months, partly because commodity prices (wheat) and import prices increased (affected by the depreciation in 2009). Since 2009, the weighted deposit rate has generally moved with the inflation rate. The weighted interest rate on lending increased in 2011, possibly due to the increase in microfinance institutions. Banks indicate that loan interest rates and their spreads over deposit rates will remain high to offset poor loan portfolio performance and losses in the past.

A review of deposit and loan interest rates (2006–2011) shows a very weak correlation between monthly changes in deposit interest rates and lending rates. This suggests loan losses and operating costs are a significant consideration when banks set their lending rates. Some banks (and microfinance institutions) are possibly too small to achieve satisfactory and efficient financial intermediation.

The E-Banking Environment

Supply of E-Banking Services

E-banking in Tajikistan is focused primarily on card and payment-terminal channels rather than on internet or mobile systems.⁴⁵ However, many see an opportunity to extend e-banking, especially via mobile phones. While internet-based systems are also an option, those financial institutions targeting remote and rural areas have generally concluded that these systems are not suited to their target market due to low online access and their general complexity.

⁴⁵ See Appendix 2 for a general description of e-banking systems and services.

Table 6: Available E-Banking Services

Type of E-Banking Payment	Description
Government to person	Pension payments via plastic card accounts held by Amonatbank launched in January 2011. Salary payments for government employees.
Person to person	Available to internet banking clients at the commercial banks Agroinvestbank and Tojik Sodiro Bank. The majority of international remittances transmitted on a cash basis using a money transfer organization. Significant interest from banks, money transfer organizations, and payment service providers to offer these services electronically.
Person to business	Four options: <ul style="list-style-type: none"> • Payment service provider's payment terminals and dealer networks provide payments to utilities, mobile network operators, and other businesses, either via the terminal or agent use of a mobile application or web interface. Note that these are only partially electronic, in that they rely on cash deposited to the terminal and/or agent and are not linked to existing deposit accounts or electronic funds. These payments can also be made from the Russian Federation, where payment service provider networks operate cross-border. • Internet banking services offered by commercial banks. • Bill payments via ATM networks. • Card payments via point-of-sale network at merchant. Very small network available.
Business to business	Payment-service-provider networks also available for business-to-business payments, but, again, they rely on cash deposit.

Source: Based on interviews in Tajikistan by the Asian Development Bank and the Frankfurt School of Finance & Management.

The availability of electronic payments, as a subset of e-banking, is also focused primarily on plastic cards, used at either ATM or point-of-sale terminals, and on cash-based payment terminals. A range of payment types can be used with these systems, of which person to business is most common (Table 6).⁴⁶

Card-Based Systems. The plastic card market consisted of 548,000 cards in circulation either as national debit cards or international credit cards (as of March 2013) (Table 7). While the volume of card transactions has typically increased year on year, with a 109% increase reported during 2010–2011 and 45% in 2012, this channel is still only accessible to 7.83% of the population.⁴⁷ Financial institutions and the government have launched several initiatives to promote the growth of the plastic card market, including the introduction of pension payments to linked card accounts.

The primary function of plastic cards now is to withdraw funds from bank accounts at ATMs; this represented 95.7% of all transactions reported in 2012. Only 4.3% of all transactions were for payments made with plastic cards, indicating that merchant networks accepting card payments are largely undeveloped. The low number of point-of-sale devices (276) throughout the country is evidence of this. The national network of ATMs is only marginally better, with 466, the majority in Dushanbe.

This project, which the Ministry of Labor and Social Protection introduced in January 2011 with Amonatbank, transferred payments of 100,000 pensions to card accounts held by recipients. To help ensure pensioners could access these funds, the project also involved investment in ATMs and point-of-sale networks across the country, which likely also benefitted other card-holding consumers.

Commercial banks do see the potential of the card market. Agroinvestbank and Tojik Sodiro Bank were among several invested in their ATM networks in 2012. Within the largest microfinance providers, only The First MicroFinanceBank issues cards to clients and operates a limited ATM network associated with their branches.

⁴⁶ Electronic payments can be classified based on the parties involved in the payment exchange. Categories include person-to-person payments, such as a remittance; government-to-person payments, such as a pension payment; person-to-business payments, such as payment of a utility bill; and business-to-business payments, such as a supplier payment.

⁴⁷ National Bank of Tajikistan. 2013. "Market Review of Payment Cards." http://www.nbt.tj/en/pl_sys/cards.php.

Table 7: Card Statistics (March 2013)

Number of Card Issuing Banks	10 out of 14
Total cards issued	548,000
Card issuance as a percentage of the population	7.83% ^a
Total transactions as of March 2013 (units)	1,072,000
Total transactions as of March 2012 (units)	914,000
Total ATMs	466
Total points of sale	276
% of ATMs in Dushanbe	47.70%

^aEstimated relative to population in Tajikistan equal to around 8 million people in March 2013.

Source: National Bank of Tajikistan. 2013. "Market Review of Payment Cards." http://www.nbt.tj/en/pl_sys/cards.php.

For nonbank microfinance providers such as IMON INTERNATIONAL, card-based disbursements are perceived as impractical for rural clients given limited access to ATMs.

Historically, the majority of plastic cards in Tajikistan were processed by external payment processors, with 80% of cards serviced either in the Russian Federation or Kazakhstan. This lack of a domestic processing center has created inefficiencies in the payment system and generally had a negative impact on the adoption by consumers of card-based payments.

In response to these challenges, the NBT, with technical assistance from the World Bank, launched the National Processing Centre in 2010. The setup of the National Processing Centre included procurement and implementation of card processing systems. The center commenced pilot operations with Agroinvestbank in December 2012 and extended operations to include The First MicroFinanceBank in 2013. The vision for the National Processing Centre is to eventually offer all six participating banks processing services, both for a new national card, Korti Milli, and to eventually be able to offer processing of international cards, including Visa and MasterCard.

While there is currently no legislation requiring banks to participate, it is thought this may be introduced and would oblige all to use the National Processing Centre. The intended benefits of such a center include not only more affordable card channels for financial institutions and consumers, but also improved regulation by the NBT, which at present is reliant on banks for the reporting of all card payments.

The National Processing Centre is also looking beyond traditional card services to include a range of payments accessible from ATMs, including utility bills, mobile top-up, and others. Provisions have been made for purchasing the mobile banking module of the card processing system so that payments originating from mobile channels can also be routed via the National Processing Centre. Details on how this would work are not yet available, and the expectation is that this would be launched only after the core card services go live.

Mobile Financial Services. Unlike the payment card market, a very limited number of mobile financial services are available in Tajikistan. The exception is text alerts used by some banks (such as Agroinvestbank) in association with payment cards so that customers are notified each time the card is used or on request of a balance enquiry. The First MicroFinanceBank also uses text messaging to remind customers who are overdue on loan payments. In 2012, Agroinvestbank launched the first full mobile banking initiative. This service allows customers to make payments, transfers, and account inquiries via mobile phone.

While mobile financial services are not now available to the majority of consumers, there is general interest in exploring how mobile banking systems could be deployed. To this end, a working group, consisting of the NBT and GIZ, was established in 2010 to explore the potential of mobile banking, particularly for the rural microfinance sector. This group has conducted a series of activities, including a study tour to Pakistan in 2011, which led to drafting of regulations to support mobile banking. The group recommends moving forward with a

mobile banking pilot, which GIZ may cofinance, although the end of the GIZ project in mid-2013 may hamper this planning.

Some mobile network operators have also shown interest in the provision of mobile financial services by nonbank providers. Telecom providers such as Megafon (MLT) are investigating how they can enhance their SMS-Money service, which allows subscribers to transfer phone credit to another party. But for now, the regulatory environment prevents these players from launching such services, and it is anticipated that this situation will continue even with the review of payment system legislation.

Third-party payment service providers are another potential provider of mobile financial services, are very active in the market for payment processing, and have much larger networks than those available through the ATM/point-of-sale system. Players including Xpress-Pay, United System of Instant Payments, and Pardokht offer payment services such as utilities and mobile phone credit purchases, either via a network of cash payment terminals or through dealers who process cash payments using a mobile application (Table 8).

While the payment service providers have traditionally focused on mobile phone and utility payments, some have partnered with financial institutions to collect deposits and loan repayments on their behalf. One such example is a project between IMON INTERNATIONAL, a micro deposit-taking organization, and Xpress-Pay, to collect loan repayments through cash terminals. The service launched in 2010 using 400 terminals for urban customers in five cities—customers who have saved on the cost of travel to branches have responded positively. Since the initial pilot with IMON INTERNATIONAL, Xpress-Pay has extended similar collection services to three other microfinance deposit organizations who now offer this payment option to their clients. While these have been well received by the microfinance deposit organizations and their clients, it is unclear how suitable this channel will be for rural clients given the limited number of terminals and dealers operating in these areas.

Another limitation of payment service providers is the lack of services other than payments and the requirement to visit either a dealer or terminal to complete transactions. In response to these challenges, payment service providers have made plans to introduce e-wallets accessible via mobile phones. The e-wallet would be topped up using the network of dealers and payment terminals, and funds could then be used to make payments and transfers directly from the client's mobile phone. Only Xpress-Pay has introduced these services so far, and it is differentiated from others in its regulatory status as a microfinance deposit organization. This permits Xpress-Pay to hold deposits that are effectively being treated as an electronic wallet. In 2013, Xpress-Pay has plans to expand services to include pure mobile access for clients, which would allow clients to initiate payments directly from their stored funds.

The availability of e-wallet solutions in the Russian Federation through cross-border suppliers, such as QIWI Wallet, would allow remittances through this channel. Those remitting money could deposit funds via QIWI, the Russian Federation's network of 190,000 terminals or agents, to an e-wallet account in Tajikistan. These funds could then be used either for onward electronic payments or cashed out through partner banks or money transfer organizations. While the service is technically available from these providers, regulatory restrictions governing the Tajikistan-registered payment service provider mean it has not been implemented. But the mechanism does allow migrant workers in the Russian Federation to purchase airtime or pay utility bills directly for recipients in Tajikistan through an e-wallet account.

Support for mobile banking through telecommunications infrastructure includes a gradual liberalization to allow private operators to enter the market as part of the National Program of Communications Development, a government initiative started in the mid-1990s. While Tajik Telecom, the state-owned fixed-line company, dominates the market, six mobile operators and several internet service providers are active. Internet access has increased, but total penetration remains low, with about 0.5% of people subscribing to fixed-line services. Access to mobile phones has grown exponentially, at about 25% a year over the past few years, however, to a point where it is estimated that mobile penetration reached 100% in 2012.⁴⁸

⁴⁸ BuddeComme. 2013. "Tajikistan – Telecom, Mobile and Internet." <http://www.budde.com.au/Research/Tajikistan-Telecoms-Mobile-and-Internet.html>.

Table 8: Payment Service Providers (2013)

Provider	Network Size (terminals)	Network Size (dealers)	Network Size (operators represented)
Xpress-Pay	800	1,000	50
Pardokht.tj	400	4,500	n.a.
United System of Instant Payments	350	>1,000	35

n.a. = not available.

Source: Data from suppliers.

Demand for E-Banking Services

Demand for e-banking services can be determined from current levels of access to finance, particularly in rural areas. Among all microfinance institutions, about 60% of borrowers are rural, or about 70,000 households, (7% of rural households). Including lending to micro, small, and medium-sized enterprises, totaling over 284,000 borrowers, this would indicate that no more than 15% of all households in Tajikistan have access to bank accounts.

Plastic payment cards are accessible to only 7.83% of the population, suggesting that the market for electronic transactions through ATMs and points of sale is largely undeveloped. Furthermore, within the existing distribution, 41.8% of all cards have been issued as part of the government initiative to pay pensions, suggesting that only 2.2% of the population below pensionable age use plastic cards. Corresponding with the limited use of cards, ATM distribution is low, at just one machine per 16,493 people, and point-of-sale payment terminals are even less widely available, with one per 26,328 people. With current investment in the National Processing Centre, it is anticipated that the NBT and other stakeholders will want to see more volume through card channels to recover costs.

While every district has at least one bank branch, many subdistricts are underserved and more than 85% of households do not have bank accounts. This suggests that demand for rural access to some form of e-banking channel is likely to be high.⁴⁹ ATMs are found largely in urban areas, with less than 25% of the population, meaning that they are not accessible to the majority. Rural e-banking channels are in demand, by consumers and by microfinance providers who must invest heavily in branch infrastructure and accounting expertise to collect cash in rural areas. As a result of these limitations some providers, such as Arvand, are forced to restrict collections to certain days and must invest heavily in cash transportation. These issues could be alleviated through the availability of a rural cash collection mechanism, such as an agent providing mobile money transfer services, a cash payment terminal, or a deposit-taking ATM.

Demand exists to expand e-banking because government needs to process government-to-person payments at low cost and through secure channels.⁵⁰ Switching to electronic delivery of government-to-person payments is seen as a way to reduce leakage caused by fraud and corruption, and to help promote financial inclusion.⁵¹ Despite these motivations, pensions and salaries are the only government payments using electronic channels, and these are still quite limited, accounting for only 17.8% of all pensions paid.⁵²

⁴⁹ A survey of 139 central banks shows the average developing country has two rural bank branches per 100,000 rural inhabitants. CGAP 2009. "Banking the Poor via G2P Payment." <http://www.cgap.org/publications/banking-poor-g2p-payments>.

⁵⁰ Kathy Lindert, Anja Linder, Jason Hobbs, and Bénédicte de la Brière. 2007. "The Nuts and Bolts of Brazil's Bolsa Família Program: Implementing Conditional Cash Transfers in a Decentralized Context." SP Discussion Paper No. 0709. Washington DC: World Bank. In Brazil, switching to electronic benefit cards issued by a state-owned financial institution helped cut the administrative cost of delivering millions of Bolsa Família grants from 14.7% to 2.6% of grant value disbursed.

