EXISTING LENDING PRACTICES IN ARMENIA AND RECOMMENDATIONS FOR FINANCING IN THE HEAT ENERGY SECTOR INCLUDING PROJECT FINANCIAL BENCHMARKS

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I. INTRODUCTION

The Residential Heating Project's mandate under its USAID contract, (Contract # 111-C-00-05-00040-00), is to provide the institutional development in the heat energy sector and provide significant numbers of apartments with heat under the improved heat market. One key factor for successful development of the heat market is the capability of the heat market participants to lend from local financial institutions based on project financing.

This report builds upon reports provided from other USAID implementers and other donor agencies' implementers. (For example, see USAID Energy Reform Program, Financing of Energy Efficiency and Renewable, 2004). This report provides an overview of lending practices based on interviews with the local financial institutions and information collected from the regular required reports to the Government by the financial institutions.

II. LENDING PRACTICES AND CONDITIONS

A. BACKGROUND

The banking system in Armenia has gone through several expansions and contractions since the breakup of the former Soviet Union. Or the last three years or so the amount of banks has stabilized, though bank mergers and acquisitions continue to occur on a regular basis. The banking system financial situation has improved during this period.

There are currently 21 commercial banks (with 269 branches) in the Armenian banking system. As of December 31, 2005, the basic statistics of the banks included:

- Total capital amounted to AMD 94.8 bln;
- Total assets amounted to AMD 440.7 bln; and,
- Total liabilities amounted to AMD 345.9 bln.

There are 10 credit organizations in Armenia (of which - 1 is a credit union, 2 are leasing companies and 7 are versatile credit organizations. The credit organizations reported the following figures as of December 31, 2005:

- Total capital - AMD 4.4 bln; and,
- Total assets - AMD 7.9 bln.

Banking supervision in Armenia is performed by the Central Bank of Armenia. Pursuant to the Armenian law on "The Central Bank of the Republic of Armenia", the objectives of the Central Bank are to provide necessary environment for stability, solvency and normal activities of the Armenian banking system. Under this Law, the Central Bank is required to license, regulate and supervise the activities of the banks in Armenia. The Central Bank regulates the banking activities by determining requirements for:

- The bank's licensing and registration procedures for their branches; and,
- Prudential standards of banking operations.

The local financial institutions have seen at least four solid years of growth and are now posed to enter in new markets such as the heating sector.

B. LENDING CLASSIFICATION

The lending practices in Armenia can be classified within several dimensions. The financial institutions base their decisions on lending on:

- Borrower's credibility, capabilities and past successes;
- Cash flow history and collateral; and,
- Repayment period.

1. BORROWER

Banks and credit organizations distinguish two types of borrowers: individual (physical person) and companies (legal person).

2. COLLATERAL

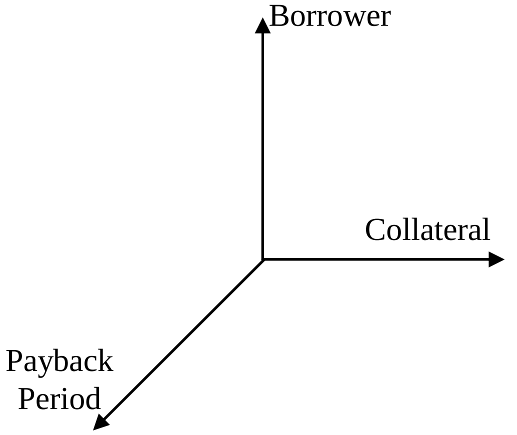
Banks recognize a variety of collateral including state securities, gold, cash equivalents and other high liquidity assets (i.e. marketable inventories), and immovable property (real estate, land).

3. REPAYMENT PERIOD

The financial market's allowed repayment period has greatly increased over the last couple of years. Banks were reluctant even four years ago to provide loans longer than 1 year. The time frame has rapidly increased to fours years, then seven years and by late 2005, many of the banks are loaning out to 10 years. The banks provide lending over three terms depending on the type of loan that is requested. Those three periods are generally:

- Short term – less than 1 year
- Middle term – from 1 to 3 years
- Long term – from 5 to 10 years

The chances that a loan is accepted is greatly enhanced when all three factors, borrower's known capabilities, collateral and repayment period are all in the positive range as illustrated in the graph below.



C. TYPE OF LOANS

1. AGRICULTURAL LOANS

An agricultural loan is customized for individuals and companies involved in the agricultural industry, including the processing of agricultural products. Financing is offered by the local financial institutions for working capital. In general, the loans are for purchase of seeds, fertilizers, fuel, animals, and other means. As promotion of long term assets, the loans are offered for acquiring of land, purchase of agricultural machines and equipment, setting of new gardens, increase of livestock, and other assets. Applicant can obtain financing within 20 days of submitting a loan application and all required documents.

The collateral for an agricultural loan can be equipment, agricultural facilities, vehicles, animals, house property, real estate, land, orchards, and other similar property.

The typical repayment period for an agricultural loan is 3 years with a maximum financing of only AMD 30 million or the USD equivalent. Interest rates range from 22 to 26% for Armenian Drams and 16 to 20% for US dollars. In case of simplified mode (small loans), the interest rate for AMD loans can be reduced up to 2%.

The banks do not require a business plan when applying for a agricultural loan. There are special application forms that should be filled and submitted to the bank. The simplified package is offered for small loans. In general, to apply for loan, a borrower should simply submit the loan application with a short interview regarding the purpose of the loan with a loan officer of the bank.

