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**TURKEY**  
**Rural Finance Study**

**(In Two Volumes) Volume I: Main Report**

**May 2006**

Environmentally and Socially Sustainable Development Sector Unit  
Europe and Central Asia Region

## **Currency and Equivalent Units**

(Exchange Rate Effective as of April 28, 2006)  
Currency Unit = NEW TURKISH LIRA (NTL)  
US\$1.00 = 1.322 NTL (=1,322,000 TL)

## **Fiscal Year**

January 1 to December 31

## ***ACRONYMS AND ABBREVIATIONS***

|           |  |
|-----------|--|
| ACC       | Agricultural Credit Cooperative                                      |
| ARIP      | Agriculture Reform Implementation Project                            |
| ASC       | Agricultural Sales Cooperatives                                      |
| ASCU      | Agricultural Sales Cooperative Union                                 |
| ATM       | Automatic Teller Machines  |
| BANSEFI   | National Savings and Financial Services Bank (Mexico)                |
| BRI       | Bank Rakyat Indonesia  |
| BRSA      | Banking Regulation and Supervision Agency                            |
| CEE       | Central and Eastern Europe   |
| DIE (SIS) | State Institute of Statistics  |
| DIS       | Direct Income Support  |
| DSI       | State Hydraulic and Waterworks Organization                          |
| EU        | European Union   |
| FAO       | Food and Agriculture Organization                                    |
| FM        | Financial Module   |
| GDP       | Gross Domestic Product   |
| GOT       | Government of Turkey   |
| KOSGEB    | Small and Medium Industry Development Organization                   |
| MARA      | Ministry of Agriculture and Rural Affairs                            |
| MFI       | Micro-Finance Institution  |
| MIT       | Ministry of Industry and Trade                                       |
| MOF       | Ministry of Finance  |
| NGO       | Non-Government Organization  |
| NTL       | New Turkish Lira   |
| PPP       | Purchasing Power Parity  |
| QHS       | Quantitative Household Survey  |
| SAGARPA   | Secretariat of Agriculture, Rural Development and Nutrition (Mexico) |
| SDIF      | Savings and Deposits Insurance Fund                                  |
| SME       | Small and Medium Enterprise  |
| SOE       | State-Owned Enterprise   |
| SPO       | State Planning Organization  |
| TESKOMB   | Union of Tradesmen and Artisans Credit and Guarantee Cooperatives    |
| TKGM      | General Directorate of Land Registration and Cadastre                |
| TL        | Turkish Lira   |
| TOBB      | Union of Chambers and Commodity Exchanges of Turkey                  |

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Chapter 1 – Financial Sector Development in Turkey

Chapter 2 – Regional Structure of Financial Markets

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## Executive Summary

### Introduction

1. Over the past five years in Turkey, the agricultural and rural sector has seen substantial change in transfer policies which now place greater emphasis on improved equity and investment. These have been summarized in the earlier World Bank “Review of the Impact of the Reform of Agricultural Sector Subsidization (2004), and “Policy and Investment Priorities for Agricultural and Rural Development” (2005). Currently, the structural changes in the agricultural sector and rural employment generation in response to labor shedding in the agricultural sector are key challenges to which Turkey is responding in the design of an agricultural and rural development strategy. However, the impact of government transfers and public investment policies in the rural sector will be limited unless the supply of, access to, and demand for rural financial services is significantly increased.

2. For these reasons, the Turkey Rural Finance study (RFS) seeks to establish a policy agenda for the Government of Turkey (GOT) in order to contribute to the effort of renewed growth of the rural financial system after a period of prolonged decline. In order to inform this policy agenda, the study also has aimed at portraying the situation of rural financial markets in Turkey and determining the factors influencing the use of financial services by rural households and the constraints affecting the availability of financial services in rural areas. The findings and measures recommended by this study are also important for Turkey’s on-going rural sector dialogue with the European Commission (EC), as increased access of small rural enterprises to financial services is desired for improved absorption by these enterprises of EC funding under the Instrument for Pre-Accession programs in rural areas.

3. The findings of the RFS, based on two surveys of rural households and financial intermediaries carried out in 2004 and on other financial data compiled in 2005, reveal that rural financial markets perform relatively poorly, leading to low incidences in the use of financial services by rural households and therefore limiting their ability to take advantage of growth opportunities and/or accumulation of assets. For example while the agricultural sector accounts for roughly 10-15 percent of GDP, it receives only 5 percent of all bank loans. Based on the survey of rural households, over 70 percent of rural households were found to be credit constrained, and only 9 percent of surveyed rural households reported making investment outlays in 2004.

4. This poor performance is caused by a combination of factors, including high interest rates, significant price and output variability in the agricultural sector, poor credit supply given uncertainty about potential government interventions and policies, and high transactions owing to an inadequate legal and institutional framework. The RFS examines these and other constraints to development of rural financial services and proposes a financial system approach to enhancing the sustainable access to a wide range of financial services. This approach combines a number of policies at the macroeconomic, legal and regulatory levels and a continued shift in government

interventions, from subsidized interest rates and debt forgiveness to institution/capacity building strategies at the financial and real sector levels. These recommendations are introduced in this Executive Summary, summarized in the Matrix of Policy and Operational Measures for Improved Rural Finance (at the end of the Executive Summary), and discussed in detail in the text of the Main Report which follows.

5. Given the long history of subsidized rural credit in Turkey and the significant variability of agricultural output and prices, rural households are particularly averse to high interest rates. Thus, reducing the base level of real interest rates will be a crucial factor in expanding the demand for rural finance. In turn, the continuation of improved macroeconomic performance by the Government of Turkey (GOT), in the areas of reduced inflation and increased growth and employment, will likely be the most important factor in keeping real interest rates low and generally increasing the attraction by banks to the expansion of their lending and other financial services.

6. The second most important area affecting both supply and demand of financial services to the rural sector will be to achieve risk reduction in the agricultural sector. In order to achieve risk reduction and competitiveness of the agricultural sector, the GOT also needs to rationalize the irrigation investment portfolio, promote crop insurance (or establish weather index based insurance systems), and implement a widespread warehouse receipts program. Moreover, the GOT could assist farmers' organizations to step up in delivering training to farmers on business and financial education, improved farm management, orientation to market information, project analysis and elementary business plan elaboration, as well as diversification into small rural enterprises and use of financial services. Such training programs could be based partially on the successful experiences of similar programs in other countries (noted in the main text of the RFS).

7. In terms of government policies particularly for rural finance, the GOT should first refrain from granting subsidized credits and frequent debt write-offs (and/or debt restructuring) for agricultural creditors. Secondly, the GOT could continue to support the Agricultural Credit Cooperatives in developing and implementing a multi-phase restructuring strategy. This strategy would consist of a sequence of initiatives addressing issues such as the long-term financing of the ACCs, the strengthening of governance through a transformation of the capital and a decentralization of the decision making process, and investments in capacity-building, including a new technology platform for improved transparency and the introduction of a wider range of services for an increasingly demanding client base. Thirdly, the GOT could consider technical assistance and transaction cost subsidies to interested banks and non-bank financial institutions for delivering rural financial services as well as start up capital grants to MF institutions.

8. Changes to the legal and institutional framework for the financial sector will also need to be made, particularly to collateral, bankruptcy, and MF laws, as well as improvements to the credit registry system. In addition, further strengthening of banks and upgrading BRSA's supervisory practices are other key measures that need to be carried out if a healthier financial system is to be fostered.

## **Rural Households' Credit Use, Other Financial Services, and Investment Behavior**

9. **Turkey suffers from a surprisingly low level of financial sector development in general and this status is most extreme in rural areas and in the eastern part of the country.** This problem stems partly from severe cycles of macro-economic instability but also from aspects of the business and institutional environment which are unfavorable for financial sector development (e.g., legal rights of borrowers and creditors). After the financial crises in 2001, the result was closure and merger of many banks and pruning of their portfolios. Subsidized credit programs were discontinued, including those for rural credit handled mainly by Ziraat Bank and the Agricultural Credit Cooperatives (ACCs), which depended on Ziraat for much of their loanable funds. From 2000 to 2004, the agricultural portfolios of these institutions combined fell by more than half to roughly US\$1.5 billion. Since the subsequent expansion of commercial (non-subsidized) rural financial service provision has been slower than expected in 2003-2005, the 2001 financial crisis and subsequent banking sector reforms of 2001-2002 have resulted in a substantial reduction in the flow of credit to rural and agricultural areas.

10. **The results of the financial survey covering 4000 rural households reveal the very limited provision of credit and other financial services in rural areas.** Only as few as 37 percent of farmers have ever borrowed on any occasion from any type of lender (including informal providers). In terms of other financial services, the situation is more severe: only 11 percent of households had any type of financial assets and about 8 percent report having an account with banks in 2004. Regarding insurance, rural households cited limited knowledge of the availability of formal insurance services (27 percent) and only a small fraction (11 percent) reported having any type of insurance services. Crop and livestock insurance is barely used (0.5-1 percent).

11. **The majority of rural households are credit constrained.** Over 70 percent of households surveyed are credit constrained<sup>1</sup>. Over the course of 2003-2004, only 18 percent of the households requested loans and most households (42 percent) report not applying because of high interest rates and fees and others (20 percent) were reluctant to apply because they see borrowing as very risky. Some households cite problems with collateral and lack of formal savings. Only about 20 percent of households did not request loans because they do not have demand for loans (citing that they are not entrepreneurs or do not see investment opportunities).

12. **Households are limited in taking advantage of investments.** Examining the proportion of rural households that undertook any investment in capital goods (equipment, vehicles, and real estate properties) in recent years and the value of investment show that a considerably small number of rural households (9 percent) made investment outlays in the previous year. However, receiving technical assistance increases the chances of investing, and having any type of financial savings or insurance products is strongly associated with the incidence and size of investment. Households that received Direct Income Support payments are also more likely to invest. Rural

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<sup>1</sup> Households who demand loans but for several reasons did not apply for a loan or households who applied but got rejected

households receiving credit, such as loans or supplier credit, are more likely to invest and invest larger amounts than those not receiving credit. Based on estimated regression results, when credit constraints are removed, the share of rural households making investments would rise by almost 50 percent (an additional 4 percent of rural households measured against the base of roughly 9 percent of rural households that are currently investing on an annual basis). Similarly, aggregate investment outlays would be almost 40 percent higher if all credit constrained rural households were able to receive loans.

*Policy Recommendations:*

13. **Given the significantly negative impact of high interest rates on rural households' willingness to borrow, maintaining the improved macro-economic performance of the past few years (in terms of reduced inflation and public sector deficits) will be crucial if the depth of the rural finance system is to be increased.** By helping to keep real interest rates down below 10 percent, the GOT's maintenance of improved macro-economic performance is likely the most important factor that will affect rural borrowing in the short to medium-term. However, this may be hard to achieve due to the potential need to raise domestic interest rates to reflect international developments and avoid excessively rapid domestic consumer and investment growth..

14. **Given Turkey's low rankings on the costs of creating and executing the seizure of collateral, improvements in the judicial system to improve legal rights of borrowers and creditors through collateral and bankruptcy law are an important step for the medium term.** For an efficient system improved loan recovery and contract enforcement as well as removing regulatory impediments to broadening the range of collateral will have to be made by the Ministry of Justice. The collateral system should also be improved by the Turkish Cadastre and Registration General Directorate (TKGM) through modernizing land titling and registration systems by completing the real estate cadastre, automating cadastral offices, and developing a property valuation system.

15. **Improvements to the credit registry system are also needed for expanding the scope of credit information in the public credit registry and private bureaus from all credit providers.** The registry could include data from leasing companies, business associations (e.g., TOBB and TESKOMB), farmers organizations such as ACCs and Agricultural Sales Cooperative Unions (ASCUs), and utility companies. Central Bank, credit bureaus, credit providers as well as the mentioned NGOs have to coordinate this process. This is one of the areas where the World Bank can provide assistance.

16. **Another area of intervention needed is training to boost levels of business and financial education.** This needs to be focused on improved farm management, orientation to market information, project analysis and elementary business plan elaboration, diversification into small rural enterprises, and use of financial services. Since rural households' access to social capital networks is positively correlated with the higher use of financial services (both in the household analysis done under the RFS and in studies of rural finance in other countries), one of the most important avenues for the provision of business and financial education will be farmers organizations, particularly



the regional branches of agricultural and village development cooperatives. The time is right for this type of step by regional farmers organizations, as many of them have recognized that the long-term strengthening of their clients depends on human capital development, not the allocation of subsidized credit programs as in the past.<sup>2</sup> This is another area where the World Bank can assist the Ministry of Agriculture and Rural Affairs (MARA) and farmers' organizations in developing such training.

**17. Greater risk reduction (and improved competitiveness) can boost rural credit intermediation and be achieved through the following measures:** The first is to rationalize the irrigation sector investment portfolio to accelerate completion of initiated irrigation schemes down to the farm level through adjusting the mix of investment spending away from dams and head-works. This has to be accomplished together with the State Planning Organization (SPO), MARA and the State Hydraulics Agency (DSI). The second task is to reduce the exposure of farmers to high seasonality of price fluctuations for major crops by mainstreaming the nascent practice of warehouse receipts<sup>3</sup>. The Ministry of Industry and Trade (MIT) has been dealing with this area over the two years and currently needs to accelerate this mainstreaming. The third main instrument for risk reduction is through mitigating farmer's exposure to catastrophic crop failures by promoting crop insurance or weather index based insurance programs, the principles of which were approved in the 2004 Law on Crop Insurance. Since these are the areas which the GOT is currently targeting in its agricultural development strategy, there will soon be a stronger foundation for risk reduction and risk mitigation in rural areas. This will in the medium term reduce farmers' risk aversion to borrowing, and improve lenders' (both formal and informal) perception of rural clients' risk profiles.

**18. Other measures rather than targeted credit are needed for underdeveloped regions.** Low income can make rural finance interventions particularly unsustainable in certain areas. In such regions the focus should be initially on increasing income and employment. This can be best achieved by supporting cultivation of higher value crops, off-farm activities, market infrastructure development, employment generation through public works, grants for small investments as well as MF activities. MARA, farmers' organizations, and MF institutions can play important roles in this area.

### **Commercial Banks:**

19. The Turkish banking system, though sizeable with 47 institutions, 6,200 branches and 133,000 employees, has considerably low assets, totaling less than US \$300 billion in 2005. More than half of the assets and 68 percent of the loans are held by Turkish

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<sup>2</sup> This initiative for institutional reinforcement of farmers organizations has been launched recently by MARA and is strongly oriented to rural business skill development.

<sup>3</sup> By storing their commodities with licensed warehouses and being issued a tradable warehouse receipt, they will be better able to manage the risk of price fluctuations since they will acquire greater opportunity to time their sales on commodity markets without losing access to working capital while they wait for post-harvest price troughs to dissipate. The recent (2005) Law on Licensed Warehouses for Agricultural Commodities has laid the foundation the mainstreaming of warehouse receipts financing. Grade specifications to international standards for wheat and cotton under a World Bank project have been developed under the World Bank's Commodity Exchanges Project.

privately owned commercial banks. Still, state owned banks have a strong presence, accounting for approximately 32 percent of the assets and 21 percent of the loans.

20. **Turkish banks' aversion to providing credit is a general phenomenon that is not limited to rural borrowers only.** Due to its sizeable budget deficits and borrowing requirements, the GOT has crowded out private borrowers: the ratio of private credit to GDP was only 15 percent in 2004 and 16 percent in 2005.<sup>4</sup> Over 35 percent of bank assets are government-issued securities and 33 percent are loans. Moreover, only 3 percent of banking sector loans is for long-term investment. Basically, banks have heavily invested in government paper due to high returns, and their loans are mainly for very high return short-term credits. Therefore, consumer credits have been growing rapidly over the last years.

21. **Private banks are reluctant to move more into rural lending in part owing to past government interventions.** Previously the GOT highly subsidized rural credits through Ziraat Bank and the ACCs and created unfair competition between state banks and private banks. Also frequent debt write-offs and debt-restructurings made farmers' repayment habits much worse. The GOT removed the large subsidized directed lending programs in 2002, but has not completely convinced private banks that it will not resort to such programs in the future<sup>5</sup>.