⁵¹ Mark Pickens, David Porteous, and Sarah Rotman. 2009. "Banking the Poor via G2P Payments." Focus Note, No. 58. Consultative Group to Assist the Poor. Washington DC: CGAP. <http://www.cgap.org/sites/default/files/CGAP-Focus-Note-Banking-the-Poor-via-G2P-Payments-Dec-2009.pdf>. Less than one-quarter of global government-to-person payments to the poor are made to formal bank accounts that are considered financially inclusive (that is, accessible, affordable, and used for other financial transactions).

⁵² Mavjouda Hasanova. 2011. "US\$1.3 Mln Spent for Introduction of Pension Payment Card System in Tajikistan." *ASIA-Plus*. 28 January. <http://news.tj/en/>

Finance Sector Constraints

Overall Sector Analysis

The problem-tree analysis in Figure 6 highlights key concerns in the finance sector. At the heart of the problem is that shallow and inefficient financial intermediation restricts MSEs, farm and household investments, and wealth creation. The main causes include inadequate infrastructure for private sector investment, high intermediation costs in banks and microfinance institutions, and the small range of financial services on offer. The effects of the problem are that (i) MSEs and farms are starved of investment capital, (ii) households avoid using banking services, and (iii) deposit mobilization and depth remain shallow and unable to finance increased and extended-term lending. The net results are that unemployment remains high, and there is a risk of increasing income disparity among households, and an overreliance on foreign borrowing.

Specific Constraints

Cotton debt overhang: Agricultural loans account for roughly 20% of all loans in the banking system. Moreover, agricultural financing remains a sensitive issue. The involvement of commercial banks and the NBT in cotton-sector lending led to a sharp increase in classified loans. Between 2002 and 2007, the central bank provided investors (cotton traders) with credit lines, through KreditInvest (a nonbank financial institution), with the funding backed by foreign exchange reserves. Consequently, farmers borrowed from investors rather than from banks. Since investors and farmers failed to repay loans, the NBT losses placed foreign exchange reserve deposits at risk.

In 2008 and 2009, the Ministry of Finance provided credit to banks to on-lend to farmers below market rates. Many of these loans are still overdue (especially to Agroinvestbank and Orienbank) just as the banks face deteriorating asset quality and profitability. Given that almost half of outstanding loans are denominated in dollars and many debtors do not have foreign currency income, further depreciation of the somoni would pose serious threats to the stability of the finance sector.

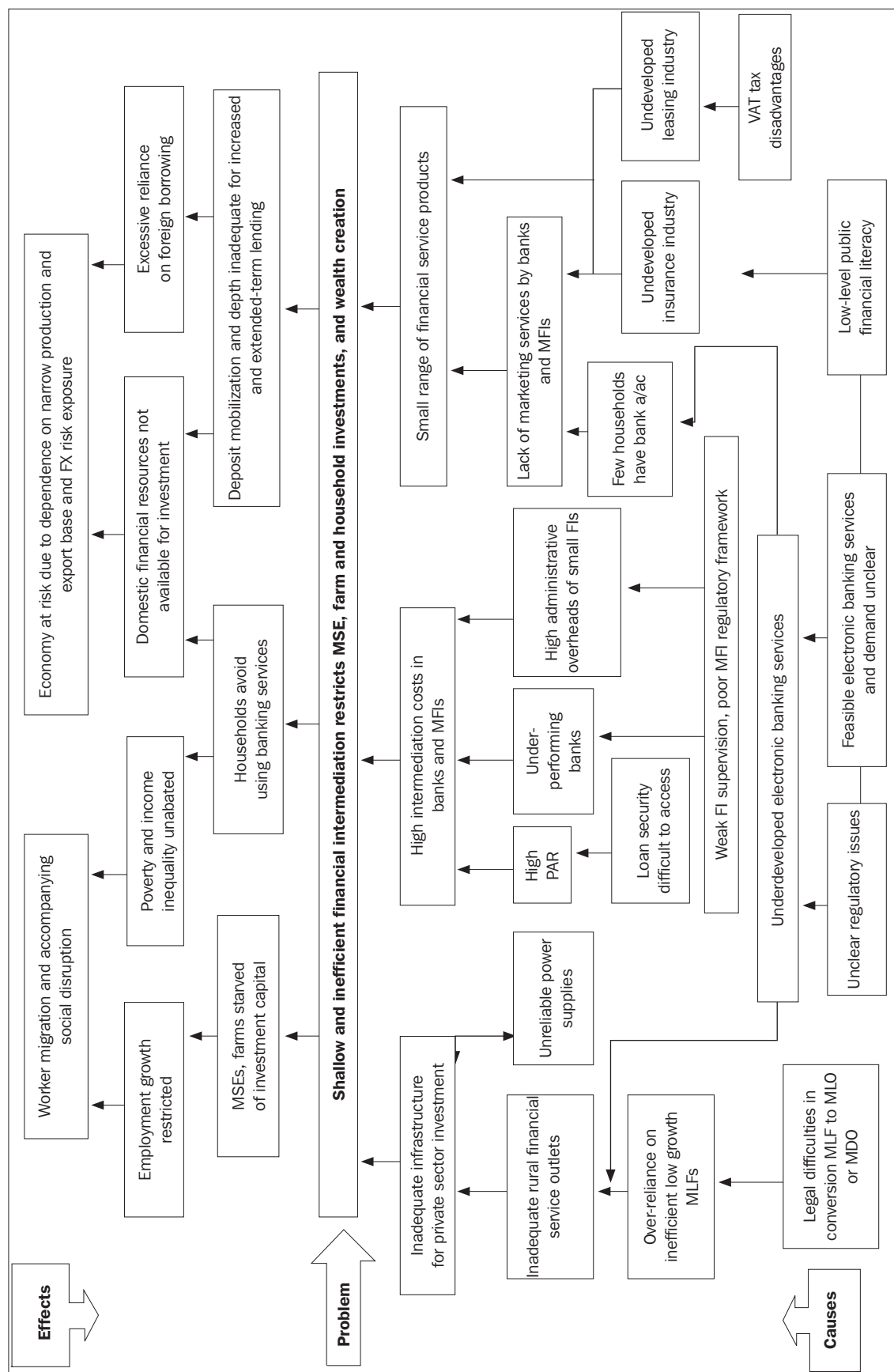
Future cotton debt risk: Due to current high prices for cotton, investors are providing credit to cotton farmers with little or no interest, in return for the agreement by farmers to sell their crops to them. This is a potential trap for financially illiterate farmers. Meanwhile, banks that previously financed cotton have low liquidity and poorly performing loan portfolios, and need to raise revenues through higher interest rates. Consequently, banks are not seeking to increase their cotton sector lending. Additionally, farmers are not completely free to determine land use because the Ministry of Agriculture still publishes area targets for cotton, and the government is looking at ways to enhance the cotton industry (from production through to the final processed good). Reports also suggest local authorities are “encouraging” farmers to grow cotton.

Railway dispute with Uzbekistan: Rail transit through Uzbekistan is a key route for Tajikistan’s imports, accounting for the bulk of total shipments in 2009. However, because Uzbekistan opposes construction of the Roghun Dam (for hydroelectricity) as it could feasibly restrict water flows needed for irrigation, in protest it has imposed intermittent blockades on rail shipments. These blockades have added to business uncertainty and lowered business volumes in Tajikistan.

Remittances of foreign-based workers: The 30% decline in remittances to Tajikistan to about \$1.83 billion in 2009 affected not only the macroeconomic situation, but also the quality of microloan portfolios held by microfinance institutions. Remittances then increased to about \$2.36 billion in 2010. While the global financial crisis was the direct cause of the decline in remittances, occasional tensions between the Russian Federation and Tajikistan governments also threaten to restrict the intake of migrant workers and their remittances to Tajikistan.

Microfinance institution asset growth: Heavy dependence on foreign credit lines and the inherent foreign exchange risk creates considerable risk for microfinance institutions. With insufficient assets to pledge against new borrowing, many are already close to borrowing limits.

Figure 6: Finance Sector Problem Tree: Tajikistan



FI = financial institution, FX = foreign exchange, MDO = microfinance deposit organization, MFI = microfinance institution, MLF = microcredit loan fund, MSE = micro and small enterprise, PAR = portfolio at risk, VAT = value-added tax.

Leasing: Legislation that would improve the tax status of leasing services appears to be pending. Insufficient collateral significantly constrains MSE borrowing, but leasing could help overcome this problem.

Land-use certificates: These are not yet widely available or used to provide security against farm loans. The privatization of land-use rights would allow for the provision of mortgage-based, medium-term credits on a larger scale, especially for orchards. But the market value of a land-use certificate, given that no market exists, is still undetermined.

E-Banking Constraints

The development of e-banking needs to address several market constraints, including the following:

- (i) The availability of supporting regulations for e-banking needs, which directly influence market innovation.
- (ii) Limited ability or knowledge in the supervision of e-banking channels could undermine consumer confidence should security breaches occur.
- (iii) Financial literacy in e-banking must be built among consumers as well as within financial institutions and the NBT supervisory bodies.
- (iv) Infrastructure constraints exist, including poor quality power supply, a limited ATM network, point-of-sale machines, and payment terminals, as well as limited internet access, particularly in rural areas.
- (v) The NBT does not allow financial institutions to use an agency outlet unless it is fully staffed by bank personnel. This restricts the use of agents operating with point-of-sale machines.
- (vi) Microfinance institutions require robust core banking systems to integrate with any type of e-banking channel. Several microfinance institutions, including IMON INTERNATIONAL, are still operating a decentralized system, while others, such as Arvand and FINCA, recently significantly upgraded their systems and they likely need to stabilize before they can consider addition of new channels.
- (vii) Support for the widespread adoption of e-banking should ideally help make all systems interoperable so that consumers are not tied to specific networks. Point-of-sale networks are now specific to each bank, such that merchants who want to accept card payments need a point of sale device for each bank. The rollout of the national card, routing payments through the National Processing Centre and being more widely accepted, will improve the situation.
- (viii) Widespread adoption of e-banking channels is dependent upon the availability of a wide network of agents or service points (ATM, point of sale, payment terminals). This network must be highly reliable, with strong security standards to strengthen consumer trust. There is a perception that ATMs are unreliably serviced and concern that agents could charge additional payment processing fees.
- (ix) The limited number of merchant points of sale is thought to be in part due to merchant resistance to using electronic means for recording sales, possibly because they are avoiding taxation. To counter this tendency, awareness campaigns and training is required for merchants to fully appreciate the benefits.

Failure to address interoperability could limit the impact of services and result in disparate systems accessible only to a small percentage of the market. For example, while payment service providers are well placed to serve as part of an agent network for any mobile money transfer intervention, their structures lack cash-out services. This should be addressed either with the integration of card channels to allow for ATM withdrawals, or by developing mobile banking services to allow agent-based cash-out transactions. Discussions on piloting both mobile and card integration have commenced with Xpress Pay, with plans to pilot in 2013.

Opportunities

E-Banking

The following opportunities could add depth to the finance sector, facilitate financial transactions, and improve the inclusiveness of financial services for households.

E-banking could help mobilize savings. Savings are relatively low because of an insufficient range of deposit products, the difficulty in accessing deposit points, and a lack of trust in the financial system and information. Wide-ranging opportunities for improving deposit services through e-banking include

- (i) improved and diversified products through e-banking channels;
- (ii) better marketing and communication through text messaging; and
- (iii) wider availability of different channels—that is, the inclusion of agent outlets in the process, the expansion of ATM and/or point-of-sale networks, the launch of mobile banking, and links with e-wallet solutions to enable online remittances.

Branchless banking could expand financial access to rural areas. To expand to rural areas at a reasonable cost, financial institutions will need to harness technology and branchless banking. This could be done through partnerships with payment service providers allowing use of their networks for expansion and further development of card-based payment systems as a cost-effective way to service rural clients. Support for agricultural finance could be enhanced with the electronic disbursement of funds to the suppliers of the necessary inputs.

Further development of card-based payments and transfer markets could improve payment-system efficiency. Transfer payments to cards could encompass both social benefits and remittances to ensure these transactions are recorded in the banking sector and potentially remain as deposits after transfer. Integrating money transfer organizations with e-banking channels would drive large volumes of transactions to these channels and provide benefits for all players involved. Processing of government-to-person payments via electronic channels would be much cheaper than traditional banking channels and could directly influence financial inclusion.

Standardization of e-banking initiatives could increase interoperability and customer access. Supporting interoperability across all e-banking initiatives, including an interface between mobile and card-based systems, could enhance market efficiency and customer access to affordable financial services.

Solar technologies could help overcome issues related to poor electrical supply. Solar powered ATMs are available and could be deployed in those areas where lack of electricity hampers the ability of financial institutions to expand their ATM network. Additionally, agents using mobile phones to extend services could use solar chargers to ensure their continuity.

Improved Outreach of Services through Efficient Microfinance Institutions

Microfinance deposit and microloan organizations, mostly those with microloan fund shareholdings, have driven loan disbursement growth (see Figure 4). It is estimated that more than 284,000 households, MSEs, and small farmers had loans from banks and microfinance institutions at the end of 2012. Almost all of this microlending was short-term, with limited long-term financing for machinery and equipment and for housing construction and improvements.

In the past, borrowing and retained earnings have fueled the loan growth of microloan organizations. Grant funding, which provided much of the initial seed capital, is now an insignificant annual source of funding, apart from a few very small microloan funds. At some point, continued asset growth will be constrained by the ability of microfinance institutions to provide security against additional borrowing.⁵³ Many microloan organizations are now close to this point. They will need either to mobilize deposits by becoming microfinance deposit organizations or restrain their lending growth.

Appendix 4 presents financial projections based on five well-performing microfinance institutions, illustrating the need to build on a firm base of five to seven microfinance institutions that have demonstrated operational efficiencies. As of 2012, these had \$67.5 million in loans outstanding to more than 89,500 borrowers, of which almost 60% were rural. Total assets were \$86.0 million, borrowing totaled \$60.0 million, and net worth totaled \$25.0 million. These institutions took almost no deposits, which is now limiting their growth prospects.