2. CONSUMER CREDITS

Consumer credit is offered to individuals for purchases of house equipment and tools, computers and entertainment sets, and furniture.

The banks' decision making period is typically 1 day. Lender and borrower sign a simple loan agreement. The payments are allocated over the period of repayment. (Interest is paid on the outstanding balance.)

The borrowed amount depends on the constant (normal level) income of the individual (borrower). The interest rate varies from 24 to 30%. The repayment period is as following:

- 12 months for residential equipment;
- 15 months for furniture; and,
- 8 months for computers.

The purchased asset is considered as collateral. Banks, in general, lend no more than 30% of purchased asset.

3. VACATION, EDUCATION, AND OTHER PERSONAL CREDITS

Personal credit opportunity is offered to individuals, only. As in case of Consumer Credit, the approval of the loan depends on the personal income of individuals. However, the loan limit can not be more than USD 2,000 or AMD equivalent. The interest rate is about 16%. The repayment period varies between 3 to 12 months. The borrower should provide at least 30% of required funds.

4. COMMERCIAL LOANS

Commercial loans are offered to legal persons (companies) only. Such loans are for financing for sustaining and expansion of manufacturing, trade, and services. Commercial loans are considered as promotion of small and middle businesses. Commercial loans are offered with a repayment period of 5 years, in general. The interest rate is varies within the range, 18-24%. The loan amount can be from 50% to 70% of market value of offered collateral. No start-up financing is offered.

There is no required business plan for submission with the loan application. The banks' decision to approve the loan is normally based on historical cash flow and collateral. The company (borrower) should provide an explanation of why the loan is required to loan officer of the bank.

Historical information on company cash flow is generally required for the previous year. Collateral can include state securities, cash equivalents, stock shares, equipment, vehicles, house property, gold, real estate, and other tangible assets. In certain cases, a third (both individual and company) party can forward collateral as guarantee.

5. OVERDRAFT

Overdraft is considered as a lending mechanism for both individuals and companies. However, it is considered as investment in working capital of a business. This type of loan is offered in AMD and USD. The interest rate is about 26%. The repayment period of overdraft loan is up to 1 year. The decision the amount of overdraft protection is based on the judgment of a loan officer of the bank.

6. LOAN FOR CARS

Loans for purchasing cars are offered to individuals and are based on historical cash flow and amount of monthly income of individual (borrower). Car loans are offered for periods of 2-5 years. Interest rates vary within the range of 16-20%. Banks will finance up to 70% of vehicle's value.

7. MORTGAGE

There are two allowed mortgage types that banks offer for:

a) Acquisition of a new apartment; and/or,

b) Renovation or reconstruction of an apartment.

The decision on lending is based on historical cash flow and amount of monthly income of the individual (borrower). Mortgages are typically offered for the period of 5-7 years. Interest rates vary within the range of 11-18%. Loan to value rate is no more than 70% for acquisition of new house and no more than 50% for renovation.

8. BUSINESS LOANS FOR SPECIAL PROJECTS FROM DONOR ORGANIZATIONS

Business loans are provided for targeted financing by international organization (KfW, European Bank for Reconstruction and Development ("EBRD"), Eurasia Foundation, USDA MAP, IOM, World Bank, and others).

Loans for small and medium-sized businesses are offered loans for 1-4 years with interest rate of 13-24%. Loans of more USD 400,000 can be borrowed with interest rate of 12-15% with a repayment period of 5 years. A borrower should submit auditor's report each year.

9. START UP LENDING

Lending for start-up businesses is offered by micro-finance credit organizations. No collateral is required. The lending amount is varies typically range from USD 50 to 300 for individuals though in some cases the loans are as much as USD 2,000. The repayment period ranges from 12 weeks to 1 year. Such loans are offered under group guarantees. A group can consist from 3 to 15 people. A start-up loan is basically targeted to agricultural and rural micro business; however, it can be utilized as an individual consumer loan as well.

10. PAWN

Pawn service is offered for getting quick financing. In general, it is used for small domestic financing. However, it can be utilized as a beneficiary crediting of gold. Pawn lending only considers individuals as core borrowers.

Gold and high value treasures are only accepted as collateral. Loans can be up to 90% of gold market value. The repayment period is negotiable but in practice it is considered as short term loan. The financing, both in AMD and USD, can be offered during an hour when collateral is available. The minimum lending amount is USD 50 or AMD equivalent. Interest rate varies between 19.2 and 36%.

D. DECISION-MAKING FOR PROJECT FINANCING

There is no rigid requirement for a borrower to submit information on a future project if it is not specifically required by a donor institution. Normally the decision to provide financial resources is based on historical cash flow, actual monthly income, and collateral of borrower. In all cases, the borrower verbally explains the activity that requires additional financing without a business plan that provides investment requirements, future expected revenues, cash flow or internal rate of return.

III. FINANCING HEATING PROJECTS

A. INTERNATIONAL EXPERIENCE IN PROJECT FINANCING

The main difference between Western experience of lending in business and the Armenian one is that Western financial institutions are future-oriented rather than on the past as for Armenia. Historical data should provide the local financial institutions an indication of the borrower's capabilities to operate their business rather than as guarantee of repayment. From a Western point of view, the decision on lending basically relies upon the future revenues and other important indicators of the identified project.

International financial institutions typically require a long list of information before they make a decision on a project. The basic information that is required includes:

Required historical data:

- financial audit's report (for 2 years in general);
- credit history; and,
- Credit rating (if available).

