

PAYMENTS AND SECURITIES CLEARANCE AND SETTLEMENT SYSTEMS IN THE REPUBLIC OF ARMENIA

CHAPTER 1. ECONOMIC AND FINANCIAL MARKET OVERVIEW

1.1 Preface

After the collapse of the Soviet Union, the former unified bank payment and settlement system fell apart, leaving the Central Bank of Armenia (“the CBA”) with a number of problems, including large non-payments related to settlements between companies and organizations within the country, the absence of a legal framework regulating interbank settlements, the technically-underdeveloped state of the banking system, the energy crisis, and the paralysis of the postal system, among others.

Since 1993, the CBA has exerted much effort at addressing the aforementioned problems, building a new system of payments and settlements, and improving interbank settlement in the context of the new realities of the recently-proclaimed independent republic.

In the period 1993-1996, the basic legal framework regulating the financial system was developed. The following laws were adopted: on the Central Bank, on Banks and Banking, and on Bank Secrecy, among others, promoting the creation and development of the Armenian banking system.

In 1997 some changes were made to the bank supervision as the CAMEL system received the ‘S’ component (known as a bank’s *sensitivity* to market changes) to become CAMELS, and a new liquidity management tool known as *GAP* was introduced to the UBPR system. In the same year, the CBA joined the S.W.I.F.T. system.

In pursuit of stabilization of the local currency, the *dram*, the CBA has a stipulation for banks to maintain their required reserves with the CBA in *dram* only. A loan agreement was concluded between KfW, the German Development Bank, and the CBA based on the Agreement on Financial Cooperation signed between the Federal Republic of Germany and the Republic of Armenia.

In 1999 the Armenian banking system tested its stability and reliability as it succeeded in preventing the impact of the Russian financial crisis on the domestic banking system. New accounting standards

were introduced in compliance with internationally accepted criteria. Certain changes were made to prudential standards.

The unified processing center 'Armenian Card' CJSC was established in 2000. The CBA developed a paper 'Bank Credit Policy Guidelines' to ensure credit risk is managed effectively.

Starting 2000, several important laws, such as Law on Securities Market Regulation, Law on Joint Stock Companies, Law on Bank and Credit Organization Bankruptcy, Law on Currency Regulation and Control, Law on Funds Transfer by Payment Order were adopted, which further fostered formation of the financial system.

In 2001 the National Assembly endorsed a new Law on Bank Bankruptcy. The new law introduced objective criteria of bank insolvency, and the 'bank bankruptcy' was given a clearer definition. The CBA and KfW signed a new agreement for attraction of additional funds to be used for small and medium-size enterprises development.

Effective July 1, 2003, banks began making mandatory financial contributions to Guarantee Fund of Deposits for Remuneration of Deposits of Natural Persons. Efforts were continued to ensure further compliance of the Armenian accounting standards with international standards. Since 2003, a Credit Registry has been operating within the CBA.

In 2004 the CBA announced its stance to bring the Armenian banking system in compliance with the requirements of Basle 2 Accord.

In 2005 certain changes were made to the Armenian Law on Banks and Banking to introduce the Core Principles for Effective Supervision of the Basel Committee on Banking Supervision, Corporate Governance Principles, and Consolidated Supervision Implementation Principles. In the same year, the Armenian Law on Introducing a Unified Financial Regulation and Supervision System was adopted empowering the CBA with a full supervisory function. A financial monitoring center was created within the CBA with the main function to combat money laundering and terrorism funding.

In 2004, aimed to increase confidence in the banking system, the Armenian Law on Combating Legalization of Criminal Proceeds and Terrorism Financing was adopted. In 2008 the law was amended and approved in a new wording by the National Assembly of the Republic of Armenia as Republic of Armenia Law Money Laundering and Terrorism Financing. The new law extended the list of reporting entities and made all processes relevant to the field more explicit.

Notwithstanding turmoil in world financial markets, in 2008 the CBA continued implementing several reforms to foster financial sector stability and development. In particular, for further clarification of the Armenian legislation and harmonization with EU legislation, some laws were drafted to make amendments and addenda to the existing laws, such as the Law on Guarantee of Remuneration of Bank Deposits of Natural Persons and Law on Bankruptcy of Banks, Credit Organizations and Insurance Companies.

In 2008 the Law on Mortgage-Backed Securities and Law on Assets Securitization and Assets-Backed Securities were adopted to enhance development of mortgage securities and secondary market for securities.

In the financial sector, as part of a consumer interest protection initiative launched in 2008, a structural unit was created within the CBA the main function of which is to ensure conditions for protection of interests of consumers in the financial market. To this effect, the CBA developed a number of laws, such as the Law on Attraction of Bank Deposits, Law on Consumer Crediting and Law on Financial System Mediator.

1.2 Macroeconomic background in the last 10 years

After independence, Armenia's economy and financial system, just like those of all former Soviet republics, went into deep recession. The country's economic blockade and isolation from transport routes and inefficient export policy inherited from the Soviet era (huge industrial complexes were operating using imported raw material and exporting the whole output) deteriorated the situation. Nonetheless, owing to a favorable pace of timely launched reforms, Armenia entered a phase of economic development starting 1994.

1.2.1 Real sector

Developments in the last 10 years, up until emergence of the world crisis, have resulted in significant improvement of Armenia's macroeconomic situation, with notable enlivening of the main sectors of the economy and increase in household incomes. The achieved macroeconomic stability points to the fact that average inflation in the period 2000-2008 has not outstripped the level of 4 percent per annum. The average economic growth indicator in that period of time has been 11.2 percent, which notably accelerated starting from 2002 (in 2002-2007 average economic growth has been 13.1 percent).

In the GDP structure in 2008, services and construction had the largest share, 33 percent and 25 percent, whereas industry's and agriculture's shares were 14 percent and 17 percent, respectively.

Having said this, the growing share of construction in sectoral structure of the economy is prominent, mostly owing to external financial inflow in the form of foreign investments and private transfers as well as continuous increase in household incomes. However, in the context of global economic crisis that narrowed capital influxes and lowered incomes, construction growth rates somewhat decelerated in 2008 and reported even high decline in 2009.

Certain structural shifts have been observed in industry in the period 2000-2008. Originally, production of import substitutes¹ served the main contribution to industrial growth. High growth rate of industry in the period 2000-2003 has been attributable to the dramatic development of jewelry business (diamond processing in particular), which however slowed down in 2004-2006 due to a change in the world diamond market conditions. On the other hand, the mining and metallurgy branches have been developing steadily since 2000 as huge financial resources are invested in this area under rising prices of non-ferrous metals in the world markets. Production of food and building materials also report sustainable growths.

However, serious falls in food industry, chemical industry, production of building materials and energy sector due to slackened world demand and reduced construction as a result of global economic crisis contributed to the overall decline in industry.

The services sector, with transport, communications and trade holding the largest share in it, has been another driver for Armenia's economic growth. The trade sphere has reported high growth rates since 2006 determined by impressive growths in retail trade and car sales. Growth recorded in communications has been driven by large-scale investments by three major companies, which broadened the spectrum and volume of services, while in the transport sphere investments have been made in active road construction, gasification and taxi service networks in the last 10 years.

Tourism has grown significantly, especially in 2001 when the country celebrated the 1700th anniversary of proclamation of Christianity as the official religion in Armenia. This sphere is growing

¹ The main growth was recorded in the production of prepared food.

continuously in line with developments of the related infrastructures, such as hotels, public catering, resorts and rest-houses.

In the period 2000-2008, as the economy developed, essential changes occurred in the structure of aggregate demand where the share of private investments increased in line with reduction of private consumption. The growth rate of private investments has accelerated in the last five years: while for many years net savings in the Armenian economy had been generally negative, this situation began to change starting in 2002 when the economy reported for the first time a positive indicator for net savings.

Starting end-2008, aggregate demand suffered downfalls due to reduced household incomes, uncertainties in investment environment and prevalence of negative expectations, as a consequence of world financial and economic crisis. The decline of aggregate demand was most evident over 2009, with private investments having suffered the deepest decline in the structure of aggregate demand. However, during 2009 the decline of aggregate demand was somewhat mitigated.

1.2.2 Monetary sector

Armenia tracked a record of successful achievements in both macroeconomic and monetary sectors in the last 10 years. Economic reforms implemented in this period of time, along with macroeconomic and monetary policy implementation, have made it possible to ensure stable and high economic growth in 2000-2008 under low and manageable inflation. As a result, in this period of time average annual GDP growth rate has been 11.2 percent and average inflation, 3.6 percent. Global financial and economic crisis, which deteriorated starting from end-2008, adversely affected the Armenian economy. As a result, in 2009 these indicators worsened sharply, reporting as much as 14.4 percent economic decline and 6.5 percent inflation.

Before 2006 the CBA was committed to the strategy of monetary targeting with the primary objective of keeping prices stable. Along with implementing a monetary targeting policy the CBA has in the meantime paid greater attention to the interest rate. Ongoing development and improvement of indirect CBA instruments and input of monetary instruments have supported to this process. In particular, in addition to the main instruments (repurchase agreements, outright operations, fine-tuning instruments), the CBA has successfully resorted to currency swaps since end-2003, and it launched issuance of own securities starting 2005. The latter proved a dynamic absorbing instrument in the CBA toolkit until the fourth quarter of 2008, as the CBA purchased a vast amount of foreign currency to ease the impact of then increasingly broadening external financial inflow and to buffer the

dedollarization effects in the foreign exchange market. So, the placement of the CBA securities has been the main instrument to offset inflationary impact.

The change made in 2005 by the CBA to the reserve requirement mechanism, whereby resources attracted in Armenian dram and foreign currency should be kept separately in AMD and FX, was used to partly offset external financial inflow. At present, a differentiated standard is applicable to relevant liabilities, which is 8 percent for resources in Armenian dram and 12 percent for resources in foreign currency.

In the period 2003-2005, increased volatility of demand for money, structural changes in broad money and influence of non-monetary factors on inflation have led to weakening of the *broad money - inflation* correlation and manageability of money supply. Under such conditions the CBA often had to revise its broad money target while implementing the planned policy, by giving preference to the inflation targeting. To this effect, the CBA announced in January 2006 that it would, effective January 1 2006, move to an inflation targeting framework from monetary targeting strategy, and took the *short-term interest rate* as its operational target and the *inflation forecast* as its intermediate target.

One of prominent aspects in monetary policy in the period 2003-2008 was dramization of the Armenian economy, which was explained by depreciating US dollar in international markets, high growth rates of external financial inflow and certain actions taken by the CBA to increase people's confidence in the dram¹. Naturally, favorable economic environment and low inflation contributed to these developments. Reduced dollarization was reflected in both a twofold increase in the ratio of assets denominated in dram and high growth rates of currency in circulation and dram-denominated deposits. Growth rates of foreign currency-denominated deposits were considerably slower compared to those of dram deposits.

Lending to the economy in the period 2004-2008 was another highlight, with growth rates having sharply increased since 2004, to have reached an average of 47 percent. Further, the dramization of the economy was reflected in this indicator as well, recording faster growth rates of lending in dram.

Lasting macroeconomic stability and economic uprising was followed by global downturn that posed serious challenges to the Armenian economy starting the fourth quarter of 2008. Foreign transfers and

¹ Measures to reduce dollarization included the adoption of the Armenian Law on Currency Regulation and Control which greatly helped reduce the volumes of transactions executed using dollar.

capital inflow were reduced substantially, and terms of trade deteriorated. Under such circumstances real sector of the economy suffered considerably. Depreciation of the local currency shattered confidence in the national currency and created inflation expectations among businesses, which was no way pertinent to the developments in economic fundamentals but contributed to the notable rise in the dollarization level.

Initially, prudent combination of measures to price stability and financial stability enabled to maintain stability in the financial sector, safeguarding the banking system from shocks. Then, along with consideration to spur up the economy and further keep prices stable, the CBA implemented an extremely expansionary monetary policy, knowingly refocusing on stimulation of economic activity to the extent possible, without, however, detriment to price stability. Expansionary policy was characterized not only by 2.75 pp lowering of refinancing rate but also implementing a quantitative easing policy. To the effect of quantitative easing and stimulation of lending, the CBA expanded its toolkit of monetary instruments in 2009 by making longer-term repo loans to banks in parallel to short-term ones. In addition, the CBA increased its participation in secondary market of government securities with the purpose to foster implementation of expansionary fiscal policy.

Overall, in order to ease adverse impact of global crisis on the Armenian economy, the measures taken in tandem with the Government have contributed to financial stability and even some improvement of macroeconomic situation, reflecting slowing of economic decline since the fourth quarter of the year. Under such conditions inflation has been within the target until November and risen sharply to 6.5 percent in December only, outstripping the target by around 1 pp. This was totally determined by more prominent seasonal growth of prices of agricultural products in December. Interestingly, average annual inflation in 2009 has been merely 3.4 percent.

1.2.3 Fiscal sector

Over the last 10 years considerable reforms have been conducted in the public sector of Armenia, including efforts of fiscal arrangements to keep annual total budget deficit below 3 percent of GDP. As a result, the deficit/GDP ratio in 2008 was 0.7 percent, which compares favorably to the deficit of 5.8 percent in 1996.

On the revenue part, the Government tracked success in increasing effectiveness of tax collection, and the tax/GDP ratio has increased in annualized terms. In 2006-2008 budget revenues constituted an average 20.2 percent of GDP, while demonstrating trends for continued growth. This has been an important precondition for fluent execution of public expenditures.