A 10-year financial projection clearly indicates that unless the formal borrowing constraint is overcome, loan growth will be restricted to about 5% per year in real terms. As the first column of Table 9 shows, 104,400 borrowers are projected by 2020 under present constraints. To solve this, the better-performing microloan organizations could become deposit taking institutions, allowing the financing of annual lending growth of 7.5%, with little increase in borrowing after 2020 (Table 9, second column) or annual loan growth of up to 10%, with increases in deposit taking and borrowing as outlined in the third column. By becoming microfinance deposit organizations, these microloan organizations would service between 132,000–166,000 borrowers by 2020, or more than 61,000 borrowers under the higher end of the range.

The high-growth model (10% a year) is considered feasible yet quite conservative compared with actual annual growth from 2007–2010 of 13% (in US dollar equivalent) for these microfinance institutions. As indicated in Table 9, deposit taking of \$38.4 million would be needed, as well as \$50.6 million in borrowing and \$35.7 million in profit retention. Deposit taking would finance 30% of the increase in total assets. Because the ratio of loans to borrowing will exceed 1.30 until 2016, it is suggested that \$15.0 million of increased borrowing would need to be of a subordinate nature and for a term of not less than 5 years. This amount would also fit the needs of longer-term financing for fixed assets, including machinery and equipment.

Financial Product Development

Agricultural and Rural Finance

Agricultural finance appears to be in the domain of EBRD, the United States Agency for International Development (USAID), Kreditanstalt für Wiederaufbau (KfW), and the World Bank; ADB has provided support to integrate agriculture more effectively into the rural economy by addressing constraints and enhancing opportunities.⁵⁴ The proposals outlined below were formulated with Tajik Agricultural Finance Framework support. A follow-on project similar to the Tajik Agricultural Finance Framework is in the pipeline.

⁵³ Lenders to microfinance institutions usually require the microfinance institution loan portfolio as collateral and that the loan portfolio should be 1.3–1.6 times the amount of borrowing.

⁵⁴ Asian Development Bank (ADB). 2006. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan, Asian Development Fund Grant, and Technical Assistance Grant Rural Development Project (Loan 37530-TAJ, \$17.1 million)*. Manila: ADB.

Table 9: Impact of Deposit Taking on Loan Growth (2020 versus 2010)

Indicator	No Deposit Taking (MLO)	Medium Growth Deposit Taking (MDO)	High Growth Deposit Taking (MDO)
Loan growth: % per year	5.0	7.5	10.0
Increase in total assets: \$ million	52.1	86.1	127.9
Loan portfolio 2020: \$ million	99.7	126.2	158.8
Increase in loan portfolio: \$ million	38.5	65.0	97.6
Increase in deposits: \$ million	0.0	26.7	38.4
Increase in borrowing: \$ million	22.1	25.2	50.6
Increase in net worth: \$ million	28.7	32.0	35.7
Borrowers 2020: number	104,400	132,100	166,300
Increase in borrowers: number	28,400	56,100	90,300

MLO = microloan organization, MDO = microfinance deposit organization.

Source: Financial statements of microfinance institutions as of 30 December 2010 and estimates from the Frankfurt School of Finance & Management (tables in Appendix 4).

The Tajik Agricultural Finance Framework project recommended a risk-sharing facility for agricultural finance. Proposed shareholders would include the state and international and participating financial institutions, with a recommended share capital not less than 30% of estimated risk.

Scope exists to promote the use of cooperatives to purchase farm machinery, especially tractors, for use by members. Most farms are too small to justify the purchase of a tractor on an individual basis. Cooperatives are also exempt from the payment of import duty and VAT on farm machinery, contrary to input providers and small-scale processors. Since successful cooperatives require the drive and direction to come from their members, development can be time-consuming.

EBRD initiated work on warehouse receipts in 2008, but with little progress. The Tajik Agricultural Finance Framework could launch a pilot with the USAID Productive Agriculture Project, which has a budget allocated for warehouse receipt development.

Through the Tajik Agricultural Finance Framework's annual business forums and consultants hired through various donors, attractive investment opportunities have been identified in beef, dairy, high-value crops, orchards, and dried fruits.

Microfinance institutions have around 30% of their aggregate loan portfolio in agriculture, mainly in livestock, dried fruits and nuts, and inputs for seasonal crops (excluding cotton). Related to this are rural recipients of worker remittances, the use of funds for consumption items, education and housing repairs and construction, and possible investments in renewable energy. The efficiency of these financial services could be enhanced through mobile financial services. Any proposed project must therefore include agricultural lending (at any point in the value chain) directly as an activity or at least consider its impact on household incomes and debt.

Marketing Financial Services to Businesses and Households

Microfinance lending is now designated by sector and is mostly for a term of 3–6 months. There is almost no long-term lending or twinning of short-term (seasonal) lending with long-term loans or deposits with loan facilities. Overdraft lending is barely practiced. There has been a shift from group lending to lending to individuals. Borrowers in good standing can extend loan terms or operate within loan limits, reducing administration costs.⁵⁵

⁵⁵ For example, the microfinance institution BRAC Bangladesh offers farmers a 2-year loan that covers four to six cropping cycles instead of requiring farmers to take out 4–6 seasonal loans.

The NBT now allows microfinance institutions to act as agents for insurance services, and they can be efficient collectors of small premiums. Enormous scope exists for microfinance deposit organizations to provide deposit services linked to health, accident, and death insurance, as well as providing agricultural loans linked to weather indexing insurance. Microfinance institutions acting in an agent capacity, whereby the principal takes all financial risk, would promote the growth of low-cost and attractive insurance services that low-income households would purchase.

The above analysis of remittances and deposit taking, and statistics showing the large amount of money that circulates outside the banking system, indicate the potential for banks and microfinance deposit organizations to increase deposit taking and attract money outside the banks into investment. Already there are lessons to be learned from initial successes. Strong financial institutions need to study and test recommendations for enhancing the cross-selling of products and the use of e-banking. The deposit insurance law has improved the safety of deposits. Much more is needed to increase household access to financial services, including deposit and loan products, and to improve their capacity for making convenient and cost-effective financial transactions.⁵⁶

Banks and microfinance institutions have yet to develop the full range of financial services for which demand likely exists. More focus on marketing is needed with a view to creating feasible financial services for businesses, households, and the different generations within households. Basic services, such as credit, savings, and insurance, need packaging and promotion through consistent, focused strategies to increase access to relevant financial services. E-banking in various forms can facilitate provision of these services. Deposit-taking institutions operating in rural areas need support to tap this market potential.

⁵⁶ The EBRD, through its Financial Education Program in Tajikistan, has indicated a savings potential of \$300 million a year by linking deposit services to remittances.

Activities and Donors

Government Finance Sector Interventions

National Bank of Tajikistan

The NBT has outlined a Financial Sector Development Strategy and action plan for 2009–2015 that reflects the IMF/World Bank Financial System Assessment Program recommendations of 2008. The strategy describes numerous institutional and macro inefficiencies. Institutional inefficiencies include (i) excessive loan portfolio growth, (ii) weak skills and tools for assessing credit risk, (iii) significant lending in dollars, (iv) diseconomies of scale, and (v) weak governance. At the macro level, key concerns are (i) low public confidence in the banking sector, (ii) the dominance of the sector by a few large banks, (iii) the lack of liquidity-management tools, (iv) weak judiciary and enforcement systems, (v) an uncertain investment climate, (vi) the lack of a credit information system, and (vii) weak accounting standards.

In cooperation with development partners and the private sector, the government has put together an action plan for reforms in two broad areas to tackle these issues:

- (i) Banks. Covering the legal framework, regulatory reforms, supervision, governance of the NBT and commercial banks, banks' products and services, consumer protection, and other banking sector infrastructure.
- (ii) Nonbank financial institutions. Covering credit societies, microfinance, insurance, leasing, and capital markets.

Donor Finance Sector Interventions

Asian Development Bank

ADB's Country Partnership Strategy for Tajikistan 2010–2014 sets out a roadmap for phased physical and nonphysical investments to improve connectivity, energy security, and private sector development. Regional cooperation is a binding theme and energy a top priority. In the private sector, ADB is encouraging reforms to improve the environment for domestic and foreign investment, increase public–private partnerships in infrastructure development and service delivery, and create a more enterprise-friendly business climate. ADB is moving out of agriculture and social services, areas covered by other donors, particularly the World Bank.

International Monetary Fund

The IMF is providing technical and financial assistance for the restructuring and strengthening of the NBT and, with the World Bank, participated in developing technical assistance for crisis management.

World Bank

The World Bank has provided assistance for a revised Law on Banking Activities (enacted), a Deposit Insurance Law (August 2011), and a bankruptcy law for credit institutions (submitted to parliament in December 2010). These laws will strengthen the NBT's ability to intervene in troubled banks.

The World Bank is also helping authorities prepare a contingency planning framework and a least-cost resolution options matrix. Future technical assistance will likely focus on strengthening NBT regulation and on-site supervision, including preparing a prompt remedial actions framework. The World Bank also fielded a mission in November 2010 to assess banking vulnerability.

In addition, the World Bank is involved in the National Processing Centre, payments systems, regulation, and remittances. The objective of this consulting services assignment is (i) to conduct an assessment of the market for international remittances in Tajikistan based on the general principles for international remittances of the World Bank-Committee on Payment and Settlement Systems, and (ii) to develop a plan for the NBT to implement the recommendations of the assessment.

International Finance Corporation

The IFC has been active in developing the credit bureau, leasing services, and has a shareholding in AccessBank Tajikistan, the newly developed lender that will focus on the SME sector.

European Bank for Reconstruction and Development

The EBRD is sponsoring three major programs to increase SME access to finance. Besides the Tajik Agricultural Finance Framework, there is the Tajikistan MSE Finance Facility, and the Tajik Financial Sector Framework. EBRD also has equity shares in Agroinvestbank, Eskhata Bank, and AccessBank Tajikistan, as well as lines of credit to these and other banks, including Tojik Sodirobt Bank, and to microfinance institutions including IMON INTERNATIONAL, Arvand, FINCA, and Humo. Recent EBRD support has included the following:

- (i) It provided a syndicated loan of up to \$8 million to Eskhata Bank to help support its maturing micro and small business customers, and to reach out to new clients in the emerging SME sector. The syndicate (with funds provided) includes EBRD (\$2 million); FMO, the Dutch development bank (\$5 million); and Germany's Bank im Bistum Essen eG (\$1 million).
- (i) It provided a \$6 million equivalent multicurrency facility to AccessBank, as a 4-year senior loan, to provide more affordable local-currency loans to small businesses. AccessBank Tajikistan is the second financial institution in Tajikistan to join the EBRD's new Local Currency Lending Programme in Early Transition Countries, as part of EBRD's drive to reduce the risks—exposed by the economic crisis—of excessive dependence on foreign currency funding. Extending local currency-denominated loans to eligible banks, microfinance organizations, and private enterprises allows them to avoid taking on exchange rate risks. Tajikistan was the first country in Central Asia to benefit from this program.

Kreditanstalt für Wiederaufbau

KfW has been supporting the microfinance sector in Tajikistan for many years. Jointly with the Aga Khan Development Network and IFC, KfW participated in the establishment of The First MicroFinanceBank in 2003 and remains a shareholder. In addition, it has provided refinancing funds to The First MicroFinanceBank to support lending to MSEs. Funding comprised €2.5 million equity participation, and three credit lines of €1.5 million, €5.0 million, and €2.5 million.

In 2008, the German government committed €4.5 million to the Rural Financial Sector Program. The program aims to create and stabilize employment and income by deepening and broadening Tajikistan's finance sector in rural areas. The target group is rural MSEs, including those active in agriculture. The recipient of the grant funds is the Republic of Tajikistan, represented by the Ministry of Economic Development and Trade as the executing agency. The grant funds are being on-lent in somoni to sustainable private financial institutions (four microfinance institutions at present) for terms of 4–6 years through loan agreements between the partner financial institutions and the ministry. A second, €13.0 million line of credit is envisaged for a scaled-up rural finance program that will include banks and microfinance institutions.

Intervention Options

Summary of Intervention Options

As outlined in Figure 6, shallow and inefficient financial intermediation is restricting the ability of MSEs, farms, and households to make productive investments that raise incomes and generate employment. Interventions that could increase private sector-led economic growth and deepen and increase the efficiency of financial intermediation through attractive financial services that reach more consumers, include the following:

- (i) Improve rural outreach and develop a broader range of attractive financial services through efficient microfinance institutions and banks through policy and regulatory support and direct long-term financing support to microfinance deposit organizations.
- (ii) Encourage financial institutions acting in an agency capacity to provide micro-insurance services to develop the micro-insurance sector. This would require the involvement of a financially strong and interested insurer in product development and rollout.
- (iii) Assist financial institutions in their development of products, particularly to encourage longer-term lending for investment purposes (including in renewable energy), improved deposit mobilization, and access to deposits.
- (iv) Expand and diversify e-banking services to reduce administration and transaction costs for financial institutions and their customers and to boost outreach in rural and urban areas, leading to more effective use of domestic financial resources.
- (v) Provide training to regulators, NBT supervisors, financial institution staff, and consumers across a range of areas. These include in e-banking, product development and management, the assessment and use of financial services, risk management, and the evaluation of the strengths and weaknesses of financial institutions and recommendations for their improvement. Staff training could be carried out through the Center for Training and Development of Microfinance in Tajikistan.⁵⁷ Financial literacy training for consumers would be needed, and this should be linked to particular financial service products provided by individual companies. Training materials and methodology will need to be specially designed for women. Financial literacy training and extension will need to be on a cost-sharing basis with the industry and partly grant-funded. Training and extension will need to address the needs of up to 200,000 microcredit borrowers, many more consumers who will be using e-banking services, and around 1,000 staff of financial institutions and the NBT.