Required information related to Project:

- Project pro-formas (revenue and expense projections);
- Agreements among parties (e.g., between the borrower and an ESCO);
- Description of equipment to be installed;
- Market analysis;
- Energy audit results summary (if applicable);
- Measurement and verification plan (if applicable);
- Construction schedule;
- Management team summary; and
- References from suppliers and customers.

Financing for business or non-residential entities usually requires submitting a business plan with the key components including the financial, management, and operating sections.

Important questions a borrower may ask a lender include:

1. Is the bank interested in a lease or a loan?
2. What factors affect the rate and terms of the loan?
3. What is the timeline for loan approval, due diligence and funding?
4. How often does the loan committee meet? Can the borrower make a presentation to them?
5. Is there a prepayment penalty on the loan? If yes, under what conditions?
6. Can payments be made quarterly, annually, or monthly?
7. Is construction financing being offered as well as a long-term loan?
8. Do you require the ESCO to have a construction bond?

B. FINANCIAL BENCHMARKS

The construction of central heating facilities requires intensive investment in long-term assets. Boiler houses, for example, may last fifty years or more. There are numerous indicators (or financial benchmarks) that the banks should analyze as part of their lending procedures for determining whether or not to invest into a new heating project. The list below provides the key indicators that the banking industry loan officers should analyze for each project.

1. Return of Equity ("ROE"). Net income divided by average shareholders' equity for the year. 10%-50%. The return on equity should be reasonable and reflect the risk of the industry and the particulars of the project. Some credit officers use the capital asset pricing model that reflects the risk and return of numerous financial instruments and can be used a s a guide for reasonableness of return for a project.

2. Simple payback period. Initial investment divided by the sum of the net cash inflows. Not greater than 10 years for a heating project except for large heat-only boilers and combined heat and power plants (up to 20 years for larger investments that include long external heat networks).

3. Debt service coverage ratio (also called times interest earned ratio or "TIER"). Income before interest expense and income taxes divided by interest expense. More than 1. Should be reflected under different future scenarios to determine how much above 1 is reasonable to cover debt service during adverse situations.

4. Total debt/total capital ratio. Total balance sheet debt (plus any off balance sheet obligations) divided by total capital (balance sheet). Debt to capital ratio should not exceed 75%. Based on the concerns about collection rates of the pilot programs, the ratio should probably be less, say 50%, until a proven record of good collection rates in the industry has developed.

5. Free cash flow from operations. Net income plus: depreciation, amortization, and net change in working capital. Energy companies have not included depreciation in pricing of heat projects, but rather debt service. The energy companies will require training on the aspects of pricing creation and the use of depreciation as an underlying cost item to be included into price of heat.

6. Free cash flow. Free cash flow from operations minus capital expenditures, minus dividends paid. This measure provides an estimate of how much cash is readily available for operations and to cover emergencies. The key to this calculation is the dividend policy that will be followed throughout the life of the project.

7. Free cash flow from operations divided by annual capital expenditures. This measure provides an analysis of how much of the cash flow has to be reinvested back into the project. The amounts will be small for heating projects unless a failure of the boilers or networks occur. Such future scenario should be examined within the business plan development to determine what provisions are needed by the investor to ensure long-term operations of their heat project.

8. Return on invested capital. Operating income (net income plus interest expense) divided by average balance sheet capital. This is also referred to as overall return on capital. The investor and banks need to make a comparison between overall return on capital and leveraged capital ratio (Indicator 4 above) so that the need to keep prices lower with debt rather than equity capital is balanced with too high of debt capital that puts pressure on debt coverage ratio during adverse situations.

9. **Current ratio**. Current assets divided by current liabilities. The heat project must be reasonably able to cover its short-term obligations without requiring infusion of equity capital or long-term financing to cover potential short-term shortfalls. In general the current ration should be more than 2.

C. OPTIONS FOR FINANCING HEATING PROJECTS IN ARMENIA

The Residential Heating Project Team completed a preliminary survey (conducted in December 2005) of financing options that indicated that several banks and other entities have been interested in financing residential heating projects. For example, meeting with Eurotem (a manufacturer and retail seller of residential heating equipment), the company president, Mr. Edward Harutyunyan indicated that residential customers interested in purchasing the Company's heating units could obtain financing for the sale and installation of the equipment through Converse Bank at an interest rate of 18%. The price (including installation) of a typical heating unit for a two room apartment ranges from $1,000 to $1,200.

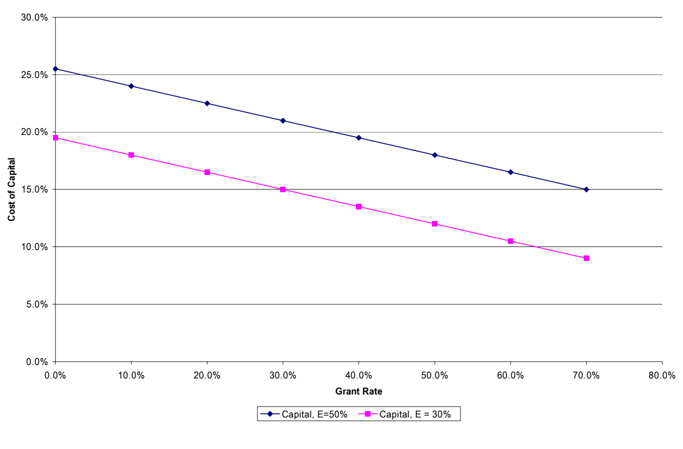
As a second example, the Project Team met with Cascade Bank, a subsidiary of Cascade Capital Holdings. Cascade Bank representatives revealed that they are interested in the urban heating project. They have experience in the energy sector through financing hydro-electric projects. Their loan limit is $1 million with a minimum of 30% private equity. They are willing to provide loans to individuals and institutions.