Global financial and economic crisis arrived on the Armenian economy back in end-2008 and affected collection of budget revenues for end-2008 and 2009. In execution of program proportions of public expenditures for 2009 the Government attracted financial resources from external sources and embarked on several anti-crisis measures. As a result, the budget deficit/GDP ratio in 2009 amounted to 7.7 percent.

In the context of macroeconomic stability and development of the economy in the medium perspective, both improving the tax/GDP ratio and reducing expenditures and the deficit/GDP ratio is important.

1.2.4 External sector

Starting 1998, amidst economic developments globally and domestically, some positive developments were observed in Armenia's foreign trade turnover. After the Russian crisis of 1998, the Armenian economy moved to a new equilibrium reflecting an improved balance of external trade until 2002. In the period 1999-2002 the average growth rate of exports was 27.4%, substantially exceeding that of imports which was 6.1%. In the meantime, broadening volumes of production of import substitutes also contributed to the improvement of the external sector trade balance.

Starting 2003, however, a negative balance of external trade in nominal terms deteriorated despite a slight excess of export growth rates over imports. In 2006-2008, attributable to increasing domestic demand, including demand for investment goods, growth rates of imports have considerably outpaced growth rates of exports, pushing negative balance of foreign trade to worsen even farther.

Despite the deterioration of the foreign trade balance since 2003, part of it was offset by persisting growth of private transfers (in 2003-2008 average growth rate of private transfers and income of seasonal workforce has been 52 percent). After 2006, however, even huge inflow of private transfers has not been able to neutralize mounting foreign trade deficit. As a result, in 2007-2008 current account deficit has grown rapidly, making up 12 percent of GDP in 2008, whereas in the period 2004-2008 it has been within 2 percent. In 2009 the balance of payments was developing amid influence of the world financial and economic crisis which led to some reduction of current account deficit due to slackened demand for imports. Nonetheless, in 2009 the current account/GDP ratio reached 14 percent as a result of large GDP decline.

Difficulties associated with financing large current account deficit since 2008 have created pressures on the dram exchange rate pushing it to depreciate. In March 2009, abruptly adjusted dram exchange rate led to some improvement of trade balance. As well as credit resources attracted from international financial institutions and governments of other countries allowed maintaining balance of payments stability and replenishing gross reserves in the time of crisis.

Since 1997, net inflow on capital and current account has always outgrown the current account deficit (exceptions were years 1998, 1999 and 2008), which led to a balance of payment surplus and accumulated gross foreign reserves. Such huge volumes of capital and financial inflow as well as weakening positions of the US dollar in world markets brought in appreciation of the dram. The floating exchange rate regime under free movement of capital helped to partly offset inflationary pressures as a result of extra demand fuelled by such financial flows.

1.3 Financial sector

Currently, the Armenian financial system comprises 22 commercial banks, 27 credit organizations, 12 insurance companies, 5 insurance brokerage firms, 10 payment and settlement organizations (3 of which are licensed to provide money remittance only, 6 are licensed to provide money remittance and processing and clearing of payment instruments and settlement documents and 1 is licensed to provide processing and clearing of payment instruments and settlement documents only), 246 foreign exchange offices, 4 currency dealers, and 103 pawnshops. In the securities market 22 commercial banks and 8 investment companies are professional participants. All eight investment companies are entitled to perform transactions with securities on their own behalf and on their customer's behalf, at their own expense and at their customer's expense as well as to accept and process orders from customers for performing transactions with securities. Five out of 8 investment companies are entitled to provide advisory service related to investment with securities, six are entitled to perform placement of securities, and three are entitled to manage securities portfolio.

In the securities market, NASDAQ OMX Armenia JSC is the operator of regulated market [and of stock exchange] and Central Depository of Armenia JSC is the operator of securities settlement system.

1.3.1 Banking system

Commercial banks are the most important participants in the Armenian financial sector as the banking system accounts for about 93 percent of the financial system assets.

Pursuant to the Armenian Law on Banks and Banking, the banking system includes the Central Bank, and commercial banks with their branches, representations, as well as branches and representations of foreign banks.

Banking business in Armenia is governed pursuant to the Armenian Laws on Banks and Banking; the Central Bank; Bank and Credit Organizations Bankruptcy; Bank Secrecy; other relevant laws and Central Bank regulations. Banking business in Armenia can be conducted only based on an activity license issued by the CBA.

The exclusive right of oversight of banking activities is vested with the CBA.

As of end-2009 there were 22 commercial banks (including 4 banks with a 100 percent foreign capital) with 391 branch offices operating in the territory of the Republic of Armenia. The share of banks with foreign capital reaches 74 percent.

As of end-2009 the banking system capital totaled AMD 278.4 billion; liabilities totaled AMD 1.048 billion; assets totaled AMD 1.325 billion. The total capital adequacy (a ratio of regulatory total capital to risk weighted assets) was 28.4 percent. Total deposits attracted from natural and legal persons accounted for 59.8 percent of the banking system liabilities. Loans provided to the economy accounted for 53.0 percent of total loans. It should be noted that the ‘standard category’ assets account for 95.2 percent of the banking system assets.

As of end-2009 total assets of credit organizations amounted to AMD 75.8 billion, and total assets of insurance companies amounted to AMD 17.0 billion.

1.3.2 Insurance market, 1991-2009

Following political and financial and banking reforms which started from 1991 the Armenian insurance market, too, saw changes. Before 1991, there was a single, centralized insurance system functioning in the country. After 1991, however, the insurance sector also ceased to exist under the state’s patronage. Naturally, such a fast shift could not have been well prepared for ensuring a sustainable and efficient legislative and supervisory framework. Moreover, before 1993, the framework had been left totally unregulated. For the first time in 1993 the ‘Temporary Procedure for Engaging in Insurance Business in Armenia’ was adopted. As a result, there have been about 82 insurance companies operating in Armenia until 1996.

In November 1996, the Armenian Law on Insurance and the Government's Resolution on Regulation of Activity of Insurance Companies in Armenia (No. 368) were adopted as the first step toward oversight of the activities of insurance companies and aimed at tightening requirements thereto. The adoption of the above two papers caused a sharp reduction in the number of insurance companies. By 1997 the number of insurance companies had shrunk to 10, although in 1998 it doubled again reaching a total of 20.

Starting 1997, the sub-legislative framework began to get shape. Some sub-legislative acts were adopted as follows: the Government Resolution No. 174 on 'Calculation of Normative Ratio of Insurers' Assets to Liabilities' (1997); Chart of Accounts for Financial and Economic Activity of Insurance Companies and Standard Forms to Annual Accounts (1999); and some other regulations.

In 2000, the Armenian Government adopted the 'Concept for the Insurance System and Insurance Market Development; and Creation of the Insurance Experts Training Framework', and in 2001 it approved the program of measures to promote development of the insurance system and insurance market in Armenia. The purpose of these undertakings was to ensure qualified expertise capacities in the Insurance Inspectorate and creation of the actuarial system. In essence, these objectives were not accomplished, however.

In 2003 the Armenian Government revised the 1996 Law on Insurance, as supported by the World Bank experts, and the new law came out in June of 2004. The law incorporated a very simple model reflecting lack of sophistication and smallness of the insurance market at that time. For instance, only staff members of an insurance company could serve as insurance agents. Life insurance, non-life insurance and reinsurance regimes were not distinguished. There were not specific provisions governing an insurance company's exit from the market.

The model chosen for the 2003 Law was reflecting the market at that time. In 2006, however, the delivery of insurance services proved costly and limiting under the existing Law as the market was developing at a fast pace. As a result, a new model for insurance system, the European Model, was chosen along with the implementation of insurance reforms. Therefore, the Armenian Law on Insurance and Insurance Business was amended once again in 2007.

Over 2006, in the context of a unified financial regulation and supervision framework, the CBA continued work in improving regulatory field in the following directions:

- Define prudential requirements, align regulatory field with international standards for financially sound insurance companies, determine types of technical reserves and calculation thereof;
- Regulate accounting and reporting procedures;
- Arrange for mechanisms for transfer of insurance risks, including requirements to reinsurance activity and transfer of insurance risk portfolio;
- Regulate insurance companies' access to financial market in the context of the following main aspects, such as qualifying holding, professional manager qualification, presentation of business plan.

Over 2008 efforts were continued to improve infrastructures that ensure effective functioning of insurance market. In particular, changes were made to the methodology of calculation of CARAMELS for aggregate evaluation of performance of insurance companies.

As of end-2009, there have been 12 insurance companies and 5 insurance broker firms, functioning in the territory of the Republic of Armenia.

Over 2009 the CBA focus on regulating insurance market was in the following directions:

- Improve internal supervisory tools;
- Increase effectiveness of risk management system.

Over 2009 the CBA presented a draft Law on Compulsory Insurance Against Civil Liability in Respect of the Use of Motor Vehicles to the National Assembly of the Republic of Armenia for consideration. The draft provided for: i) aspects concerning compulsory insurance against civil liability for the loss or injury resulting from traffic accidents which are caused by the use of motor vehicles; and ii) effective procedures protecting rights of the parties injured as a result of traffic accidents and calling for payment of insurance indemnity.

1.3.3 Pension system and pension reforms

The issue of pension reforms has been addressed several times. Currently, work to introduce the second-pillar pension framework, i.e. a cumulative pension component, is underway.

Pension reforms incorporated in the Government of Armenia action plan for 2008-2012 should achieve two key objectives:

- Increase of the pension rate on an annual basis (average employment/insurance pension equivalent to the minimum live basket);
- Ensuring a link between personal income and the pension rate by establishing mandatory cumulative pension system.

An authorized public body will be responsible for administration of social, basic and employment pensions, as payable from a state distribution component, using state budget resources.

Administration of mandatory cumulative pensions and cumulative pensions on a voluntary basis, as payable from a private distribution component, will be carried out through the mediation of financial institutions.

The management of social security system will be reformed, i.e. measures will be taken to create a system for payment of pension amounts and benefits on a non-cash basis. This is supposed to reduce the scope of beneficiaries served by State Service of Social Insurance which is functioning within the Ministry of Labor and Social Issues of the Republic of Armenia. Pension amounts will be paid through a classic scheme of cooperating with Treasury, which is now exercised for payment of benefits.

1.4 Securities market

The securities market in Armenia began to get shape after moving to a market economy. Both the state-owned enterprise privatization process, proactive performance of financial and other non-bank organizations and fostering state policy were all supportive to the creation of this market.

Privatization gave birth to many open joint stock companies shares of the part of which began floating at stock exchanges. Until 2000 there have been 4 stock exchanges functional in the Republic of Armenia. In 2000, the Armenian Law on Securities Market Regulation was adopted that re-steered the path of development of the securities market. Regulations governing the US securities market were underlying this Law. The main specificity of the Law was that it clearly distinguished between the banking business and specialized activity in the securities market, i.e. it was not admitting the universal banking system conception applicable Europe. The other specificity was that the market servicing infrastructure (the stock exchange and central depository) had to be non-commercial, self-regulatory organizations. Until 2006, the market saw no remarkable advancement, however.

In 2006 the CBA took over securities market regulatory and supervisory functions for further changes in the market. A securities market development vision was developed. Specifically, banks and credit organizations were given opportunity to conduct specialized activities in the securities market. In 2007 the Government of Armenia, the CBA and the OMX Company, the Swedish stock exchange operator, inked a memorandum, which allowed OMX to acquire the Armenian Stock Exchange and Central Depository after these entities have been commercialized.

In 2008 OMX became the owner of Armenian Stock Exchange JSC and Armenian Central Depository JSC which have been already re-structured. In 2008 the NASDAQ Company, a US stock exchange operator, acquired OMX thus making these two entities part of NASDAQ OMX which is one of the biggest stock exchange operators in the world. In the same year Armenian Stock Exchange JSC was renamed into NASDAQ-OMX Armenia JSC.

Currently, treasury bills, CBA bonds and corporate securities are floating in the Armenian securities market.

In Armenia, treasury bills are issued by the Government in the name of the Ministry of Finance. The Armenian Law on the Central Bank empowers the CBA to issue short-term securities, if this is appropriate for monetary policy implementation.

Treasury bills and CBA bonds (hereinafter government securities) are issued in a non-documentary form, with the CBA serving as central depository of such securities.

As of end-2009 assets of investment companies have grown by 102 percent in relation to the previous period and amounted to AMD 15.6 billion. Total capital of investment companies has grown by 8 percent to amount to AMD 2.9 billion. Total profit of investment companies has been AMD 202 million – 6 companies reported profit and 2 reported loss.

In 2009 total volume of operations performed in securities market for investment activity (including repo operations) has grown by 64 percent in relation to the previous period and amounted to AMD 1,331 trillion.

Transactions with government securities prevail in total securities traded by investment service providers. These transactions have grown by 141 percent in relation to the previous period and amounted to AMD 294.8 billion or 87.6 percent in total trades in securities market.

In 2009 the volume of transactions with corporate securities has grown by 3.4-fold in relation to the previous period, amounting to AMD 25.3 billion or 7.5 percent in total turnover.

Transactions with shares has grown by 2.9 percent in relation to the previous period and amounted to AMD 16.2 billion or 4.8 percent in total trades in securities market.

The volume of repo operations has grown by 49 percent in relation to the previous period and amounted to AMD 994.5 billion or 74.7 percent in total turnover.