These interventions could fit an immediate to medium-term time frame. The priority is for a more efficient banking system offering more attractive services and improved efficiency and outreach through financial institutions and e-banking. The development of capital markets requires a long-term sequenced approach built on an improved banking system, a financially strengthened NBT, the development of institutional investors (for example, a stronger and larger insurance industry and the growth of pension funds), and better physical infrastructure (power supply, roads, railways) that business investors and operators can rely on. Capital market development requires comprehensive multi-donor interventions; for this reason, this study makes no specific recommendations for the capital market.

⁵⁷ The Frankfurt School of Finance & Management is providing advisory services to the Center for Training and Development of Microfinance in Tajikistan.

Potential ADB interventions could follow a step-by-step approach to first ensure a solid foundation for e-banking, and then help develop these services with projects to drive volume through these channels. It could provide separate technical and financial support for each of the proposed steps below. Appendix 5 provides a draft design and monitoring framework summarizing intervention options. The outputs are described in the following sections.

Output 1: Incorporation of E-Banking into the Finance Sector

Step 1—Agency Banking Business Case

Promotion of e-banking, particularly mobile financial services, typically relies on a network of agents that offer services on behalf of the financial institutions and/or e-money issuer. Ideally, these agents provide both cash-in (savings deposits, loan repayments, and e-money purchases) and cash-out (savings withdrawals, loan disbursements, and e-money withdrawals). Additionally, these agents may provide noncash services, such as client registration and account opening. Agency networks are typically required where bank branch networks are insufficient to reach low-density rural areas, and are identified as business operators who have sufficient cash flow and operate in secure locations.

For Tajikistan, a detailed analysis is required to first determine if there is a business case for the development of an agent network. This study would require the following steps:

Step 2—Mobile Financial Services Regulatory Review and Development

While the NBT has started reviewing its payment systems regulations, inputs are required to ensure that these new regulations fully support mobile financial services. Additionally, other relevant regulations, such as those governing consumer protection, agency banking, anti-money-laundering and telecommunications will likely need to be streamlined with the regulations for mobile financial services to ensure that they are all aligned and supportive of the development.

Step 3—Support Piloting of Mobile financial Services

Once the regulations are in place, ADB could help finance the piloting of mobile financial services by microfinance deposit organizations. The expectation is that about six organizations could participate and that their projects should include

- (i) cost-benefit analysis to show the savings potential of the deployment of electronic channels, both for the client and the microfinance deposit organization;
- (ii) clear evidence of how the pilot will help expand outreach to rural areas through the use of mobile financial services;
- (iii) the introduction of services that are interoperable with other e-banking initiatives to help build a broad network with open access to the market;
- (iv) the strengthening of core banking systems and/or management information systems to ensure they are capable of integration with electronic delivery channels. This could include some procurement of additional software and/or hardware by the microfinance deposit organization;
- (v) identification of the agent or service point network through which mobile financial services will be offered. This could be through partnership with payment service providers to use their dealer or terminal network, or through links with plastic card channels, either directly with the National Processing Centre or via commercial banks' cards. Support could be provided for any customization these partners require to cater for the microfinance market. It could also include funding for new hardware (terminals, ATMs) required to service the target areas;
- (vi) business process re-engineering to fully integrate electronic delivery channels into existing lending practices and products. This could be extended to include tailored products designed purely for mobile channels;

- (vii) client training and/or awareness campaigns so they are clear about how these electronic channels work and can build confidence in the system; and
- (viii) monitoring and evaluation.

Step 4—Build Links Between Card and Mobile Systems

While the fundamental building blocks for mobile financial services are being put in place, it is expected that the card market will continue to develop due to the launch of the National Processing Centre and other market drivers. It is most likely that this growth will focus more on urban clients who have accounts with commercial banks.

ADB could therefore provide support to ensure that plastic cards are accessible and affordable to microfinance clients in remote areas. This support would need to look at pricing models for smaller financial institutions to participate in the card payment network to ensure these are not prohibitive. Work is also required to ensure that microfinance providers have sufficient access to core systems to enable integration into the National Processing Centre, since many providers are still operating on rudimentary systems that may not immediately be capable of this level of integration. Finally, to ensure interoperability between card and mobile financial services, pilots could link existing services so that funds stored and transferred using mobile financial services are accessible via card channels.

Step 5—Support Innovations to Increase Volumes Through Mobile Financial Services

Once the building blocks are in place to support the initial development of mobile financial services, ADB could support their upscaling through targeted projects that drive more volume through these channels. This could be done with four categories of projects:

Support for the Implementation of the NBT's Action Plan for Promoting Noncash Payments.

Government has charged the NBT with creating an action plan to help promote the use of noncash payment methods within the economy. Given the high penetration rate of mobile phones, it is likely that mobile financial services will play a significant role in this strategy. Support for the implementation of the action plan would therefore help to drive volumes through the available mobile payment systems.

Upscaling Government-to-Person Payments via Electronic Channels. Pension payments via plastic cards account for only 20% of the total number government pension payments. Expansion of this scheme to reach more recipients, and possibly to introduce other types of payments such as social transfers, would benefit the government, in the cost of processing, and recipients, who would receive payments faster through a more secure channel. Electronic government payments for pensions and social supports could also help build financial inclusion as consumers are provided with an affordable, convenient financial service.

As part of the expansion of government-to-person payments, the available network of the banks processing these payments will need to be considered. To achieve scale and ensure recipients have access to a conveniently located bank or ATM, the government will need to allow for processing via multiple banks, rather than just Amonatbank as it is currently organized.

These projects could also consider how to make payments not only through card channels, but to take advantage of the mobile financial services that would be present in the market at this point. This would reduce the need to invest in ATMs or point-of-sale networks, and could instead use agent networks for cash-out purposes, if this were allowed under regulations.

Links of Remittances to E-banking Channels. The remittance market operates alongside the banking sector, with partnerships in place between money transfer organizations and financial institutions so that clients can access remittance funds through tellers at company premises. ADB could facilitate full integration of money transfer organization services with e-banking channels to enable consumers to access their remittances directly from plastic cards, e-wallets, or mobile accounts, without visiting a bank branch or money transfer organization.

agent. This project would need to address a series of issues, including the current demand for remittances to be retained in foreign currency, the limited availability of bank accounts by recipients, limited information from senders regarding the recipient bank account, and technical integration between money transfer organizations' and banks' systems. If addressed, the project could significantly increase the proportion of remitted funds retained in formal financial institutions, and ultimately help mobilize deposits.

Introduction of Solar Products to Expand Networks. Lack of access to a reliable power supply will jeopardize the availability of e-banking points of service such as ATMs or mobile agents. ADB could help encourage the introduction of solar-powered devices to alleviate this constraint. This could take the form of financing for the procurement of solar-powered ATMs or direct support to suppliers of solar panels who could provide products to financial institutions or mobile financial services providers.

Step 6—Financial Literacy and Capacity Building

Either as a component of other projects or as a standalone project, ADB could help build the capacity of all players involved in the electronic payment system. Financial institutions, in particular microfinance deposit organizations focused on rural areas, first require assistance to identify the opportunities available through e-banking and then additional capacity building support to implement and grow these business channels. Companies other than microfinance deposit organizations may require tailored support to understand how they can use e-banking networks, particularly for cash management. Lastly, consumers need financial literacy training to build trust in electronic channels and the banking sector as a whole.

Output 2: National Bank of Tajikistan Applies Enhanced Supervisory and Monitoring Methodology

This output covers enhancements in both the NBT's oversight of microfinance and its expansion and management of e-banking. At present, the NBT believes that its system of supervision and monitoring of microfinance institutions is satisfactory.

Improvements are needed in the monitoring and supervision of microfinance institutions. These need to be linked to a rational approach that considers the size of a microfinance institution's operations and public and endemic risk. The focus of oversight, as well as technical and financial support, should be on deposit-taking microfinance institutions. Improvements are needed in their information technology platforms, financial reporting standards, loan classification, and reporting of physical data. It is too expensive to apply a system of on-site and off-site supervision to all microfinance institutions. For the non-deposit-taking microfinance institutions, a cost-effective method of monitoring and supervision is needed, with some of this work possibly contracted out to an industry association such as AMFOT.

The policy side includes the development and expansion of microfinance services, especially in rural areas and among the poor. No clear policy states that rural households will have access to a full range of financial services that includes lending, deposits, insurance, and money transfers. At present, many rural locations are served by small and, in many cases, non-viable microfinance institutions that provide only a microcredit service. A policy is needed that looks at the types of services required and the most appropriate forms of service delivery, and that also sets out outreach targets on a year-by-year and geographical basis.

Improved oversight should also be extended to look at how the NBT will supervise mobile financial services, considering that services may be offered both by banks and nonbanks. For mobile financial services offered by banks, banking supervision will need to be extended to include supervision of mobile channels as part of the general supervision of e-banking. While this should in theory be easier than more traditional supervision based on physical inspection, the electronic nature of the systems may require specialist skills and training currently not available to supervisors.

The supervision of nonbank providers presents a much larger challenge, in that it must first be determined which regulatory body takes responsibility, because other bodies, such as information and communication technology and telecommunications typically overlap. Irrespective of which body takes responsibility for the supervision of mobile financial services, the role must help build consumer confidence in mobile financial services and the banking sector as a whole. Failure to detect and respond adequately to any breaches in regulation that occur through these channels could result in industry-wide credibility issues.

This output would include training of regulators within the central bank to help them understand the implications of the regulations they draft for governing e-banking. Following that, supervisors will need to be trained to ensure they have the skills to monitor e-banking channels and to detect any risks that may arise from these systems.

The orderly liquidation of small and inefficient microfinance institutions, microloan funds in particular, could face difficulty. Under current legislation, a liquidated NGO must either transfer its equity (net worth) to another NGO with similar operational objectives or transfer the equity to the state. The process of liquidation needs to be watched carefully so that a transparent system of asset transfers can occur without hurting the microfinance industry.

Appendixes

Appendix 1: Statistical Tables

Table A1.1: National Data

	2005	2006	2007	2008	2009	2010	2011	2012
Nominal GDP Data (TJS million)								
Manufacturing and construction	1,663.1	2,221.8	2,085.9	4,191.0	4,517.5	5,657.4	5,923.6	8,244.7
Agriculture	1,541.0	2,007.1	2,535.3	3,838.8	3,898.8	4,619.8	7,156.5	8,425.5
Services	3,154.1	4,070.1	5,646.7	7,466.3	10,046.1	11,833.6	13,441.0	15,296.2
Taxes	842.5	1,036.2	1,536.5	2,113.1	2,166.0	2,594.0	3,548.2	4,194.7
Total nominal GDP (TJS million)	7,200.7	9,335.2	11,804.4	17,609.2	20,628.4	24,704.8	30,069.3	36,161.1
Total nominal GDP (\$ million)	2,309.1	2,811.0	3,431.5	5,133.9	4,982.7	5,641.7	6,522.3	7,596.9
Exchange rate TJS:\$	3.12	3.30	3.44	3.43	4.14	4.38	4.61	4.76
Currency outside banks (TJS million)	536.6	824.5	1,019.4	1,403.0	1,768.3	2,002.6	2,708.7	3,402.0
Broad money (M2)	669.2	1,027.0	1,409.9	1,955.0	2,601.9	3,214.3	4,334.4	5,014.0
M2/GDP (%)	9.3	11.0	11.9	11.1	12.6	13.0	14.4	13.9
Real GDP growth (%)	6.7	7.0	7.8	7.9	3.9	6.5	7.4	7.5
CPI inflation rate (%)	7.1	12.5	19.7	11.8	5.0	9.8	9.3	6.4
Remittance inflows (\$ million)	467.0	1,019.0	1,691.0	2,544.0	1,748.0	2,254.0	2,697.0	3,125.0
Remittance inflows (% GDP)	20.2	36.3	49.3	49.6	35.1	40.0	41.4	41.1
Population (million)	6.50	6.60	6.70	6.80	7.00	7.60	7.80	7.85

CPI = consumer price index, M2 = broad money, GDP = gross domestic product, TJS = Tajikistan somoni.

Source: National Bank of Tajikistan (NBT). 2012. Banking Statistics Bulletin 12 (209), 11 (208), and 12 (209). http://www.nbt.tj/en/statistics/stat_bulletin.php.

Table A1.2: Lending through the Banking Sector

	2005	2006	2007	2008	2009	2010	2011	2012
All Lending (TJS million)								
Central bank	148.5	148.9	190.9	185.8	181.3	204.9	200.4	121.4
Banks/NBFIs	1,137.8	2,244.3	3,786.4	4,674.3	5,272.1	3,523.4	4,599.2	5,299.9
Total loans outstanding	1,286.3	2,393.1	3,977.2	4,860.1	5,453.4	3,728.3	4,799.6	5,421.3
Domestic currency lending (TJS million)								
Central bank	119.5	114.4	156.6	185.8	181.3	204.9	200.4	121.3
Banks/NBFIs	404.8	471.6	835.0	2,088.9	3,658.8	1,700.6	1,936.1	2,071.1
Total domestic currency	524.3	585.9	991.5	2,274.7	3,840.0	1,905.5	2,136.5	2,192.4
Foreign currency lending (TJS million)								
Central Bank	29.0	34.5	34.3	0.0	0.0	0.0	0.0	0.0
Banks/NBFIs	732.9	1,772.7	2,951.4	2,585.4	1,613.3	1,822.8	2,663.1	3,228.9
Total foreign currency	762.0	1,807.2	2,985.7	2,585.4	1,613.3	1,822.8	2,663.1	3,228.9
Past due loans (TJS million)								
Domestic currency	24.1	14.4	18.1	56.0	2,309.5	166.4	192.1	137.1
Foreign currency	18.4	11.8	11.1	55.3	105.3	117.9	132.9	207.7
Total past due	42.5	26.2	29.2	111.3	2,414.8	284.3	325.0	344.8
All deposits (TJS million)								
Domestic currency	183.6	271.9	516.0	696.2	946.3	1,356	1,604	1,567
Foreign currency	355.5	836.0	1,881.6	1,218.2	1,668.1	1,866.0	2,750.0	3,250.0
Total deposits	539.1	1,107.9	2,397.6	1,914.4	2,614.3	3,221.8	4,354.0	4,817.0
Past due/total loans (%)	3.3	1.1	0.7	2.3	44.3	7.6	6.8	6.4
Past due domestic currency loans (%)	6.0	3.0	2.2	2.7	63.1	9.8	9.0	6.3
Past due foreign currency loans (%)	2.5	0.7	0.4	2.1	6.5	6.5	5.0	6.4
Loans out/GDP (%)	17.8	25.6	31.1	27.4	26.4	15.1	16.0	15.0
Domestic currency loans/total loans (%)	35.6	21.0	22.1	44.7	69.4	48.3	44.5	40.4
Loans/deposits (%)	239.0	216.0	166.0	254.0	209.0	116.0	110.0	112.5
Foreign exchange loans/foreign exchange deposits (%)	214.0	216.0	159.0	212.0	97.0	98.0	97.0	99.4
TJS loans/TJS deposits (%)	286.0	215.0	192.0	327.0	406.0	141.0	133.0	139.9

GDP = gross domestic product, NBTI = nonbank financial institution, TJS = Tajikistan somoni.