The credit organization, Aregak, has expressed interest in providing financing for the project. Micro financing by such entities as Aregak will be needed when consumers' internal heat networks (inside their apartments) need to be refurbished or installed. Micro financing institutions can arrange for the necessary funding that is required by each resident individually.

The Renewable Resources and Energy Efficiency Fund (R2E2) will provide World Bank funds to qualified commercial banks which will re-loan the money to eligible borrowers to include: heat providers, municipalities, Home Owners Associations, Condominium Associations, and individual apartment owners. In addition, grants will be available to households meeting income requirements (i.e., poor families) and schools.

1. PORTFOLIO INVESTMENT, OPTION A (GENERAL APPROACH)

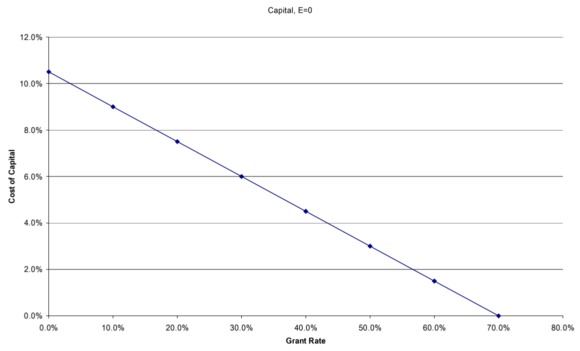
General Approach is the option that does not consider different borrowers but looks after different financial sources. Three main financial sources are considered: Equity, Loan, and Grant. Analyses assume that equity investment is constant as 30% of initial investment with tow options of cost on equity: 50% and 30%. Grant is taken as variable from 0 to 70%. In this case, Cost of capital varies from 25.5% to 15% for Cost of Equity of 50% and from 19.5% to 9% for Cost of Equity of 30%. This approach considers the investment



from sole owner.

2. PORTFOLIO INVESTMENT, OPTION B (RESIDENTIAL INITIATIVE)

Residential Initiative is the option where the Heat Project is owned by residents that do not expect return on investment. In other words, Heat Project considers as non-profit business.



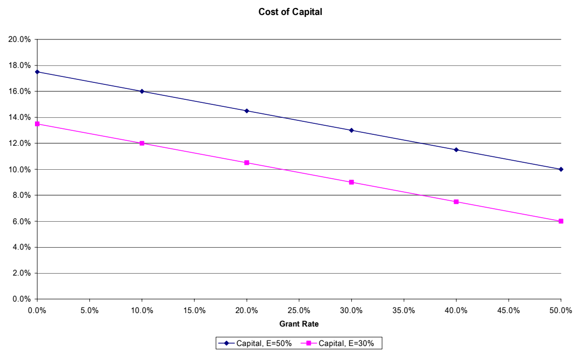
In this case Cost of Equity is 0. Taking into consideration the rest of assumption as in Option A, Cost of Capital will vary down from 10.5% to 0.

3. PORTFOLIO INVESTMENT. OPTION C (MIXED INVESTMENT)

Mixed Investment is the option when Heat Project has mixed interest of Business and Public Initiative. The investments can be shared in different ways depend on targeted investment, borrowers, and owners.

As an example it is considered that:

- 30% of total project will be financed by residents (Cost of Equity = 0%) as investment in internal network,
- 20% of total project will be financed by Business Equity (Cost of Equity = 30% and 50%) as investment in external network and boiler house,
- the rest of financing will be shared between grants and loan (Interest Rate = 15%).



In this case, upon increase of Grant Rate, the Cost of Capital of Total Project will be varying from 17.5% down to 10% for Cost of Equity of 50% and from 13.5% down to 6% for Cost of Equity of 30%.

IV. CONCLUSION

The lending practices in Armenia have developed over the last four years. The interest rates have fallen to more reasonable levels compared to the risk for investing into the various sectors. Collateral in the form of liquid assets are commonly used for loan guarantees and rarely are the assets acquired by the loan used as collateral (apartments, cars are sometimes used.) The local financial institutions, though, do not provide traditional project financing.

The local banks need to understand the process for assessing a market such as the heat market and how to assess individual projects within that market through the use of detailed analysis of the project business plans. This will require both the potential investors and the local banks to learn the Western practice of business planning for both the use of operating a business as well as a key part of a loan application for project financing.

Western lending practices in the energy field are well known and can be adopted in Armenia. There are several financial institutions in Armenia that have shown interest to participate in the heat market. Through structured trainings with both investors and local financial institutions, Western lending practices for project financing in the heat sector can be transferred to the stakeholders and project financing can eventually be adopted in Armenia.

Financial benchmarks should be analyzed by the investor and evaluated by the lending institutions. These benchmarks provide not only insight on the viability and feasibility of a project, but the analysis of benchmarks should also allow for better planning to meet adverse situations in the future. The Residential Heating Project Team will provide hands-on training to investors in the bankable heating projects and to local financial institutions as the business plans are developed by the potential investors and when these same business plans are evaluated by the local financial institutions.