22. According to the RFS findings, private banks together account for about 6 percent of the loan funds taken by rural borrowers, while Ziraat Bank's share is just over 50 percent. Halk Bank and the ACCs account for roughly on-fifth of these loan funds each. Among these lenders, ACCs are the main creditor for 38 percent of rural borrowers followed by Ziraat Bank with 26 percent. Average credits from the ACCs are smaller than those from Ziraat.

23. **Based on the survey of banks, after low GDP and low literacy levels, the riskiness of rural customers (mainly farmers) is the next most important factor reducing the interest of private banks in lending in rural areas.** Seasonal volatility of prices, low profit margins (having rainfed land, not producing cash crops), low diversification of income sources, and risks such as weather make farmers particularly unappealing to private banks. Interviews with private banks make it clear that they are not adapted to the agricultural sector and rarely have a specially designed lending product for farmers.

24. **The high degree of perceived risk is due to insufficiency of the collateral and credit registry systems.** The survey of rural households reveals that private banks more frequently require collateral (in 80 percent of the transactions with rural clients) than other credit providers. Though the costs of creating collateral in Turkey and the cost of enforcing contracts are not the highest among all countries considered in the RFS, they are still quite high both in absolute terms and also relative to those observed for most EU

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<sup>4</sup> The World Bank Database.

<sup>5</sup> Subsidized credit schemes have started to be used again (in 2004-05) by the Ministry of Agriculture and Rural Affairs, but are as yet limited (roughly US\$ 40 million annually).

accession countries. In addition, Turkey ranks the lowest (in a sample of over 20 MICs) in terms of an indicator that measures the degree to which collateral laws facilitate lending. Turkey's low to middle ranking on the measure of the scope, access, and quality of credit information also underlines the difficulty banks have in properly assessing the credibility of rural loan applicants.

*Policy Recommendations:*

25. As mentioned earlier, access to credit can be enhanced by improving the credit registry and collateral systems as well as competitiveness of the agricultural sector through a wide range of instruments (infrastructure, irrigation, access to market, improved farm management techniques, etc.). In addition, other measures can be taken to foster greater competition and extend rural financial outreach by the private sector.

26. **Firstly, creating an enabling policy environment by enhancing banking competition is necessary for promoting both rural finance and financial sector expansion in general - more needs to be done on institutional reforms and supervision capacity:** Further strengthening of banks and upgrading BRSA's supervisory practices to catch up with the increasing sophistication of the banks (e.g., adopting risk based supervision), and adjusting its current regulations to improve compliance with the Basle Core Principles are also needed. Also, privatizing the existing state banks in order to achieve competitively priced financial services will be a key development. The BRSA, the Central Bank and the Undersecretariat of the Treasury (Treasury) are the main players here.

27. **Secondly, MARA, Treasury and BRSA should also consider technical assistance and transaction cost subsidies to interested banks as well as non-bank financial institutions to tailor new products for the needs of agricultural/rural clients.** These should include products that take into consideration the income stream of the rural clients, collateral availability, new forms of creditworthiness analysis (including cash-flow analysis), new types of contracts (with suppliers and processors, future contracts, using harvest as collateral, etc) and simplified documentation as well as use of warehouse receipts, leasing and insurance. Training specifically on risk management and credit analyses to interested banks could be provided. As mentioned earlier, the GOT should refrain from subsidized credits through state banks. However, if the government is going to have unsubsidized credit lines, the program could provide training of loan officers of banks that participate in the credit line. The World Bank can assist the GOT in terms of providing technical assistance and transaction cost subsidies.

28. **Thirdly, to assist private banks to increase their rural outreach without increasing their fixed costs in the short-run and also to learn more about potential profit opportunities in rural areas, the BRSA and MARA should focus on promoting correspondent banking arrangements with non-banks present in rural areas, particularly the postal service and the ACCs.** In this way, private banks could use the networks of these non-deposit taking institutions to collect deposits from and provide loans and other services to the rural clientele. Technical assistance to interested

private banks on how to enter into such arrangements and transactions cost subsidies (both of which have been used successfully in Brazil and Mexico) should be targeted to develop increased private bank use of correspondent banking arrangements in rural areas. Improving systems for effecting payments and making transfers to and from rural areas and for application of technology through ATMs and smart cards should also help reduce transaction costs and therefore increase rural outreach of financial services.

29. **Another instrument which should be used for fostering this outreach is to introduce competition in the distribution of government payments through the financial sector.** Government payments, including Direct Income Support (DIS) payments to farmers) should be distributed by all eligible banks which are selected according to their bids in terms of service charges.<sup>6</sup> Individuals should be allowed to use the accounts to which these payments are made for more than payment receipt. In particular, by allowing individuals to use these accounts for their own purposes, there would be greater scope to mobilize rural savings. Treasury and MARA should coordinate this activity.

#### **Agricultural Credit Cooperatives (ACCs):**

30. The ACC system consists of almost 2,000 cooperatives and 1.4 million registered members. The main function of these ACCs is to provide inputs and credits to its member (mostly farmers in rural areas). As of 2004, ACCs had 1.98 billion NTL in assets (roughly US\$ 1.5 billion), more than half of which were commercial credits distributed to roughly 300,000 of its ACC members. This implies an outreach to about 7-8 percent of farm households. Traditionally, ACCs have relied heavily on funds from Ziraat to extend loans to its members. Prior to 2001, more than 80 percent of ACC loans were financed with sources from Ziraat. As of 2003, Ziraat sources accounted for only 15 percent of all loans extended by ACCs. In addition, many performing credits were restructured in 2003 when the MARA unilaterally adjusted outstanding debts by rural borrowers by recalculating past interest at reduced levels.

31. Such numbers indicate the important role of the ACCs in reaching a segment of the population underserved by the banking system and the Government should build on this impressive outreach to create a sustainable ACC industry, with proper legal, regulatory and supervisory framework, good governance and ownership, long-term prospects of accessing funding, a healthy financial performance and a wide range of financial services. This would require a sizeable effort, in multiple phases, through possibly a pilot in regions where the industry is particularly developed, followed by a scaling up at the national level. This pilot could include the following activities

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<sup>6</sup> Government payments (including DIS) should be distributed by all eligible banks that are selected according to their bids in terms of service charges. Individuals should be allowed to have accounts to receive these payments that can be used for more than payment collection. In particular, there should be incentives to mobilize savings by allowing individuals to keep use of accounts for their own purposes.

- (i) restructuring the ACCs, with cleaning up of the portfolio, splitting of the institutions between financial and non-financial services, and privatization/socialization with decentralized decision-making to be consistent with international best practice;
- (ii) working on the long-term financing of these institutions, first by reinforcing linkages with the banking sector but also by slowly testing and introducing deposit-taking activities on a small scale;
- (iii) improving the legal, regulatory and supervisory framework, to allow, among others, the progressive introduction of a wider range of services, including deposits;
- (iv) investing in capacity building at the various levels of the industry (the ACCs, their Unions, but also the supervisory authority); and,
- (v) investing in the technology platform necessary to maintain a stable, transparent industry that will be able to serve an increasingly demanding client base (including the introduction of ATM cards, wire transfers and remittances).

**32. If the GOT expects private banks to become more active in increasing rural financial outreach, it needs to refrain from these government-mandated debt rescheduling interventions and send a strong signal to the ACCs and other financial institutions in Turkey that the ACCs will operate on strict commercial conditions.**

The most recent attempt at (retroactively) subsidizing interest rates of the ACCs to rural borrowers reduced outstanding balances by roughly 300 million NTL (from an earlier level of roughly 900 million NTL to just over 600 million NTL). This type of intervention by the GOT raises serious questions about the ACCs' ability to function as a commercial entity, with an interest in properly appraising loan applications, and enforcing high repayment rates. ACCs are well positioned to serve financial needs in rural areas, given their widespread presence in rural areas and their accumulated knowledge of a wide number of rural customers. However, it is unclear whether ACCs will have enough funds to do so, given that Ziraat financing has been cut (financing in 2004 only 15% of ACC loans) and the fact that the ACCs' existing loan portfolio is not generating profits.

*Recommendations:*

33. MARA, BRSA and the ACC Central Union will need to coordinate the following restructuring process and the World Bank can be of assistance, provided that the ACCs are willing to implement the restructuring alternatives mentioned below.

34. **Restructuring of the ACC Governance Regime.** For the ACC system to be able to provide access to commercially-oriented finance to Turkey's villages, significant restructuring is needed. As the units themselves are not genuine cooperatives, with leadership currently appointed from the top down and little participation by the mass of "members", the first issue to be faced is whether or not true cooperatives can be formed from the bottom up, based on member preferences. Continuing with the status quo, i.e. maintaining the facade of a cooperative network without real democratic governance and

with little member participation is certainly not fulfilling the rural finance needs of Turkey. As they stand today, the ACCs can fulfill agency functions such as correspondent banking and payment functions (such as DIS) delivery, but an enormous opportunity is lost with the lack of savings mobilization function in the long run, and the decline of lending for rural investment.

35. **A second approach would be to focus on the financial aspects of the ACC system, and try to use a small sample of very good ACCs, with more lending business than input supply, to create a savings and credit cooperative in the long run.** About 50 - 100 primary ACCs could be involved perhaps in one or two provinces. The aim would be to try to complete the financial intermediation cycle, since the RFS finds greater demand for savings services in the poorer rural areas than for lending. With only a reduced Ziraat Bank presence (or no bank presence) in many of Turkey's rural areas, such a pilot scheme would be extremely valuable to provide some banking-service competition in a large number of Turkish provinces. Finally, it might be possible to convert certain provincial ACC systems into private commercial entities. But this may require some years of successful upgrading experience with ACCs.

36. **In the medium term, all existing ACCs should be required to adopt effective governance structures, have an accounting and financial management system that meets defined standards, be subject to regular reporting and supervision, and demonstrate financial viability.** These types of requirements have been the fundamental steps successfully taken under Mexico's BANSEFI and SAGARPA programs which have led to improved efficiency of credit cooperatives and increased outreach of financial services (see Box 2 in the text of this Main Report).

37. **Operational and Financial Restructuring of the ACC System. The cost structure would have to be reduced quite severely:** interest rates would have to be raised to market levels and sources of finance (other than government) would have to be developed. Eventually mobilization of deposits should be included, since as noted above, a safe and convenient venue for savings represents a greater demand in the poorer rural areas than does a source of investment finance, at least at present. Consideration should be given to liquidation of assets which do not pay their way, but the input supply function cannot be simply abandoned where there are no alternative input suppliers for farmers.

38. **Operational costs of ACCs have to be reduced.** In terms of operational efficiencies, ACCs have tried to decrease staff levels by allowing a significant number of early retirements: over the past 4 years, 2,000 staff retired, bring staffing down to 5,600. However, more staff reductions are needed in the Central Union and Regional Unions as more than a third of staff works in these offices. Transactions costs can be reduced by improving the productivity of individual ACCs through the outsourcing of some loan appraisals to the village level (and through new member organizations as noted above). In working through fourth-tier associated organizations, a formal or informal policy of

requiring joint and several liability for loan repayment by members of village level borrowing groups should be adopted<sup>7</sup>.

**39. In the immediate future, the GOT should continue to support the ACCs in developing and implementing a restructuring strategy which incorporates the principles outlined above as well as the following strategic measures:**

- i) Strengthening the ACC system through training for increased staff quality, implementation of performance based M&E, and improved loan recovery ratios.
- ii) Diversifying loan products and tailoring other services (extension, insurance, marketing) to better meet farmer demand through partnerships with farmer organizations and other private sector providers.
- iii) Pursuing long-term diversification of liabilities by one of the following options:
  - o developing larger and financially robust ACC units into small deposit-taking cooperative banks as per Raiffeisen Bank experience (main text Box 2.2).
  - o being accredited to collect deposits.
  - o buying in of a commercial banking license through acquisition by the ACC network of a suitable commercial bank.

#### **Micro Finance Activities<sup>8</sup>:**

**40. Sustainable micro-finance (MF) activities are almost non-existent in Turkey.** The emergence of new players in the MF sector is limited due to a difficult operating environment for banking, uncertainty about the future, an unclear legal framework for NGOs, and the continuing government interest rate subsidies. Except for two main NGOs' activities and limited private bank initiatives, the main operations are through state banks and cooperatives driven by government subsidies (with high loan losses and/or inefficient cost structures). The passage of a recently re-drafted MF law currently under consideration by the Turkish Parliament may improve this situation since the draft law establishes a clear framework for the unlicensed, non-depository MF institutions (MFIs, including MF banks and NGOs) to operate in the sector. The law would also remove the existing prohibitions on donors from leveraging NGO MFIs and restrictions on NGOs from owning equity in licensed MF banks.

**41. However, if the supply of services and entrance of new providers is to be enabled, the preferential interest subsidies support granted by government policy to state banks needs to be removed.** Only then will state banks provide products and services suitable to market demand without distorting the MF market. Then it would be feasible for new non-bank financial institutions to enter the market, provided they can be accorded technical assistance for tailoring products to the needs of the MF clients as well

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<sup>7</sup> If overall repayment on the village level portfolio falls below a certain, earlier specified level, the individual ACC working with the village level borrowing group should cease extending loans to a the group until full repayment has been achieved.

<sup>8</sup> The MF sector typically serves short term working capital needs. Its technology and high interest rates are usually not suited to agricultural investment loans. Still, MFIs are very important as they provide cushion against cash flow shocks and diversify the rural economy by financing micro-enterprises.

as start-up grants. If these new MF pilots are successful, then the MF bank model may attract other private sector providers into the MF market, including Ziraat Bank and Halkbank once they are privatized. In this area, the BRSA and Treasury are the responsible institutions, and the World Bank is ready to provide help in terms of technical assistance and financing for capital grants.

42. **Given their diversified branch network, Ziraat Bank and Halkbank are both well positioned to develop in the MF sector, but this will require the development of products specifically tailored to micro-finance.** The cooperatives TESKOMB and the ACCs (with 1.1 and 1.4 million members, respectively) may play an important role in the development of the MF sector if they can be restructured to become independent, profit making credit providers and then serve as attractive partners to new entrants to the MF market. Over the long term, licensed institutions will likely become the major service providers, but NGO models will be critical to promote innovation and new business models in the sector.