In 2009 the volume of operations with securities in regulated market has grown by nearly six-fold in relation to the previous period, amounting to AMD 24.3 billion. Repo operations accounted for 38.3 percent in total operations with securities. Transactions with corporate securities prevailed in total trades, constituting 43.5 percent in total regulated market turnover. Trades of government securities reached 17.8 percent and transactions with equity shares reached 0.4 percent in total turnover.

In 2009 two companies issued corporate debt securities for a total of AMD 600 million.

As of end-2009, securities of 19 reporting issuers have been admitted to trading in the regulated market. Six of them were banks; 11 issued shares and 9 issued bonds. One of the issuers reports on both shares and bonds. At the end of 2009 total volume of issued bonds has been AMD 5.6 billion.

1.5 Main payment and settlement system development trends

After the collapse of the Soviet Union the former unified bank payment and settlement system fell apart, leaving the CBA with such problems as creation of new payment and settlement relations and improvement of interbank settlements. Since 1993, the CBA has made significant efforts to develop a modern payment and settlement system infrastructure in the country. During the development process, the CBA closely collaborated with the commercial banks in Armenia, public authorities and other stakeholders.

1.5.1 Payment and settlement system development trends

The following developmental stages can be identified:

Stage 1 (1993-1995): formation of Armenian banking industry and payment-settlement relations

During this period, a hierarchical three-tier banking system (CBA, commercial banks, and bank branches) was formed, and the core banking legislation was developed.

November 1993: Armenian national currency (the Dram) was introduced.

March 1994: “inter-bank mail” service was introduced, ensuring the delivery of payment documents from one bank/branch to another within Yerevan during one day.

May 1994: inter-bank clearing (net) system was introduced (see paragraph 4.1.3), facilitating the effective use of bank liquidity and reducing paper instruction processing volumes in the settlement bank.

1993: the inter-bank telegraph electronic mail, created by “FVG” (“FVG EMAIL”), enabled banks to communicate with one another and share messages, with the larger banks becoming able to check the balance of their correspondent accounts with the CBA two or three times a day. Starting from 1995, by the use of appropriate safeguards, electronic transfers were initiated between two commercial banks outside of Yerevan and the CBA using the system of pilot electronic payments.

1995: same-city payment system was introduced, which allowed payments between one bank’s branch to another bank’s branch in the same city (district) to be processed at longest of 5 banking days (compared to 10 days previously) using FVG EMAIL.

1995: Union of Armenian Banks was created (see paragraph 2.6.1).

Stage 2 (1996-1999): introduction of Electronic payment system and development of payments and settlements in the Republic of Armenia

1996: the CBANet inter-bank computer network was introduced, on the basis of which the Electronic Payments System was implemented in 1997 (see paragraph 4.1.1).

October 1, 1996: new system of bank account encoding was implemented.

1996: Group of S.W.I.F.T. members and users in Armenia was created. During 1997, 12 banks (including the CBA) joined the S.W.I.F.T. system with a view to cutting the length of inter-bank payments, reducing bank costs, and increasing the reliability of payment execution.

Later in 1996: Ministry of Finance and Economy of the Republic of Armenia created the Treasury of the Republic of Armenia.

1997: based on the Inter-State Agreement on the Creation of a Payment and Settlement Union by CIS Member States, which was ratified by the Republic of Armenia in 1996, the CBA started work towards creating the Interstate Bank payment system.

To maximize the efficiency and shorten the timing of customs clearance, technologies for the payment of customs duties, customs fees, presumptive taxes, excise taxes, and VAT at customs houses/offices through Armenian banks were developed and implemented.

1997: CBA started work with the Ministry of Energy and the Ministry of Finance and Economy to collect household payments for electricity consumed in Armenia through the banking system.

1998: CBA started to develop an automated system for Government Securities Accounting and Settlement System.

1999: with a view to developing the government securities market, delivering new services to the public, and making them available in the securities market, the Treasury Direct system was implemented.

Stage 3 (2000-2005): implementation of Government Securities Accounting and Settlement System, development of Electronic Payments System, and advancement of new payment instruments and payment and settlement services in the Republic of Armenia

2000: CBA and a number of commercial banks jointly established the “Armenian Card” Closed Joint-Stock Company and the “ArCa” unified card payment system (see paragraphs 2.2.3.1 and 4.2.1).

2000: the Government Securities Accounting and Settlement System, (GSASS), was introduced.

2004: secondary market module was added to the GSASS, ensuring final settlement for transactions with government securities in accordance with the “delivery versus payment” principle (see paragraph 6.1).

2003: “Arax-CB” security module was introduced, which increased the security of transferring payment messages within the Electronic Payments System.

2004: Electronic Payments System hardware and software was upgraded, which considerably increased the processing capacity of the EPS.

An Inter-Agency Commission against Money Counterfeiting and Plastic Card and Other Payment Instrument Fraud to prevent counterfeiting of banknotes and payment card, check, and other payment instrument fraud in the territory of the Republic of Armenia was established in 2002 under instruction of the President of Armenia. Since 2004, the Commission started activities against money laundering and terrorism financing.

2000-2003: CBA and commercial banks continued working with public utility service providers to charge utility service fees from households through the banking system. Starting 2003, payments against utility services began to be made by ArCa cards via ATMs.

2005: CBA and Armenian Stock Exchange developed and introduced the system of final settlements for foreign exchange trades executed at the Stock Exchange.

End-2007 and January 2008: Armenian stock exchange launched transactions with treasury bills and CBA bonds as well as clearing and final settlement thereof.

2008: Stock exchange trades rules for transactions with corporate securities at Central Depository were developed, including rules for prior depositing and final settlement of transactions with corporate securities at NASDAQ OMX Armenia JSC. Procedure on “Securities Settlement System” was developed for the Armenian Central Depository.

2008: The Central Bank and NASDAQ OMX Armenia JSC continued work on developing the securities infrastructure and improving the mechanisms to allow participants to make best use of liquidity and settlement. In particular, they drafted the following papers: “Clearing and Settlement of Stock Exchange Transactions Net of Prior Depositing” and “Rules for Creation of Guaranty Fund for Clearing and Settlement of Stock Exchange Transactions Net of Prior Depositing”. As a result of these efforts, a new procedure is intended to be introduced on the floors for execution and final settlement of transactions, whereby participants would be allowed to have access to stock-exchange operations without a need of prior depositing of funds.

2009: the draft law on amendment to the Republic of Armenia Law on Payment and Settlement System and Payment and Settlement Organizations was submitted to the National Assembly for

consideration. The draft law has provisions that specify the threshold of minimum total capital of payment and settlement organizations; sets out rules for servicing clients outside normal place of business and for creation of payment and settlement unions. The draft law clarifies the procedures for licensing of payment and settlement organizations and their membership to payment systems.

1.5.2 Payment and settlement system overview

The currency of the Republic of Armenia is the Dram which was introduced in November 1993, and is the legal tender in the Republic of Armenia. The quotation and payments in Armenia are made in national currency, unless otherwise provided for by legal acts of the Republic of Armenia.

Most payments in the Republic of Armenia are made on a cash basis. In the recent years, however, non-cash payments have been reporting small yet steady growth. In 2009 the value of non-cash payments in the Republic of Armenia was AMD 14,655 billion with 6 679 525 non-cash payments in number.

The payment and settlement system in Armenia is characterized by the use of high value credit transfers while cash or other types of credit instruments are used for low value payments. In pursuit of promoting non-cash payments and increasing value of non-cash payments, the CBA spent efforts mainly in two directions, i.e. measures in regularizing legal relations and promoting non-cash turnover. In particular, in 2007 the CBA took action to recognize POS receipts (slips) as expense document. Further work included removing payment and settlement service providers from value added tax and clarifying the list of payment and settlement services.

Payments in Armenia are made through two major payment systems:

- The CBA Electronic Payments System (EPS) which is used for both large and low value transactions that enables implementing both large- and small-scale credit payments;
- The Armenian Unified Card Payment System (ArCa) for retail card-based transactions. that enables implementing operations by payment cards.

The EPS is one of the most important interbank payment systems, which operates in a Real Time Gross Settlements, RTGS, regime, whereby the settlement is effected in dram through correspondent (settlement) accounts of stakeholders with the CBA, within the balances of the accounts. The system-effected settlements are final and irrevocable after these are made through the CBA accounts. The system is used for credit transfers only, including own transfers of commercial banks on different financial commitments, payments to the budget, payment among business entities, private transfers of

people, and etc. The system has no limits in terms of value of transfers – it is suitable for both high value and low value payments. The system does not provide for lending by the CBA, and the transaction will be denied once the funds are not sufficient. The participants will need to handle insufficient liquidity by attracting funds in the interbank money market. The participants however are allowed to use their reserve funds under the reserve requirement. Nor there are mechanisms for running and managing the sequence of payment instructions: an instruction will be denied without being fulfilled if there are not sufficient funds in the account. In order for the instruction to be fulfilled an initiator needs to re-enter that to the EPS as a new instruction.

The ArCa System is a unified card payments system which is used for processing and clearing of transactions executed by ArCa cards issued by member-banks to the system. The phase of settlement of card transactions in the system covers a period from 9:30 a.m. of the banking day until 9:30 a.m. of the next banking day. For each settlement phase there is a settlement limit applied to each issuer member, and the transactions by cards can be executed by that issuer within such limits. Once the settlement phase is over the Armenian Card CJSC Processing Center, the ArCa System's Operator, will compute net positions of competence and liabilities arisen from accredited card transactions of each member based on available information about accredited card transactions of any given settlement phase, draw up relevant payment and settlement instructions and present them through the CBANet interbank network to the CBA, which is the Bank of settlements for the ArCa System. The CBA will carry out the final settlement using the instructions received. In addition to ArCa cards, the ArCa System has been given a status of a principal member to MasterCard System and of a member carrying out processing of the third parties to Visa System.

Though the ArCa System is a new payment system with only a few years of history, it grows rapidly by introducing all relevant products and services which are offered in countries with extensive experience in card businesses. So, in addition to withdrawing cash, ArCa cardholders may use the ArCa System ATMs to make utility payments, inquire cash balances, and purchase codes for cellular phone refills. Starting 2003, the ArCa System offers making utility payments via Internet; starting 2004, it offers payment services in some Internet-shops and payments for charge-cards. On September of 2005, the ArCa System introduced a mechanism allowing transfers from an ArCa card account to another card account via Internet. The ArCa System carries out work to issue and service chip cards.

In 2006 further work was done within the ArCa System to offer new services. Namely, virtual cardholders of the system were allowed to perform certain banking transactions, for example repayment of loan.

Starting 2007 users of the ArCa System were allowed to enter into transactions in Internet environment by cellular phone. As well as the system of accepting cash by ATMs was introduced.

In 2007 the Armenian Card CJSC introduced a new technology which enabled member commercial banks to launch the idea of '24-hour automated branch office'. This allowed cardholders to use ATM to visit commercial banks' websites [which are adapted to enter into transactions through ATMs] in order to perform variety of banking transactions.

The Fraud Guard System which was introduced in 2005 became increasingly practicable after the system optimization in 2008. The purpose of this system is to quickly detect fraudulent transactions and respond adequately.

In 2009 the ArCa System was awarded a 100 percent Compliance Certificate based on PCI DSS audit results, which has been an exceptional event to processing firms in CIS and Eastern bloc of countries.

As of 2009 the number of cards issued in Armenia was 579 431, and the number of devices servicing payment cards was 2817 of which 702 ATMS, 2720 POS terminals and 29 Imprinters.

Apart from the above payment systems, there are the Paper-Based Gross Settlements System and the Clearing (Net) Settlements System functional in Armenia. The latter is mainly treated as a reserve system.

Armenian commercial banks effect international transfers through their correspondent accounts with foreign banks, chiefly through the S.W.I.F.T. system which all commercial banks in Armenia are members to. Those Armenian banks which hold no correspondent relations with foreign banks effect their overseas payments through the above-mentioned banks, using their foreign currency accounts with foreign banks. International transfers of business entities are made mostly through traditional bank transfers, whereas individuals normally send and receive foreign currency remittances through a number of international systems that use currently wide-spread money remittance practice in Armenia without a need to open an account. Similar systems in the CIS are becoming increasingly competitive with these systems. Armenia heavily relies on transfers, and the National Assembly endorsed the Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations on November 24 2004. The Law became effective on June 28 2005 and plays an important role in regulating operation of payment and settlement systems and the activities of payment and settlement (non-bank) organizations. The Law and regulations enacted pursuant thereto have established mechanisms empowering the CBA to permit creation of payment and settlement systems and their

participation in overseas payment and settlement systems, which enables to curb as much as possible and manage the system-specific risks.

In Armenia, mail transfers are carried out by HayPost CJSC, which is the National Operator of the postal system and has received an activity license from the CBA to carry out money remittances for transfers without a need to open an account. Money remittances are considered one of traditional postal services that are delivered in and outside Armenia. HayPost Company delivers both traditional mail (paper) transfer and electronic money transfer services. The Company has been allowed by the CBA to participate in similar systems, and it now is participant to a number of well-known money transfer systems abroad. Almost all regions of Armenia now have the opportunity to make payments and money remittances using these systems.

In Armenia, both commercial banks and payment and settlement organizations are demonstrating interest in respect of e-money.