ANNEX 1

AVAG SOLUTIONS LTD

ANNEX 1.
ARMENIA: BANKING BRIEF

January - September 2005

Prepared under USAID RESIDENTIAL HEATING PROJECT
Prime contract No. 111-C-00-05-00040-00
Subcontract No. 111-C-00-05-00040-00-01

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GENERAL CHARACTERISTICS OF THE ARMENIAN BANKING SECTOR

Armenia has a two-tier banking system with the Central Bank, that performs the regulatory functions within the sector and 21 commercial banks (as of the end September 2005).

In spite of some positive developments recorded in recent years, the role of the banking sector in the Armenian economy remains very limited. The broad money-to-GDP ratio, with some increase recorded in 2000 (14.6 percent in 2000 up from 11.2 percent in 1999), after then has changed only slightly and accounted for 15 percent in 2004. The ratios of commercial bank assets and loans to GDP are critically low - in 2004, they amounted to 19.6 and 7.6 percent, respectively. Moreover, in 2004, bank assets-to-GDP ratio virtually maintained the same level as it was in 1999. However, it should be noted that in 2004, compared to 2003, some upward shifts has been registered in both of the above mentioned ratios - bank assets-to-GDP and bank loans-to-GDP ratios increased by 1.7 and 1 percentage points, respectively (see Table 1).

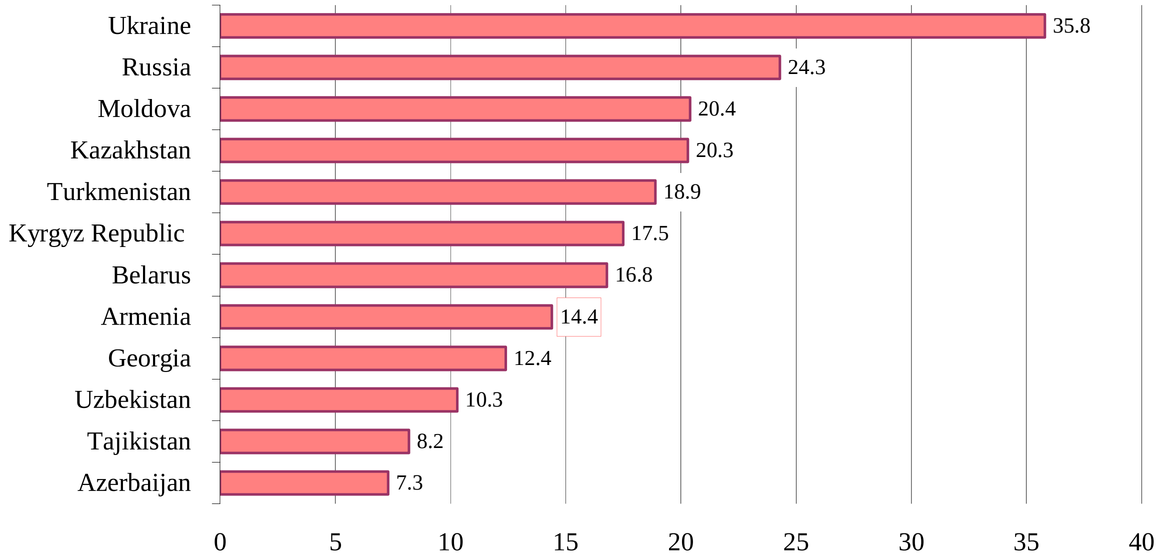
Table 1. Selected indicators of Armenia banking sector in 1999-2004

	1999	2000	2001	2002	2003	2004
Broad money-to-GDP, percent	11.2	14.6	13.4	14.9	14.4	15.0
Commercial bank assets-to-GDP, percent	19.6	23.2	20.3	18.9	17.9	19.6
Commercial bank loans-to-GDP, percent	8.7	10.2	7.4	6.6	6.6	7.6

Source: Central Bank of Armenia, National Statistical Service.

In this context, international comparisons shows that, in general, Armenia not in a favorable position compared even with CIS countries. In particular, in 2003, in Armenia, broad money-to-GDP ratio was lower than an average for CIS countries (see Figure 1).

Figure 1. Broad money-to-gdp ratio in cis countries, 2003



Source: EBRD Transition Report 2005.

Similar conclusions could be made also considering such indicators as bank assets-to-GDP and bank loans-to-GDP ratios. To make comparisons more highlighted one may take EU-25 as competitor countries to display the huge magnitude of difference. In particular, in 2004, averages for corresponding indicators for EU-25 countries amounted to 215.1 and 114.5 percent, respectively, while in Armenia they amounted to 19.6 and 7.6 percent only.

STRUCTURE OF ASSETS AND LIABILITIES

ASSETS

At the end of the third quarter of 2005, **total assets** of commercial banks amounted to 416.6 billion drams, nearly 76 billion drams (or +22.3 percent y-o-y) up from 340.7 billion drams recorded at the end of the third quarter of 2004 (see Table 2) [1].

Table 2. Structure of assets of the Armenian commercial banking sector

	Q3-2004	Q3-2005	y-o-y % change
	millions of drams		
Total assets	**340,731**	**416,632**	**22.3**
Cash	27,806	27,201	-2.2
Correspondent accounts with banks (incl. CBA)	96,246	94,268	-2.1
Other claims on banks (incl. CBA)	22,361	26,902	20.3
Claims on other financial institutions	7,330	8,663	18.2
Government securities	36,296	68,570	88.9
Other securities	602	790	31.2
Loans to legal and physical persons	125,906	163,384	29.8
Other assets	24,184	26,854	11.0
	% of total		
Total assets	**100.0**	**100.0**	
Cash	8.2	6.5	
Correspondent accounts with banks (incl. CBA)	28.2	22.6	
Other claims on banks (incl. CBA)	6.6	6.5	
Claims on other financial institutions	2.2	2.1	
Government securities	10.7	16.5	
Other securities	0.2	0.2	
Loans to legal and physical persons	37.0	39.2	
Other assets	7.1	6.4	

Source: Central Bank of Armenia.