## SUMMARY OF POLICY AND OPERATIONAL MEASURES NEEDED FOR AN IMPROVED RURAL FINANCE ENVIRONMENT

| ISSUE   | MAIN MEASURE  | SUPPLEMENTARY MEASURE   | TIMING  | BY WHOM   |
|---|---|---|---|---|
| <b>I. MACRO-ECONOMIC AND POLICY IMPEDIMENTS</b>   |   |   |   |   |
| <b>Past macro-economic environment and policies</b> have kept credit development levels low and pushed investment levels very low | <ul style="list-style-type: none"> <li>Reduce pressure of inflation and exchange rate instability on real interest rates</li> </ul> | <ul style="list-style-type: none"> <li>Maintain economic stability and continue to improve macro-economic performance</li> </ul>  | <ul style="list-style-type: none"> <li>Short to medium term</li> </ul>  | <ul style="list-style-type: none"> <li>Ministry of Finance, Treasury, State Planning Organization</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>Create an enabling policy environment for enhanced banking sector competition.</li> </ul>    | <ul style="list-style-type: none"> <li>Privatize existing state banks</li> <li>Improve legal rights of borrowers and creditors through collateral and bankruptcy laws:               <ul style="list-style-type: none"> <li>improved loan recovery and contract enforcement, and,</li> <li>removing regulatory impediments to broadening the range of collateral).</li> </ul> </li> <li>Improve the credit registry system by expanding the scope of credit information in credit bureaus from all credit providers including - leasing companies, business associations, farmers' organizations and utility companies</li> </ul> | <ul style="list-style-type: none"> <li>Short term</li> <li>Short to medium term</li> <li>Medium to long term</li> </ul> | <ul style="list-style-type: none"> <li>BRSA, Treasury</li> <li>Ministry of Justice</li> <li>Credit Bureaus, Central Bank and all types of credit providers</li> </ul> |
| <b>Low lending in the real sector</b> since banks hold large share of their assets in securities, mainly government issued        | <ul style="list-style-type: none"> <li>Decrease borrowing requirement of government by decreasing budget deficits</li> </ul>        |   | <ul style="list-style-type: none"> <li>Short to medium term</li> </ul>  | <ul style="list-style-type: none"> <li>Treasury, Ministry of Finance, SPO</li> </ul>  |



| ISSUE  | MAIN MEASURE  | SUPPLEMENTARY MEASURE   | TIMING  | BY WHOM  |
|--|---|---|---|--|
| <b>II. FACTORS AFFECTING SUPPLY OF FINANCIAL SERVICES IN RURAL AREAS</b>   |   |   |   |  |
| <b>Very low levels of activity by private banks</b> in provision of agricultural loans and financial services in areas of low population density | <ul style="list-style-type: none"> <li>Refrain from introducing new interest rate subsidies transferred through state banks and ACCs</li> </ul>   | <ul style="list-style-type: none"> <li>TA and transactions costs subsidies to interested banks and NBFIs to tailor products suitable for the needs of agricultural/rural clients, including: <ul style="list-style-type: none"> <li>use of leasing, factoring, and warehouse receipts;</li> <li>mortgages and insurance; and,</li> <li>flexible loans suitable for cash flows of agricultural clients.</li> </ul> </li> <li>Training specifically on risk management, credit analyses and governance to interested banks and NBFIs</li> </ul> | <ul style="list-style-type: none"> <li>Short to medium term</li> <li>Short to medium term</li> </ul>          | <ul style="list-style-type: none"> <li>MARA, Treasury, BRSA</li> <li>MARA, BRSA</li> </ul>         |
| <b>Lack of variety of financial providers</b> in rural areas for credit and savings products   | <ul style="list-style-type: none"> <li>Clarify that newly established institutions (e.g. NGOs) are allowed to carry out micro finance activities, and eventually leading to savings mobilization in the long run</li> <li>Promote and assist with similar types of micro finance activities by banks and other NBFIs</li> </ul> | <ul style="list-style-type: none"> <li>Pass the draft law which regulates MFIs and develops supervisory and funding mechanisms as well as sets organizational, operational and financial standards</li> <li>Grant start-up capital subsidies for newly established NBFIs or new branches of NBFIs or interested banks</li> <li>Ensure harmonization among laws and regulations that govern diverse providers in the micro-finance sector (NGOs, specialized banks, private banks, and cooperatives)</li> </ul>                                | <ul style="list-style-type: none"> <li>Short term</li> <li>Long term</li> <li>Short to medium term</li> </ul> | <ul style="list-style-type: none"> <li>BRSA</li> <li>BRSA, Treasury</li> <li>BRSA, MARA</li> </ul> |
| ISSUE  | MAIN MEASURE  | SUPPLEMENTARY MEASURE   | TIMING  | BY WHOM  |

| <b>II. FACTORS AFFECTING SUPPLY OF FINANCIAL SERVICES IN RURAL AREAS (Cont.)</b>  |  |   |  |  |
|---|--|---|--|--|
| <p><b>High transactions costs in rural areas</b> owing to lack of knowledge of borrowers, collateral procedures which make loan recovery difficult, and / or low economic activity</p>  | <ul style="list-style-type: none"> <li>• Include information on rural borrowers to the credit registries by unifying databases of farmers' organizations and other NGOs serving in rural areas</li> <li>• Expand and modernize land registry and titling to allow implementation of improvements in collateral</li> </ul>  | <ul style="list-style-type: none"> <li>• Promote correspondent banking arrangements between private banks and those with credit history knowledge (e.g. Agricultural Credit Cooperatives, Agricultural Sales Cooperatives and Village Development Cooperatives)</li> <li>• Improve systems for effecting payments and making transfers to and from rural areas, and for application of technology through ATMs and smart cards</li> </ul>   | <ul style="list-style-type: none"> <li>• Short to medium term</li> <li>• Medium to long term</li> </ul>  | <ul style="list-style-type: none"> <li>• BRSA, Credit Bureaus, Central Bank</li> <li>• Financial Institutions, BRSA, TKGM</li> </ul>                       |
| <p><b>ACC system suffers from:</b></p> <ul style="list-style-type: none"> <li>i) susceptibility to political interference,</li> <li>ii) inappropriate risk management,</li> <li>iii) low loan recovery,</li> <li>iv) significant de-capitalization,</li> <li>v) low profits,</li> <li>vi) top down approach within the system,</li> <li>vii) lack of medium to long term corporate vision and operational master plan.</li> </ul> | <ul style="list-style-type: none"> <li>• Free up ACCs from political intervention</li> <li>• Enhance risk mitigation capacity by spreading and diversifying lending risk</li> <li>• Enhance operational efficiencies</li> <li>• Promote new partnerships with other national and international partners</li> <li>• Complete implementation of restructuring strategy for ACCs</li> </ul> | <ul style="list-style-type: none"> <li>• Refrain from government mandated debt restructurings and debt write offs</li> <li>• Diversify loan products /other services and expand the current member base</li> <li>• Liquidate non-core real assets and low yielding participatory investments</li> <li>• Consider alternative strategies for long-run financial diversification: <ul style="list-style-type: none"> <li>▪ being accredited to collect deposits;</li> <li>▪ developing financially robust ACC units into deposit taking cooperative banks;</li> <li>▪ buying-in of a commercial banking license through acquisition by the ACC network of a suited commercial bank</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Short term</li> <li>• Short term</li> <li>• Medium term</li> <li>• Short term</li> <li>• Medium to long term</li> </ul> | <ul style="list-style-type: none"> <li>• MARA, Treasury</li> <li>• ACCs, MARA</li> <li>• ACCs, MARA</li> <li>• ACCs</li> <li>• BRSA, MARA, ACCs</li> </ul> |

| ISSUE  | MAIN MEASURE   | SUPPLEMENTARY MEASURE  | TIMING  | BY WHOM   |
|--|--|--|---|---|
| <b>III. FACTORS AFFECTING THE DEMAND FOR FINANCIAL SERVICES IN RURAL AREAS</b>   |  |  |   |   |
| <p><b>Quality and level of demand suffers</b> because of low educational attainment of potential users of financial services</p> | <ul style="list-style-type: none"> <li>Raise awareness of the potential usefulness of credit, savings, and other financial services and ability</li> </ul> | <ul style="list-style-type: none"> <li>Organize trainings to farmers and other rural households on financial education (use of savings and other financial products), on business development services, (for improved farm management, income diversification, micro-enterprise management, marketing) and on building of social capital networks</li> </ul>   | <ul style="list-style-type: none"> <li>Short to medium term</li> </ul>  | <ul style="list-style-type: none"> <li>MARA, KOSGEB, Farmers' Organizations</li> </ul>  |
| <p><b>Riskiness is an important factor cited by farmers</b> which lowers their demand for expanding borrowing activity.</p>      | <ul style="list-style-type: none"> <li>Reduce riskiness of farms, particularly rainfed areas</li> </ul>  | <ul style="list-style-type: none"> <li>Establish warehouse receipts to reduce small farmers' exposure to price fluctuations and as an alternative collateral mechanism.</li> <li>Premia subsidies for crop insurance or develop alternative insurance mechanisms based on weather indices in suitable areas.</li> <li>Improve farmers' access to information on less risky technologies, diversification and risk pooling mechanisms</li> <li>Complete irrigation networks down to the farm level</li> </ul> | <ul style="list-style-type: none"> <li>Short term</li> <li>Short to medium term</li> <li>Short to medium term</li> <li>Medium to long term</li> </ul> | <ul style="list-style-type: none"> <li>Ministry of Industry and Trade, MARA</li> <li>Treasury, MARA</li> <li>MARA, Farmers' Organizations</li> <li>DSI, MARA</li> </ul> |

| ISSUE   | MAIN MEASURE   | SUPPLEMENTARY MEASURE   | TIMING  | BY WHOM  |
|---|--|---|---|--|
| <b>III. FACTORS AFFECTING THE DEMAND FOR FINANCIAL SERVICES (cont.)</b>                                     |  |   |   |  |
| <b>Low levels of capital investment</b> and generally high credit constraints, owing to high interest rates | <ul style="list-style-type: none"> <li>• Decrease interest rates by decreasing the factors that affect interest rates, both macro-economic and micro-economic:</li> </ul>  | <ul style="list-style-type: none"> <li>• Banks' cost of borrowing through improved macro-economic environment.</li> <li>• Banks' profit margins through increased competition;</li> <li>• Risk premiums through risk mitigating instruments such as crop insurance, warehouse receipts</li> <li>• Banks' cost of processing through operational efficiencies, advanced credit information and collateral systems, etc.</li> </ul> | <ul style="list-style-type: none"> <li>• Medium term</li> <li>• Medium term</li> <li>• Short to medium term</li> <li>• Medium term</li> </ul> | <ul style="list-style-type: none"> <li>• Ministry of Finance, Treasury, SPO</li> <li>• BRSA, Treasury</li> <li>• Treasury, MARA, MIT</li> <li>• BRSA, Credit Bureaus, Central Bank, Ministry of Justice</li> </ul> |
| <b>Low level of financial savings</b>   | <ul style="list-style-type: none"> <li>• Mobilize savings in rural areas <ul style="list-style-type: none"> <li>▪ through correspondent banking arrangements;</li> <li>▪ by authorizing either ACCs or micro-finance institutions (or both) to collect savings to collect savings in the long-term;</li> <li>▪ or by allowing micro-finance banks (to be established under the new Micro-Finance Law) to collect deposits in the short-to medium term</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Improve systems for facilitating flow of remittances back to rural areas</li> <li>• Increase the presence of financial providers' offering savings products in rural areas by competitively awarding government contracts for the distribution of government transfer payments through financial institutions</li> </ul>   | <ul style="list-style-type: none"> <li>• Medium term</li> <li>• Short term</li> </ul>   | <ul style="list-style-type: none"> <li>• BRSA</li> <li>• Treasury, MARA</li> </ul>   |
| <b>Low income</b> can make rural finance interventions particularly unsustainable in certain areas          | <ul style="list-style-type: none"> <li>• In such areas, the focus should be initially on increasing income and employment</li> </ul>   | <ul style="list-style-type: none"> <li>• By supporting cultivation of higher value crops, off-farm activities, market infrastructure development, employment generation through public works program</li> </ul>   | <ul style="list-style-type: none"> <li>• Medium to long term</li> </ul>   | <ul style="list-style-type: none"> <li>• MARA, Farmers' Organizations, Ministry of Labor and Social Security</li> </ul>  |

## Chapter 1 – Introduction

- 1.1 Broad access to financial services is central to the development of rural economies, as it is more generally for countries' economic development. Without broad access, farmers and small rural entrepreneurs face serious constraints in financing high-return investments. This reduces the efficiency of resource allocation and has adverse implications for rural growth and poverty alleviation. Moreover, access to finance for large parts of the rural population is important to expand opportunities beyond the richer segments of rural society, to promote competitive market relations, diversify rural families' sources of income, improve rural income distribution, reduce the pressure for migration to overcrowded urban growth poles, and generally promote a stable and inclusive society.
- 1.2 The other key aspect of financial market development is the mobilization of rural savings. At the macro level, the amount of savings partly determines the supply of funds for lending and investment. Secondly, the long-term sustainability of financial institutions depends crucially on savings mobilization. At the micro level, rural households need to engage in savings to smooth consumption over periods of reduced income, to accumulate resources for business investments, and to plan financially for funding the absence of family members engaging in secondary and tertiary education, seasonal migration, etc. To mitigate the effect of negative potential shocks, rural households also need to have access to formal or informal insurance mechanisms that pool risk across agents in the economy.
- 1.3 Unfortunately, access to financial services is often limited by poor financial sector development in rural areas. The remoteness of rural clients and the low density of their settlements usually increase transactions costs for financial service providers, reduce the entry of providers into rural areas, and raise the costs to rural clients. The riskiness of rural clients is also usually higher than in urban areas, especially for rural households with high dependence on agricultural income since agricultural prices and production exhibit significant seasonal variation. This riskiness can increase collateral requirements sought by lenders and reduce demand by rural borrowers, owing to the lack of sufficient collateral or aversion by borrowers to pledge collateral in a risky economic environment. Lastly, financial service providers may have weak contract enforcement rights and poor information on the credit histories of new clients. This further raises the costs of lending and puts upward pressure on the interest rates at which financial service providers are willing to lend.
- 1.4 Low levels of financial development in Turkey as well as a reportedly low incidence in the use of financial services by those operating in the rural economy have fostered the view that rural households face shortages of finance that limit their ability to take advantage of growth opportunities or accumulation of assets. However, surveys of farm households up until this Rural Finance Study had not gathered sufficiently detailed information to be able to adequately analyze their access to and degree of usage of financial services such as loans, supplier credit,

or savings products. A thorough examination of financial institutions' activities in rural markets had been absent.

1.5 Thus, the Turkey RFS has aimed at evaluating rural finance in Turkey and determining the factors influencing the use of financial services by rural households and the constraints affecting the availability of financial services in rural areas. By addressing these issues, the RFS seeks to establish a policy agenda for discussions with the Government of Turkey (GOT) on further policy changes and needed measures in the area of rural finance in order to contribute to the effort to renew growth of the rural financial system after a period of prolonged decline. The findings and measures recommended by this study are also important for Turkey's on-going rural sector dialogue with the European Commission (EC), as increased access of small rural enterprises to financial services is desired for improved absorption by these enterprises of EC funding under the Instrument for Pre-Accession programs in rural areas. Accordingly, the main areas of inquiry have been:

- i) Identification of the lending and deposit portfolios of state-owned and private banks in Turkey's rural areas, as well as constraints to their expansion.
- ii) Examination of a potentially enlarged role for non-bank financial institutions in the provision of rural financial services and related legal and institutional measures needed to support this enlargement.
- iii) Identification of the use of financial services (credit and savings) by rural households from both formal and informal sources.
- iv) Examination of the degree to which rural households face constraints in credit markets and measurement of the potential impact on rural investment of easing such constraints.



## Chapter 2 – Financial Sector Development in Turkey

### A. *Introduction*

- 2.1 The Turkish financial sector has gone through a major structural change as a result of the financial liberalization program that started in the 1980s. Due to legislative and institutional arrangements which eased entry and promoted competition and growth, the Turkish banking sector expanded quickly from 1980-1999 in terms of bank numbers, employment, service diversity and technological base. The elimination of directed credit policies, liberalization of deposit and credit interest rates, and liberalized exchange rate policies, as well as the adoption of improved banking regulations, accelerated the structural transformation of the financial sector in this period. However, ease of entry without adequate supervision and control allowed many weaknesses to develop, including an inadequate capital base, weak asset quality, and inadequate risk assessment and management systems. These problems were some of the factors behind the financial sector crises in 1994 and 2001.
- 2.2 Following the February 2001 crisis, the GOT adopted a restructuring program aimed at strengthening and stabilizing the banking system as the foundation for a full-fledged financial services industry. Accordingly, the GOT sold or merged a number of insolvent private banks which had been taken over earlier by the Savings and Deposit Insurance Fund (SDIF), after recapitalizing them and cleaning non-performing loans from their portfolios. The GOT has also obliged increases in capital for private banks to meet capital adequacy ratios, imposed limitations on their open foreign exchange positions and encouraged mergers and acquisitions through tax incentives and other means.
- 2.3 Another important aspect of recent banking sector reform was the restructuring of the state owned banks, with the ultimate aim of their privatization. Operational restructuring (organization, technology, human resources, financial control, planning, risk management, service quality) was initiated, and considerable reductions in employees and branches of state banks were accomplished. In addition, the government prevented the generation of new duty losses<sup>9</sup> and almost completely discontinued the transfer of funds from the central budget to state banks for budget-supported lending. **Of particular importance to the rural sector, the GOT ceased state directed credit programs through Ziraat Bank and the Agricultural Credit Cooperatives (ACCs) in 2002.**
- 2.4 Though improvements in the performance of state banks have subsequently contributed to the strengthening of the banking sector, the supply of credit declined, particularly to the agricultural sector. Prior to the reforms, Ziraat Bank and ACCs were large suppliers of budget-funded credit to rural households, and

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<sup>9</sup> State banks' claims on Treasury arising from subsidized lending are called duty losses. After the crises, approximately 12 % of GDP was supplied to state banks in terms of government bonds coverage of duty losses and as equity injections (Source: Treasury).

interest rates were heavily subsidized by the GOT. Over the past few years, the rise in interest rates (in line with market rates) reduced demand for loans from Ziraat Bank and the ACCs.<sup>10</sup> In turn, the accompanying contraction of Ziraat Bank's extensive branch network has reduced the rural population's access to savings and payment instruments. **From 2000 to 2004, the agricultural portfolios of Ziraat Bank and the ACCs fell by more than half to roughly US \$1.5 billion combined.** Owing to the past interest rate subsidies for rural borrowing through these institutions (and frequent debt write-offs and debt restructurings), private lenders had been discouraged from offering credit to the rural sector. As a result, they were poorly positioned to expand lending to the rural sector and offset the decline in lending from state-owned banks.