In 2009 the CBA developed Regulation 16/1 “Procedure and Terms for Permitting, Suspending and Terminating Issuance of E-Money; and Requirements to Issuers of E-Money” and Regulation 16/2 “Procedure and Terms for Issuance and Service (Turnover) of E-Money; and Requirements to Execution of E-Money Transactions”. These regulations have been approved by the Board of the CBA.

The CBA is intensively considering regularization and oversight of these new areas of payment and settlement services.

The oversight of the payment and settlement system, PSS, is one of the key objectives and functions of the CBA. In November of 2004 the CBA developed the Concept for Oversight of the Payment and Settlement System, which was revised one more time and approved under the CBA Chairman Decision in December of 2006. The purpose of the Concept is to clarify the payment and settlement oversight policy and make it public. The Concept establishes the PSS objectives, scopes, requirements to the PSS-involved systems, cooperation with other authorities, and reporting and supply of information on the PSS results. A timetable for evaluation of the payment systems functional in Armenia and involved in the PSS was approved pursuant to this concept.

The CBA made a decision to create a structural unit within the CBA, which is responsible for PSS implementation.

1.6 Main securities clearing and settlement system development trends

The CBA acts as financial agent to the Armenian Government and takes on a function of servicing allocation, circulation and redemption of government bonds. Government bonds issued by the Ministry of Finance have short-term, medium-term and long-term maturities.

Bonds issued by the Ministry of Finance can be obtained by agents, dealers and Treasury Direct from the primary market. Agents are partners to the Ministry of Finance in the area of domestic public debt management. Agents have clearly defined rights and liabilities. Dealers participate in primary placement with limited rights. Investors using the system Treasury Direct can only buy short-term government bonds.

There are two ways with which the Ministry of Finance is entitled to repurchase its bonds: organizing auction by submitting bids and repurchasing at a pre-announced yield rate.

In 2005 new EPS formats were developed and introduced which are used to make foreign currency transfers, as well.

In 2007 an electronic format for clearing and final settlement was developed and introduced. The format is used to transfer electronically the message to the Settlement Bank (CBA) for final settlement of net positions generated as a result of foreign currency trades at NASDAQ OMX Armenia JSC and operations executed in the ArCa System.

A concept for designing a new hybrid payment system was developed in order to introduce mechanisms for effective liquidity management by system participants and running the sequence of payments initiated.

In view of having an expanded and more practicable monetary policy toolkit the CBA developed core principles for automated system operation of entering into and executing repo/reverse repo agreements. The new system will make it possible for repo and reverse repo operations between the CBA and commercial banks to be entered into, executed and redeemed in an automated regime. Also, the system will allow commercial banks to enter into an overnight repo transaction, which is interest free, with the CBA, if a short-term liquidity need arises. The intraday repo transactions not redeemed until the closing of the day will be automatically reformulated into overnight repo transactions, with interest imposed thereon.

In 2008 the Ministry of Finance launched a new product, i.e. issue of benchmark bonds. The benchmark bonds are allocated through a mechanism of regular re-openings.

CHAPTER 2. INSTITUTIONAL ASPECTS

2.1 Legislative framework

2.1.1 Payments

Competences and obligations of the CBA in the payment and settlement area are established under the Law on the Central Bank and Law on Payment and Settlement Systems and Payment and Settlement Organizations. These Laws empower the CBA to regulate, oversee and control the Armenian payment and settlement system. The CBA is authorized to:

- Oversee and regulate the operation of the payment and settlement system. Article 5 of the Armenian Law on the Central Bank provides that one of the CBA objectives is creating and developing an efficient payment and settlement system. To this effect, the CBA shall:
 - regulate and oversee the payment and settlement area;
 - compile statistical data on and analyze the developments in the Armenian payment and settlement area;
 - deliver payment and settlement services direct for which purpose the CBA has created and runs the CBANet interbank electronic telecommunications network and the Electronic Payments System (see paragraph 4.1.1) and the Government Securities Accounting and Settlement System (see paragraph 6.1), as well as provides other systems with final settlement services (see paragraphs 2.4.2.1, 4.4 and 6.2);
- issue activity license to the payment and settlement organizations and regulate their activities;
- issue permission for creation and operation of the payment and settlement systems in Armenia and participation in foreign payment and settlement organizations;
- use competence to establish technical, security, program guidelines and requirements to the payment and settlement systems;
- use competence to require the Armenian payment and settlement system operator and other participants as well as the Armenian participants in foreign payment and settlement systems to report and/or inform in respect of provision of the payment and settlement services;
- use competence to establish rules for provision of the payment and settlement services and/or rules for circulation of payment instruments and/or forms for settlements.

The Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations, adopted by the National Assembly on November 24, 2004, effective as of June 28, 2005, is an important part of the legislation regulating the activities of payment-settlement systems and non-bank providers of payment and settlement services (payment service organizations). The Law provides definitions of the key concepts related to payments and settlements, the scope of CBA regulation and supervision mechanisms over payments and settlements, settlement finality provisions that preclude systemic risks associated with liquidation or bankruptcy proceedings of system participants, and the procedures of licensing, supervision, and sanctions to payment and settlement services providers.

In end-2007 the CBA developed the Concept for Oversight of the Payment and Settlement System.

Payment and settlement relation in the Republic of Armenia are governed by:

- Republic of Armenia Civil Code (01/01/1999);
- Republic of Armenia Law on the Central Bank (30/06/1996);
- Republic of Armenia Law on Banks and Banking (30/06/1996);
- Republic of Armenia Law on Payment and Settlement Systems and Payment and Settlement Organizations (24/11/2004);
- Republic of Armenia Law on Funds Transfers by Credit Payment Order (09/01/1997);
- other Armenian laws; and
- Central Bank regulations.

In 2009 a number of prudential requirements and regulations established under the Law on Payment and Settlement Systems and Payment and Settlement Organizations were amended to include the following:

The CBA (on the basis of Law on the Central Bank), commercial banks, payment and settlement organizations and credit organizations (on the basis of licenses issued by the CBA), and other persons, which have the right to deliver payment and settlement services in accordance with the laws or international treaties of the Republic of Armenia, may provide payment and settlement services in the Republic of Armenia.

The principles of payment and settlement service provision in the Republic of Armenia are laid down in the Republic of Armenia Civil Code (effective from January 1, 1999), which defines, among other things, forms and general principles of non-cash payments in Armenia, bank account and deposit agreement terms, sequence of disbursements in the event of inadequacy of funds on a bank account, and timing within which funds are credited to/debited from bank account.

The payment instruments used in the Republic of Armenia are regularized to different degrees.

Considering that about 99% of non-cash payments in the Republic of Armenia are effected by credit payment orders, special attention is paid to regulating this instrument. Rights, responsibilities, and liability of parties to credit payment order-based transfers within Armenia are defined in the Armenian Law on Funds Transfers by Credit Payment Order (effective from January 9, 1997). The maximum time period for executing transfers under this instrument is defined in the respective normative acts of the CBA, which provides that in case of an intra-bank transfer, payment to the beneficiary must be made no later than on the first banking day following the receipt of such instruction, in case of transfers through bank correspondent accounts – in 1-2 banking days, and in case of other inter-bank transfers – in 2-3 banking days, depending on whether the beneficiary is served at the bank headquarter or a branch office.

The execution rules of payments by checks, standing orders, direct debits, and documentary transfers in the Republic of Armenia are set forth in the respective procedures adopted by the CBA (“Procedure of Documentary Transfers in the Republic of Armenia” adopted on March 16, 1999; “Procedure of Executing Transfers by Period Standing Orders” adopted on February 1, 2000; “Procedure of Funds Transfer by Direct Debits in Armenia” adopted on April 25, 2000; “Minimum Requisite Information of Documents used in Payment and Settlement Operations” adopted in revised form on May 20, 2004; “Procedure on Issuing, Servicing, and Circulation of Checks in the Republic of Armenia” adopted on May 24, 2005; and “Procedure on Issuing, Servicing, and Circulation of Payment Cards in the Republic of Armenia” adopted on January 31, 2006).

Settlement through plastic cards is also regulated by relevant rules of card systems (MASTERCARD, VISA, and ArCa).

The Minimum Requirements on Operational Risk Management in the Armenian Banking System (adopted by the CBA on January 26, 1999) is important to the security of electronic banking services and electronic payment systems. This document sets forth the minimum requirements that must be complied with by banks operating in Armenia in order to minimize and prevent operational risks in the Armenian banking system.

Bank-to-customer matters related to the delivery of payment and settlement services are regulated also by contracts between the bank and the customer.

Activities of different inter-bank payment and settlement systems operating in Armenia are regulated by system rules, operating procedures and manuals; membership in systems is defined in bilateral contracts.

2.1.2 Securities

The central legislative act governing the Armenian securities market is the Armenian Law on Securities Market Regulation which was adopted in 2000.

In 2007 the Republic of Armenia Law on Securities Market was developed and adopted. The Law regulates the relations arising out of activities in the securities market and establishes:

- a) the procedure for public offering and public trading of securities,
- b) the procedure for providing investment services in the securities market and organizing public trading of securities,
- c) the procedure for safe custody, clearing and settlement systems of securities, as well as activities of the Central Depository'
- d) the authorities and obligations of the Central Bank of Armenia (hereinafter referred to as the Central Bank) with regard to regulation and supervision of the securities market,
- e) the responsibility for violation of requirements of this Law, the regulations adopted on this basis and other legal acts.

In addition, the securities area is governed by the Republic of Armenia Civil Code and the Republic of Armenia Law Joint Stock Companies.

Some sub-legislative acts have been adopted pursuant to the Law, including the Securities Market Regulation Rulebook (05/12/2006). The Rulebook includes:

- the procedures for professional qualification and licensing
- the procedure for internal control of professional participants
- the reports of professional participants
- the procedure for registration and reports of self-regulating organizations
- the procedure for running a register by the Central Depository.

The placement, circulation and redemption of treasury bills is governed by normative acts of the Armenian Government and the CBA, as well as under respective contracts concluded with parties acting as agent or dealer of treasury bills. The placement, circulation and redemption of the CBA

securities is governed by normative acts of the CBA, as well as under respective contracts concluded with parties acting as agent or dealer of the CBA securities.

Currently, the circulation of commercial securities in Armenia is governed by the Armenian Law on Securities Market, and rules defined by professional securities market participants.

Reporting issuers of corporate securities whose securities should be registered with Central Depository should hand the running of register of holders of such securities over to the Central Depository that carries out the final settlement of the transactions by these securities through relevant securities accounts it keeps.

In Armenia, transactions with securities can be concluded through the stock exchange (NASDAQ OMX Armenia JSC), subject to its rules, and on an over-the-counter basis as provided for by the Armenian Law. Transactions with government bonds are concluded mainly on an over-the-counter basis. Final settlements of transactions with treasury bills and commercial securities at the stock exchange are carried out pursuant to the procedures established under the contract signed between the CBA and Central Depository.

2.1.3 Derivatives

In 2009 the CBA developed the paper “Central Bank Indirect Monetary Policy Instruments and Implementation Mechanisms”. This legislative act which is set to govern the derivative area takes effect in 2010.

2.1.4 Clearing and final settlement

2.1.4.1 Netting, processing, clearing and final settlement

With the introduction of the Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations (the Law) a number of area-specific definitions appeared. The Law gave the definition of *settlement document, netting, processing, clearing, final settlement, occurrence of irrevocability, suspension of payment and settlement activity, payment, funds transfer*, among others.

2.1.4.2 Licensing payment and settlement organizations performing processing and clearing

The Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations provides that in order to perform processing and clearing of payment documents and payment and settlement documents (processing and clearing) non-bank organizations will need to receive an

activity license, which is issued by the CBA as provided for by the Law and the CBA Regulation 17. This regulation was last edited in 2009 to contain requirements, among others, to payment and settlement service providers' branch offices opening at buildings of rural municipality and communication service operators. The changes are intended for improvement of household service infrastructures in regions of Armenia.

The payment and settlement organizations performing processing and clearing may perform processing and/or clearing for the third parties as well as provide other relevant payment and settlement services, as permitted by the Board of the CBA. These organizations may involve in creating, commissioning and servicing hardware and software systems, devices, programs and applications relevant to the processing and clearing.

The payment and settlement organizations shall be organized so as to carry a corporate status and they shall not be engaged in commercial, production and other similar activities except as provided for under the Armenian Law.

The payment and settlement organizations performing processing and clearing shall have a chartered capital which shall not diminish any time as the business goes. There should also be technical adequacy, program and safety requirements. An organization's managers or candidates should fit professional and integrity criteria as established by relevant regulations.

Any decisions by payment and settlement organizations about change or alteration in their business should be presented to the CBA for approval. The CBA may approve or disapprove the change.

The process of payment and settlement organization licensing began at late 2005, and Armenian Card CJSC has already received an activity license for processing of payments by card (see paragraph 2.2.2.2).

2.1.4.3 Irrevocability of payment and settlement documents, irrevocability of netting, making final settlement

The Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations has established the irrevocability of payment and settlement documents, the irrevocability of netting, and the making of final settlements.

Irrevocability of payment and settlement documents

Where a payment and settlement document has entered a payment and settlement system and is deemed irrevocable before the payment and settlement system participant's activity is suspended, the payment and settlement system rules suggest that the liability under a payment and settlement document continues to be in effect and subject to unconditional fulfillment by the receiver.