The change in total assets over a year period is largely attributed to two items in the structure of assets, namely - loans and government securities. Compared to the Q3/04, the stock of loans to enterprises and households increased by 37.5 billion drams (+30 percent y-o-y) to 163 billion drams in Q3/05, and government securities holdings by the commercial banks increased by 32 billion drams (+89 percent y-o-y) and amounted to 68.6 billion drams as of the end September 2005. It is worth to note, that the joint contribution of these two items in overall increase of assets by 22.2 percent amounted to 20.5 percentage points.

Commercial bank **loans to resident enterprises and households** at the end of the third quarter amounted to 158 billon drams, 28 percent up from 123 billion drams recorded in the corresponding period of the previous year. Although, both the loans to enterprises and households increased, however the rate of growth for loans to households was 2.5 times higher than corresponding indicator for loans provided to enterprises (i.e. +43.7 percent vs. 17.3 percent, respectively). These relative changes were finally reflected in the structure of loans broken down by above-described categories: in Q3/05 the share of loans to enterprises in total

[1] Data refer to consolidated accounts of 21 commercial banks as reported by the Central Bank of the Republic of Armenia.

loans to resident enterprises and households accounted for 54.5 percent – 5 percentage points below the level recorded a year ago; correspondingly, the share of loans to households increased by 5 percentage points and amounted to 45.5 percent.

Another positive change recorded during a year is the increased share of loans with longer-term maturity in total loans provided by commercial banks. At the end of the third quarter of 2005, the share of loans with maturity more than one year accounted for 59 percent of total loans extended - 10 percentage points higher than corresponding indicator for the third quarter of 2004.

Analysis of unconsolidated accounts of 20 commercial banks shows that at the end of September 2005, the share of the 5 banks with the largest assets amounted to 57.3 percent of total[2]. On the other hand, the change in total assets recorded during the first nine months of 2005 is largely attributed to the 5 largest banks - during January-September 2005, assets of the largest 5 banks increased by 40 billion drams that accounted for 67 percent of overall change of total assets of the commercial banking sector. Similarly, at the end of the third quarter of 2005 more than half of loans in commercial bank portfolio (56 percent of total) was held by the 5 largest banks ranked by stock of loans[3], and nearly the half (48 percent) of absolute change in loans between Q4/04 – Q3/05 was attributed to those banks (see Table 3).

Table 3. Concentration and change of commercial bank assets during Q4/04 - Q3/05

	Assets, % of total assets (Q3/05)	**Absolute change of assets, % of absolute change of total assets (Q3/05 over Q4/04)**
5 largest banks ranked by assets	57.3%	66.7%
5 largest banks ranked by absolute change in assets during Q4/04 - Q3/05	43.0%	80.6%
	Loans, % of total loans (Q3/05)	**Absolute change of loans, % of absolute change of total loans (Q3/05 over Q4/04)**
5 largest banks ranked by loans	55.9%	48.0%
5 largest banks ranked by absolute change in loans during Q4/04 - Q3/05	42.9%	61.0%
Memorandum items		
		Reference period: Q3/05- Q4/04
Number of banks with increased assets		14
Number of banks with decreased assets		6
Number of banks with increased stock of loans		15
Number of banks with decreased stock of loans		5

Note: Calculations are based on unconsolidated accounts of 20 commercial banks.

Source: Central Bank of Armenia.

[2] As of September 2005, the five banks with largest assets were - HSBC Bank Armenia, Ardshininvestbank, Converse Bank, Savings Bank, and ACBA.

[3] As of September 2005, the five largest banks ranked by loans were - Ardshininvestbank, Savings Bank, ACBA, Converse Bank, and HSBC Bank Armenia.

LIABILITIES

At the end of September 2005, **total liabilities** of the Armenian commercial banks amounted to 330.7 billion drams, or 17.4 percent up from 281.6 billion drams recorded a year ago (see Table 4).

Table 4. Structure of liabilities of the Armenian commercial banking sector

	Q3-2004	Q3-2005	y-o-y % change
	millions of drams		
Total liabilities	**281,586**	**330,679**	**17.4**
Correspondent accounts of banks	6,461	5,251	-18.7
Other liabilities to banks (including CBA)	24,942	28,688	15.0
Liabilities to other financial organizations	5,105	6,456	26.5
Demand liabilities to legal and physical entities	133,411	143,704	7.7
Time deposits of legal and physical entities	81,792	106,759	30.5
Other liabilities	29,875	39,821	33.3
	% of total		
Total liabilities	**100.0**	**100.0**	
Correspondent accounts of banks	2.3	1.6	
Other liabilities to banks (including CBA)	8.9	8.7	
Liabilities to other financial organizations	1.8	2.0	
Demand liabilities to legal and physical entities	47.4	43.5	
Time deposits of legal and physical entities	29.0	32.3	
Other liabilities	10.6	12.0	

Source: Central Bank of Armenia.

More than two-third of the overall increase of liabilities was attributed to the nominal change in **demand and time deposits** of legal and physical entities: contribution of these two items in overall change amounted to 12.5 percentage points. Meanwhile, growth rate for time deposits was much higher that the corresponding rate for demand deposits, which led to the nearly unchanged share of deposits in consolidated balance sheet of commercial banks.