## **B. Financial Sector Depth and Breadth**

2.5 Financial Sector Depth and Breadth Turkey exhibits declining levels of domestic credit to GDP and lags behind other comparable countries in terms of credit development. Following the 2001 financial crisis, the progress made in credit development was wiped out and dropped to pre-1995 levels. **By 2003, financial sector depth (as measured by private credit-to-GDP) amounted to only 14 percent.** This level is well below that of almost all developing economies with similar levels of GDP per capita in Latin America, Central and Eastern Europe (CEE) and the former Soviet Union, and East Asia, and lower than in a number of markedly poorer countries (China, India, Indonesia, Ukraine, etc., as shown in Table 1). Examining banking sector breadth indicators reveal that Turkey generally outperforms many economies in Latin America and Asia, but tends to under-perform across most of the indicators relative to all of the recent EU accession countries in the CEE region. In particular, in terms of the physical presence of bank outlets, branches per capita, number of deposits, and the value of loans and deposits per capita Turkey has lower levels than the majority of the these EU accession countries and many other countries in Asia.

**Table 1: Financial sector depth indicators across selected countries**

| Country Name  | Liquid liabilities to GDP |              | Private credit by banks & other financial inst. to GDP |              | Stock market capitalization to GDP |              | Public bond market capitalization to GDP |              | GDP per capita in PPP US\$ 2003 |
|---------------|---------------------------|--------------|--|--------------|------------------------------------|--------------|--|--------------|---------------------------------|
|               | 2000                      | 2003         | 2000   | 2003         | 2000                               | 2003         | 2000                                     | 2003         |                                 |
| <b>Turkey</b> | <b>39.5%</b>              | <b>41.9%</b> | <b>18.7%</b>   | <b>14.0%</b> | <b>46.0%</b>                       | <b>21.3%</b> | <b>24.6%</b>                             | <b>49.0%</b> | <b>6,398</b>                    |
| Argentina     | 31.8%                     | 26.8%        | 24.4%  | 11.8%        | 44.1%                              | 62.4%        | 10.9%                                    | 5.6%         | 11,436                          |
| Brazil        | 28.3%                     | 29.2%        | 35.3%  | 33.2%        | 38.6%                              | 36.2%        | 40.7%                                    | 42.6%        | 7,360                           |
| Bulgaria      | 32.3%                     | 43.8%        | 11.6%  | 22.4%        | 5.3%                               | 6.3%         |  |              | 7,304                           |
| China         | 145.0%                    | 176.4%       | 119.2%   | 135.5%       | 42.6%                              | 40.6%        | 13.7%                                    | 18.9%        | 4,726                           |
| Czech Rep.    | 63.0%                     | 70.0%        | 49.9%  | 29.5%        | 19.6%                              | 18.3%        | 38.0%                                    | 51.5%        | 15,453                          |
| Estonia       | 32.1%                     | 38.3%        | 22.6%  | 29.2%        | 31.7%                              | 2.1%         |  |              | 12,790                          |

<sup>10</sup>Real interest rates increased from -20 % to +30 % over the period 1997-2002.

| Country Name | Liquid liabilities to GDP |        | Private credit by banks & other financial inst. to GDP |        | Stock market capitalization to GDP |        | Public bond market capitalization to GDP |       | GDP per capita in PPP US\$ 2003 |
|--------------|---------------------------|--------|--|--------|------------------------------------|--------|--|-------|---------------------------------|
|              | 2000                      | 2003   | 2000   | 2003   | 2000                               | 2003   | 2000                                     | 2003  |                                 |
| Hungary      | 43.3%                     | 45.6%  | 27.5%  | 37.8%  | 29.1%                              | 17.4%  | 33.6%                                    | 40.9% | 13,777                          |
| India        | 52.5%                     | 60.2%  | 26.7%  | 30.6%  | 36.0%                              | 34.3%  | 23.3%                                    | 29.2% | 2,732                           |
| Indonesia    | 57.4%                     | 51.9%  | 20.4%  | 22.0%  | 29.8%                              | 20.4%  |  |       | 3,175                           |
| Jordan       | 107.8%                    |        | 74.7%  |        | 63.6%                              |        |  |       | 4,081                           |
| Korea        | 82.9%                     | 87.9%  | 112.9%   | 119.9% | 55.3%                              | 47.9%  | 14.4%                                    | 18.3% | 16,977                          |
| Latvia       | 25.2%                     | 33.4%  | 15.2%  | 29.3%  | 6.2%                               | 8.1%   |  |       | 9,702                           |
| Lithuania    | 21.4%                     | 29.0%  | 11.9%  | 16.8%  | 12.0%                              | 12.9%  |  |       | 11,055                          |
| Malaysia     | 125.3%                    | 126.5% | 128.5%   | 132.7% | 145.2%                             | 141.4% | 29.6%                                    | 36.3% | 8,986                           |
| Mexico       | 27.9%                     | 28.1%  | 17.8%  | 18.1%  | 24.5%                              | 18.1%  | 10.5%                                    | 20.3% | 8,661                           |
| Philippines  | 62.7%                     | 60.2%  | 42.5%  | 34.9%  | 66.8%                              | 39.7%  | 27.9%                                    | 28.0% | 4,082                           |
| Poland       | 39.0%                     | 41.6%  | 25.7%  | 28.1%  | 17.6%                              | 15.3%  | 17.9%                                    | 29.1% | 10,749                          |
| Slovak Rep.  | 61.4%                     | 62.8%  | 51.5%  | 35.0%  | 5.6%                               | 7.1%   |  |       | 12,747                          |
| Slovenia     | 43.7%                     | 53.3%  | 33.7%  | 39.2%  | 11.9%                              | 20.7%  |  |       | 18,091                          |
| South Africa | 42.2%                     | 49.6%  | 65.0%  | 75.0%  | 173.5%                             | 136.3% | 40.1%                                    | 31.7% | 9,774                           |
| Thailand     | 112.2%                    | 109.2% | 110.5%   | 95.7%  | 35.4%                              | 56.4%  | 13.5%                                    | 21.0% | 7,175                           |
| Ukraine      | 16.1%                     | 30.0%  | 8.9%   | 19.7%  | 4.8%                               | 7.5%   |  |       | 5,188                           |

Source: *Financial Structure Database* (World Bank).

2.6 Macroeconomic conditions as well as the business environment and quality of institutions are important factors that lie behind the poor performance in private credit depth. Turkey, until recently, has been characterized by higher levels of inflation, interest rates, government deficits, and public sector borrowing from banks than most other emerging markets. Furthermore, some aspects of the business and institutional environment relevant for credit market growth are worse in Turkey. **Turkey ranks particularly poorly when it comes to the legal rights of borrowers and creditors. The costs of creating collateral – often a prerequisite for getting credit – and the cost of enforcing contracts are not the highest among all countries considered, but they are still quite high both in absolute terms and also relative to those observed for most recent EU accession countries** (Table 2).

**Table 2: Business environment indicators that influence credit market depth, 2004**

|                | Cost to create collateral (% of income per capita)<br>(1) | Legal rights index<br>(2) | Credit information index<br>(3) | Cost of enforcing contracts (% of debt)<br>(4) |
|----------------|---|---------------------------|---------------------------------|--|
| <b>Turkey</b>  | <b>19.9</b>   | <b>1</b>                  | <b>4</b>                        | <b>12.5</b>                                    |
| Argentina      | 21.3  | 3                         | 6                               | 15.0   |
| Brazil         | 21.4  | 2                         | 6                               | 15.5   |
| Bulgaria       | 1.0   | 6                         | 4                               | 14.0   |
| China          | -   | 2                         | 3                               | 25.5   |
| Czech Republic | 0.6   | 6                         | 5                               | 9.6  |
| Estonia        |   |                           | 5                               | 10.6   |
| Hungary        | 13.5  | 5                         | 3                               | 8.1  |

|                 | Cost to create collateral<br>(% of income per capita)<br>(1) | Legal rights<br>index<br>(2) | Credit information<br>index<br>(3) | Cost of enforcing<br>contracts (% of debt)<br>(4) |
|-----------------|--|------------------------------|------------------------------------|---|
| India           | 11.3   | 4                            | -                                  | 43.1  |
| Indonesia       | 2.5  | 5                            | 3                                  | 126.5   |
| Jordan          | 56.3   | 6                            | 3                                  | 8.8   |
| Korea, Rep.     | 8.1  | 6                            | 5                                  | 5.4   |
| Latvia          | 1.5  | 8                            | 4                                  | 11.0  |
| Lithuania       | 4.1  | 4                            | 3                                  | 14.1  |
| Malaysia        | 3.2  | 8                            | 6                                  | 20.2  |
| Mexico          | 25.7   | 2                            | 6                                  | 20.0  |
| Philippines     | 8.3  | 5                            | 2                                  | 50.7  |
| Poland          | 1.2  | 2                            | 4                                  | 8.7   |
| Slovak Republic | 20.1   | 9                            | 3                                  | 15.0  |
| Slovenia        | 3.2  | 6                            | 3                                  | 16.3  |
| South Africa    | 2.3  | 6                            | 5                                  | 11.5  |
| Thailand        | 1.1  | 5                            | 5                                  | 13.4  |
| Ukraine         | 3.5  | 6                            | -                                  | 11.0  |

Source: *Doing Business Indicators* (World Bank). (1) The indicator assesses the ease of creating and registering collateral. The data are based on research of collateral and insolvency laws and responses to a survey on secured transactions laws, developed with input and comments from experts, including from the Center for Economic Analysis of Law, the International Bar Association Committee E8 on Financial Law, and the European Bank for Reconstruction and Development. Costs include taxes, notary fees and duties associated with creating the security right and registering it in the collateral registry, where such a registry operates. (2) The index measures the degree to which collateral and bankruptcy laws facilitate lending. The index ranges from 0 to 10, with higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit. (3) This index measures rules affecting the scope, access and quality of credit information available through either public or private bureaus. The index ranges from 0 to 6, with higher values indicating that more credit information is available from either a public registry or a private bureau to facilitate lending decisions. (4) The indicator measures the official cost of going through court procedures, including court costs and attorney fees where the use of attorneys is mandatory or common, or the costs of an administrative debt recovery procedure, expressed as a percentage of the debt value.

2.7 In this regard, Turkey's much improved macro-economic performance recently, in terms of the reduction of inflation to single-digit levels in 2005 and the public sector primary surplus reaching 6 percent of GDP, has contributed to a long-awaited reduction in (now market-determined) real interest rates to 10-15 percent. **Continued improvement in macro-economic performance and lower real interest rates will be a necessary step for promoting rural finance. Clearly, improvements in the judicial system to improve legal rights of borrowers and creditors through collateral and bankruptcy law will be a key next important step.** (The specific recommendations in this area have been developed under a separate diagnostic of the collateral regime under the preparation of the Small and Medium Enterprise (SME) Development Project by the Bank and the GOT.)<sup>11</sup> **Improvements to the credit registry system should be focused on expanding the scope of credit information in the public credit registry and private bureaus from all credit providers, including leasing companies, business**

<sup>11</sup> Here improved loan recovery and contract enforcement as well as removing regulatory impediments to broadening the range of collateral will be needed for an efficient system. Collateral system should also be improved by modernizing land titling and registration systems through completion of the real estate cadastre, automation of cadastre offices and development of property valuation system.

associations (e.g., TOBB and TESKOMB), farmers organizations such as ACCs and Agricultural Sales Cooperative Unions (ASCUs), and utility companies.

**C. Characterization of the Banking System**

2.8 The Turkish banking system, though sizeable with 47 institutions, 6,276 branches and approximately 133,000 employees, has considerably low assets, totaling less than US \$300 billion. **More than half of the assets and 68 percent of the loans are held by Turkish privately-owned commercial banks.** State-owned banks have a strong presence, accounting for approximately 32 percent of the assets in the system and 21 percent of the loans. Both foreign commercial banks and non-depository financial institutions hold small shares in the system. (Table 3).

**Table 3: The structure of Turkish banking sector, December 2005**

| Bank Group                | No. of Banks | Total Assets (US\$ Million) | Total Loans (US\$ Million) | Total Deposits (US\$ Million) | No. of Branches | No. of Employees |
|---------------------------|--------------|-----------------------------|----------------------------|-------------------------------|-----------------|------------------|
| Privately-owned banks     | 17           | 179,306                     | 77,396                     | 104,893                       | 3,737           | 78,804           |
| % of total banking system | 36.2%        | 59.7%                       | 68.2%                      | 57.0%                         | 59.5%           | 59.3%            |
| State-owned Commercial    | 4            | 95,570                      | 23,775                     | 71,461                        | 2,111           | 38,432           |
| % of total banking system | 8.5%         | 31.8%                       | 21.0%                      | 38.9%                         | 33.6%           | 28.9%            |
| Foreign Banks             | 13           | 15,664                      | 7,736                      | 7,549                         | 393             | 10,611           |
| % of total banking system | 27.7%        | 5.2%                        | 6.8%                       | 4.1%                          | 6.3%            | 8.0%             |
| Non-depository Banks      | 13           | 9,733                       | 4,510                      | -                             | 35              | 5,126            |
| % of total banking system | 27.7%        | 3.2%                        | 4.0%                       | -                             | 0.6%            | 3.9%             |
| Total Banking System      | 47           | 300,274                     | 113,417                    | 183,904                       | 6,276           | 132,973          |

Source: Turkish Banking Regulation and Supervision Agency.

2.9 **A striking feature of the Turkish banking sector is the large share of securities in banks’ total assets (40 percent) and the relatively low share of loans (33 percent),** especially given that lending is generally considered the “bread and butter” business of banks. Looking at the type of securities held by banks most of them are government-issued securities (88 percent for all banks and 97 percent for state banks). To some degree banks’ holdings of government securities reflect payments by the government to banks for claims arising from past government subsidies on bank lending. However, the high share of government securities in banks’ assets also is likely to reflect banks’ willingness to invest in government paper because of the attractive rate of returns offered.

2.10 **In terms of the type of loans that banks extend, there is a clear preference for consumer lending with very little funding for investment lending.** The very low and relatively stagnant share of long-term investment loans - 3 percent of all banking system loans in 2004 and 4 percent in 2000 - is yet another reflection of a rather underdeveloped credit market. Approximately 27 percent of bank loans are consumer or credit card loans. In particular, for the system as a whole, credit card

lending doubled as a share of total loans since 2000. Working capital loans make up the second largest category of loans for the banking sector as a whole. This type of loans accounts for 19 percent of total banking system loans. Export and import loans, which are mostly short-term, account for 16 percent of banking sector loans.

- 2.11 **While the agricultural sector accounts for roughly 10-15 percent of GDP, it receives only 5 percent of all bank loans. Furthermore, agricultural loans are primarily financed by state-owned banks**, which have about 25 percent of their portfolio in financing of agricultural activities. On the other hand, private and foreign financing to this sector is very limited. Only three of the banks interviewed for this study (Ziraat, plus two of the largest private banks) have an agricultural loan product. With the exception of Ziraat, which makes loans up to 5 years for investment purposes, the remaining institutions make loans with maturity between 9 to 12 months at the most. Interest rates charged (in 2004) range between 30 percent (charged by Ziraat) and 42 percent. Real estate, personal guarantees, and liquid assets are the preferred types of collateral.
- 2.12 **In order to foster competition and extend financial outreach by the private sector in rural areas**, a number of measures should be taken. **First**, to assist private banks to increase their rural outreach without increasing their fixed costs in the short-run and also to learn more about potential profit opportunities in rural areas, **the GOT should focus on promoting correspondent banking arrangements with non-banks present in rural areas, particularly the postal service and the ACCs**. In this way, private banks could use the networks of these non-deposit taking institutions to collect deposits from and provide loans and other services to the rural clientele.
- 2.13 **The GOT has taken this step recently through amendments to the Law on ACCs**, and a private bank has initiated negotiations with the ACC Central Union to set up a correspondent banking arrangement. A revised draft of an initially rejected Micro-Finance Law would allow accredited micro-finance institutions to pursue the same type of relationship with private banks. **The next step would be for the GOT to offer funding of technical assistance to interested private banks on how to enter into such arrangements. Then a wider program of technical assistance and transactions cost subsidies** (both of which have been used successfully in Brazil and Mexico) should be targeted to banks which would prefer to develop such outreach in rural areas directly.
- 2.14 **The second instrument which should be used for fostering this outreach would be to introduce competition in the distribution of government payments through the financial sector**. Government payments (including Direct Income Support payments to farmers) should be distributed by all eligible banks which are selected according to their bids in terms of service charges. Individuals should be allowed to have accounts to receive these payments that can be used for more than payment receipt. **In particular, by allowing individuals to**

keep use of these accounts for their own purposes, there would be a greater incentive to mobilize rural savings.