Where a payment and settlement document has entered a payment and settlement system and is deemed irrevocable after the payment and settlement system participant's activity is suspended but within the day of occurrence of such suspension of activity, the payment and settlement system rules suggest that the liability under a payment and settlement document continues to be in effect and subject to unconditional fulfillment by the receiver, provided that the system operator proves it was not aware and/or could not have been aware of the suspension of the participant's activity.

An authorized body's decision on the occurrence of suspension of the payment and settlement system participant's activity has no recourse effect on the participant's rights and liabilities that are related to the settlements in the payment and settlement system and have arisen before the occurrence of such suspension.

The occurrence of entry and irrevocability of a payment and settlement document is established under the rules of the payment and settlement system, in agreement with the CBA and, in the absence thereof, under the CBA regulations.

Irrevocability of netting

Where netting is executed in the payment and settlement system, subject to the system's rules, after the netting the system participant may have only one net liability for making payment or one net claim for receiving payment in relation to another participant (participants).

Where netting is executed in the payment and settlement system, subject to the system's rules, and a payment and settlement document has entered the payment and settlement system and is deemed irrevocable before the payment and settlement system participant's activity is suspended, the netting of the payment and settlement document cannot be annulled and resettled.

These rules of irrevocability of payment and settlement documents apply to the systems that make netting-based settlements.

Use of financial assets by the CBA and the participant carrying out clearing and final settlement

Funds (money or securities) deposited with the CBA and/or the participant carrying out clearing and final settlement as security for performance of liability in respect of payment and settlement documents can be held, owned and used without any limitation (hindrance) by the CBA and/or the participant carrying out clearing and final settlement for making final settlement of the payments that are deemed irrevocable, to the extent necessary for final settlement.

2.1.4.4 Electronic documents and electronic digital signature

On December 14 2004, the National Assembly adopted the Armenian Law on Electronic Document and Electronic Digital Signature that governs the relations arising out of application of electronic documents and electronic digital signatures, including the forms of presentation and maintenance of electronic documents, the use, application of electronic digital signatures, the requirements to certification centers and the process of certification, the requisite information presentable in the certificate, the period of validity of certificate, and etc.

The application of electronic documents and electronic digital signatures is governed by the Republic of Armenia Civil Code, the Law on Electronic Document and Electronic Digital Signature, other relevant laws and regulations. Where Armenia's international treaties provide for norms other than determined by the above Law, the norms of Armenia's international treaties shall apply.

The application of electronic documents and electronic digital signatures in state authorities is established by the Armenian Government.

The Treasury applies electronic documents and electronic digital signatures to its information systems pursuant to the procedure established by the state financial regulator as provided for under the Armenian Law on Treasury System.

The CBA and its licensees apply electronic documents and electronic digital signatures pursuant to the procedure established by the CBA regulations. The certification center that issues certificates for electronic documents and electronic digital signatures for the CBA and its licensees is accredited by the CBA as determined under the CBA regulations.

2.2 Role of financial institutions in payments

2.2.1 Banking sector

Under the Armenian Law on Banks and Banking, the banking system of the Republic of Armenia includes the Central Bank of the Republic of Armenia, banks operating in Armenia, their branches, representative offices, and foreign banks branches and representative offices operating in Armenia.

The Central Bank

The objectives, functions, legal status and competence of the Central Bank of the Republic of Armenia (CBA) are established under the Armenian Law on the Central Bank. In the payments area, the CBA:

- issues the currency of the Republic of Armenia, organizes and regulates currency circulation;
- carries out oversight and regulation of the financial system;
- regulates and oversees the payment and settlement system operation, including activities of non-bank organizations providing payment and settlement services;
- creates conditions required for a stable, reliable, liquid, solvent and normally-functioning banking system in Armenia, including oversight of the payment and settlement systems;
- delivers payment and settlement services direct; the CBA delivers such services only to commercial banks operating in Armenia, the Government and some non-governmental funds; the CBA can accept demand or time deposit, in dram or foreign currency, only from government agencies and banks, international financial institutions and credit organizations and, in exceptional cases, from other parties as and when decided by Board of the CBA;
- acts as the owner, operator and settlement bank for the CBA's RTGS and DNS systems (Paper-Based Gross Settlement System; Electronic Payments System, Net Clearing Settlements System); and maintains commercial banks' correspondent accounts and other participants' settlement accounts. The CBA is the final settlement agent for card transactions through the unified payment system of ArCa cards and the foreign exchange deals at the Armenian Stock Exchange (see paragraph 4.3). The CBA also carries out the settlement of cash transactions by commercial securities and government securities at the Armenian Stock Exchange. To perform cash settlement of foreign exchange deals at the Armenian Stock Exchange, as well as in the Government Securities Accounting and Settlement System, the CBA maintains accounts of non-bank organizations that are either agents or dealers of government bonds, or dealers in foreign currency;
- as the Government's financial agent organizes primary placement of T-bills, the redemption and payment of interest thereof; acts as a central custodian of T-bills issued; and makes the final settlement of the transactions performed in the secondary T-bills market. The CBA is the owner and operator of the Government Securities Accounting and Settlement System.

Banks

Banking activities in the Republic of Armenia are regulated by the Armenian Laws on Banks and Banking; the Central Bank; Bankruptcy of Banks and Credit Organizations; Bank Secrecy; other laws, and the CBA regulations. Banking activities in the Republic of Armenia may be carried out only on the basis of a banking license issued by the CBA.

As established under the Armenian Law on Banks and Banking, commercial banks and their branches can perform financial operations typical to the banking business, including provision of financial services.

Banks shall not be engaged in production, commercial and insurance business.

The CBA has an exclusive right of oversight of the activities of banks.

As of end-2009, there have been 22 commercial banks (including 5 banks with a 100 percent foreign capital) with 391 branch offices, functioning in the territory of the Republic of Armenia.

2.2.2 Non-bank financial institutions

2.2.2.1 Credit organizations

Credit organization activities in the Republic of Armenia are regulated by the Armenian Laws on Credit Organizations; Bankruptcy of Banks and Credit Organizations; other laws, and the CBA regulations. Credit organization activities in the Republic of Armenia may be carried out only on the basis of an activity license issued by the CBA.

Credit organizations may carry out other financial operations, as defined by the CBA.

Credit organizations shall not be engaged in production, commercial or other activities that are subject to licensing.

Credit organizations cannot open and maintain bank accounts for their customers and members. Credit organizations shall perform non-cash settlement through a bank that serves credit organizations. Only universal credit organizations may offer a limited range of payment and settlement services, namely the issuance and service of credit cards.

The CBA has an exclusive right of oversight of the activities of credit organizations.

As of end-2009, there have been 27 credit organizations (with 55 branch offices) functioning in the territory of the Republic of Armenia.

2.2.2.2 Payment Service Organizations (non-bank organizations providing payment and settlement services)

The Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations defines two types of licenses issued by the CBA, on the basis of which non-bank payment service organizations may provide the limited range of payment and settlement services described below. The types of licenses are:

1. Remittance (money transfer) license; and
2. Payment instrument and payment document processing and clearing license.

A payment service organization that performs money transfers may, on the basis of the CBA-issued license, engage in the business of accepting and making payments without opening bank accounts, as well as offering other payment and settlement services authorized by Board of the CBA, which are related to the above mentioned service. In accordance with the procedures defined in laws and other legal acts, such organizations may, on the basis of an appropriate license, act as a foreign currency dealer or currency exchange office, as well as deliver postal services.

Payment instrument and payment document processing and clearing organizations may, on the basis of the CBA-issued license, perform processing and/or clearing for third parties, as well as offer other payment and settlement services authorized by Board of the CBA, which are related to the above mentioned service. Such organizations may also carry out activities pertaining to the creation, operation, and maintenance of hardware and software related to processing and/or clearing.

Payment and settlement organizations shall be organized so as to carry a corporate status and shall not be engaged in commercial, production, and other types of activities, except as provided for under the Armenian Law.

In accordance with the Armenian Law on Payment and Settlement Systems and Payment and Settlement Organizations, the licensing of payment service organizations began at yearend 2005, according to which the “HayPost” CJSC received a license to make money remittances, and “Armenian Card” CJSC received a license to process and clear card payments.

2.2.3 Other payment service providers

2.2.3.1 Card companies

In the Republic of Armenia, there is one card company – Armenian Card CJSC. This is a commercial entity created in March 2000 by the CBA and 10 commercial banks with a view to building a unified system of payment card settlements and developing non-cash retail payments in the Republic of Armenia. “Armenian Card” CJSC is the operator of the ArCa unified card payment system. As such, it has the following functions:

- General management of the ArCa unified card payment system in the Republic of Armenia;
- Developing general rules and standards for system operation;
- Creating and expanding card service infrastructure;
- Processing transactions with cards issued by the system;
- Ensuring sound operation of technical equipment in the system;
- Estimating positions of members resulting from transactions with ArCa cards and transferring them to the settlement bank and to members;
- Estimating positions of members resulting from commissions and transferring them to the settlement bank and to members;
- Cooperating with international card payment systems and, if possible, providing services to international payment system cards; and
- Assisting members of the ArCa unified card payment system in issuing and/or serving international payment system cards.

The CBA, commercial banks and foreign bank branches licensed by the CBA, and organizations specialized in the card business can be stakeholders of Armenian Card CJSC.

Armenian Card CJSC is a Principal Member and Member Service Provider to the MasterCard Europe international payment system as well as a Third Party Processor for the VISA system.

As of end-2009, member banks to Armenian Card CJSC numbered 19; to MasterCard numbered 17; and to Visa system numbered 10.

As of end-2009, cards issued in Armenia numbered 579 431, of which 282 164 by ArCa; 61 108 by MasterCard; and 201 589 by Visa.

2.2.3.2 Postal institutions

In Armenia, like in a number of other countries, posting plays an important role in the delivery of payment services, which is attributable to uneven development of the banking sector throughout Armenia and to majority of the population not having bank accounts.

Under the Armenian Law on Postal Communication (adopted on December 14, 2004), postal transfers of money, i.e. the transactions of receiving, processing, and transferring cash, payments for utilities, and other amounts are deemed the equivalent of remittance (money) transfers and are subject to licensing by the CBA, with the exception of postal transfers of money made by the National postal communications operator in accordance with the terms and procedure defined in the international treaties of the Republic of Armenia.

Postal money transfers are performed by the National postal communications operator—“HayPost” CJSC on the basis of a remittance license issued by the CBA. HayPost, which has a wide branch network in the remote and inaccessible regions of the country and small localities (over 900 branches and 100 stations), provides a variety of payment services, including:

- Postal money transfers both domestically and within the CIS;
- Money transfers through the “Contact”, “Travelex” and “Stefi” systems of international money transfers; and
- Accepting payments for utilities and execution of pension and benefit payments to the households.

2.3 Role of financial institutions in securities

2.3.1 Entities performing specialized activities in the securities market

According to the Republic of Armenia Law on Securities Market (adopted 11/10/2007), entities performing specialized activities in the securities market of Armenia include investment service providers, the regulated market operator, the securities settlement system operator, and other entities defined by law. The CBA is responsible for ensuring compliance with industry-wide regulatory requirements. The CBA shall use its competence to oversee investment service providers, persons making public offer of securities, reporting issuers, regulated market operators, Central Depository, and owners, managers, insiders and agents of these entities, as well as persons with qualifying holding and persons directly or indirectly engaged in major transactions in securities market.

2.3.2 Investment service providers

Investment service providers include investment companies, branches of foreign investment companies, banks, credit organizations.

Investment companies, branches of foreign investment companies

Investment companies are legal persons licensed to provide investment services, as determined by the Republic of Armenia Law on Securities Market.

Branches of foreign investment companies are separate units of foreign investment companies that are established in the Republic of Armenia.

As of end-2009, there have been 8 investment companies functioning in the securities market of the Republic of Armenia.

Investment services, non-principal services

According to the Republic of Armenia Law on Securities Market, investment services include:

- Receiving and transferring instruction from customers regarding transactions with securities;
- Making transactions with securities on behalf of investment service provider or on behalf of customer and at the expense of customer;
- Advising customers regarding investment in securities;
- Making transactions with securities on behalf and at the expense of investment service provider;
- Managing securities portfolio;
- Underwriting of securities.

Non-principal investment services include:

- Safe custody of securities;
- Making loan to customers for transactions with securities provided that the lender is a party to such transaction;
- Providing services in connection with organization of issuance and distribution of securities;
- Providing advisory services to companies on structure of capital, corporate strategy, reorganization of companies, and other services;
- Executing foreign exchange dealer trades;
- Activities of credit organization;
- Developing researches, financial analyses and other general investment proposals related to securities transactions and making them available.

2.4 Market structure and regulation

The Republic of Armenia Law on Securities Market, which was adopted on 11/10/2007, establishes that entities performing professional services in the securities market of Armenia include investment service providers, the regulated market operator, the securities settlement system operator, and other entities defined by law. The CBA is responsible for ensuring compliance with industry-wide regulatory requirements. The CBA shall use its competence to oversee investment service providers, persons making public offer of securities, reporting issuers, regulated market operators, Central Depository, and owners, managers, insiders and agents of these entities, as well as persons with qualifying holding and persons directly or indirectly engaged in major transactions in securities market.

2.5 Role of the CBA

2.5.1 Objectives of the CBA

The primary objective of the CBA is ensuring price stability in the Republic of Armenia. In pursue of its primary objective the CBA formulates, develops, approves and implements monetary policy programs.