Source: National Bank of Tajikistan (NBT). 2012. Banking Statistics Bulletin 12 (2009), 11 (208), and 12 (209). http://www.nbt.tj/en/statistics/stat_bulletin.php.

Table A1.3: Financial Institution Loans Outstanding by Sector

	2008	2009	2010	2011	2012
Bank Financial Institutions (TJS million)					
Agriculture	2,148.6	2,840.2	647.9	945.5	777.10
Industry	1,151.1	885.9	724.0	803.6	828.70
Construction	259.5	341.3	390.2	490.7	502.10
Transport	145.4	143.9	162.8	132.5	172.20
Catering	17.2	4.6	4.9	8.6	14.00
Services	88.2	50.9	162.5	181.2	203.10
Foreign trade	428.4	464.8	855.5	906.7	886.40
Financial intermediation	16.0	58.9	55.0	165.0	144.10
Consumption	209.5	279.9	292.6	324.9	512.10
Other	144.4	144.4	83.2	287.2	516.10
Subtotal banks	4,608.2	5,214.8	3,378.5	4,245.9	4,555.90
Microfinance Institutions (TJS million)					
Agriculture	104.6	110.9	129.4	186.5	279.20
Industry	87.2	97.6	139.8	156.2	192.30
Construction	0.9	8.2	15.5	20.3	30.40
Transport	0.9	1.1	3.0	3.5	5.30
Catering	5.0	5.3	5.3	0.9	3.50
Services	17.7	17.0	29.3	47.7	78.00
Foreign trade	15.4	23.4	35.4	70.8	89.90
Financial intermediation	0.0	0.0	0.0	0.0	0.03
Consumption	36.3	46.5	64.1	96.7	196.10
Other	4.6	5.0	12.1	47.1	60.00
Subtotal microfinance institutions	272.6	315.0	433.8	629.7	934.73
Share of microfinance institutions (%)	5.9	6.0	12.8	14.8	17.00

TJS = Tajikistan somoni.

Source: National Bank of Tajikistan (NBT). 2012. Banking Statistics Bulletin 12 (209), 11 (208), and 12 (209). http://www.nbt.tj/en/statistics/stat_bulletin.php.

Table A1.4 Microlending (as at year-end)

	2007	2008	2009	2010	2011	2012
Microcredit Lending Outstanding (TJS million)						
Banks	492.1	787.7	757.8	835.3	1,010.6	1,246.6
MDOs	22.0	41.6	86.5	150.8	230.8	352.2
MLOs	26.1	164.9	187.2	235.5	344.5	518.8
MLFs	106.5	66.1	42.3	47.6	54.3	64.0
Total microfinance institutions	154.6	272.6	316.0	433.8	629.7	935.0
Total financial institutions (TJS million)	646.6	1,060.3	1,073.8	1,269.1	1,640.3	2,181.6
Share microfinance institutions (%)	23.9	25.7	29.4	34.2	38.4	42.9
Number of Microcredit Disbursements						
Banks	95,480	116,977	76,383	87,401	106,490	122,398
MDOs	17,463	23,705	39,181	48,114	57,337	76,174
MLOs	10,047	62,773	57,239	70,020	99,124	127,972
MLFs	113,367	67,316	45,251	30,087	31,651	28,510
Total microfinance institutions	140,877	153,794	141,671	148,221	188,112	232,656
Total financial institutions (number)	236,357	270,771	218,054	235,622	254,711	355,054
Average Size of Loan Balance/Borrower (TJS)						
Average size of disbursement: banks	5,153	6,734	9,921	9,557	9,490	10,185
Average size of disbursement: microfinance institutions*	1,097	1,773	2,231	2,927	4,248	4,019
Female Borrowers (number)						
Bank microcredit	23,870	29,244	19,096	21,850	n.a.	n.a.
Microfinance institution microcredit	53,533	58,442	53,835	56,324	n.a.	n.a.

MDO = microfinance deposit organization, MLF = microloan fund, MLO = microlending organization,

n.a. = not available, TJS = Tajikistan somoni.

Source: National Bank of Tajikistan (NBT). 2012. Banking Statistics Bulletin 12 (209), 11 (208), and 12 (209). http://www.nbt.tj/en/statistics/stat_bulletin.php.

Table A1.5: Deposits in the Banking Sector

	2007	2008	2009	2010	2011	2012
1 All deposits (TJS million)						
Domestic currency	516.0	696.2	946.3	1,356.0	1,603.9	1,567.3
Foreign currency	1,881.6	1,218.2	1,668.1	1,865.9	2,750.1	3,249.6
Total deposits	2,397.6	1,914.4	2,614.3	3,221.8	4,354.0	4,816.9
2 Deposits of legal entities (TJS million)	1,827.4	1,190.1	1,509.1	1,754.1	2,109.1	1,951.8
2.a. Domestic currency (TJS million)	434.7	576.3	739.8	1,088.5	1,259.6	1,107.7
Demand deposits	234.3	271.0	427.2	526.7	575.0	696.6
Savings deposits	8.3	15.8	0.1	0.0	0.0	0.2
Time deposits	69.3	133.5	142.0	364.1	513.3	253.9
less than 1 months	0.1	3.6	0.1	0.0	0.0	0.0
1 month to 3 months	1.5	6.7	0.5	1.2	3.1	0.0
3 months to 6 months	5.0	13.7	9.7	8.3	47.4	3.35
6 months to 12 months	50.8	94.3	118.7	310.4	392.5	187.4
More than 12 months	11.8	15.2	13.0	44.1	70.3	63.0
Other deposits	122.8	156.1	170.4	197.8	171.3	157.0
2.b. Foreign currency (TJS million)	1,392.7	613.8	769.3	665.6	849.4	845.4
Demand deposits	197.6	227.3	458.1	441.8	675.2	702.1
Savings deposits	0.3	1.9	1.6	0.2	0.0	0.0
Time deposits	538.0	22.0	125.0	78.8	155.8	114.8
less than 1 month	0.4	0.6	0.1	4.4	0.0	0.0
1–3 months	510.1	1.7	8.0	9.7	1.9	5.5
3–6 months	4.2	7.3	41.1	5.9	29.7	46.1
6–12 months	18.6	6.1	65.2	38.6	74.5	30.3
More than 12 months	4.6	6.4	10.5	20.3	49.7	34.2
Other deposits	656.8	362.7	184.6	144.9	18.5	27.1
3 Deposits of individuals (TJS million)	570.2	724.3	1,105.2	1,467.7	2,244.9	2,865.1
3.a. Domestic currency (TJS million)	81.3	119.9	206.4	267.4	344.2	459.6
Demand deposits	3.5	3.8	3.5	4.4	5.9	26.9
Savings deposits	23.3	28.6	38.3	79.9	137.6	192.9
Time deposits	54.4	87.2	164.6	182.9	200.7	239.8
Less than 1 months	0.0	0.0	0.2	0.1	0.3	0.4
1–3 months	2.4	7.1	4.7	4.2	2.6	2.9
3–6 months	4.4	8.9	9.5	11.6	15.8	13.1
6–12 months	27.4	49.4	125.7	118.5	96.1	102.0
More than 12 months	20.2	21.8	24.5	48.5	85.8	121.4
Other deposits	0.0	0.2	0.0	0.2	0.0	0.0
3.b. Foreign currency (TJS million)	488.9	604.4	898.8	1,200.3	1,900.7	2,405.5
Demand deposits	19.2	20.2	9.2	6.2	3.6	22.2
Savings deposits	66.4	71.9	95.5	128.6	219.8	271.8
Time deposits	399.1	509.4	792.5	1,063.10	1,677.3	2,111.4
Less than 1 month	0.5	0.2	1.2	0.8	0.5	1.3
1–3 months	9.5	15.5	26.2	35.9	15.3	37.0
3–6 months	36.6	46.7	86.3	102.1	147.3	140.5
6–12 months	116.6	230.8	364.8	404.0	478.4	601.7
More than 12 months	235.8	216.1	314.1	520.3	1,035.9	1,330.9
Other deposits	4.2	2.8	1.6	2.4	0.0	0.0
4 Ratios						
Individual deposits/population (\$)	24.64	30.89	38.40	44.00	62.91	76.19
Individual FC/individual total (%)	86.0	83.0	81.0	82.0	85.0	84.0
Entity share all deposits (%)	76.0	62.0	58.0	54.0	48.0	41.0
Entity share FX deposits (%)	74.0	50.0	46.0	36.0	31.0	26.0
Entity share TJS deposits (%)	84.0	83.0	78.0	80.0	79.0	71.0
Deposits/GDP (%)	18.7	10.8	12.7	13.0	14.5	13.3
Foreign exchange deposits/GDP (%)	14.7	6.9	8.1	7.6	9.1	9.0
TJS deposits/GDP (%)	4.0	3.9	4.6	5.5	5.3	4.3
Individual deposits/GDP (%)	4.5	4.1	5.4	5.9	7.5	7.9
Entity TJS/total deposits (%)	23.8	48.4	49.0	62.1	59.7	23.0
Individual TJS/total deposits (%)	14.3	16.5	18.7	18.2	15.3	9.5
DD/Total deposits (%)	19.0	27.3	34.4	30.4	28.9	30.1

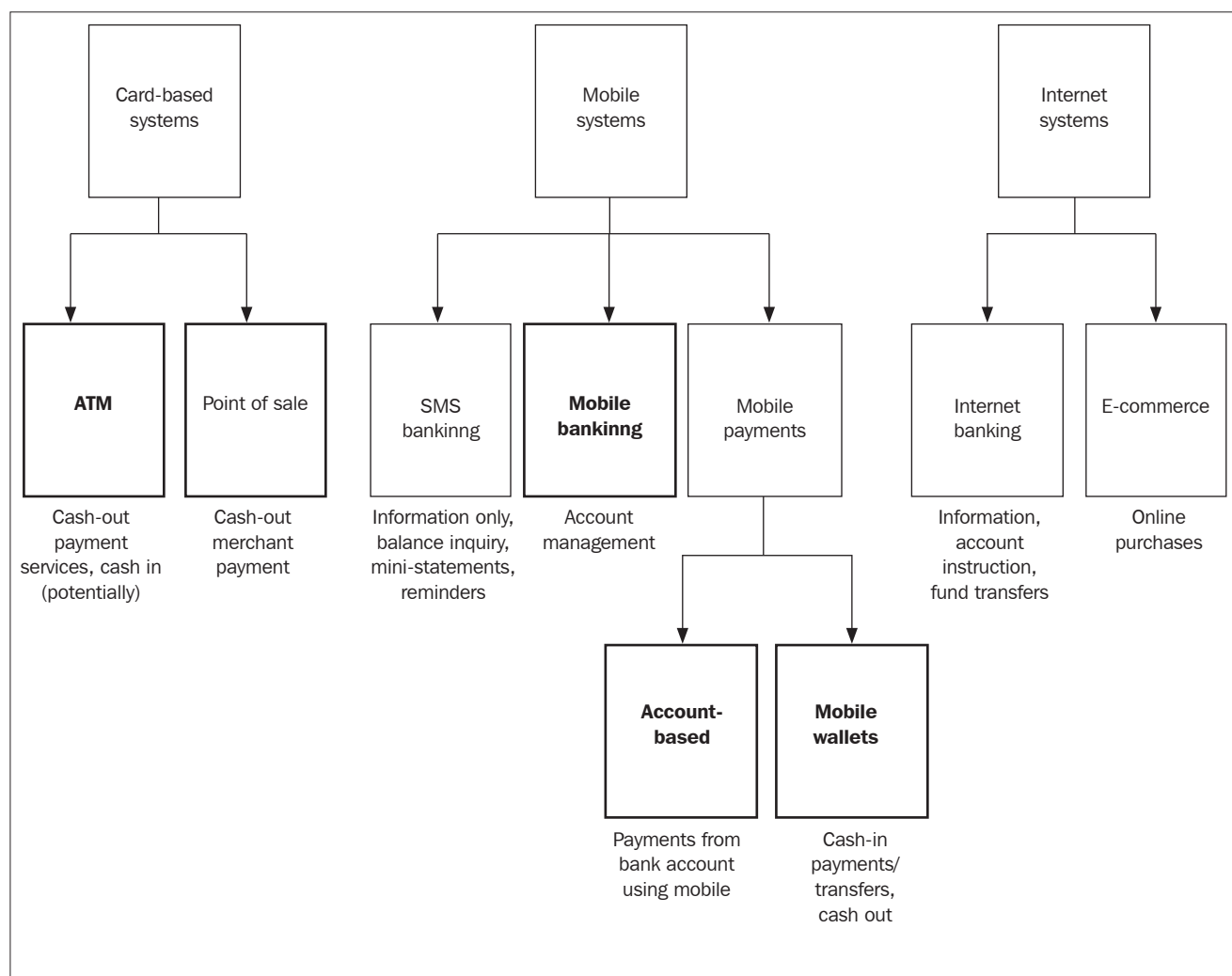
FC = foreign currency, FX = foreign exchange, GDP = gross domestic product, TJS = Tajikistan somoni.