*D. Agricultural Credit Cooperatives*

- 2.15 The ACC system consists of almost 2,000 cooperatives and 1.4 million registered members. The main function of these ACCs is to provide inputs and credits to its member (mostly farmers in rural areas). As of 2004, **ACCs had 1.98 billion NTL in assets (roughly US\$ 1.5 billion), more than half of which were commercial credits distributed to roughly 300,000 of its ACC members. This implies an outreach to about 7-8 percent of farm households.** (As noted later in Chapter 1 of the Expanded Report, the median size of these credits as reported by borrowers in 2004 was 1,600 NTL.)
- 2.16 Traditionally, ACCs have relied heavily on funds from Ziraat to extend loans to its members. Prior to 2001, more than 80 percent of ACC loans were financed with sources from Ziraat. Following the 2001 financial crisis and the subsequent restructuring of Ziraat, this bank’s support to ACCs declined substantially. **As of 2003, Ziraat sources accounted for only 15 percent of all loans extended by ACCs.** In addition, many performing credits were restructured in 2003 when the Ministry of Agriculture and Rural Affairs (MARA) unilaterally adjusted outstanding debts by rural borrowers by recalculating past interest at reduced levels. (Table 4)

**Table 4: ACCs Loans by Source of Funds, 1999-2003**

| Years | Credit From Ziraat Sources    |                   | Credit From ACC Sources       |                   |
|-------|-------------------------------|-------------------|-------------------------------|-------------------|
|       | Million TL<br>(equiv. to NTL) | % of total credit | Million TL<br>(equiv. to NTL) | % of total credit |
| 1999  | 483,190,150                   | 80%               | 123,578,611                   | 20%               |
| 2000  | 697,525,724                   | 87%               | 100,218,708                   | 13%               |
| 2001  | 317,464,394                   | 42%               | 432,888,411                   | 58%               |
| 2002  | 341,215,768                   | 33%               | 690,677,153                   | 67%               |
| 2003  | 100,405,848                   | 15%               | 553,083,314                   | 85%               |

Source: ACCs

- 2.17 **This most recent attempt at subsidizing interest rates of the ACCs to rural borrowers reduced outstanding balances by roughly 300 million NTL** (from an earlier level of roughly 900 million NTL to just over 600 million NTL). This type of intervention by the GOT raises serious questions about the ACCs’ ability to function as a commercial entity, with an interest in properly appraising loan applications, and enforcing high repayment rates. **If the GOT expects private banks to become more active in increasing rural financial outreach, it needs to refrain from these government-mandated debt rescheduling interventions and send a strong signal to the ACCs and other financial institutions in Turkey that the ACCs will operate on strict commercial conditions.** A prime example of how this reorientation of government policy can be made is the experience of Mexico (Box 1 below).

2.18 ACCs are well positioned to serve financial needs in rural areas, given their widespread presence in rural areas and their accumulated knowledge of a wide number of rural customers. However, it is unclear whether ACCs will have enough funds to do so, given that Ziraat financing has been cut and the fact that the ACCs' existing loan portfolio is not generating profits. **Thus, the GOT needs to support measures to leverage the ACCs system's by promoting new partnerships between private banks and ACCs. In this regard, it is laudable that the ACC enabling statute has recently been modified to allow it to borrow from and engage in financial transactions not only with Ziraat but with all banks.** This can help ACCs have access to other forms of financing. It also might benefit private banks by allowing them to enter into other partnerships with ACCs, which could take the form of raising deposits from rural areas using the branch offices of the ACCs, thereby accumulating a wider set of information on rural customers.

**Box 1 – Finding a New Role for State-Owned Banks – Mexico**

State-owned development banks and financial institutions account for 14% (US\$ 30 billion equivalent) of Mexico's financial sector, many of them operating in the area of agricultural and rural finance.

**The “Old” Model of State-Owned Banks.** Until recently, the Government of Mexico (GOM) intervened heavily in the financial system to increase the supply and off-take of credit in the rural areas and encourage agricultural development. Government interventions included the establishment of sector-specific development banks, directed credit, subsidized interest rates, debt forgiveness and restructurings, but met with little success. The largest agricultural development bank, BANRURAL, faced a wide range of problems, including operating losses, lack of risk management strategies, poor portfolio quality, inadequate supervision, political pressure to lend, and unlimited access to public funding with large attendant fiscal burden. These factors eventually led to the bankruptcy and liquidation of BANRURAL in 2003.

**Rationale for Transformation of State-Owned Banks.** The poor results of government interventions, together with the inability of the private banks to expand their outreach in under-served regions and population, led the GOM to rethink its strategy for overcoming persistent market failures and the role of development banks. The GOM opted for a financial sector approach, developing an efficient, well structured and regulated rural financial market, where the role of the government would be that of a facilitator of market forces. This led to the establishment of a Rural Financial Agency (*Financiera Rural*), and the transformation of the National Savings and Financial Services Bank (BANSEFI).

**The “New” Roles of State-Owned Banks**

**A catalyst for building a sustainable rural financial system.** *Financiera Rural*, a Rural Financial Development Agency, was created in 2003, focusing on lending for a wide range of economic activities in rural areas, away from the exclusive focus on agriculture of its predecessor *Banrural*. The Congress approved a one-time capitalization of US\$ 1.72 billion equivalent, with the mandate that the value of the endowment be preserved over time. *Financiera Rural*'s mission is to contribute to creation of a sustainable rural finance system: (i) support the structural transformation of rural credit by lending only for productive activities and applying best international practices in lending and encouraging repayment discipline; and (ii) support the creation and consolidation of rural finance institutions by making available financial resources, training and advisory services and technical assistance to other rural financial intermediaries (as a wholesaler) and agricultural/rural entrepreneurs (retailer function).

By law, *Financiera Rural* is banned from taking deposits. As of end-2005, the share of *Financiera Rural* in the rural loan portfolio is 15%. Since its establishment, the Agency has provided about 165,000 loans and total lending has reached approx. US\$ 1 billion equivalent. The strength of the *Financiera Rural* is confirmed by the healthy financial indicators: the non-performing loan portfolio has dropped to 2.6%



from 48% in the “old” BANRURAL and operating costs as a percentage of loan portfolio have dropped to 7.5 percent from the high of 45 percent. The Agency has also provided technical assistance and training to about 140 financial institutions to become formal rural financial intermediaries. To support rural/agricultural producers, the Agency has organized 1,400 training courses from which 46,000 producers have benefited and over 300 conferences and seminars with the total participation of almost 100,000 producers.

***Championing transformation of the Microfinance Industry.*** The limitations of traditional banking in reaching the majority of the Mexican population prompted the Government of Mexico to adopt a program to transform and deepen the semi-formal financial system. The Congress approved a law, setting up BANSEFI as the state vehicle to promote and coordinate the transformation of the semi-formal (microfinance) sector. BANSEFI’s mission is “Banking the unbanked”, and it has three main objectives: (i) to promote savings; (ii) to become a second-tier bank of the microfinance sector, and (iii) to coordinate Government programs. As of end-2005, the number of savings accounts has grown 270 percent. To encourage savings, an account can be open with as little as US\$ 5, no fees are charged and market interest rates are paid. Its success is discussed further in Box 2 below.

***Supporting food value chain.*** FIRA (Funds Instituted in Relation with Agriculture), the second major (after BANRURAL – liquidated – see above) agricultural lender was created in 1950s to offer credits and guarantees to the agricultural, forestry, fisheries, and rural sectors. This second-tier, state-owned fund is managed by the Central Bank of Mexico. Since 1999, FIRA has pursued a new business model that considers the financial needs of the entire food system, including some non-agricultural activities in rural areas. To accomplish this task, FIRA developed new products, such as structured finance instruments and inventory financing. It also fostered a wider distribution network for its funds that includes commercial banks and non-bank lending institutions called Limited-Purpose Financial Societies (SOFOLES), financial leasing companies, and warehouse companies. FIRA also provides agribusiness consulting and sector-specific information and analysis.

*Source: CGAP, 2004, “Scaling Up Poverty Reduction, Case Studies in Microfinance”, “Project Appraisal Document for BANSEFI Phase II Project”, Report No: 282929-ME, Discussions during the Rural Finance Study Tour to Mexico, ERS/USDA Briefing Rooms*

- 2.19 The GOT should also continue to support the ACCs in its development of a **restructuring strategy** and its implementation. **In this regard, the ACCs seem to have three major options for long-term financial diversification:** i) being accredited to collect deposits; ii) developing larger more profitable and financially robust ACC units into small deposit taking cooperative banks (the cases of Raiffeisen and Rabobank); or iii) buying-in of a commercial banking license through acquisition by the ACC network of a suitable commercial bank.
- 2.20 **Restructuring of the ACC Governance Regime.** For the ACC system to be able to provide access to commercially-oriented finance to Turkey's villages, a restructuring process is definitely needed. As the units themselves are not genuine cooperatives, with leadership currently appointed from the top down, little participation by the mass of "members", **the first issue to be faced is whether or not true cooperatives can be formed from the bottom up, based on member preferences.** Continuing with the status quo, i.e. maintaining the facade of a cooperatives network without real democratic governance and with little member participation is certainly not fulfilling the rural finance needs of Turkey. As they stand today, the ACCs can fulfill agency functions such as correspondent banking and payment functions (such as DIS) delivery, but an

enormous opportunity is lost with the lack of savings mobilization function in the long term, and the decline of lending for rural investment.

- 2.21 **A second approach would be to focus on the financial aspects of the ACC system, and try to use a small sample of very good ACCs, with more lending business than input supply, to create a savings and credit cooperative in the long run.** This could involve 50 - 100 primary ACCs in a number of provinces. The point would be to try to complete the financial intermediation cycle since the RFS finds greater demand for savings services in the poorer rural areas, than for lending. With only a reduced Ziraat Bank presence (or no bank presence) in many of Turkey's rural areas, such a scheme would be extremely valuable to provide some banking-service competition in a significant number of pilot provinces. Finally, it might be possible to convert certain provincial ACC systems into private commercial entities. But this may require some years of successful upgrading experience with ACCs.
- 2.22 **All existing ACCs should be required to adopt effective governance structures, have an accounting and financial management system that meets defined standards, be subject to regular reporting and supervision, and demonstrate financial viability.** These types of requirements have been the fundamental steps successfully taken under Mexico's BANSEFI and SAGARPA programs which have led to improved efficiency of credit cooperatives and increased outreach of financial services (Box 2 below).

**Box 2 - BANSEFI and SAGARPA Programs – Mexico**

Providing efficient and competitive financial services to poor and marginalized people, through MF institutions (such as savings and loans institutions, credit unions, cooperatives and savings associations), has recently been a top priority of the Government of Mexico (GOM). While the MF sector is large in absolute terms (US \$ 4.2 billion in assets), it represents only 2 % of Mexico's financial system. Thus, the GOM is currently attempting to deepen the financial system with the aims of improving employment and income generation opportunities, encouraging regional development and accelerating poverty alleviation by adopting a financial system approach to the transformation of the semi formal MF sector.

The main players of Mexico's MF sector are the 600 MF institutions which emerged in the 1950s mostly as self regulated savings and loan cooperatives (SLC) (cajas populares). Today, there are 400 cajas with over 3.3 million members. The cajas are united in 12 Federations (secondary cooperatives), which in turn become members of one of two Confederations. Another key player in this institutional set-up is the National Savings and Financial Services Bank (BANSEFI), a state owned former savings agency, which obtained a banking license in 2002.

***Improving the Legal and Supervisory Framework and Capacity:*** The GOM started the restructuring process by strengthening the legal and regulatory environment and providing for reliable SLC supervision. In June 2001, it enacted a law to scale up access to financial services by incorporating all non-bank savings and credit institutions under a new regulatory framework. The legal requirements of the new law for existing institutions include: i) adopting one of two acceptable legal forms; ii) purchasing private deposit insurance; iii) having an accounting and financial management system that meets the Central Bank's standards; iv) regular reporting and supervision; and v) demonstration of financial viability and effective governance structures. Only those institutions which qualify are authorized to remain in operation and mobilize savings. The ones that cannot comply with the standards stop mobilizing deposits and are merged, acquired or dissolved. The responsible body for supervision of the SLC sector is the National

Banking and Values Commission (CNBV) of the Central Bank, but the Federations to which the *cajas* report carry out the auxiliary supervision on behalf of the CNBV. To be able to perform the supervision function, each Federation has to set up an independent Supervision Committee that is trained by an international entity.

**Support to the Transformation of the Microfinance Industry.** Technical assistance is provided to the system at various levels: the SLCs, Federations, Confederations and the supervisors (both at the CNBV and the Supervision Committees of the Federations). Specialized international agencies have been contracted to provide technical assistance and training,

i) **Technical assistance to SLCs** relates to the strengthening of various operational and financial aspects of *SLCs*, to enable them to meet the criteria for authorization to operate set forth under the Law, including lending practices, risk management, accounting, governance, internal control, prevention of money laundering, and others. Prior to the beginning of the technical assistance, all 400 *SLCs* underwent a due diligence procedure and were divided into four groups, including (a) those that were ready to be authorized; (b) those that needed to undergo an improvement program to obtain authorization; (c) those that would have to be merged or reorganized; and (d) those that would have to be closed.

ii) **Technical assistance to Federations and Confederations.** TA to Federations focuses on improving the lending procedures, risk assessment in operations, including adequate provisioning, accounting, business management, marketing, and governance. The Confederation benefits from assistance in strategic planning and development of deposit insurance fund.

iii) **Technical assistance to the Supervisory Function in CNBV and the Federations.** The supervision staff of the Federations are trained in how to perform the supervisory functions on behalf of the CNBV, and how to carry out financial, operational and governance assessment of *cajas*. The staff of CNBV received capacity building TA on specifics of supervision of the microfinance sector.

**BANSEFI, Coordinator of the Transformation Process.** BANSEFI manages the government sponsored technical assistance and training program to the *cajas*, their Federations and the CNBV. In addition, and perhaps more importantly, Bansefi provides selected activities or services to the individual *cajas* where economies of scale and scope are used to strengthen and expand the range of financial products which the individual *cajas* can provide to their clients. By developing a network business model among and for the *cajas*, BANSEFI enables the *cajas* to meet new legal and regulatory standards and remain competitive while maintaining their small size, proximity and direct contact with their respective markets. In order to play that role, Bansefi aims to become a second-tier bank of the SLC system, and is undergoing privatization through a share buy-out program by the *cajas*. To increase the *cajas*' outreach, the program targets the reduction of operating costs, improved efficiency of administrative processes, and automated reporting for regulatory compliance through development of an information technology system linking Federations, regulators, and BANSEFI.

The technological platform being developed will allow the SLC sector to operate in a network, centralize the information to improve decision-making processes, and minimize the costs of operation and supervision. The technological design is based in the autonomy of the microfinance institutions and is scalable according to their needs and growth of the network, and the technology services will be provided through out-sourcers from which the users will simply buy the service instead of having to invest in the physical infrastructure and run the software.

The commercial alliance between BANSEFI and individual *cajas* will help to exploit economies of scale by promoting all financial intermediaries of the alliance under a single brand, and using a single technological process to distribute financial products and services (e.g., remittances), including payments of various government programs, which will result in reduced transaction costs. As of early 2006, the alliance encompasses 68 financial intermediaries with about 1,200 branches, with presence in over 600 municipalities. Once the IT platform is established, BANSEFI also plans to add value to the *cajas*' basic loans and savings services by offering sophisticated products such as payment systems (cheques, electronic transfers, clearing house, credit/debit cards), financial products (trading, investment funds, foreign exchange, financial derivatives), consulting products (asset and liability management, risk management, accounting) and at the same time ensuring adequate technological support and risk management.