The CBA has other objectives, as follows:

- a) Ensuring an environment necessary for stability, reliability, liquidity, solvency, and normal-functioning of the banking system of the Republic of Armenia;
- b) Creating and developing an efficient payment and settlement system;
- c) Issuing domestic currency of the Republic of Armenia and organizing and regulating money circulation;
- d) Arranging measures for combating legalization of criminal proceeds and terrorism funding; and
- e) Ensuring requisite conditions for protecting investors in securities; creating and maintaining a fair price-generation mechanism for securities as well as maintaining an efficient and developing and fair, open and reliable securities market.

For fulfillment of its objectives, the CBA shall:

- a) provide the banking service of the Government;
- b) act as financial agent of and advisor to the Government;
- c) license banks, as well as other entities, in case if envisaged by law, and regulate and supervise activities thereof;
- d) provide loans to the banks as the lender of last resort;

- e) regulate and supervise activities of payment and settlement system, including those of non-bank organizations which provide such services;
- f) own, use, dispose of international reserves of the Republic of Armenia;
- g) compile, survey and promulgate monetary and financial statistics; and
- h) collect, systemize and analyze information in relation to legalization of criminal proceeds and terrorism funding; exchange and provision of such information to authorized entities in Armenia and international organizations as well as to other authorized entities if so is provided for under international treaties of the Republic of Armenia.

2.5.2 Unified regulation and supervision of the financial system

In Armenia, the CBA is responsible for regulation of the financial system. Under the Armenian Law on the Central Bank, and other Armenian laws, the CBA licenses, regulates, and supervises banks, credit organizations, payment service organizations, and entities specialized in foreign exchange operations.

In 2005 the CBA drafted a Concept Paper on Unified Regulation and Supervision of the Financial System in the Republic of Armenia, which was approved by the Government of Armenia. Under the Concept Paper, creating unified regulation and supervision will considerably improve financial market risk detection efficiency, facilitate the development and implementation of unified measures aimed at the development of the financial market, increase the efficiency of financial market crisis prevention measures by considerably improving the speed of decision making, and reduce regulation and supervision costs.

On December 22 2005, the Armenian Law on Implementing a Unified System of Financial Regulation and Supervision was adopted. This law regulates the measures needed to implement a unified system of financial regulation and supervision in Armenia, including the measures needed to transfer the regulation and supervision of other financial market participants to the CBA, as well as the regulatory and supervisory powers of the CBA over the financial system.

Under the Law “On Implementing a Unified System of Financial Regulation and Supervision”, the CBA will take over the regulation and supervision of securities market participants, investment companies, investment funds, cumulative pension insurance organizations, insurance companies, and pawnshops. The respective functions of public bodies conducting licensing, regulation, and supervision of these entities (i.e. the Republic of Armenia Securities Commission and the Ministry of Finance and Economy) have been terminated as of January 1, 2006.

The CBA carries out supervision of commercial banks, branches of foreign banks, credit organizations, payment and settlement organizations, securities market participants, non-governmental entities involved in pension activities, insurance companies, pawnshops and other parties having received the CBA license (all referred to as ‘the licensees’) through:

- *on-site supervision*, pursuant to the Armenian Law on the Central Bank; on-site supervision shall involve regular, ad hoc, and target examinations;
- *off-site supervision* by reviewing statements, reports, references, as well as other documents or information submitted (or as and when required by Board, Chairman or Supervision Unit of the CBA to submit) to the CBA by the licensees, as required by the Armenian Law and the CBA regulations.

2.5.3 Role of the CBA in payments and settlements

The CBA has broad competence in the area of payments and settlements.

Operational role

The CBA provides payment and settlement services to commercial banks, the Government, and several non-governmental foundations. To perform cash settlement of foreign exchange deals at the Armenian Stock Exchange, as well as in the Government Securities Accounting and Settlement System, the CBA holds accounts of non-bank organizations that are either agents or dealers of government bonds, or dealers in foreign currency. Other non-bank organizations, natural persons and legal persons are served in commercial banks in Armenia.

The CBA plays a central role in the payment and settlement systems operating in Armenia. The CBA is the owner and operator of the CBA Paper-Based Gross Settlement System and the Electronic Payments System (see paragraphs 4.1.1 and 4.1.2). Final settlement within these systems is performed using commercial banks’ correspondent accounts and other participants’ accounts with the CBA. The CBA is the final settlement agent for card transactions through the unified payment system of “ArCa” cards (see paragraph 4.2.1) and the foreign exchange deals at the Armenian Stock Exchange (see paragraph 4.4). The CBA also performs settlement of cash transactions with commercial securities and government securities in the Armenian Stock Exchange (see paragraph 6.2).

Under Article 32 of the Armenian Law on the Central Bank, the CBA, as the financial agent of the Government of Armenia, organizes the primary placement and redemption of government securities and the payment of interest; the CBA is the central custodian of issued government securities, and performs final settlement of secondary market transactions with government securities. The CBA is

the owner and operator of the Government Securities Accounting and Settlement System (see paragraph 6.1).

The CBA may accept demand or time deposits in dram or foreign currency only from public authorities of the Republic of Armenia and banks, international financial institutions and credit organizations and, in extraordinary cases, from other persons as decided by the Board of the CBA.

Role in organizing cash circulation

Under the Armenian Law on the Central Bank, Article 42, the CBA has monopoly over the emission and withdrawal from the circulation of banking notes and coins that constitute legal means of payment in the territory of the Republic of Armenia.

Banknotes and coins issued and not withdrawn from the circulation are irrevocable liabilities of the CBA, securitized by all of its assets. The CBA manages the currency reserves of the Republic of Armenia, develops the Republic of Armenia currency emission plan, and ensures regular supplies of banknotes and coins.

The CBA organizes and ensures banknote printing and coin minting, the safe custody of banknotes and coins available with the CBA, and their destruction in cases defined by law and other legal acts.

The CBA determines denomination, measure, weight, design, security and solvency features of banknotes and coins. The CBA exchanges, at no cost, any worn-out and damaged banknotes and coins provided these comply with the security and solvency features and criteria defined by the CBA.

The CBA adopts legal acts pertaining to regulation of money cycle.

The CBA also issues commemorative coins.

Cash services in the regions of Armenia are performed through 3 Regional Cash Centers of the CBA.

Oversight of payment and settlement systems

Under the Armenian Law on the Central Bank, Article 5, the CBA has a task of creating and developing an effective payment and settlement system.

The CBA remains committed to improving effectiveness and safety of the payment and settlement systems it operates.

In November 2004, the CBA drafted a Concept Paper on CBA Oversight of Payment and Settlement System, which was revised one more time and approved under the CBA Chairman's decision in December 2006. The Concept is intended to streamline and publicly explain the payment and settlement oversight policies of the CBA. It establishes objectives, scopes of and the requirements to the payment and settlement systems; the process of operation of PSS; cooperation with other authorized entities; and reporting and supply of information on the results of PSS. A timetable for evaluation of PSS was approved based on the Concept, and the evaluation is intended to launch during 2007.

2.5.4 Deposit insurance schemes

The Armenian Law on Guarantee of Remuneration of Individuals' Bank Deposits was adopted on November 24 2005. The Law governs the relations arising out of the guarantee of remuneration of deposits owned by natural persons, including sole proprietors (hereinafter referred to as 'depositors'), placed with commercial banks functioning in the Republic of Armenia.

For the meaning of this law, a bank deposit involves:

- a) any such amount, provided by a depositor or a third party in favor of the depositor to or available with a bank, which shall be refunded or returned to the depositor;
- b) funds in settlement, current, term, savings or other accounts opened with a depositor's bank;
- c) funds attracted by nominal securities issued by the bank;
- d) amount of interest accrued on the funds provided for in points a, b and c herewith.

For the meaning of the Law, a bank deposit does not involve the funds, which were provided to a bank under the depositor's agreement to assume the risk of their use, or which were provided to lease or obtain property, property rights, or which were provided as compensation for the work or service rendered.

Based on this law, a Deposit Guarantee Fund was established in March 2005, the founder of which is the CBA. The Fund's resources are generated from regular, non-recurrent and extra contribution charges made by the Armenian commercial banks (save for branches of foreign banks and insolvent banks).

The amount of regular (quarterly-made) contribution charges is 0.05 percent of the average daily bank deposits of the bank in a reporting quarter, but not less than 1 million drams per annum.

Non-recurrent contribution charges 15 million drams are made by new banks within 10 days upon being licensed for banking business.

Extra contribution charges are only made when the resources at the Fund fall short for remuneration of guaranteed deposits, as and to the extent determined by the law. The amount of extra contribution charges is computed by the Fund.

According to the law, a bank deposit is guaranteed under the following circumstances:

- a) where a depositor holds only a dram denominated bank deposit with the insolvent bank, the amount of the guaranteed deposit will be AMD 2 (two) million;
- b) where a depositor holds only a foreign currency denominated bank deposit with the insolvent bank, the amount of the guaranteed deposit will be AMD 1 (one) million;
- c) where a depositor holds dram and foreign currency denominated bank deposits with the insolvent bank, with the dram deposit amount exceeding 1 (one) million Armenian Drams, the remuneration shall apply to only the dram denominated deposit, for up to AMD 2 (two) million;
- d) where a depositor holds dram and foreign currency denominated bank deposits with the insolvent bank, with the dram deposit amount not exceeding AMD 1 (one) million, the remuneration shall apply to: i) the dram denominated bank deposit entirely, and ii) the foreign currency denominated bank deposit for the difference between AMD 1 (one) million and the remunerated dram denominated bank deposit.

All dram denominated deposits of the depositor with the same bank are considered as one deposit, and all foreign currency denominated deposits are considered as one deposit.

The event of remuneration of guaranteed deposit occurs when a bank is recognized insolvent or bankrupt through a procedure determined by the Armenian Law on Bankruptcy of Banks and Credit Organizations, and if the bank is not able to refund the deposits, as determined by a decision of Board of the CBA within the timing under law and contracts.

The procedure for remuneration of guaranteed deposits is established under law and relevant regulations.

2.5.5 Anti money laundering measures

In Armenia, measures to combat money laundering (ML) involve the following areas:

- Legislative framework for combating ML;
- Institutional framework and interdepartmental cooperation for combating ML; and
- International cooperation and international evaluation of framework for combating ML;

Legislative framework

The first anti money laundering legislation became effective in 2002 when the CBA enacted Regulation 5 “Safeguarding Banks and Credit Organizations from Circulation of Criminally Obtained Funds; Preventing Funding for Terrorism”. The scope of the regulation however was limited to the financial institutions and it was not covering all issues addressed by international anti-money laundering standards.

In 2004 the Armenian Law on Combating Legalization of Criminally Obtained Proceeds and Terrorism Funding was adopted. The law established functions of financial and non-financial entities, financial intelligence unit, and law enforcement and supervisory authorities as well as the cooperation among them. In 2008, in consideration of systemic gaps and incompliance with international standards, a new law was adopted, namely Combating Money Laundering and Terrorism Financing, with relevant legislative changes made to 15 other laws. The CBA approved a number of regulatory standards and guidelines that establish minimum requirements to financial organizations in the field of combating ML, criteria to suspicions transactions, typologies, guidelines for risk-based approaches, among others.

Institutionalization and interdepartmental cooperation

An institutional framework for combating ML comprises:

- *Financial Monitoring Center* as the national financial intelligence unit: FMC was created within the CBA based on the Armenian Law on Combating Legalization of Criminally Obtained Proceeds and Terrorism Funding. Competence of FMC includes receiving and analyzing financial information (including reports on sums that exceed established monetary thresholds and reports of suspicious transactions) from reporting entities (financial organizations and non-financial organizations, persons) and delivering such information to law enforcement authorities and foreign financial intelligence units.
- *Law enforcement authorities (departments)*: individual departments at the Republic of Armenia Prosecutor’s Office, the Police and other law enforcers have been charged with the function of criminal prosecution of ML cases;
- *Supervisory authorities involved in combating ML*: unified supervisory authority carrying out financial supervision, including financial supervision in the area of ML in the Republic of Armenia is the CBA (the Financial Supervision Department). Authorities overseeing non-

financial institutions are also charged to oversee supervised entities' compliance with measures in the field of combating ML.

These entities cooperate with each other based on:

- multilateral cooperation through proceedings of Intergovernmental Committee on the Fight against Money Counterfeiting and Plastic Cards and Other Payment Instruments Fraud, Money Laundering and Terrorism Financing in the Republic of Armenia;
- bilateral cooperation through memoranda of understanding signed between FMC and the Republic of Armenia Prosecutor's Office, the Police, the National Security Service and State Revenue Committee.

International cooperation

Armenia's international cooperation in the area of combating ML is as follows:

- Armenia is member to the European Council MONEYVAL Committee. To this end, the Armenian delegation participates in all plenary meetings and other proceedings of MONEYVAL. Moreover, in 2008-2009 the MONEYVAL evaluated the Republic of Armenia ML/TF framework, including its legislative, institutional and effectiveness components. The evaluation report was approved in MONEYVAL plenary meeting which was held in September 2009. In particular, MONEYVAL Phase 3 Evaluation Report of Framework of the Fight against Money Laundering and Terrorism Financing in the Republic of Armenia is an accomplishment in 2009. This allowed Armenia recording a progress in combating ML/TF in legal, financial and law-and-order areas and helped increase effectiveness of preventive measures.
- In 2006, Armenia acquired a status of an observer in the Eurasian Group on Safeguards against Legalization of Criminal Proceeds and Terrorism Funding. The Armenian representatives participate in the Eurasian Group's proceedings.
- In 2007, FMC became a member to the Egmont Group. This makes FMC to exchange information with foreign financial intelligence units of around 120 countries through a safe network worldwide.
- In the field of combating ML/TF the Republic of Armenia cooperates with the UN Departments, the IMF, the European Bank for Reconstruction and Development and other international institutions.