Source: National Bank of Tajikistan (NBT). 2012. 11(208) and 12(209). Dushanbe: NBT. http://www.nbt.tj/en/statistics/stat_bulletin.php.

Appendix 2: Electronic Banking

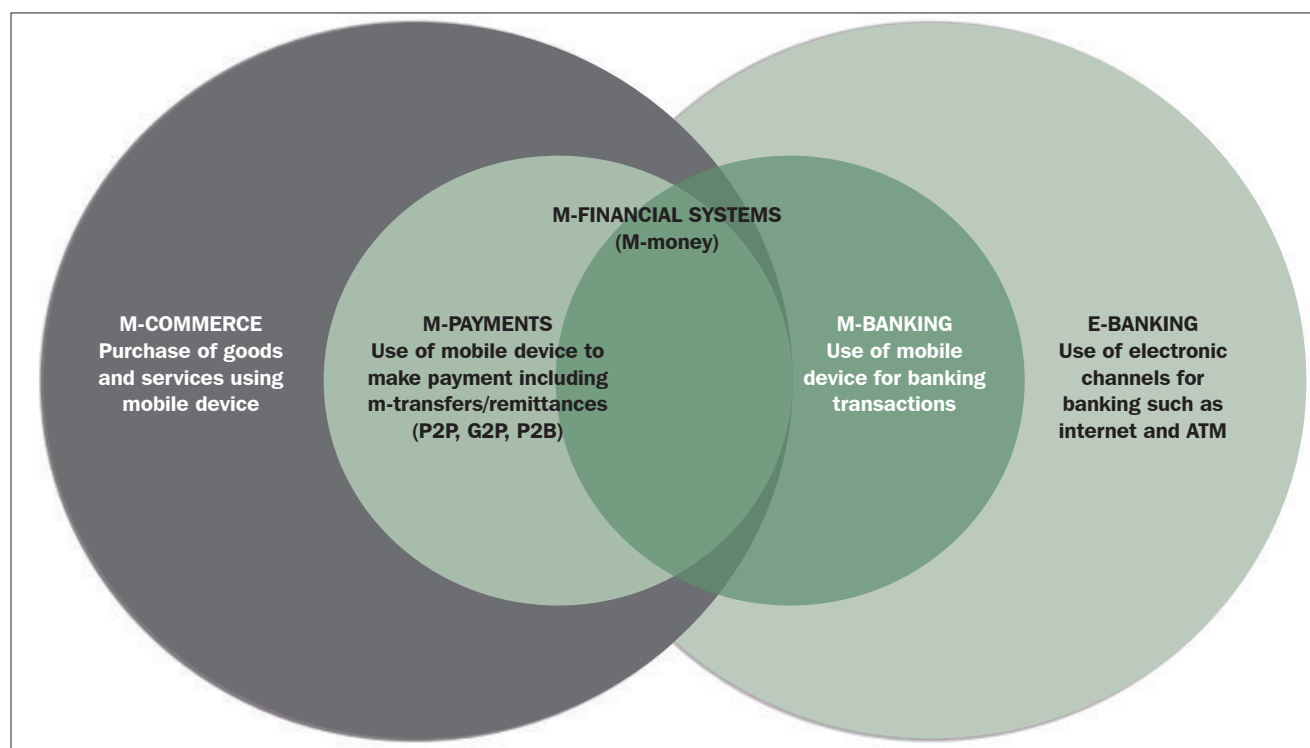
Electronic banking (e-banking) as it pertains to microfinance encompasses several models of service delivery, including the use of plastic cards, mobile phones, or internet channels. Irrespective of the model used, these channels offer significant cost savings over the traditional bricks and mortar branch network used by many financial providers.

Figure A2.1: Electronic Banking Overview



Source: Frankfurt School of Finance & Management.

Figure A2.2: Mobile Financial Systems



Type	Description
Mobile banking	Solution provided by financial institutions to help customers manage their accounts. Typically supports both information and common transactions between bank accounts. Examples: text alerts, balance inquiries, statements, inter-account transfers, check book requests, deposits, loan repayments.
M-payments and/or mobile money transfer	Payment platform that allows subscribers to effect person-to-person, person-to-business, business- to-business, or government-to-person payments to merchants or partners in the payment network. Commonly known as mobile money transfer. M-payments may involve either creation of a new e-money payment instrument or use of an existing bank account. For example, utility payments, merchant purchases, mobile phone top-up, payment of pensions.

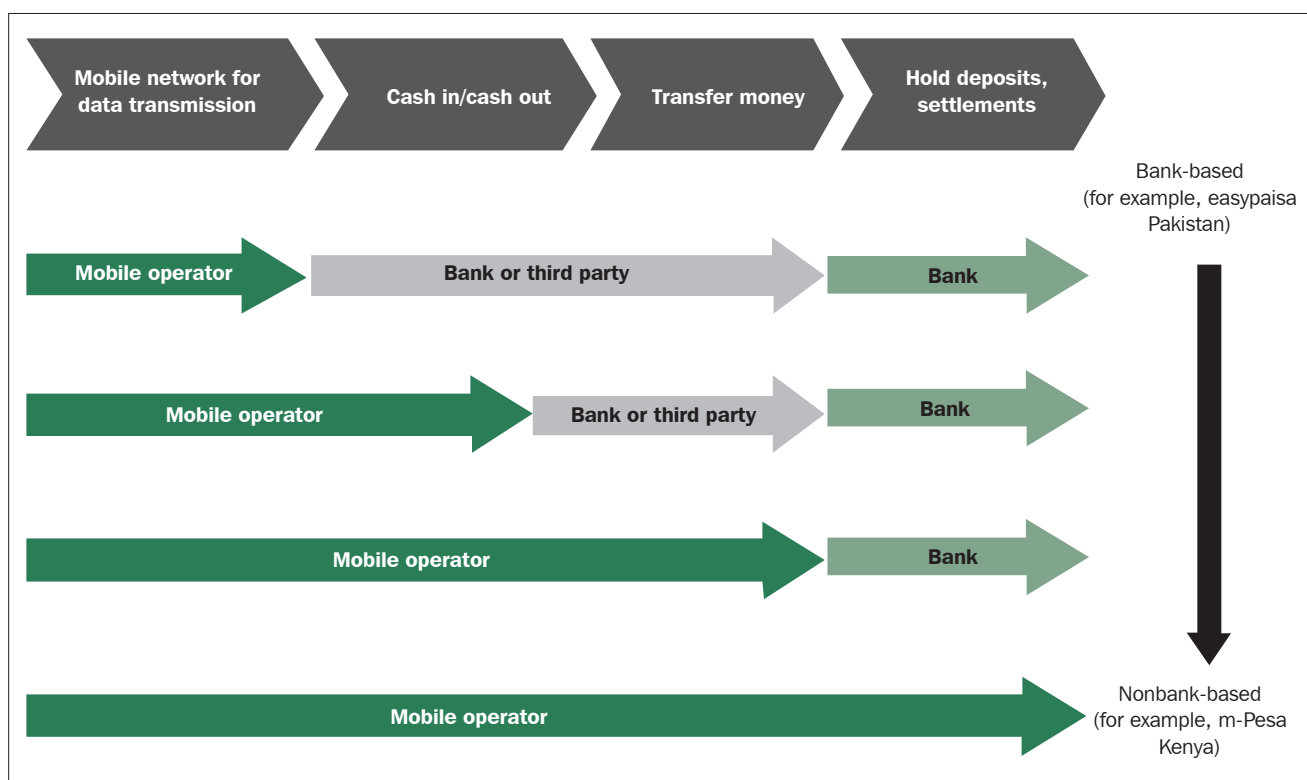
Source: Alliance for Financial Inclusion. November 2010. Mobile Financial Services: Regulatory Approaches to Enable Access.

Development of electronic channels is generally considered part of a wider branchless banking strategy that involves the provision of financial services beyond a banking network through the use of information and communications technologies and nonbank retail agents. The particular technologies employed within branchless banking tend to focus on card and mobile channels, although some internet-based systems can be used where internet penetration is not a limiting factor.

For the microfinance sector—where high-volume, low-value transactions are the norm— electronic payments are particularly well suited and have been shown to save microfinance providers up to 38% on their operational costs, while holding potential to scale five times faster than more traditional financial service channels.¹ Beyond the gains for microfinance providers, electronic payments also benefit the consumer by offering more convenient and affordable services. Such systems also contribute to better management of cash in the economy, reducing the need for cash settlement and allowing banks to more effectively manage liquidity.

¹ Consultative Group to Assist the Poor (CGAP). 2010. Banking the Poor: How Branchless Banking Measures Up. <http://www.cgap.org/p/site/c/template.rc/1.26.14381/>.

Figure A2.3: Mobile Money Transfer Models



Source: mPay Connect Consulting, 2009. MMT APAC presentation.

Mobile financial services

Mobile financial services refers to e-banking channels based on mobile phones as the medium of access. Mobile financial services range in complexity from purely informational (such as SMS alerts) to transactional systems that could replace a traditional bank deposit account (M-payments). Mobile financial services are considered a subset of e-banking channels such as card and internet-based systems.

While mobile banking is considered an extension of banking services, mobile money transfer is seen to hold the largest potential for extending access to financial services to unbanked populations. Mobile money transfer services can be classified based on the type of provider extending the service; either be a bank, a third-party provider or mobile network operator. Early models of mobile money transfer focused on services that were either distinctly bank or nonbank led, but as markets have evolved variations of these two models have emerged involving third parties and partnerships between multiple entities.

Each mobile money transfer model has its unique characteristics, strengths, and weaknesses. While bank-led models adhere best to existing regulatory environments, mobile network operator-led services offer the biggest potential for scale and outreach due to their large subscriber bases, marketing capabilities, agent networks, and experience with high-volume, low-value transactions (such as sale of airtime).² However, many regulators are uncomfortable with the participation of mobile network operators in the banking sector due to the lack of prudential regulation governing these types of providers. To combine the benefits of both models, recent market innovations are using a joint venture or partnership approach between banks, mobile network operator, or third-party payment service providers.

² Gautam Ivatury and Ignacio Mas. 2008. "The Early Experience with Branchless Banking." Consultative Group to Assist the Poor. <http://www.cgap.org/publications/early-experience-branchless-banking>.

Table A2.1 Mobile Money Transfer Provider Comparison

Bank-Led	Mobile Network Operator-Led	Joint Venture and Partnership Approach
<ul style="list-style-type: none"> • Banks must create their own network of cash-in/out agents and/or locations. • Banks must establish their own merchant network to participate in the payment network and must integrate with each entity. • Typically involves a direct link to an existing bank account rather than a mobile-wallet account. • Is independent of a specific mobile phone operator so users can choose how to connect. • Regulated under banking law and provisions for agent and/or branchless banking. • Easy monitoring for government as no “parallel” market is established. • Savings account bear interest. • Additive rather than transformative, since clients using this model already tend to be bank customers. • For example, XacBank (Mongolia), CAIXA (Brazil). 	<ul style="list-style-type: none"> • Mobile network operators launch mobile-wallet services which hold customers’ electronic (e)-money to be used for payments and transfers. • Providers create their own network of agents and merchants for cash in/out and must manage the liquidity of this network. • Services typically tied to the mobile network operator’s network though some countries allow for cross-network services. • Larger multiplier effect as no bank account is needed, only a phone line, and as such is seen as transformative. • Major challenge is navigating the regulatory environment to ensure protection of “deposits” held in wallet accounts. • For example, M-Pesa (Kenya), Mpaisha (Afghanistan). 	<ul style="list-style-type: none"> • Partnerships between mobile network operator, payment service providers, and financial institutions to offer services that use the mobile network operator and/or payment service provider agent network but is rooted in a bank account held by a financial institution. • Agent network operated by mobile network operator and/or payment service provider with optional cash-in/out services available from bank network of ATMs. • May not require storage of e-money in a mobile wallet, but rather uses funds directly from the bank account. • Accounts fully protected by prudential regulation of the partner financial institution. • For example, Telenor and Tameer Bank (Pakistan), Orange and BNP Paribas, and Orascom and Ora Bank.

Sources: Mary Pickens, David Porteous, and Sarah Rotman. 2009. Consultative Group to Assist the Poor. Banking the Poor via G2P Payments. <http://www.cgap.org/publications/banking-poor-g2p-payments>; Frankfurt School of Finance & Management.

The introduction of mobile financial services, and specifically mobile money transfer, has met with varied success across the globe. Some countries have experienced rapid uptake and high success rates (such as M-Pesa in Kenya), while others have struggled.³ Analysis of mobile money transfer initiatives has helped identify critical success factors that should be considered in the design of any mobile money transfer projects, including the following:

- (i) All mobile money transfer services are not equal and must be designed with close consideration of the operating environments in which they will be offered. This includes factors such as market demand, the strengths and weaknesses of existing services, mobile phone penetration, literacy among target populations, and the regulatory environment.
- (ii) Services must be rooted in real needs identified in target populations. These could range from having access to a cost-effective method to remit and receive money, to demand for safe storage of savings, or possibly just a more convenient method for making payments. As an example of this strategy, at M-Pesa in Kenya it was an analysis of the remittance market that identified the need for a safe, affordable, and convenient service. This led to the launch of M-Pesa and its “send money home” slogan. The effort to target this large, domestic remittance market grew from there to the global success it is today.
- (iii) While the technological elements of mobile money transfer are important, especially to ensure high usability, the speed of market uptake is more likely to depend on factors such as user need and behavior rather than technological factors.⁴ This requires a strong investment in consumer training to build trust and knowledge about available services.
- (iv) For mobile money transfer services to succeed, it is imperative they have extensive agent networks that can provide convenient and reliable cash-in/out services. The liquidity management of agents is also crucial to ensuring that clients do not experience limited access to their cash via an agent. Links to other forms of e-banking, such as ATMs can help build access points, especially for cash-out services.