The overall cost of the program is US\$ 150 million, of which approximately US\$ 90 million is for the financing of the technological platform. It is expected that the improved technological platform and the strengthened capacity of the system's financial intermediaries will support an expansion of the outreach of the cajas system from the current 3.3 million to about 20 million members (about 20% of the total population of Mexico) over the next several years.

**SAGARPA Program:** The Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Nutrition (SAGARPA) began to implement a Rural Microfinance Technical Assistance Project (PATMIR) in 2001 to expand the network of cajas populares into Mexico's most poor and isolated rural communities. PATMIR helps to set up new cajas and increase the capacity of the existing ones that serve in the most remote rural areas. On the supply side the project offers assistance to cajas to increase outreach by tailoring products, promotional materials, and outreach methods to the needs of rural communities. It also offers funding to existing institutions for opening new branches and to new savings and credit institutions for start up. Participating institutions receive technical assistance for complying with the new legal and regulatory standards. On the demand side, the project offers groups and individuals in rural communities training on basic principals of household finance and participation in cajas, so that the gaps in knowledge, understanding and interaction between the financial service providers and their clientele are diminished. In this way, the program has strengthened the outreach capacity of 41 savings and credit institutions serving 24,000 people located in the most remote areas and has extended secure financial services to more than 10,000 clients at new branches or institutions.

This experience indicates that adequate regulations and supervision, institutional capacity building and technological infrastructure are more likely to yield sustainable results and cost less over time than traditional interventions that focus on increasing credit flows. Moreover, expansion efforts among the poor in marginalized areas have much better prospects if they focus on helping financial providers to tailor products to the needs of their clientele and also on training individuals in finance and building social capital networks.

*Source: CGAP, 2004, "Scaling Up Poverty Reduction, Case Studies in Microfinance", Conference in Shanghai; and, The World Bank, 2004, "Project Appraisal Document for BANSEFI Phase II Project", Report No: 282929-ME, Discussions during the Rural Finance Study Tour to Mexico*

2.23 Operational and Financial Restructuring of the ACC System. **The cost structure (and hence the staff levels) will have to be further reduced, interest rates will have to be raised to market levels, and sources of finance (other than government) will have to be developed.** Mobilization of deposits should be included in the long run, since as noted above, a safe and convenient venue for savings represents a greater demand in the poorer rural areas than does a source of investment finance, at least at present. Consideration should be given to liquidation of assets which do not pay their way, though on the other hand, the input supply function cannot be simply abandoned where there are no alternative input suppliers, and there are links between credit and input supply (as also with output marketing) which any good rural trader typically capitalizes on.

2.24 **Operational costs of ACCs have to be reduced.** In terms of operational efficiencies, ACCs have tried to decrease staff levels by allowing a significant number of early retirements: over the period 2001-2005, 2,000 staff retired, bring staffing down to 5,600. However, more staff reductions are needed in the Central Union and Regional Unions as more than a third of staff works in these offices. Transactions costs can be reduced by improving the productivity of individual ACCs through the outsourcing of some loan appraisals to the village level (and through new member organizations as noted above). In working through fourth-

tier associated organizations, a formal or informal policy of requiring joint and several liability for loan repayment by members of village level borrowing groups should be adopted<sup>12</sup>.

**2.25 In the immediate future, the GOT should continue to support the ACCs in developing and implementing a restructuring strategy which incorporates the principles outlined above as well as the following strategic measures:**

- iv) Strengthening the ACC system through training for increased staff quality, implementation of performance based M&E, and improved loan recovery ratios.
- v) Diversifying loan products and tailoring other services (extension, insurance, marketing) to better meet farmer demand through partnerships with farmer organizations and other private sector providers.
- vi) Pursuing long-term diversification of liabilities by one of the following options:
  - o developing larger and financially robust ACC units into small deposit taking cooperative banks (as per the Raiffeisen Bank experience as noted in Box 3).
  - o being accredited to collect deposits.
  - o buying in of a commercial banking license through acquisition by the ACC network of a suitable commercial bank.

**Box 3 - Raiffeisen Bank**

The Raiffeisen Group banks date back to the mid-19th century when the first co-operatives and loan societies of Germany and Austria appeared to support farmers in times of famine or economic dislocation. Friedrich Wilhelm Raiffeisen, the mayor of a number of local villages, started with the set-up of charitable cooperatives and then founded the first banking cooperative in Anhausen (Germany) that became a prototype for Raiffeisen banks in Germany and Austria. Thus, the Raiffeisen movement emerged as a credit institution with a cooperative foundation within a multi-functional social movement.

As the loan associations were established in relatively small well-defined geographic areas, they were particularly able to solve the problem of information asymmetry. With the advantage of their proximity to their potential clients and close communication network among association members, the loan associations made rigorous checks of debtors' credentials and evaluations of project return periods and probabilities and correspondingly quick and well-informed decisions on extending loans. Since transaction costs were minimized and included modest overheads, the costs in general were considerably low and this allowed offering loans with attractive conditions. Equally important, by educating farmers and small establishments in underserved rural areas to make a transparent calculation of economic risks and to take a fully informed approach to the use of scarce capital, a sustainable economic dynamic was promoted.

Today, the Austrian Raiffeisen Banking Group is the country's most powerful banking group with the largest retail banking network and approximately a quarter of all domestic banking business. Raiffeisen Zentral Bank is 87% owned by nine regional Raiffeisen Banks. These regional banks are owned by 586 local Raiffeisen Banks, which in turn are owned by 1.7 million cooperative members or clients. Raiffeisen Group is also present in more than 25 countries in the world, has representative offices in Europe, America and Asia, and provides a full range of services to both corporate and retail customers.

Sources: <http://www.raiffeisen.ru> - Tanner, Jacob, Speech in Microcredit 2005 Seminar, Switzerland, June 2005.

<sup>12</sup> If overall repayment on the village level portfolio falls below a certain, earlier specified level, the individual ACC working with the village level borrowing group should cease extending loans to a the group until full repayment has been achieved.

## *E. Micro-Finance Institutions*<sup>13</sup>

- 2.26 **Sustainable micro finance activities are almost non-existent in Turkey.** Except for two main NGOs' activities and limited private bank initiatives, the main operations are through state banks and cooperatives driven by government subsidies (with high loan losses and/or inefficient cost structures). The cooperatives TESKOMB and the ACCs (with 1.1 and 1.4 million members, respectively) may play an important role in the development of the micro-finance sector if they can be restructured to become independent, profit making credit providers and then serve as attractive partners to new entrants to the micro-finance market. With their diversified branch networks, both Ziraat Bank and Halkbank are well positioned to develop in the micro-finance sector, but this will require the development of products specifically tailored to micro-finance. Though this is currently not a priority of either bank, **the passage of a recently re-drafted micro-finance law currently under consideration by the Turkish Parliament may improve this situation.**
- 2.27 The new draft micro-finance law establishes a clear framework for the unlicensed, non-depository MFIs (including micro-finance banks and NGOs) to operate in the sector. It would also remove the existing prohibitions on donors from leveraging NGO micro-finance institutions (MFIs) and restrictions on NGOs from owning equity in licensed micro-finance banks. **Thus, the draft micro-finance law in its final form appears to provide the enabling legal framework for rapid commercialization of micro-finance institutions.** If these are successful, then the micro-finance model may attract other private sector providers into the micro-finance market, including Ziraat Bank and Halkbank once they are privatized. Over the long term, licensed institutions will likely become the major service providers, but NGO models will be critical to promote innovation and new business models in the sector.

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<sup>13</sup> Although financing for agriculture falls outside the scope of mainstream microfinance industry due to higher transaction costs, price and yield risks, seasonal climate incomes and collateral limitations inherent to the agricultural sector, a few innovative MFIs have led the way in adapting their operations and products to expand viably into agricultural lending in rural areas. The Unit System of Bank Rakyat Indonesia is a very good example of how large scale micro finance activities can be achieved in rural areas (See Box 1.1 in Chapter 1 of the Expanded Report).

## Chapter 3 – Regional Structure of Financial Markets

### A. *Distribution and Use of Banking Services*

3.1 The distribution and use of banking services across Turkey, measured by the percentage of total credit, deposits, and branches allocated across regions, largely reflects regional socioeconomic rankings. For example, **the Marmara region (which accounts for just over 25 percent of Turkey’s population) accounts for almost 60 percent of credit and 50 percent of deposits.** This level of banking development far exceeds the corresponding level in the next most developed region, Central Anatolia<sup>14</sup>, which has a 14 percent share total credit (in line with its 16 percent population share). **The Central Anatolia region is followed by the Aegean, Mediterranean and Black Sea regions, where the ratio of credit share to population share ranges from 0.5 to 0.8.** The East Anatolia and South East Anatolia regions rank the lowest in terms of distribution and use of banking services (receiving 2 percent of total credit each) (Table 5).

**Table 5: The regional distribution of banking services**

|                              | Aegean | Mediterranean | South East<br>Anatolia | East<br>Anatolia | Central<br>Anatolia | Black Sea | Marmara |
|------------------------------|--------|---------------|------------------------|------------------|---------------------|-----------|---------|
| GDP Share (2001)             | 15.6%  | 12.2%         | 5.4%                   | 4.3%             | 16.2%               | 9.6%      | 36.7%   |
| Share in total<br>population | 13.2%  | 12.8%         | 9.8%                   | 9.1%             | 17.1%               | 12.5%     | 25.6%   |
| <b>Total Banks</b>           |        |               |                        |                  |                     |           |         |
| % Credit                     | 10.5%  | 7.1%          | 2.2%                   | 1.2%             | 14.1%               | 5.9%      | 59.1%   |
| % Deposit                    | 10.5%  | 6.9%          | 1.7%                   | 1.6%             | 23.9%               | 4.8%      | 50.5%   |
| % Branches                   | 15.5%  | 9.8%          | 4.0%                   | 4.1%             | 16.9%               | 9.5%      | 40.3%   |
| <b>State-owned Banks</b>     |        |               |                        |                  |                     |           |         |
| % Credit                     | 15.4%  | 10.7%         | 3.1%                   | 2.9%             | 21.1%               | 18.6%     | 28.2%   |
| % Deposit                    | 12.3%  | 7.9%          | 2.0%                   | 2.8%             | 37.6%               | 6.9%      | 30.6%   |
| % Branches                   | 15.9%  | 10.4%         | 5.6%                   | 8.0%             | 20.0%               | 15.3%     | 25.0%   |
| <b>Private Banks</b>         |        |               |                        |                  |                     |           |         |
| % Credit                     | 9.2%   | 6.3%          | 2.0%                   | 0.7%             | 12.7%               | 2.7%      | 66.4%   |
| % Deposit                    | 9.6%   | 6.4%          | 1.6%                   | 0.9%             | 15.7%               | 3.5%      | 62.4%   |
| % Branches                   | 15.5%  | 9.6%          | 3.3%                   | 2.2%             | 15.7%               | 7.0%      | 46.8%   |
| <b>ACCs</b>                  |        |               |                        |                  |                     |           |         |
| % Credit                     | 18.5%  | 14.8%         | 3.8%                   | 6.5%             | 23.0%               | 15.5%     | 17.9%   |
| % Branches                   | 20.9%  | 10.5%         | 3.7%                   | 6.4%             | 20.6%               | 20.9%     | 17.1%   |

3.2 Within this general pattern, there are some important differences across the different types of institutions. While foreign and private banks concentrate most of their branches (45-65 percent), credit (65-75 percent), and deposits (65-85 percent) in Marmara, **the presence and services provided by state-owned bank and ACCs are more widely distributed throughout the country.** Nevertheless,

<sup>14</sup> The Central Anatolia region ranks fourth, behind the Aegean and Mediterranean regions, in terms of per capita GDP, but for the remaining regions the order of ranking in financial development strictly follows the order of ranking by GDP per capita.

private banks still account for 60 percent of credit in Southeast Anatolia. Surprisingly, **credit to GDP ratios for both state-owned banks and ACCs are highest in the Black Sea region**, and the second highest ratio of ACC credit to regional GDP is for East Anatolia.

- 3.3 Based on a detailed survey of Ziraat, Halk, ACCs and a private bank, **Ziraat is present in the largest number of districts (865 out of 923 districts), followed by ACCs** with presence in 808 districts. Halk Bank has offices in 347 districts. Assuming that institutions with at least one branch in a given district can offer their services to the entire district's population, the population share which each institution can potentially serve throughout Turkey has been estimated. Ziraat's potential outreach measured this way exceeds 95 percent. This figure applies almost equally to rural and urban areas. **The ACCs can reach approximately 82 percent of the Turkish population and 92 percent of the population in rural areas. Halk Bank can offer services to 73 percent of the Turkish population, but only 43 percent of those individuals in rural areas.** Moreover, physical presence in rural areas is significant for Ziraat and ACCs and is considerable for Halk. More than two-thirds of the districts where ACCs and Ziraat operates and half of districts where Halk Bank operates are rural. On the other hand, the surveyed private bank operates in less than 7 percent of rural districts (Table 6).

**Table 6: District level indicators of banking presence and activity**

|   | Private bank | Halk  | ACCs  | Ziraat |
|---|--------------|-------|-------|--------|
| <b>Physical Presence Indicators</b>                                       |              |       |       |        |
| Number of districts where bank is present                                 | 105          | 347   | 808   | 865    |
| % of rural districts where bank is present                                | 6.7%         | 46.1% | 72.3% | 69.6%  |
| % of branches located in rural districts                                  | 2.6%         | 30.5% | 66.5% | 53.0%  |
| % of total population the bank is potentially serving                     | 47.2%        | 73.2% | 81.7% | 96.1%  |
| % of urban population the bank is potentially serving                     | 69.0%        | 88.0% | 76.5% | 96.5%  |
| % of rural population the bank is potentially serving                     | 4.0%         | 43.8% | 92.0% | 95.3%  |
| <b>Loan Indicators</b>  |              |       |       |        |
| % of loans disbursed in rural districts                                   | 0.9%         | 18.5% | 65.4% | 16.6%  |
| % of loans going to agriculture   | 1.8%         | -     | -     | 49.2%  |
| % of agricultural loans disbursed in rural districts                      | 0.6%         | -     | -     | 12.2%  |
| % of loans to SMEs  | 4.4%         | 6.2%  | -     | 2.0%   |
| % of loans to SMEs (including Cooperative Loans)                          | -            | 34.9% | -     | -      |
| % of SME loans disbursed in rural districts                               | 3.0%         | 4.8%  | -     | 36.2%  |
| % of SME loans disbursed in rural districts (including Cooperative Loans) | -            | 24.0% | -     | -      |
| % of loans financing consumption  | 16.9%        | 8.3%  | -     | 29.8%  |
| % of consumption loans disbursed in rural districts                       | 2.2%         | 22.8% | -     | 31.9%  |
| Loans per capita (in rural areas, US\$)                                   | 3.6          | 13.2  | 12.5  | 35.3   |
| <b>Deposit Indicators</b>   |              |       |       |        |
| % of bank deposits collected from rural districts                         | 1.65%        | 12.4% | -     | 16.5%  |
| Deposits per capita (in rural areas, US\$)                                | 6.1          | 51.2  | -     | 167.1  |



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- 3.4 Despite Ziraat’s strong rural presence, only 17 percent of Ziraat loans originate in rural areas. **Still, Ziraat’s average amount of loans disbursed in rural areas is the highest of all institutions examined: US\$ 35 per capita.** In contrast, the share of credit originated in rural districts for the ACCs is much larger, reaching 65 percent of their total loans, but the average amount of loans disbursed per capita in rural areas is almost three times lower than that of Ziraat (US\$ 13). Though less than 20 percent of Halk’s loan portfolio is disbursed in rural areas, its average amount of loans disbursed per capita in rural areas is the same level as for the ACCs. (Loans disbursed by the private bank in rural areas amount to less than 1 percent of its loans and are less than US\$ 4 per capita.)
- 3.5 **In sum, Ziraat Bank is the most active in rural areas of the institutions examined, accounting for more than half of rural lending done by these institutions. The ACCs and Halk Bank each account for one-fifth of rural lending, and the private bank supplies the remaining 6 percent. A similar picture emerges for deposits in rural areas, with Ziraat accounting for the largest share (74 percent).** Halk, with three times less deposits per capita (US\$ 51) in rural areas than Ziraat Bank, accounts for almost one-quarter of the rural deposits examined by the study. The private bank accounts for less than 3 percent.
- 3.6 **The finding that deposits exceed loans made in rural areas by these institutions by a factor of 3.5 is roughly in-line with the national average of liquid liabilities to loans by all banks (3.0).** Moreover, since most of Ziraat’s agricultural loans are originated in urban areas but partially used in rural areas<sup>15</sup>, the actual ratio of deposits taken in rural areas to loans used in rural areas is likely closer to 3 as well. This seems to indicate that **banks taking deposits in rural areas are not siphoning off such deposits for use outside of rural areas anymore than the same institutions use deposits in urban areas to invest in government securities.** Lastly, the fact that rural deposits account for 17 percent and 12 percent of total deposits taken by Ziraat and Halk, respectively, is an indication that rural deposits are low compared to rural areas 30-35 percent share of GDP. (This is even more so for the private bank, whose rural deposits account for only 1.6 percent of its total deposits.)