2.6 Role of securities market regulator

In 2008 OMX became the owner of Armenian Stock Exchange JSC and Central Depository of Armenia JSC. Then the NASDAQ Company, a US stock exchange operator, acquired OMX thus making these two entities part of NASDAQ OMX which is one of the biggest stock exchange operators in the world. In the same year Armenian Stock Exchange JSC was renamed into NASDAQ-OMX Armenia JSC.

The Republic of Armenia Law on Securities Market, which was adopted on 11/10/2007, establishes that entities performing professional services in the securities market of Armenia include investment service providers, the regulated market operator, the securities settlement system operator, and other entities defined by law. The CBA is responsible for ensuring compliance with industry-wide regulatory requirements. The CBA shall use its competence to oversee investment service providers, persons making public offer of securities, reporting issuers, regulated market operators, Central Depository, and owners, managers, insiders and agents of these entities, as well as persons with qualifying holding and persons directly or indirectly engaged in major transactions in securities market.

2.7 Role of other private players and NGOs

2.7.1 Union of Armenian Bank

The Union of Armenian Banks is a union was created in September 1995. This is a non-commercial, not-for-profit organization, nor distributes profit to its members. It has a balance sheet of its own and its own accounts with banks. In its activities, the Union of Banks is guided by the Armenian legislation and its charter.

The main objectives of the Union of Banks are to:

- Protect and represent the common interests of the Union members before state and local government bodies and non-governmental and international organizations, and act as plaintiff and respondent in court;
- Take part in the drafting and public scrutiny of legislative and other normative legal acts on banking and finance-credit activities in Armenia;
- Provide information on Armenian and foreign banks and untrustworthy borrowers to the Union members and to organize publication activities;
- Facilitate the implementation of advanced banking telecommunication methods in the system with a view to expediting settlement and improving service;

- Facilitate the harmonization of banking services with global standards, the implementation of modern settlement methods, and the integration of the Armenian banking system with the international one;
- Develop and implement projects to train and improve the qualification of member banks, and to organize their training in the appropriate foreign institutions;
- Organize seminars, conferences, and forums; and
- Pursue other objectives, which do not contradict the Armenian legislation and its charter.

2.7.2 The Ministry of Finance

To ensure efficient management of state and local budgets of the Republic of Armenia, the then Ministry of Finance and Economy created the Republic of Armenia Treasury in late 1996. The Armenian Law on the Treasury System (July 27, 2001) defines the structure of the Armenian treasury system and regulates matters related to the Treasury.

The Treasury consists of the Central Treasury and 44 branch offices that ensure performance of treasury functions in regions of the Republic of Armenia.

Under the Armenian Law on the Treasury System, the CBA maintains a consolidated account of the Treasury, and all payments of the Government and communities of the Republic of Armenia are made through the Consolidated Treasury Account. Treasury offices maintain and manage the accounts of organizations financed from the state budget.

2.7.3 Financial System Mediator

The Office of Financial System Mediator is an establishment with an independent management system. The Office has been incorporated as a ‘foundation’, and its founder and stakeholder is the Central Bank of the Republic of Armenia. The Office of Mediator is called to settle out any non-pecuniary disputes arisen between consumers as natural person and financial institutions. The services of Financial System Mediator are free of charge while the process of review of complaint is explicit, fast and transparent.

The Office of Mediator has been established pursuant to the Republic of Armenia Law on Financial System Mediator, adopted on June 17 2008. Financial System Mediator has launched professional activities since January 24 2009. According to the above said law, Financial System Mediator shall be designated by the Board of Trustees of the Foundation.

Financial System Mediator has the following objectives:

- Protection of consumer rights and interests in the financial field;
- Fast, effective and free of charge review and handling of claims of clients; and
- Enhancement of population’s confidence in the financial sector.

Need for establishment

Consumer may always come to Financial System Mediator for help. As provided for under the Republic of Armenia Law on Financial System Mediator, a customer shall have the right to resort to Financial System Mediator whether or not such a right is provided for under a contract between the customer and the organization. An agreement or stipulation that confines the customer’s right to resort to Financial System Mediator shall be deemed void.

International experience

The Office of Financial System Mediator has been established in Armenia based on best international practice. Experience of more than 40 countries has been scrutinized and rules and standards ensuring impartial and effective performance of such internationally accepted establishments have been considered. There are similar establishments in nearly all European countries, a number of Asian countries as well as Canada, Australia, New Zealand, and elsewhere in the world.

The law on Financial System Mediator has been developed on a basis of the EU Directive on Extrajudicial Entities for Dispute Resolution.

CHAPTER 3. PAYMENT INSTRUMENTS USED IN ARMENIA

3.1 Cash payments

The currency of the Republic of Armenia is the Dram. Its one-hundredth fraction is the Luma. The Dram was introduced in circulation in November 1993. Under the ISO standards, the Armenian Dram was given the “AMD” lettered and “051” digital codes. The Armenian Dram is issued (circulated) in the form of banknotes and coins. The Luma is minted in the form of coins. At present, the following items are circulating in the Republic of Armenia:

- 7 types of paper notes – 500-dram, 1000-dram, 5000-dram, 10000-dram, 20000-dram, 50000-dram, and 100000-dram; and
- 13 types of coins – the 10-luma, 20-luma, 50-luma, and the 1-dram, 3-dram, 5-dram, 10-dram, 20-dram, 50-dram, 100-dram, 200-dram, 500-dram, and 25000-dram.

About 96.8 percent of the cash in circulation outside the CBA are paper notes, and 3.2 percent are coins.

Under the Republic of Armenia Civil Code, settlements with the involvement of citizens, which are not related to their business activities, may be made on a cash basis, without any amount limitation.

Under the Armenian Law on Cash Operations (December 26, 2002), legal entities, state and other institutions, and separated units of foreign organizations operating in Armenia may make cash dram payments subject to the following restrictions:

- a) in the event of one-off purchases of goods, services and works, the maximum amount of cash payment shall not exceed AMD 300,000;
- b) the maximum cash payment for procured goods, services, and works during any one month shall not exceed AMD 3 million drams.

Though the value and number of cash payments cannot be determined precisely, cash still remains the most popular payment instrument in Armenia, often used for especially small payments, including payments in retail commerce, payment of salaries, pensions, and benefits, and in wholesale commerce in some areas.

As of January 1, 2010, the amount of cash in circulation has been AMD 282674 million, and the share of cash in the M1 aggregate of broad money has been 62.5 percent.

3.2 Non-cash payments

In Armenia, non-cash payments may be performed in the forms defined in the Civil Code of Armenia, i.e. by means of credit payment orders, cheques, payment cards, letters of credit, collections, and other forms defined by law and the corresponding banking rules and the business practices of banking. Non-cash payments are carried out through banks with which accounts are opened.

Under the Republic of Armenia Civil Code, non-cash settlements can be made by payment orders, cheques, payment cards, letters of credit, collection of payment and such other ways as provided for and accepted in customary banking practices. Non-cash payments are made through banks where appropriate accounts are opened for that purpose.

According to Article 929 of the Republic of Armenia Civil Code, settlements between legal persons and settlements by participation of citizens in connection with their entrepreneurial activities shall be made on a non-cash basis. Payments between the aforementioned persons may also be made in cash, unless otherwise provided by law.

Parties to a transaction may choose any form of non-cash payment by contract.

3.2.1 Credit payments

Credit payments are payments initiated by the payer. As of end-2009, non-cash payments in the Republic of Armenia have been made primarily through credit payment instruments (99.62 percent in value and 86.03 percent in number).

3.2.1.1 Credit payment orders

Credit payment order is the most commonly-used non-cash payment instrument in the Republic of Armenia, which is explained by traditional proclivity to this instrument and because it has a near-to-complete cover of regularization compared to other instruments.

Most of bank customers initiate payments by credit payment orders in paper-based form. Account statements, related payment documents, and account reports are issued by banks to customers in paper form and, in some cases, in electronic form, using magnetic carriers.

Presently, a number of banks are offering new services to their customers through remote communication between the bank and the customer, i.e. home banking. According to 2009 figures 5.35 percent of credit payment orders were submitted to the banks by customers in electronic form, using “home banking” systems.

Credit transfers in the inter-bank segment are mainly initiated in electronic form. In 2009 electronic instructions accounted for 53.18 percent in value and 59.03 percent in number of inter-bank payments. The use of electronic instructions tends to increase rapidly.

3.2.1.2 Payment by standing orders

Payments by standing orders involve a periodic payment of a fixed amount by the payer to the beneficiary, and are used by banks mainly to make fixed-amount payments to the State Budget and the Pension Fund. In intra-bank transactions, standing orders are normally used for payment of interest, loan repayment, and account service fees.

Standing orders are initiated by bank customers mainly in a paper-based form.

3.2.1.3 Payment by cash remittance instructions

In Armenia, transfers can be initiated using the cash remittance instructions based on the payment of cash. This method is used when the remitter does not have a current bank account. It is used by citizens to make various payments to state/local budgets, including payment of electricity and other utility bills by banks or the postal network. This instrument is widely used in money transfer systems.

3.2.2 Debit payments

Debit payments are payments that are initiated by the beneficiary. As of end-2009 payments by debit instrument in Armenia accounted for 0.17 percent in value and 0.25 percent in number of total non-cash payments.

3.2.2.1 Payment by direct debit

Direct debit instrument is used mainly for regular payments for services, especially payment of insurance premiums, annual subscriptions, loan transactions, account service commissions, and utility services.

Commercial banks functioning in the Republic of Armenia make payments by direct debits in accordance with the “Procedure of Funds Transfer in Armenia by Means of Direct Debits”, adopted by the CBA.

In Armenia, the share of payments made by direct debit instructions in total payments is very low, which is explained by specificity of this instrument.

3.2.2.2 Payment by debit payment orders

Debit payment orders have not been popular among economic actors in the Republic of Armenia.

Payments by debit payment order grew only in 1997, which was due to the increase in the number of debit payment order presented to the Treasury by commercial banks against encashment checks of the Treasury. However, the application of this instrument later declined sharply, and currently accounts for rather a small share of non-cash settlements.

3.2.2.3 Payment by cheques

Prior to the adoption of the Republic of Armenia Civil Code, limit cheques were somewhat used by economic actors in Armenia for wholesale commerce transaction purposes. Payment against limit

cheques was guaranteed by the payer's bank, and such payments were made up to the limit of the amount specified on the cheque. Limit cheques could not be transferred to other persons by endorsement. Limit cheques were physically retained in the cheque holder's bank, which prepared a cheque roll based on information regarding the accepted limit cheques, and presented the roll to the settlement bank for payment. The settlement bank (i.e. the CBA), having received the cheque roll, immediately made payment against the cheque through the correspondent accounts of the depositing and payer's banks with the CBA.

After adoption of the Republic of Armenia Civil Code the circulation of limit (guaranteed) cheques stopped, as Article 949 of the Civil Code prohibited the guaranteeing of cheques by the drawee bank.

Presently, customers mostly use encashment cheques to withdraw cash from an account. Cheques are somewhat used for non-cash payments, mainly between the customers of the same bank.

Cheques drawn in Armenia are processed manually, i.e. micro-coding is not used, which is due to the small value and number of cheque transactions.

Cheques have not become a very popular payment instrument in Armenia, which is due to a number of circumstances, such as the lack of a cheque use culture, the prevalence of cash in retail trade, the relative high-risk nature of cheques compared to other payment instruments, the use of new, more effective, and less-risky payment instruments (i.e. payment cards).

3.2.3 Payment by documentary L/C and collection

In Armenia, documentary letters of credit and collections are used primarily for international transactions. Though these forms of settlement are used rather infrequently, a certain increase in letters of credit has been reported recently.

Documentary letters of credit and collections in the Republic of Armenia are performed in accordance with the provisions of the Republic of Armenia Civil Code, which in effect are in conformity with the Uniform Customs and Practice for Documentary Credits and the Uniform Rules for Collections defined in documents adopted by the International Chamber of Commerce in Paris.

3.2.4 Payment by cards

The card business in Armenia began to develop starting 1996 when commercial banks started for the first time in their history to serve and distribute cards of international card organizations such as VISA, MASTERCARD, DINERS CLUB, AMERICAN EXPRESS and GLOBAL ACCESS

(currently HSBC debit card). The distribution and service of international cards by Armenian banks was mainly performed under the status of sub-agents, through banks of the Russian Federation. In 1996, the first Armenian local bank card (“A-CARD”) was issued (issuance of this card was terminated in 2000).

In 2000 the “Armenian Card” CJSC was founded by joint effort of the United States Agency for International Development (USAID), the CBA, and commercial banks, and the “ArCa” unified card payment system was created in Armenia. Member-banks of the system were authorized to issue and serve “ArCa” cards, which facilitated the expansion of the card market and accelerated its growth.

Under the “ArCa” system the following card payment schemes can be identified:

- Debit card
- Credit card
- Prepaid card.