³ M-Pesa has attracted 14 million subscribers, almost half of the population. <http://www.safaricom.co.ke/index.php?id=1073>.

⁴ Spider Center. The Swedish Program for ICT in Developing Regions. www.spidercenter.org.

Table A2.2: Projects Contributing to E-Banking (2009–2012)

Project Title	Country
M-Pesa Integration for Multiple Microfinance Institutions: MicroAfrica, SMEP, Kadet and Opportunity International	Kenya
MTN Mobile Money Integration: VFC, Zambia	Rwanda, Zambia
Digicell Mobile Money Integration for National Bank of Vanuatu	Vanuatu
Design, Development and Launch of M-wallet Solution for Angkor Mikroheranhvatho (Kampuchea) Co. Ltd (AMK)	Cambodia
Mobile Application for Field-Based Data Capture of Group Collection Sheets	South Sudan, Kenya, Uganda
Mobile Banking Integration for Opportunity International Savings and Loans Company	Ghana
Switch Services for Mobikash M-Payment Processor	Kenya
M-payments Integration for Visa Financial Inclusion Project	Rwanda
M-Pesa Scale-Up Support for Tujijenge Tanzania	Tanzania

Source: Software Group BG.

- (v) Building trust in the system is critical, and can only be built by coordinated efforts of all mobile money transfer players, including agents, providers, and regulators.

Appendix 3: Impact of the Proposed Microfinance Law

The focus of comments is on the draft Article 23.3 as it appeared in October 2011. Note also that parliament and the Tajikistan authorities have satisfactorily resolved concerns raised in November 2011.

Impact on Identified Microfinance Institutions

Of the 45 licensed microloan organizations, only 7 satisfy capital requirements set by the National Bank of Tajikistan (NBT).⁵ With 50,000 borrowers and an aggregate loan portfolio of TJS217 million (\$49.5 million), these will be hurt by the proposed legislation. In particular, Article 23.3 of the October 2011 draft states that microloan funds cannot form a joint operation with commercial entities such as microloan organizations and microfinance deposit organizations. The 7 microloan organizations are responsible for 95% of all microloan organization lending. In addition, two microfinance deposit organizations and at least one microloan fund will be affected, as outlined in Tables A3.1, A3.2a, and A3.2b. At the end of 2010, these microfinance institutions held an aggregate loan portfolio of TJS301 million (\$63 million) from 84,000 borrowers, had borrowing (including overseas) liabilities of TJS255 million (\$53 million), and a combined net worth of TJS96 million (\$20 million). The following are comments on individual identified microfinance institutions:

- (i) *Microfinance deposit organization FINCA*
Little impact as there is no microloan fund shareholding.
- (ii) *Microfinance deposit organization Arvand*
Microloan fund shareholding would need to revert to microloan fund status and sell its shares in the microfinance deposit organization to an alternate shareholder. Microloan fund loan portfolio of TJS19.7 million (\$4.5 million) and 6,400 borrowers would be affected.

⁵ National Bank of Tajikistan Report. March 2011.

(iii) *Microloan organization IMON*

The foreign shareholders would still have sufficient capital required to form a microfinance deposit organization but on a much smaller scale of operations. Plans to form a microcredit bank would need to be abandoned. The bulk of IMON (90%) with 26,000 borrowers and a TJS129 million (\$29.5 million) loan portfolio would revert to microloan fund status. Substantial restructuring of foreign borrowing (senior and subordinated loans) would be needed.

(iv) *Microloan organization Humo*

Would need to revert to microloan fund status and drop plans to become a microfinance deposit organization. This would deprive more than 9,000 rural households of access to deposit services (planned for 2013) and mobile banking. Its TJS24 million (\$5.5 million) loan portfolio would be affected.

(v) *Microloan organization OXUS*

Still feasible to become a microfinance deposit organization, but would require 100% foreign shareholding.

(vi) *Microfinance deposit organization Bovari va Hamkori*

Agroinvestbank indicated no desire to purchase and/or takeover Association of Microfinance Organizations in Tajikistan (AMFOT) shareholding in Bovari va Hamkori, and no other commercial organization has shown interest in such a purchase. Bovari va Hamkori would need to revert to microloan fund status and repay loans from Triple Jump (foreign), The First MicroFinanceBank and AccessBank Tajikistan. Repayment would be needed on TJS8 million (\$1.4 million) in loans to 15 microfinance institutions with 80% services in rural areas. These smaller microfinance institutions are unlikely to obtain finance elsewhere.

(vii) *Four microloan organizations: Gender va Tarriqiot, Imkoniyat, Furuz, and Haqiq*

In aggregate these have 4,700 borrowers and TJS9 million (\$2 million) in lending. Would revert to microloan fund status. These are highly unlikely to grow as they have difficulty attracting funds.

(viii) *Microloan fund Borshud*

Already under threat of liquidation due to conflict with a foreign donor and/or shareholder, a change in legislation would make the financial and managerial restructuring of Borshud more difficult and likely result in its collapse. It is highly unlikely that borrowers would repay their loans. A loan portfolio of TJS18 million and 2,000 borrowers would be affected.

Macro-Impact of Proposed Legislation

- (i) The affected microfinance deposit and/or microloan organizations have 66,700 borrowers in total (excluding FINCA), of which 46,000 (70%) live in rural areas. The average loan size is TJS4,200 (\$950). The development of low-cost financial services in rural areas for these borrowers would become more difficult.
- (ii) The climate for foreign investment in microfinance institutions would become highly uncertain, leading to reduced investment.
- (iii) The Tajikistan shareholding of microfinance deposit organization and microloan organizations would be substantially reduced, and taken over by foreign shareholders.
- (iv) At least three microloan organizations with substantial outreach in rural areas (IMON International, Humo and Partners, OXUS Group) would be restricted in offering low-cost and accessible mobile banking services.
- (v) Restrictions on types of services that a microloan fund can provide would slow their growth in outreach of services, encourage commercial institutions to move into their urban market, and encourage poor loan repayment by borrowers who would regard the microloan fund as not financially viable.

Recommendations

Objective of Microfinance: to provide greater outreach of all-inclusive financial services for poor households in rural and urban areas, and for agricultural and other micro and small enterprises.

Implementation:

- (i) Encourage the growth of cost-effective microfinance deposit organizations whose corporate goals fit the above objective. These are generally donor-supported microfinance institutions;
- (ii) License microloan fund and/or microloan organizations as microfinance deposit organizations or banks subject to them having (a) average loan outstanding size per borrower of less than 2.5 times gross domestic product per capita, and (b) 50% of the loan portfolio outside the three largest cities. This would be a category "B" license, subject to compliance with these conditions. All other conditions would be as for microfinance deposit organizations and banks; and
- (iii) Place a time limit on this window to 31 December 2013.

At present, these microfinance institutions are best represented by the five to seven of the larger microloan organizations and two microfinance deposit organizations for the following reasons:

- (i) Operating costs for these microfinance institutions were less than 17% of total assets in 2010 and are declining.
- (ii) They have a good branching network with many agencies and/or subbranches in rural areas.
- (iii) A total of 70% of borrowers are in rural locations.
- (iv) Average size of loan disbursement is around TJS5,000 (\$1,050) compared with TJS13,000 (\$2,700) for banks and urban microfinance deposit organizations.
- (v) Portfolio at risk is less than 4%, much less than for the banking sector and other microfinance institutions.
- (vi) They have reasonable information technology platforms and the capacity for upgrades as needed.
- (vii) They have good governance and internal controls (albeit requiring further improvement).
- (viii) Staff are well trained.
- (ix) They are able to recover costs, which is necessary to ensure financial sustainability.
- (x) A focus on about 10 microfinance institutions (instead of over 120) would reduce NBT supervision costs.
- (xi) Foreign and domestic lenders have shown confidence in the management and repayment capacities of these microfinance institutions, and have indicated continuing support (assuming no change in the legislative and operating environment).

Comments Received Concerning the Proposed Legislation

Excerpts from the Civil Code. The following articles from the Civil Code were quoted by the microfinance institutions in defending their right to maintain business partnerships with microloan funds and organizations and microloan funds and microfinance deposit organization.

Article 130. Public Foundations

- 2. To conduct entrepreneurial activity, foundations have the right to found business companies or to participate in them.

This appears to indicate that a microloan fund can form a business partnership with a microlending credit organization or microfinance deposit organization.

Article 131. Amendment of the Charter and Liquidation of the Public Foundation

1. The charter of the public foundation may be changed by the executive bodies of the foundation if the charter provides the possibility of changing it by such a procedure.

If the preservation of the charter in unchanged form entails consequences that would have been impossible to foresee at the founding of the foundation, and the possibility of changing the charter is not provided in it, or the charter is not changed by the authorized persons, the right of making changes shall belong to a court upon request of executive bodies of the foundation or of the agency authorized to exercise supervision of its activity.

The last clause appears to indicate that the NBT, under the Microfinance Law, can allow microloan funds to change their charter if so needed.

Article 133. Combination of Legal Persons (Associations and Unions)

1. Commercial organizations for the purpose of coordination of their entrepreneurial activity and the representation and defense of common property interests may, by contract among themselves, create combinations in the form of associations (or unions) that are non-commercial organizations.

If by decision of the participants, the conduct of entrepreneurial activity is assigned to an association (or union), such association (or union) shall be transformed into a business company or partnership by the procedure provided by the present Code or it may create a business company for the realization of the entrepreneurial activity or participate in such a company.

This also appears to indicate that a microfinance deposit organization or a microcredit organization can form a business partnership with a microloan fund.

Final Draft Law on Microfinance Organizations (October 2011)

Article 23 section 3 is of major concern. Section 23.4 could be revised.

Article 23. Microcredit Organization and microloan fund activity

- 23.3. Microcredit funds do not have the right to establish commercial organizations, be shareholders or sharers of such organizations.

This has been commented on above.

- 23.4. Administrative and management expenses of a fund should not comprise more than 25% of the total fund assets.

It may be better to state that annual operating costs may not exceed 25% of total assets. This definition would exclude cost of funds, loan loss, and fixed asset purchases. In the above “expenses for purchasing fixed assets” could mean depreciation or loss on eventual sale. Section 4 seems to mix “revenue” items with “capital” items. Furthermore some (microloan funds) may also have social expenses (health and education) that should be excluded from the calculation. It might be better to place Article 23.4 in instructions rather than in the law.

Table A3.1: Financial Position of 11 Microfinance Institutions (31 December 2010)

Name	Financial Position					
	Borrowers (Number)	MLF Share (%)	Total Assets (TJS '000)	Loan Portfolio (TJS '000)	Borrowing (TJS '000)	Net Worth (TJS '000)
1 Arvand	12,281	52	50,434	38,012	38,806	10,299
2 IMON INTERNATIONAL	28,900	90	174,562	143,501	120,067	51,281
3 Humo and Partners	9,340	100	30,027	24,488	19,935	9,191
4 FINCA	17,300	0	36,163	30,839	26,446	6,981
5 OXUS	7,631	0	34,219	31,339	25,025	8,470
6 Bovari v Hamkori	1,540	42	6,106	5,038	1,822	3,497
7 Gender v.Tarriqiot	481	100	n.a.	1,699	n.a.	n.a.
8 Imkoniyat Hovar	2,567	90	7,196	5,513	3,870	3,276
9 Furuz ^a	552	100	2,106	1,067	1,977	45
10 Haqiq ^a	1,419	100	1,838	1,497	338	1,410
11 Borshud	2,054	100	19,273	18,086	16,819	2,205
Total borrowers	84,065					
Total (TJS '000)			361,925	301,078	255,105	96,654
Total (\$ million)			\$82.6	\$68.7	\$58.2	\$22.1

MLF = microloan fund, n.a. = not available.

^a MIX Market data 2207 and 2010.

Source: Financial statements of microfinance institutions as of 30 December 2010.

Table A3.2a: Microloan Funds Following Commercial Divestment

Name	Borrowers (Number)	MLF Share (%)	Total Assets (TJS '000)	Loan Portfolio (TJS '000)	Borrowing (TJS '000)	Net Worth (TJS '000)
1 Arvand	6,386	100	26,226	19,766	20,179	5,355
2 IMON INTERNATIONAL	26,010	100	157,106	129,151	108,061	46,153
3 Humo	9,340	100	30,027	24,488	19,935	9,191
4 FINCA	0	0	0	0	0	0
5 OXUS Group	0	0	0	0	0	0
6 Bovari va Hamkori	651	100	2,580	2,129	770	1,477
7 Gender vaTarriqiot	481	100	n.a.	1,699	n.a.	n.a.
8 Imkoniyat Hovar	2,310	100	6,476	4,962	3,483	2,948
9 Furuz	552	100	2,106	1,067	1,977	45
10 Haqiq	1,419	100	1,838	1,497	338	1,410
11 Borshud	2,054	100	19,273	18,086	16,819	2,205
Total borrowers	49,203					
Total (TJS '000)			245,632	202,843	171,562	68,785
Total (\$ million)			\$56.1	\$46.3	\$39.2	\$15.7

Sources: Financial statements of microfinance institutions as of 30 December 2010 and estimates of the Frankfurt School of Finance & Management.

Table A3.2b: Remaining Balance in MDO Legal Format Following MLF Divestment

	Name	Borrowers (Number)	Total Assets (TJS '000)	Loan Portfolio (TJS '000)	Borrowing (TJS '000)	Net Worth (TJS '000)
1	Arvand	5,895	24,209	18,246	18,627	4,943
2	IMON INTERNATIONAL	2,890	17,456	14,350	12,007	5,128
3	Humo and Partners	0	0	0	0	0
4	FINCA	17,300	36,163	30,839	26,446	6,981
5	OXUS Group	7,631	34,219	31,339	25,025	8,470
6	Bovari va Hamkori	0	0	0	0	0
7	Gender va Tarriqiot	0	0	0	0	0
8	Imkoniyat Hovar	0	0	0	0	0
9	Furuz	0	0	0	0	0
10	Haqiq	0	0	0	0	0
11	Borshud	0	0	0	0	0
	Total borrowers	33,716				
	Total (TJS '000)		112,047	94,774	82,104	25,523
	Total (\$ million)		\$25.6	\$21.6	\$18.7	\$5.8

Sources: Financial statements of microfinance institutions as of 30 December 2010 and estimates of the Frankfurt School of Finance & Management.