## **B. *Responsiveness of the Banking Sector to Socioeconomic Indicators***

- 3.7 In order to empirically analyze the socioeconomic factors that explain the distribution and use of financial services across Turkey, two sets of regressions were executed, using provincial level data for ACCs, and state-owned, private, and foreign banks, and using district level data for selected institutions.<sup>16</sup> The

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<sup>15</sup> Ziraat’s category of “agricultural loans includes loans to both primary agricultural activities as well as to agro-processing, so it is not possible to disaggregate that share of such urban-originated “agricultural” loans flow back to the farming sector in rural areas.

<sup>16</sup> The district level data allow for examining whether the distribution and use of banking services is different for urban and rural areas and whether different types of institutions respond differently to

- results of the regression analysis of the socioeconomic factors that explain the distribution and use of financial services at the provincial and district level supports the view that the distribution and use of financial services follow the pattern of regional socioeconomic development.
- 3.8 First, provincial level analysis shows that GDP has a positive effect on the level of branches across all four types of institutions – ACCs, state, private, and foreign banks. **Private banks seem to respond the most to changes in GDP.** Next, the number of ACC branches is higher in thinly populated and agriculture intensive areas but lower in areas with higher unemployment and higher illiteracy areas. Clearly, the **ACCs are targeting more remote and agricultural areas but not the least socio-economically developed areas** (as indeed no financial institutions are or would be expected to). The number of branches of state-owned banks does not seem to be consistently affected by the urban/rural composition of the province.
- 3.9 Across all financial institutions, loans respond positively and significantly to GDP levels and negatively to illiteracy rates. Loans’ response to density and agricultural activities varies, with ACC lending responding positively and private bank (both domestic and foreign) loans responding negatively. **The elasticity of loans with respect to GDP is generally similar for state and foreign owned banks (around 1), but it is much lower than that for private banks and ACCs (1.5 and higher in the case of the ACCs).**
- 3.10 Deposits for all types of banks respond positively to GDP and negatively to measures of agricultural employment, illiteracy and unemployment. Private banks respond more to the level of economic activity in a province relative to state-owned and foreign banks: while the elasticity with respect to GDP for private bank deposits exceeds 1.2 that for state and foreign banks is at or below 1. While density and the share of urban districts are not significant in explaining the level of deposits, other measures of the rural/urban nature of the province such as the share of agricultural employment and ratio of agriculture value added to GDP show that the level of deposits is significantly lower in rural areas.
- 3.11 Regression analysis using district level data for four selected institutions yields more or less similar results to those reported above: the level of employment has a positive and significant impact on the level of total loans, while the illiteracy rate has a negative impact. Halk and the private bank make fewer loans in thinly populated and agricultural areas, whereas the opposite is true for Ziraat and, especially, the ACCs. Regarding savings, density and agricultural employment affect Halk’s and the private bank’s deposits but do not seem to influence those funds collected by Ziraat.

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socioeconomic indicators of the rural or urban character of the district considered. This is because it is at the district level that rural areas are identified.

- 3.12 **In sum, despite three years having passed since directed credit programs were almost entirely phased out by the GOT, private banks account for a much smaller share of lending (30-40 percent) in predominantly rural areas** (i.e. the Black Sea and East Anatolia regions) as compared to their much higher shares (60-75 percent) in more urbanized regions (the Marmara, Aegean, and Mediterranean regions). This is linked to the findings that private banks' lending responds negatively to low population density and high agricultural activity. With higher ACC branch presence in the low density and higher agriculturally focused districts, the rationale for promoting correspondent banking arrangements between private banks and the ACCs is strong. This is further reinforced by the finding that the ACCs do not target the least socio-economically developed areas. In addition, given Ziraat's greater loan activity in lower population density areas, there is good cause to expect that its existing knowledge base on rural borrowers could be put to effective use by those private banks acquiring Ziraat's rural branches once it is privatized.
- 3.13 For the least developed rural areas, targeted credits do not appear to be the first best solution, since most farmers there have less experience in commercial agriculture, generally lower entrepreneurial ability, less diversification of income, and more aversion to the risk of borrowing. In such regions, focus should be on increasing income and employment. This can be best achieved by supporting cultivation of higher value crops, off-farm activities grants for small agro-processing, market infrastructure development. Developing microfinance activities in particular in such regions may produce better results.
- 3.14 Though literacy is co-linear with other measures of district development, levels of literacy are the most strongly correlated district level indicator with levels of lending: for private banks and for all other financial institutions as well. This indicates the **need to expand training of rural households for functional literacy and financial education, and to foster the building up of social capital networks that can mainstream this effort. This also underscores the potentially large long-term role for micro-finance development programs**, which are most successfully combined with social mobilization efforts to increase awareness of the usefulness of financial services (particularly savings products but eventually credit products as well). The GOT should also assist banks, ACCs, and micro-finance institutions with the **development of new products and procedures suitable for agriculture and rural SMEs**, including products that streamline required documentation and examine creditworthiness through cash-flow analysis (rather than primarily through collateral availability).

## Chapter 4 – Participation in Financial Markets by Rural Households

### A. *Introduction*

- 4.1 In order to investigate the extent to which Turkish farmers participate in the formal and informal financial markets, **two recently collected rural household surveys were analyzed:** the Quantitative Household Surveys (QHS) carried out in 2002 and 2004 as part of the monitoring and evaluation of the Agriculture Reform Implementation Project (ARIP)<sup>17</sup>. The 2004 QHS includes a specialized Finance Module (FM) with questions about participation in financial markets (formal or informal), the characteristics of credit products, and the investment behavior of rural households. As a result, the surveys provide a comprehensive data that combines household and farm characteristics with the use of financial services. **The results of the analysis support the view that households face shortages of finance that limit their ability to take advantage of growth opportunities and accumulation of assets.**

### B. *Participation in Credit Markets*

- 4.2 When **farmers** are asked whether they have ever borrowed, about **37 percent of them indicated that they borrowed on any occasion from any type of lender. More rural households report having borrowed from state-owned banks than from private banks (16 percent versus 2 percent). Only 12 percent of rural households have ever borrowed from formal non-bank institutions (ACCs, other cooperatives, and leasing companies).** Household analysis also reveals quite differentiated regional borrowing. **Rural households in the Aegean and Mediterranean regions have the highest rates of ever having borrowed (62 percent and 49 percent, respectively).** The South East region has the lowest share of rural households (8 percent) which has ever received credit (Table 7).
- 4.3 **Contrary to other countries where borrowing from informal lenders is more common, Turkish rural households make limited use of informal sources compared to formal providers: 21 percent of rural households have ever borrowed from informal lenders (moneylenders, input suppliers, purchasers, friends and relatives, etc.), while 26 percent received loans from formal lenders.** Input suppliers credit is the most common type of informal credit (13 percent of rural households reported ever receiving such financing), followed by credit from purchasers (8 percent), and then loans from informal lenders (3 percent, from money lenders and merchants). Households receiving credit from purchasers (advances on sales of agricultural products) were mainly (60 percent) in the Mediterranean region.

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<sup>17</sup> The QHS is representative at the national and regional level of households with farming activities. The 2002 QHS interviewed 5,296 households, of which 3,954 were revisited in 2004. To make up for attrition, the 2004 QHS includes 1,542 additional households.

**Table 7: Participation in credit markets by rural households**

| (percentage of rural households)          | Turkey | Marmara | Aegean | Mediterranean | Central Anatolia | Black Sea | East Anatolia | South East |
|---|--------|---------|--------|---------------|------------------|-----------|---------------|------------|
| <b>Have ever borrowed from:</b>           |        |         |        |               |                  |           |               |            |
| Any source                                | 37.2   | 37.0    | 61.6   | 48.7          | 41.9             | 27.4      | 23.4          | 8.2        |
| Formal loans                              | 25.6   | 24.6    | 52.2   | 22.8          | 22.8             | 23.4      | 16.3          | 4.3        |
| State-owned banks                         | 16.3   | 14.1    | 34.8   | 10.5          | 15.7             | 15.6      | 12.3          | 3.1        |
| Private banks                             | 2.1    | 1.6     | 6.1    | 2.8           | 0.9              | 1.3       | 0.4           | 0.5        |
| Non-banks                                 | 12.1   | 15.9    | 23.8   | 13.7          | 9.7              | 8.4       | 6.3           | 1.5        |
| Informal credit                           | 20.6   | 25.7    | 25.4   | 38.4          | 30.3             | 7.5       | 9.5           | 4.6        |
| Loans                                     | 2.9    | 1.4     | 4.3    | 3.7           | 5.4              | 1.3       | 5.6           | 0.5        |
| Supplier credit                           | 12.9   | 20.9    | 19.0   | 8.2           | 24.5             | 6.2       | 4.0           | 1.5        |
| Advance sales                             | 7.8    | 6.1     | 6.5    | 33.9          | 5.0              | 1.0       | 0.0           | 2.8        |
| <b>Borrowed from .... in past 2 years</b> |        |         |        |               |                  |           |               |            |
| Any source                                | 20.0   | 23.5    | 30.9   | 37.8          | 20.3             | 11.5      | 2.0           | 3.6        |
| Formal loans                              | 10.2   | 10.4    | 24.2   | 8.8           | 7.9              | 8.8       | 1.2           | 1.8        |
| State-owned banks                         | 5.7    | 3.8     | 12.3   | 3.6           | 4.8              | 7.3       | 0.8           | 1.8        |
| Private banks                             | 1.2    | 0.6     | 3.7    | 1.7           | 0.7              | 0.5       | 0.4           | 0.0        |
| Non-banks                                 | 4.0    | 6.6     | 10.5   | 4.7           | 2.4              | 1.1       | 0.0           | 0.0        |
| ACCs                                      | 3.6    | 5.7     | 8.9    | 4.7           | 2.4              | 1.1       | 0.0           | 0.0        |
| Other                                     | 0.5    | 1.4     | 1.9    | 0.0           | 0.0              | 0.0       | 0.0           | 0.0        |
| Informal credit                           | 13.4   | 18.4    | 14.4   | 34.5          | 16.0             | 3.6       | 1.2           | 1.8        |
| Loans                                     | 1.1    | 0.3     | 1.3    | 2.2           | 1.7              | 0.9       | 0.8           | 0.0        |
| Supplier credit                           | 7.1    | 14.8    | 9.3    | 4.7           | 12.4             | 3.0       | 0.4           | 0.5        |
| ACCs                                      | 3.7    | 9.1     | 4.3    | 1.5           | 6.4              | 1.8       | 0.0           | 0.3        |
| Other                                     | 3.4    | 5.7     | 5.0    | 3.2           | 6.0              | 1.2       | 0.4           | 0.2        |
| Advance sales                             | 6.9    | 4.7     | 5.6    | 32.4          | 4.0              | 0.5       | 0.0           | 1.5        |
| Any credit from ACCs                      | 6.2    | 11.9    | 11.0   | 5.6           | 7.2              | 2.9       | 0.0           | 0.3        |
| <b>Has outstanding debt with:</b>         |        |         |        |               |                  |           |               |            |
| Any source                                | 10.7   | 10.7    | 21.7   | 9.2           | 13.4             | 8.5       | 1.6           | 2.0        |
| Formal loans                              | 6.9    | 4.9     | 18.0   | 5.1           | 5.7              | 6.7       | 1.2           | 1.0        |
| State-owned banks                         | 4.0    | 1.9     | 9.4    | 1.9           | 3.6              | 5.6       | 0.8           | 1.0        |
| Private banks                             | 0.8    | 0.3     | 2.7    | 0.6           | 0.7              | 0.4       | 0.4           | 0.0        |
| Non-banks                                 | 2.4    | 3.0     | 7.0    | 3.2           | 1.4              | 0.8       | 0.0           | 0.0        |
| Informal credit                           | 5.6    | 7.7     | 8.8    | 5.8           | 9.7              | 2.5       | 0.8           | 1.0        |
| Loans                                     | 0.8    | 0.2     | 1.1    | 1.5           | 1.6              | 0.4       | 0.4           | 0.0        |
| Supplier credit                           | 4.3    | 6.6     | 6.1    | 3.6           | 8.4              | 2.0       | 0.4           | 0.3        |
| Advance sales                             | 1.0    | 1.3     | 2.1    | 1.3           | 0.9              | 0.3       | 0.0           | 1.0        |
| <b>Uses credit cards</b>                  | 10.0   | 12.2    | 15.3   | 9.7           | 7.6              | 10.9      | 0.8           | 5.6        |

Source: Calculation using the 2004 QHS Finance Module

4.4 Rural households' participation in credit markets is much lower when limited to credit received in the past two years. **Only 20 percent of rural households reported receiving credit in the past two years.** As in earlier periods, rural households were more likely to have borrowed from state-owned banks (6 percent) than from private banks (1 percent) or non-banks (4 percent) in the past two years. Getting loans from informal lenders was as infrequent as borrowing from private banks. Among informal sources of credit, receiving credit from input suppliers was more common than borrowing from informal lenders or receiving advances for future agricultural sales. **ACCs, providing financing either as cash loans or supplier credits, served about 6 percent of rural households.**

4.5 Notable regional trends in the past two years include the following: rural households in the Aegean region were the most likely to report borrowing from formal sources (24 percent); rural households in the Marmara region were the most likely to receive input suppliers credits (15 percent); and, advances from agricultural sales are most common in the Mediterranean region (32 percent).

*C. Use of Financial Savings and Insurance Services*

- 4.6 An examination of the use of financial assets by rural households shows possession of very few financial assets including bank accounts: **only 11 percent of rural households had any type of financial assets in 2004. About 8 percent of rural households reported having accounts with banks. When holding formal financial assets, rural households rely more on state-owned banks** (74 percent) than with private banks (26 percent). A very small percentage of rural households reports having informal savings of any kind (3 percent), mostly in the form of loans without interest to third parties. Consistent with the findings in credit markets, rural households in the Aegean and Marmara regions are more active participants in the market for financial savings than in the rest of the country. As reasons for not having formal financial assets, rural households most frequently (92 percent) cited “lack of resources” or “not needing the account”. Only 6 percent of rural households without formal financial assets indicated “lack of trust on financial institutions” as the main reason.
- 4.7 Regarding insurance, **rural households cited limited knowledge of the availability of formal insurance services (27 percent), and only a small fraction (11 percent) reported having any type of insurance services.** Health and car insurance are the type of insurance most frequently purchased by rural households (8 and 6 percent, respectively). Crop or livestock insurance is barely used by rural households (0.5 - 1 percent).

*D. Profile of Users of Credit and Other Financial Services*

- 4.8 Regression analysis of the factors correlated with participation by rural households in credit, financial saving and insurance markets revealed a number of significant relationships. First, receiving secondary education increases the likelihood of borrowing from state-owned banks and credit card providers by 3 and 10 percentage points, respectively. **Educational attainment also has a positive effect on the likelihood of having savings and insurance among rural households, and this effect increases with years of education.**
- 4.9 As for business characteristics, rural households with larger operations are more likely to borrow from formal or informal lenders, which reflect their ability to pledge collateral to secure credits. **The share of rainfed land, which is an indicator of the riskiness of farm activities, is a much stronger negative factor (associated with a 7 percentage point lower probability) affecting the use of credit (both formal and informal).** Social capital, measured as membership to cooperatives and guilds, has a positive effect on the likelihood of borrowing from formal or informal sources. For example, rural households that are members of ACCs have 5-6 percentage-point larger probabilities of receiving formal loans or supplier credit.
- 4.10 **Even after controlling for rural households’ characteristics, regional characteristics affect participation in credit markets.** Rural households in the

Aegean region are more likely to get formal loans and have more financial savings. Households in the East and South East Anatolia regions are less likely to get formal loans and having financial savings. **Residents of the Black Sea region are more likely to get state-owned loans and credit cards.** In the case of informal credit, rural households in the Aegean, Black Sea, Mediterranean, and East/South East Anatolia are less likely to receive supplier credit than in the Marmara and Central Anatolia regions. **Rural households in the Mediterranean region have more chances of getting advances from their sales of agricultural products than households in the rest of the country.** Some of these differences likely reflect the supply side weaknesses (e.g. lower financial sector penetration by private banks and input supply firms) in less developed regions, but also may be indicative of unmeasured socio-cultural differences.