Bullet points below summarize major developments recorded on the deposit side of commercial banks aggregated balance sheet during period between Q3/04 and Q3/05:

- Increase of deposits is attributed to increase of deposits of residents (+25.5 percent), while deposits of non-residents showed decline (-12 percent);
- Both dram deposits of residents and non-residents increased (+66.5 and 41.7 percent, respectively); accompanied with a different dynamic for foreign currency deposits (+12.1 and -15.9 percentage change for residents and non-residents, respectively), this led to increased share of dram deposits in total deposits from 19.6 percent as of the end Q3/04 to 28 percent as of the end Q3/05;
- Increase of deposits of residents (+25.5 percent) to a large extent attributed to increase of time deposits, which increased by 37.5 percent; while the growth rate for demand deposits was more than twice lower (+16.8 percent). Finally, these developments reflected in the structure of deposits of residents with increased share of time deposits by 4 percentage points up from 42 percent of total in Q3/04 to 46 percent of total in Q3/05.

Analysis of unconsolidated accounts of 20 commercial banks shows that as of the end of September 2005, level of concentration on the liability side was higher compared that of measured by assets: liabilities of the five largest banks amounted to 62 percent of total liabilities of commercial banking sector. On the other hand, the change of liabilities of those banks during period Q4/04-Q3/05 explained 76 percent of change in total liabilities of 20 commercial banks[4]. As of the end of September, concentration of deposits in the five largest banks (ranked by deposits) was even higher and accounted for 68.5% of total deposits attracted by banking system[5] (see Table 5).

Table 5. Concentration and change of commercial bank liabilities during Q4/04 - Q3/05

	Liabilities, % of total liabilities (Q3/05)	**Absolute change of liabilities, % of absolute change of total liabilities (Q3/05 over Q4/04)**
5 largest banks ranked by liabilities	61.8%	76.3%
5 largest banks ranked by absolute change in liabilities during Q4/04 - Q3/05	45.4%	110.2%
	Deposits, % of total deposits (Q3/05)	**Absolute change of deposits, % of absolute change of total deposits (Q3/05 over Q4/04)**
5 largest banks ranked by deposits	68.5%	102.4%
5 largest banks ranked by absolute change in deposits during Q4/04 - Q3/05	41.2%	158.4%
Memorandum items		
		Reference period: Q3/05- Q4/04
Number of banks with increased liabilities		12
Number of banks with decreased liabilities		8
Number of banks with increased stock of deposits		10
Number of banks with decreased stock of deposits		10

Note: Calculations are based on unconsolidated accounts of 20 commercial banks.

Source: Central Bank of Armenia.

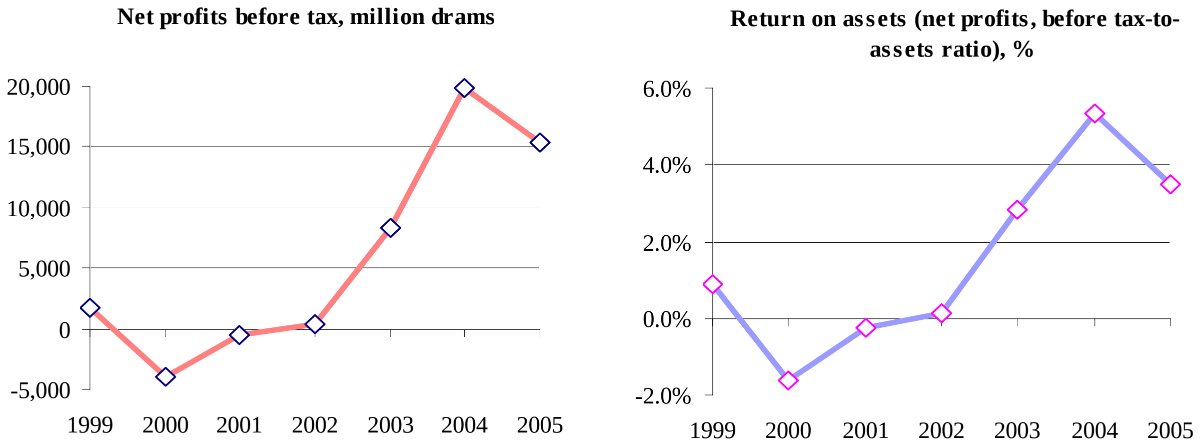
PROFITABILITY AND EFFICIENCY

During recent years the **profitability** of the Armenian banking sector increased considerably. In 2000-2002 the Armenian banking sector performed with losses, while in 2005 net profits (before tax) accounted to 15.4 billion drams (see Figure 2).

[4] As of September 2005, the five banks with largest liabilities were - HSBC Bank Armenia, Ardshininvestbank, Converse Bank, Savings Bank, and Artsakhbank.

[5] As of September 2005, the five largest banks ranked by deposits were - HSBC Bank Armenia, Ardshininvestbank, Converse Bank, Savings Bank, and Armeconombank.