Appendix 4: Microfinance Institution Growth and Financing Options

Table A4.1: Financial Projections Based on Five Large Microfinance Institutions (\$): No Deposit-Taking

Balance Sheets		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assets												
Cash/equivalents/deposits		7,428,459	9,128,149	9,299,782	9,487,497	9,692,098	9,914,429	10,155,377	10,565,871	10,996,891	11,449,462	11,924,661
Loans outstanding		61,228,194	64,289,603	67,504,083	70,879,288	74,423,252	78,144,415	82,051,635	86,154,217	90,461,928	94,985,024	99,734,276
Fixed/other assets		7,044,310	9,004,816	9,739,831	10,504,097	11,299,076	12,126,303	12,987,392	13,734,036	14,518,012	15,341,186	16,205,520
Total assets		75,700,963	82,422,568	86,543,697	90,870,882	95,414,426	100,185,147	105,194,404	110,454,124	115,976,831	121,775,672	127,864,456
Liabilities												
Deposits		173,236	173,236	173,236	173,236	173,236	173,236	173,236	173,236	173,236	173,236	173,236
Borrowing		54,008,944	58,620,524	59,661,719	60,804,974	62,055,391	63,418,329	64,899,414	67,504,554	70,239,950	73,112,116	76,127,891
Other liabilities		1,833,306	2,060,564	2,163,592	2,271,772	2,385,361	2,504,629	2,629,860	2,761,353	2,899,421	3,044,392	3,196,611
Total liabilities		56,015,485	60,854,324	61,998,547	63,249,981	64,613,987	66,096,193	67,702,510	70,439,142	73,312,606	76,329,744	79,497,738
Net worth												
Share capital/reserves		16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192
Retained earnings		3,345,286	5,228,052	8,204,958	11,280,708	14,460,246	17,748,761	21,151,702	23,674,790	26,324,032	29,105,736	32,026,526
Total net worth		19,685,478	21,568,244	24,545,150	27,620,900	30,800,438	34,088,953	37,491,894	40,014,982	42,664,224	45,445,928	48,366,718
Total liabilities and net worth		75,700,963	82,422,568	86,543,697	90,870,882	95,414,426	100,185,147	105,194,404	110,454,124	115,976,831	121,775,672	127,864,456
Parameters												
Loan growth rate (%)		5.0										
Loans/total assets (%)		78										
Deposit growth rate (%)		0	+	0.0%	increased loans							
Profit retention average loan portfolio (%)		3										
Liquidity/liabilities (%)		15										
Other liabilities/total assets (%)		2.5										
Financial ratios												
Capital adequacy ratio	%	28.8	29.4	31.8	33.9	35.9	37.8	39.4	40.1	40.6	41.2	41.7
Loans out/total assets	%	80.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Liquidity	%	13.3	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Return on equity	%	15.0	9.1	12.9	11.8	10.9	10.1	9.5	6.5	6.4	6.3	6.2
Loans out/formal borrowing ratio	ratio	1.13	1.10	1.13	1.17	1.20	1.23	1.26	1.28	1.29	1.30	1.31
Loan to deposit ratio		353	371	390	409	430	451	474	497	522	548.3	575.7
Total borrowers	no.	76,000	87,832	89,537	91,276	93,048	94,855	96,697	98,574	100,488	102,440	104,429
Staff	no.	1,520	1,634	1,550	1,469	1,393	1,321	1,253	1,188	1,127	1,069	1,013
Borrowers/staff	no.	50	54	58	62	67	72	77	83	89	96	103
Average loan size: annual growth =	3.0%	711	732	754	777	800	824	849	874	900	927	955

Note: Green shading includes variables.

Sources: Financial statements of microfinance institutions as of 30 December 2010 and estimates of the Frankfurt School of Finance & Management.

Table A4.2: Financial Projections Based on Five Large Microfinance Institutions (\$): Low Deposit-Taking

Balance Sheets		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assets												
Cash/equivalents/deposits		7,428,459	9,419,071	9,911,104	10,451,289	11,043,238	11,690,833	12,398,248	13,319,969	14,310,820	15,375,984	16,521,035
Loans outstanding		61,228,194	65,820,308	70,756,831	76,063,594	81,768,363	87,900,990	94,493,565	101,580,582	109,199,126	117,389,060	126,193,239
Fixed/other assets		7,044,310	9,145,631	10,045,951	11,002,545	12,019,634	13,101,754	14,253,783	15,330,964	16,488,934	17,733,751	19,071,930
Total assets		75,700,963	84,385,010	90,713,886	97,517,428	104,831,235	112,693,577	121,145,596	130,231,515	139,998,879	150,498,795	161,786,204
Liabilities												
Deposits		173,236	988,542	2,025,460	3,332,701	4,969,052	7,005,409	9,527,229	12,637,467	16,460,113	21,144,425	26,870,020
Borrowing		54,008,944	59,695,638	61,780,717	63,904,622	66,031,754	68,116,141	70,099,121	72,906,541	75,445,379	77,599,663	79,225,558
Other liabilities		1,833,306	2,109,625	2,267,847	2,437,936	2,620,781	2,817,339	3,028,640	3,255,788	3,499,972	3,762,470	4,044,655
Total liabilities		56,015,485	62,793,805	66,074,024	69,675,259	73,621,587	77,938,889	82,654,989	88,799,797	95,405,465	102,506,558	110,140,233
Net worth		16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192
Share capital/reserves		3,345,286	5,251,013	8,299,670	11,501,977	14,869,456	18,414,496	22,150,414	25,091,527	28,253,222	31,652,045	35,305,780
Retained earnings		19,685,478	21,591,205	24,639,862	27,842,169	31,209,648	34,754,688	38,490,606	41,431,719	44,593,414	47,992,237	51,645,972
Total net worth		75,700,963	84,385,010	90,713,886	97,517,428	104,831,235	112,693,577	121,145,596	130,231,515	139,998,879	150,498,795	161,786,204
Parameters												
Loan growth rate (%)	7.5											
Loans/total assets (%)	78											
Deposit growth rate (%)	20	+	17.0%	increased loans								
Profit retention % average loan portfolio	3											
Liquidity/liabilities (%)	15											
Other liabilities/total assets (%)	2.5											
Financial ratios		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Capital adequacy ratio	%	28.8	28.8	30.5	32.0	33.3	34.4	35.4	35.4	35.5	35.5	35.6
Loans out/total assets	%	80.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Liquidity	%	13.3	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Return on equity	%	15.0	9.2	13.2	12.2	11.4	10.7	10.2	7.4	7.4	7.3	7.3
Loans out/total borrowing	ratio	1.13	1.10	1.15	1.19	1.24	1.29	1.35	1.39	1.45	1.51	1.59
Loan to deposit ratio		353	67	35	23	16	13	10	8	7	5.6	4.7
Total borrowers	No.	76,000	89,923	93,852	97,952	102,231	106,698	111,359	116,225	121,302	126,602	132,133
Staff	No.	1,520	1,673	1,624	1,577	1,531	1,486	1,443	1,401	1,360	1,321	1,282
Borrowers/staff	No.	50	54	58	62	67	72	77	83	89	96	103
Average loan size: annual growth =	3.0%	711	732	754	777	800	824	849	874	900	927	955

Note: Green shading includes variables.

Source: Financial statements of microfinance institutions as of 30 December 2010 and estimates of the Frankfurt School of Finance & Management.

Table A4.3: Financial Projections Based on 5 Large Microfinance Institutions (\$): Moderate Deposit-Taking

Balance Sheets		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Assets												
Cash/equivalents/deposits		7,428,459	9,709,993	10,536,971	11,461,647	12,493,791	13,644,149	14,924,543	16,497,976	18,228,753	20,132,607	22,226,847
Loans outstanding		61,228,194	67,351,013	74,086,114	81,494,726	89,644,198	98,608,618	108,469,480	119,316,428	131,248,071	144,372,878	158,810,165
Fixed/other assets		7,044,310	9,286,447	10,359,112	11,524,044	12,790,470	14,168,538	15,669,413	17,155,375	18,789,934	20,587,948	22,565,764
Total assets		75,700,963	86,347,452	94,982,198	104,480,417	114,928,459	126,421,305	139,063,436	152,969,779	168,266,757	185,093,433	203,602,776
Liabilities												
Deposits		173,236	1,248,762	2,643,482	4,431,642	6,703,381	9,568,008	13,157,956	17,633,529	23,188,614	30,057,554	38,523,403
Borrowing		54,008,944	61,325,839	65,228,439	69,367,330	73,715,348	78,232,453	82,862,411	88,528,735	94,129,736	99,532,490	104,565,505
Other liabilities		1,833,306	2,158,686	2,374,555	2,612,010	2,873,211	3,160,533	3,476,586	3,824,244	4,206,669	4,627,336	5,090,069
Total liabilities		56,015,485	64,733,287	70,246,475	76,410,982	83,291,940	90,960,994	99,496,953	109,986,508	121,525,018	134,217,380	148,178,978
Net worth:												
Share capital/reserves		16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192	16,340,192
Retained earnings		3,345,286	5,273,974	8,395,531	11,729,243	15,296,327	19,120,119	23,226,291	26,643,079	30,401,547	34,535,861	39,083,607
Total net worth		19,685,478	21,614,166	24,735,723	28,069,435	31,636,519	35,460,311	39,566,483	42,983,271	46,741,739	50,876,053	55,423,799
Total liabilities and net worth		75,700,963	86,347,452	94,982,198	104,480,417	114,928,459	126,421,305	139,063,436	152,969,779	168,266,757	185,093,433	203,602,776
Parameters												
Loan growth rate (%)	10.0											
Loans/total assets (%)	78											
Deposit growth rate (%)	20	+	17.0%	increased loans								
Profit retention % average loan portfolio	3											
Liquidity/liabilities (%)	15											
Other liabilities/total assets (%)	2.5											
Financial Ratios												
Capital adequacy ratio	%	28.8	28.2	29.3	30.2	30.9	31.4	31.9	31.5	31.2	30.8	30.6
Loans out/total assets	%	80.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Liquidity	%	13.3	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Return on equity	%	15.0	9.3	13.5	12.6	11.9	11.4	10.9	8.3	8.4	8.5	8.6
Loans out/total borrowing	ratio	1.13	1.10	1.14	1.17	1.22	1.26	1.31	1.35	1.39	1.45	1.52
Loan to deposit ratio		353	54	28	18	13	10	8	7	6	4.8	4.1
Total borrowers	No.	76,000	92,014	98,268	104,946	112,078	119,695	127,830	136,517	145,795	155,704	166,285
Staff	No.	1,520	1,712	1,701	1,690	1,678	1,667	1,657	1,646	1,635	1,624	1,614
Borrowers/staff	No.	50	54	58	62	67	72	77	83	89	96	103
Average loan size: annual growth =	3.0%	711	732	754	777	800	824	849	874	900	927	955

Note: Green shading includes variables.

Sources: Financial statements of microfinance institutions as of 30 December 2010 and estimates from the Frankfurt School of Finance & Management.

Appendix 5: Draft Design and Monitoring Framework—Tajikistan

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Increased private sector-led economic growth	Within 5 years: <ul style="list-style-type: none"> Real GDP/capita growth average > 5% per year Employment increase exceeds population growth 	<ul style="list-style-type: none"> National statistical data 	Assumptions <ul style="list-style-type: none"> Stable economic environment Steady improvement in physical infrastructure and access to markets
Outcome Increase in population with access to attractive and affordable financial services	Within 5 years: <ul style="list-style-type: none"> Deposits of participatory MDOs > 15% loan portfolio Participatory banks loan-to-deposit ratio < 1 PAR 30 of banks < 10% Bank credit > 20% GDP in 5 years, > 25% GDP in 10 years. > 35% of households accessing financial services 	<ul style="list-style-type: none"> NBT reports Reports from participating financial institutions, including audited financial statements 	Assumptions <ul style="list-style-type: none"> Low variance in depreciation of the somoni and low inflation rates NBT effective in financial institution supervision and controls Risk Classified loans of banks remain high
Outputs 1. E-banking incorporated into the banking sector	<ul style="list-style-type: none"> Complete analysis and road map covering services and regulations Carry out pilots to (i) develop e-banking in MDOs, (ii) strengthen information technology platforms, (iii) test service delivery systems, (iv) ensure inter-operability of card with mobile systems Improve/extend (i) G2P, (ii) linking remittances to Eshkhat Bank, (iii) use of solar power for financial transmissions and ATMs Develop and provide training to (i) > 50 regulators, (ii) > 600 financial institution staff, and financial literacy support reaching > 300,000 consumers (about 35% of households) 	<ul style="list-style-type: none"> Consultant report Reports from each participating financial institution and mobile network operator Reports from each participating financial institution NBT reports Reports from each participating financial institution 	Assumptions Consumers will utilize e-banking if it is made available Risks Appropriate legislation and/or regulations passed by government
2. NBT staff apply enhanced supervisory and monitoring methodology	<ul style="list-style-type: none"> Consolidated financial statements shown for MDOs and MLFs Number of borrowers, depositors, financial institution staff shown Physical and financial data disaggregated by gender MDO and/or MLFs publicly display financial service costs All NBT supervisory staff trained in risk-based assessments Liquidation of MLFs proceeds without disruption to microfinance sector 	<ul style="list-style-type: none"> NBT monthly bulletins and reports. 	Assumption Appropriate set of microfinance institution regulations and/or instructions set and enforced Risk NBT lacks funds for proper supervision and monitoring

G2P = government to person, GDP = gross domestic product, MDO = microfinance deposit organization; MLF = microloan fund; NBT = National Bank of Tajikistan.
Sources: Asian Development Bank and the Frankfurt School of Finance & Management.