- 4.11 In sum, **these findings confirm the earlier finding from the analysis of financial institutions' regional lending patterns that low educational attainment rates are a key impediment to the expansion of rural households' savings and borrowing.** Since the least developed regions exhibit rates of rural literacy and attainment of secondary education of less than 75-80 percent of the levels<sup>18</sup> in the more developed regions, education is a long-term challenge that will have to be met to make rural use of financial services spread beyond the current 2-12 percent of rural households which use them in these least developed regions. **The next most important variable affecting borrowing is farm riskiness (measured here by share of rainfed area), which can be addressed by a number of investments that the GOT is currently in the process of scaling up:** completing irrigation networks down to the farm level, mainstreaming the practice of warehouse receipts<sup>19</sup> to reduce small farmers' exposure to seasonal crop price fluctuations, and premia subsidies for crop insurance.

#### *E. Rural Households' Borrowing Shares by Credit Product*

- 4.12 Examining the volume of borrowing by rural households reveals that cash loans are a more important source of credit for rural borrowers than input supplier credit. Cash loans account for 60 percent of disbursed amounts in 2002-2003, 73 percent of outstanding debts, and 53 percent of credit transactions made. **Among formal lenders, state-banks are the largest provider of credit followed by non-banks while private banks have the smallest market share. Among informal sources of credit, informal lenders account for only 7 percent of the**

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<sup>18</sup> Rural literacy rates are as low as 70-75 percent in the Southeast and East Anatolia regions, and the share of rural working age people with at least secondary education is only 14-16 percent.

<sup>19</sup> By storing their commodities with licensed warehouses and being issued a tradable warehouse receipt, they will be better able to manage the risk of price fluctuations since they will acquire greater opportunity to time their sales on commodity markets without losing access to working capital while they wait for post-harvest price troughs to dissipate. The recent (2005) Law on Licensed Warehouses for Agricultural Commodities has laid the foundation the mainstreaming of warehouse receipts financing. Grade specifications to international standards for wheat and cotton under a World Bank project have been developed under the World Bank's Commodity Exchanges Project.

- credit transactions, almost 7 times smaller than the number of transactions entered into by suppliers of input credit.** The majority of the credit received by rural households is denominated in Turkish Lira (99 percent of disbursed amounts in 2002-2003).
- 4.13 Ziraat is the main creditor for 26 percent of rural borrowers and for 86 percent of rural borrowers of state-owned banks. This is consistent with the earlier finding based on the information which Ziraat and Halk banks provided that Ziraat provides almost three times as much credit to borrowers in rural areas as Halk. The finding from the FM survey that **the ACCs are the main creditor for 38 percent of rural borrowers (either by providing loans or supplier credit)** is surprising since the information provided by the ACCs on their rural lending revealed that **they also lend roughly three times less total funds to rural borrowers than Ziraat. This reflects that average credits from the ACCs are smaller than those from Ziraat, and that Ziraat's lending is concentrated on a smaller number of rural clients than lending by the ACCs.**
- 4.14 Among private banks, Isbank, Akbank, and Denizbank are the banks most frequently reported by rural borrowers, serving about 5 percent of borrowers combined. **All private banks together account for 10 percent of credit taken by rural borrowers and for 15 percent of the volume of loans** (excluding suppliers' credits). This is also consistent with the earlier finding that the representative private bank surveyed accounted for 6 percent of rural loan amounts.
- 4.15 Regional distribution of rural households' borrowing. In this light, it is revealing to examine the regional distribution of rural households' borrowing from the various sources reported in the FM survey. **Rural household's borrowing from state-owned banks is concentrated in the Aegean, Mediterranean, and Black Sea regions.** Approximately 70 percent of state-owned bank disbursed amounts and 75 percent of their rural borrowers are in these regions. **Rural household's borrowing from private banks is concentrated in the Aegean region,** which accounts for almost 50 percent of the disbursed amounts and number of loans. The Mediterranean and Marmara regions follow the Aegean region in importance in terms of the allocation of household borrowing from private banks (15 percent each).
- 4.16 **The largest share of rural household's borrowing from non-banks and informal lenders is in the Mediterranean region.** About 38 percent of such borrowing from non-banks credit and 40 percent of informal lender credit goes to this region. Supplier credit is used primarily in the Central Anatolia region, which accounts for 29 percent of both supplier credit amounts and the number of borrowers, followed by the Marmara (27 percent) and Aegean region (22 percent).
- 4.17 Length of Relationship. Private banks, which started serving 75 percent of their rural customers in the past 5 years, have the shortest length of business relations



- with rural households. This finding is consistent with the notion that private banks are expanding into rural areas. ACCs and state-owned banks have been dealing the longest with their clients. Almost 75 percent ACCs' and 70 percent of state-owned banks' rural borrowers have been dealing with those institutions for 10 years or more.
- 4.18 Rating of Creditors' Services. Among all types of providers, private banks have the highest median ratings in terms of location of branches, speed of services, amounts granted, maturity of loans, collateral requirements, and services offered. Surprisingly, informal lenders have the lowest median rating across all categories examined. Interest rates and fees is the most important dimension of credit services for 54 percent of borrowers.
- 4.19 Characteristics of Credit Products. State bank loans to rural borrowers are used mainly (59 percent) for agricultural activity only and about 35 percent of their loans are used to finance investment outlays (mainly in agriculture). With a median value of 5,500 NTL, **private banks grant the largest loans to rural borrowers but require the lowest collateral amount compared to loan value (0.6 times the loan size). ACCs grant the smallest credits to rural households with a median loan size of 1,600 NTL, but take the highest collateral value, which is 6 times the loan size.** When taking loans from informal lenders, rural borrowers face the lowest transaction costs: about 50 percent of informal loans were processed in one day or less and 15 percent without any fees or commissions. Similar to the findings above on the number of transactions, amounts advanced for agricultural sales are concentrated in the Mediterranean region (64 percent of transactions).
- 4.20 Formal and Informal Savings Products. Rural households hold their financial assets predominantly with state banks. These banks have about 52 percent of accounts and 58 percent of deposited amounts. Private banks hold about one-fifth of accounts and deposited amounts. Rural households also have about 11 percent of their financial assets in informal means (holdings of foreign currency, gold, or loans to third parties). Almost 30 percent of their saved balances are in foreign denominated accounts or in foreign currency holdings. These findings on savings from the FM survey are different though consistent with those reached from the survey of key financial institutions active in rural areas: namely with fewer private banks included in the survey of financial institutions, the state banks' share of rural savings exceeded 90 percent (as opposed to the 65 percent share of formal savings revealed by the FM survey).
- 4.21 **While state-owned banks have seen their rural deposits concentrated in the Marmara region (40 percent of deposited amounts), private banks are active mainly in the Mediterranean (64 percent).** Informal savings are evenly distributed across regions, excluding East Anatolia and the South East regions which have limited participation. These last two regions have the smallest share of savings products, similar to the distribution of credit products.



## Chapter 5 - Credit Constraints and Investment Behavior

### A. *Credit Constraints*

- 5.1 To determine the degree to which rural households have an unmet demand for credit, and thus are constrained in their access, the RFS has examined (with results reported in Chapter 5 of the Expanded Report) the responses to the FM survey which reported rural households' loan applications, loan rejections, and the reasons cited by those households who are not applying for loans. **This revealed that over the course of 2003-2004, only 12 percent requested loans from any of the four types of lenders (state-owned banks, private banks, non-banks, and informal lenders). This application rate reached 18 percent with requests for supplier credits factored in.** Many rural households report not applying because the loan products offered were ill-suited for their operations (10 percent of those that did not apply for loans cited collateral or information issues), but **most (42 percent) were discouraged by high interest rates and fees.** Others were reluctant to apply (just under 20 percent) because of their perceptions that the borrowing process is associated with high risks. Some rural households (about 20 percent) did not request loans because they do not have a demand for loans (Table 8).

**Table 8: Application for loans**

|  | State owned<br>banks | Private<br>banks | Non-<br>banks | Informal<br>lenders |
|--|----------------------|------------------|---------------|---------------------|
| <b>Share of rural households which requested loans in past 2 years from:</b>                         |                      |                  |               |                     |
| Average number of loan applications  | 6.3                  | 1.2              | 4.3           | 1.1                 |
| % of loan applications rejected  | 1.4                  | 1.4              | 1.8           | 3.4                 |
| <b>Number of households not applying for loans</b>   | 19.4                 | 6.1              | 10.8          | 6.3                 |
|  | 3,777                | 3,919            | 3,842         | 3,921               |
| <b>Main reason for not requesting loans from:</b><br>(As a % of those <b>not</b> applying for loans) |                      |                  |               |                     |
| No demand  | 20.8                 | 20.3             | 20.4          | 19.4                |
| Collateral/information issues  | 9.2                  | 9.2              | 8.0           | 7.1                 |
| Inadequate maturity/amounts  | 0.3                  | 0.3              | 0.3           | 0.3                 |
| High and variable interest rates   | 41.5                 | 42.3             | 42.6          | 42.4                |
| Lack information about lenders   | 0.4                  | 0.5              | 0.6           | 0.5                 |
| Too risky  | 18.4                 | 17.9             | 18.2          | 20.7                |
| Other reasons  | 9.5                  | 9.4              | 10.0          | 9.6                 |
| Total  | 100.0                | 100.0            | 100.0         | 100.0               |

Source: Calculation using the 2004 QHS Finance Module

- 5.2 Thus, the RFS has examined credit constraints by first classifying households into the following four categories: i) households who do not demand loans; ii) households who demand loans but for several reasons did not apply for a loan; iii) households who applied for loans but got rejected; and, iv) households who received loans. According to this classification, those households in categories (ii) and (iii) were considered as credit constrained or households who have unmet demand. According to the analysis of the survey responses, low usage of cash

loans was related mainly to credit constraints and low usage of supplier credit is related to low demand for such type of credit.

- 5.3 **Specifically, about 82 percent of rural households report demand for any type of loan, but only 11 percent<sup>20</sup> received loans. Therefore, the low participation rates in loan markets can be attributed to a high proportion of agents that are credit constrained (71 percent).** A noteworthy difference between the demand for loans and for supplier credit is that the latter is substantially lower: only about 41 percent of rural households indicate a demand for supplier credit. As a result, the low usage of supplier credit is attributed to a low demand: **only about 34 percent of rural households have an unmet demand for supplier credit.**
- 5.4 Further, the RFS has also examined the profile of rural households that are credit constrained by calculating the change in the probability of having an unmet demand (partial derivatives evaluated at mean-values), given a change in relevant characteristics of rural households. The model used controlled for household, business, and location-specific characteristics that are related to the supply of and demand for credit.
- 5.5 The results show that rural households are more likely to have an unmet demand for loans if they have been longer in operations or have smaller operations in terms of assets and land size. They also have larger shares of rainfed agricultural land and livestock productions. Furthermore, they sell mainly in their district of residence and have less entrepreneurial ability. For example, they are less likely to have taken preliminary steps before starting their operations or to have previous labor market experience in the agricultural sector. In terms of regional characteristics, credit constrained rural households tend to reside in provinces with lower GDP per capita, and in districts with fewer branches per 1000 people.

#### ***B. Investment Behavior***

- 5.6 Lastly, the RFS also investigates two key questions regarding the consequences of credit constraints on investment, namely: does the incidence of having an unmet demand reduce the number of rural households making investments? And if so, how many more rural households would invest and how much larger would their investment be if they were not credit constrained?
- 5.7 In this regard, the RFS examines the proportion of rural households that undertook any investment in capital goods (equipment, vehicles, and real estate properties) in recent years and the value of investment: **this show that a very small number of rural households (9 percent) made investment outlays in the previous year.** The survey data also reveal substantial regional differences in the incidence of investment. **Rural households located in the Aegean and Central Anatolia regions present the highest incidence of investment (15 and 13**

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<sup>20</sup> The range of rural households annually reporting borrowing in a number of comparator countries (Romania, Brazil, and India) ranges from 18 to 30 percent.

percent, respectively). Again, those living in the South East region are less likely to invest than their counterparts in the rest of the country (1.5 percent, Table 9).

**Table 9: Investment behavior by rural households**

|                                  | Turkey | Marmara | Aegean | Mediterranean | Central Anatolia | Black Sea | East Anatolia | South East |
|----------------------------------|--------|---------|--------|---------------|------------------|-----------|---------------|------------|
| Made investments (%)             | 9.3    | 9.9     | 15     | 10.9          | 12.6             | 6         | 6.7           | 1.5        |
| Value of investment (if >0), TLm |        |         |        |               |                  | 17,19     |               | 25,50      |
| Mean                             | 17,981 | 16,909  | 15,821 | 22,408        | 19,527           | 6         | 12,040        | 1          |
| Median                           | 10,471 | 10,048  | 9,879  | 10,275        | 12,000           | 10,50     | 6,280         | 19,40      |
|                                  |        |         |        |               |                  | 0         |               | 5          |

Source: Calculation using the 2004 QHS Finance Module

- 5.8 **About 21 percent of rural households receiving any loan or loan and/or supplier credit made investment expenditures compared to 9 percent of rural households as a whole.** Those rural households that are constrained (have an unmet demand) are slightly less likely to invest than those households that report not having a demand for credit. This suggests that the reported demand for loans may not be associated with investment needs only. In terms of amounts invested, the analysis finds that rural households that received loans or supplier credit invested larger amounts than those without a demand for credit or with an unmet demand.
- 5.9 Next, the RFS seeks to understand what determines whether rural households invest and what factors affect the size of investment. To explore these questions for investment in capital goods, a Tobit model for the log of the amount of investment is used. The decision to invest and the size of investment are allowed to depend on four categories of variables: growth opportunities, expectations, entrepreneurial ability, and availability of funds. The results of the model suggest that rural households more likely to invest and to invest larger amounts tend to have better growth opportunities. They have more productive assets, have younger operations, and have a larger share of irrigated land. Moreover, these households also have livestock production and sell more of their output.
- 5.10 Indicators of entrepreneurial ability are also correlated with investment. Those households that took preliminary steps before starting their operations are more likely to invest and they also invest larger amounts. **Receiving technical assistance increases the chances of investing, and having any type of financial savings or insurance products is strongly associated with the incidence and size of investment. Lastly, households that received DIS payments are also more likely to invest.**
- 5.11 The regression results also show that **rural households receiving credits, such as loans or supplier credit, are more likely to invest and would invest larger amounts. For the average rural household, the probability of making investment in capital goods is 5 percentage points larger when receiving loans, and the amount invested would be 72 percent higher.** When using the

combined indicator of receiving loans or supplier credit, the likelihood of making investments would be about 7 percentage points higher for the average rural households. The amount invested would have been 94 percent higher when receiving informal loans or supplier credit only and 90 percent higher when borrowing from formal sources.

- 5.12 Using the estimated regression results, the RFS estimates the aggregate effect of removing credit constraints on the incidence of investment and the aggregate investment outlays. In particular, it predicts the likelihood of making investments and the investment amounts assuming that all credit constrained households will receive credit. Since not all constrained households will be eligible to receive credit, the estimated results are an upper-bound indication of the effect of removing credit constraints for rural households. Still, these upper-bound indications<sup>21</sup> show that **when credit constraints are removed, an additional 4 percent of rural households will make rural investments. Measured against the base of roughly 9 percent of rural households that are currently investing on an annual basis, this is a roughly 50 percent potential increase. Moreover, aggregate investment outlays would be almost 40 percent higher if all credit constrained rural households were to receive loans.**

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<sup>21</sup> Two models have been developed: (i) one that takes into consideration loan markets; and, (ii) a second that considers both loan and supplier credit markets. The results cited here are for model (i).

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