Figure 2. Profitability of Armenia banking sector, 1999-2005



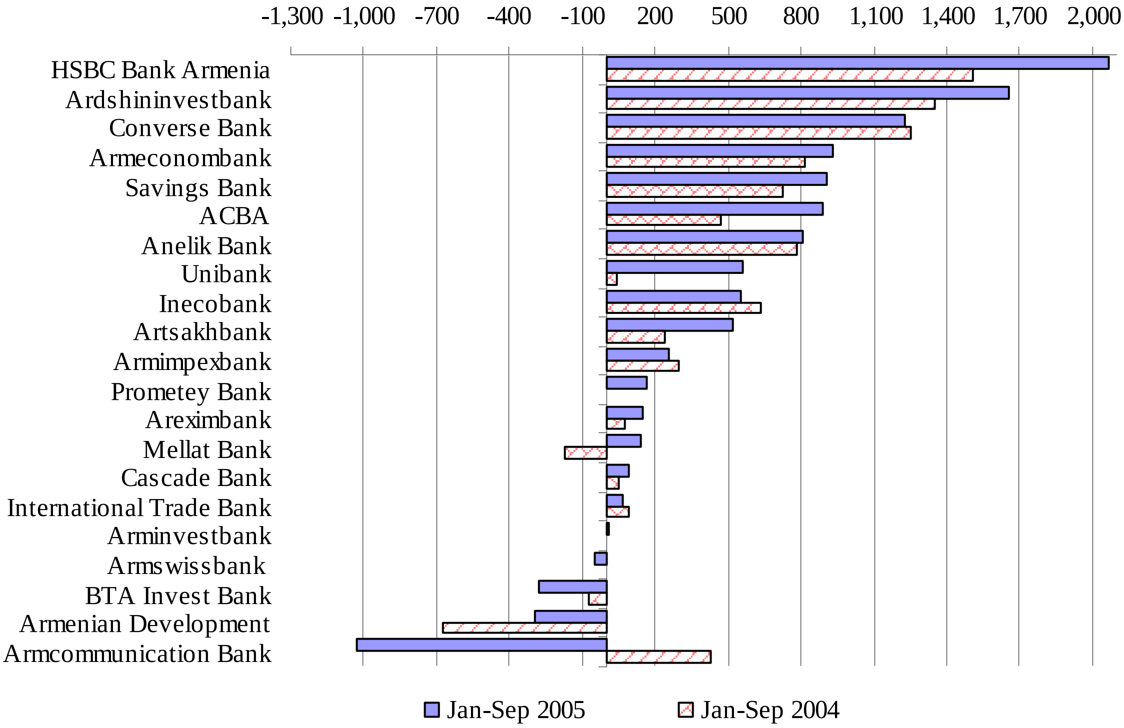
Note: The sharp increase of net profits (before tax) from 8.3 billion drams in 2003 to 19.9 billion drams in 2004 was due to asset rehabilitation of one commercial bank. In 2004, net profits (before tax), excluding accounts of that bank, amounted to 10.3 billion drams.

Source: Central Bank of Armenia.

The growth in earnings reported by the Armenian banking sector in the first 9 months of 2005 has been impressive. The net profits of the sector as a whole increased by 26.2 percent to 9.3 billion drams in the first nine months of 2005, as compared to 7.4 billion drams recorded in the corresponding period of the previous year. The increase of net profits is mostly attributable to the increase of net interest income (+18 percent y-o-y), thanks to increased loans and prevailing high interest spreads. On the other hand, even with substantial increase in administrative expenses by almost 2.4 billion drams over the reference period the net non-interest losses of commercial banks remained nearly unchanged (4.5 billion drams in January – September 2005 versus 4.4 billion drams a year ago), mainly due to increased non-interest incomes and reduced amount of loss provisions.

During reference period, 17 banks operated with positive net profits (total 10.9 billion drams), while 4 banks performed with losses (total -1.6 billion drams) (see Figure 3).

Figure 3. Armenian banks by net profits, million drams



Source: Central Bank of Armenia.

Profitability of the commercial banking sector as measured by return on assets (RoA), during the first nine months of 2005 amounted to 2.4 percent, which remained nearly unchanged compared to the corresponding period of 2004. On the other hand return on equity (RoE) decreased by -1.1 percentage points and amounted to 12.4 percent as of the end September 2005, partially reflecting the changes in CBA requirements on bank capital.

In spite of some decrease recorded in **effective spread** (calculated by taking the difference between interest income, as percentage of loans, and interest expenses, as percentage of deposits), it remains too high, reflecting relatively high intermediation costs: during January-September 2005 effective spread amounted to 12.8 percent, 1.1 percentage points below than corresponding indicator recorded a year ago.

Table 6. Aggregated balance sheet accounts and key indicators of profitability and efficiency of the Armenian commercial banking sector

	Q3-2004	Q3-2005	y-o-y % change
Aggregated balance sheet accounts	*millions of drams*		
Total assets	**340,731**	**416,632**	**22.3**
Loans to enterprises and households	125,906	163,384	29.8
Total Liabilities	**281,586**	**330,679**	**17.4**
Demand and time deposits	215,203	250,463	16.4
Equity	**59,145**	**85,953**	**45.3**
Key indicators of profitability and efficiency	*percentage*		*y-o-y difference in percentage points*
RoA (net profits (after tax)-to-assets ratio)	2.38	2.40	0.02
RoE (net profits (after tax)-to-equity ratio)	13.56	12.41	-1.14
Net interest income-to-assets ratio	4.36	4.11	-0.25

Non-interest income-to-assets ratio	3.46	4.12	0.66
Non Interest expenses-to-assets ratio	5.44	5.83	0.39
Effective Spread	13.84	12.77	-1.07
Interest received-to-loans ratio	16.84	15.91	-0.93
Interest paid-to-deposits ratio	3.00	3.14	0.14
Loans-to-deposits ratio	58.51	65.23	6.70
Equity-to-assets ratio	17.36	20.63	3.20

Source: Central Bank of Armenia.