Debit cards are intended for cash and non-cash transactions limited to cash funds owned by the cardholder. These transactions are made using cash available at the cardholder’s account, including loan funds (overdraft) issued to the cardholder under the service contract.

Credit cards are intended for transactions by the cardholder using cash funds provided by the issuer, subject to terms of the loan contract.

Prepaid cards are intended for transactions by the cardholder to the limit of AMD 500000, the settlement through which is made by the issuer. Advance payment cards ascertain issuer’s commitment to pay or provide cash funds to the cardholder.

Under the “ArCa” system, commercial banks can issue the following types of cards: “Debit”, “Classic”, “Business”, “Gold”, “Platinum”, “Affinity”, “Co-branded”, “Gift”, “Cash”.

“Debit” card is intended for using as salary card for employees of organizations and for those who want to use their own money through this card. These cards provide no overdraft.

“Classic” card is used as debit card and/or credit card. This is intended for those who want to get a line of credit.

“Business” card is used as debit card and/or credit card. This is intended for legal persons who plan to regularize their administrative expenditures. These cards can be used for making business trip costs and purchasing utility goods, stationery, fuel, air tickets, and etc.

“Gold” card is used as debit card and/or credit card. These cards are issued to the customers who are loyal to, and trusted by, the bank, and who need an increased expenditures limit and deserve a special treatment. This card is made of gold-colored plastic.

“Platinum” card is used as debit card and/or credit card. The platinum card segment derives mainly from ‘Gold’ cardholders who need even higher expenditures limit as well as deserve a special treatment in terms of additional services. This card is made of silver-colored plastic.

“Affinity” card is used as credit card and/or debit card. These cards are issued to the customers who are loyal to, and trusted by, the bank. These cardholders can make non-cash payments and have access to appropriate discounts and bonuses in similar service groups. The card can only be used in trade centers that service ArCa cards.

“Co-branded” card is used as credit card and/or debit card. These cards are issued to the customers who are loyal to, and trusted by, the bank. These cardholders can make non-cash payments and have access to appropriate discounts and bonuses in similar and other service groups. The card can only be used in trade centers that service ArCa cards.

“Cash” card is used as debit card which is issued to the customers for making transactions and/or payments in ATMs and cash withdrawal outlets.

“Gift” card (later Gift Card) is an advance payment card which has an upper limit, subject to the Republic of Armenia laws, and serves as a gift card. It has a serial number, date of expiry and, as determined by the issuer bank, name of the cardholder.

Transactions with “ArCa” debit and credit cards are made in an on-line regime and require authorization; for transactions by ATMs or POS terminals entry of the PIN-code is also required.

Banks issuing “ArCa” cards may define the maximum amount of cash withdrawn per transaction, as well as the daily limit on transactions.

Presently, “ArCa” cards have magnetic stripes and chip cards, which ensure greater security of card payments and enable operations in an off-line regime and access to a wider range of services.

As of end-2009 19 commercial banks functioning in the Republic of Armenia issued and serviced “ArCa” cards.

Since 2003, some increase has been recorded in the issuance and service of internationally-recognized payment cards (MASTERCARD and VISA). As of end-2009 17 commercial banks were authorized to issue and service MASTERCARD cards, and 10 were authorized to issue and service VISA cards. Two commercial banks service DINERS CLUB/AMEX payment cards, and one bank issues and serves HSBC debit cards.

Presently, card transactions are growing in Armenia, which is due mainly to the gradual development of a card business culture in society, increased awareness of the convenience of card transactions, the motivation of trade and service outlets, increased competition between banks, and the general development trends of the international card business.

As of end-2009 the number of cards in circulation has been 579 431, including 297 267 international cards and 282 164 ArCa cards. In 2009 the value of card transactions (including international cards) reached AMD 428 248 million, of which non-cash payments amounted to 7.2 percent.

Despite the fact that card transactions have a strong growth trend in Armenia, the share of card encashment transactions remains high, which is mainly due to the lack of a wide service network.

To further encourage non-cash payments in Armenia, the CBA is drafting a law on restriction of cash funds whereby the entry of taxes, duties and other dues and payment of pensions, stipends, allowances, insurance charges, salaries would be offered to carry out on a non-cash basis³. To ensure the enforcement of this provision, efforts will be spent to create a broad network (payment card service devices) to allow retail/service outlets to receive non-cash payments.

3.2.4.1 Payment by debit cards

³ The provisions of the law will apply, starting 2009, in Yerevan and, starting 2010, in administrative centers of regions of Armenia, and starting 2011, in other areas of residence.

Most debit cards (both local and international) issued in the Republic of Armenia represent mainly salary cards, which are attached to either the cardholders' current accounts or special card accounts. Debit card transactions in Armenia are reflected in card accounts no later than on the following business day. For debit cards, banks may grant overdraft to their customers.

As of end-2009 the number of debit cards circulating in Armenia has been 508 339, which represents 88 percent of the cards in circulation. The share of international debits cards in the total number of debit cards is 49 percent, with ArCa cards accounting for 51 percent.

3.2.4.2 Payment by credit cards

Presently, only commercial banks issue credit cards in the Republic of Armenia⁴.

Both local ArCa and international (MASTERCARD and VISA CARD) credit cards circulate in the Republic of Armenia. Credit cards make up 12 percent of the total number of cards in circulation, and are still not applied widely. This is due, among other things, to banks that favor a policy of making loan to customers with credit history and stable income.

3.2.4.3 Payment by prepaid cards

Presently, prepaid payment cards are issued by commercial banks. Only ArCa and VISA Gift cards circulate in the Republic of Armenia, and these make up 0.1 % percent of the total number of cards in circulation.

3.2.4.4 ATM and POS terminal networks

The participants of the "ArCa" card payment system have created and are developing a unified network of ATM and POS terminals, which allows ArCa cardholders to receive cash and to make non-cash payments within the network.

Two commercial banks, which are not members to the "ArCa" card payment system but which issue and service international VISA cards, created their private ATM and POS terminal networks at the end of 2009.

"HSBC Armenia Bank" has created its own ATM network, which serves HSBC debit cards and international VISA and MASTER cards. This network is used to perform not only encashment, but

⁴ The Armenian Law on Credit Organizations provides that universal credit organizations also can issue credit cards.

also transfers from current/card accounts, placement of cash deposits, and notification on card account transactions.

As of end-2009 card service networks in Armenia contained a total of 2720 POS terminals and 702 ATMs.

3.2.5 Postal transfers

In Armenia, postal transfer services are rendered by “HayPost” CJSC.

Money transfers are traditional postal services, which are performed both inside and outside of Armenia. The Company offers both traditional postal (paper-based) money transfer services and electronic money transfer services.

HayPost exchanges postal paper transfers with 130 countries. It also performs postal paper transfers inside Armenia. Money transfers are paid in either the national currency or US dollars.

Since 2003, HayPost implemented and continues developing a new system of money transfers in the Republic of Armenia – the “Expedited Domestic Electronic Transfers of Money” (“ETM”). Any individual and legal person may transfer money using the ETM network, without opening bank accounts. The ETM covers almost all territory of the Republic of Armenia.

Money transferred through the ETM network can reach the beneficiary within 10-15 minutes after a money transfer admission code has been provided to the remitter.

The maximum amount of an ETM transfer is AMD 1 million. The number of ETM transfers per day is unlimited.

In Armenia, ETM transfers are accepted and paid in domestic currency, i.e. the dram.

HayPost offers an expedited postal service which allows delivering documents and parcels among 190 countries. Through its postal network, HayPost has been offering, since 2005, expedited electronic money transfer services under the “STEFI” system. Exchange of foreign money transfers are made through the main server of the World Postal Association (Bern, Switzerland). Each transfer is protected by a world-class security system.

The CBA granted permission to HayPost, in its capacity of an organization making money remittance, to participate in foreign payment and settlements systems such as “Contact”, “BLIZKO” and “Coinstar”.

In addition, HayPost accepts several types of state taxes and charges and makes social payments.

3.2.6 Innovation

Presently, some commercial banks offer home banking services, which represent an account management tool that allows the customer to give instructions to the bank without a need to visit the bank. However, the volume of such transactions through these systems is still very small.

Considering that the number of Internet users is growing in Armenia and in order to gain competitive advantage and meet customer needs, some commercial banks have started to offer Internet banking. These services are, however, of such basic and non-financial nature as viewing account balance via Internet. Through Internet banking, customers may view any account statements (including statements to card accounts), loan balance, loan repayment schedules as well as make transfers from any kind of accounts and make utility payments.

Mobile banking is getting impetus in Armenia although it still does not include financial services. An example of mobile banking is messaging information about a transaction. In 2009 the CBA developed a concept paper “Internet Banking and Mobile Banking: Nature and Development Outlook”.

Although with just a few years of history, ArCa is quick in introducing all the new services that are currently available in countries with a long track record in card business.

ArCa cardholders can use ATMs not only to withdraw cash but also to make payment for utilities, to view the card account balance, and to refill their mobile phones.

In 2003 the “ArCa” system of unified card payments started to offer the service of utility payment over the Internet. In 2004 the Company introduced the possibility of payment in Internet shops and payment for phone cards. In September 2005 the transfer of money from one ArCa card account to another card account over the Internet became possible.

“Armenian Card” CJSC is working towards the issuance and service of chip cards. In 2005 commercial banks that service international payment cards provided VISA smart card service via their

POS terminal network. In 2006 these activities were accomplished ensuring VISA and MASTERCARD smart card service in the network of both POS terminals and ATMs.

Some interest has been observed in Armenia towards e-money from the part of both banks and commercial organizations.

In 2009 the CBA developed Regulation 16/1 “Procedure and Terms for Permitting, Suspending and Terminating Issuance of E-Money; and Requirements to Issuers of E-Money” and Regulation 16/2 “Procedure and Terms for Issuance and Service (Turnover) of E-Money; and Requirements to Execution of E-Money Transactions”. These regulations have been approved by the Board of the CBA.

There are two categories of e-money:

1. Electronic purse (e-purse) – this represents card-based electronic money which is incorporated in a microprocessor/chip on the card or another facility. When in use, the monetary value is deducted accordingly in real time, while information on the transaction is sent to the centralized database which is run by the issuer.

E-purse has two options;

- refill e-purse, which allows the user to refill monetary value in the card; and
- one-off e-purse, which does not allow the user to refill monetary value in the card.

2. Virtual money (e-cash or digital cash) – this represents server-based electronic money, an operational system with its software installed on the computer or another electronic facility, which allows the user to make payment or services by using virtual money (which represents an advance payment) available with relevant network or Internet. Special software enables to transfer funds through communication networks (Internet) for purchasing goods and services.

It has been established that a closed model of e-money circulation in the Republic of Armenia should be applied. This should be designed so as to prevent reusing e-money, which means e-money paid for a service must be presented to the party which issued it for receiving equivalent funds.

The aforementioned regulations make it possible for payment and settlement organizations that perform money remittance services to issue e-money. Further, a procedure has been established which contains terms and conditions for commercial banks and relevant payment and settlement organizations for servicing e-money, including oversight, reporting and performing of obligations in

respect of servicing e-money. One binding requirement is identification of each user of e-money and a maximum threshold for monetary value per user, which is AMD 200 000.

3.3 Public non-cash payments

In Armenia, public payments are made through the Treasury of the Republic of Armenia established by the Ministry of Finance.

Treasury consists of the Central Treasury and 44 regional treasury offices (RTO) that ensure the performance of treasury functions in administrative regions of the Republic of Armenia.

Treasury is direct participant in the CBA's Electronic Payments System. Under the Republic of Armenia Law on the Treasury System, the CBA maintains the consolidated account of Treasury, and all the payments of the Republic of Armenia and its communities, as well as the payments to the state budget are made through the Consolidated Treasury Account.

The Consolidated Treasury Account incorporates:

- Sub-accounts maintained by the MF (sub-accounts for state budget funds, external loans and grants, deposit accounts of state entities);
- Sub-accounts that are maintained by the MF but the funds of which are disposed by government departments (sub-accounts for off-budget funds, community funds, social insurance fund resources, other deposit accounts of state entities).

The CBA also maintains the accounts for Treasury, as follows:

- Consolidated Treasury Foreign Currency Account; and
- other accounts established on behalf of Treasury.

Payments in cash from Treasury accounts can only be made by the following budgetary expenditure items of economic classification:

- salary and salary equivalents
- allowances
- business trip and service assignment expenditures (except for airway transport);
- stipends
- pensions

- other gratuities to natural persons except when such gratuities are delivered through legal persons.

Cash payments are made through commercial banks pursuant to the contracts signed with the MF. The commercial bank network is used for collection of tax and tax-equivalent payments by natural persons and legal persons.

In 2009 Treasury initiated 48 739 payments for a total of AMD 2 071 billion, which constitutes 17 percent of total settlements executed through the CBA payment systems.

Treasury offices maintain accounts of budget-supported organizations. All administrative payments initiated by any budgetary organization should be accredited by a relevant RTO within the amounts specified under the general budgetary payments plan. Once accredited by an RTO, the payment order will go to the Central Treasury which will then initiate the payment in favor of the beneficiary via the EPS. Funds will be debited from the Consolidated Treasury Account and go to the beneficiaries through commercial banks.

A similar process goes for the payment of salaries to state and community company employees who receive them exclusively through bank accounts.

In regions of the Republic of Armenia pension is paid through HayPost Company. The Pension Fund has 40 branch offices which are responsible for compiling and updating information on pensioners in Armenia. Each month, all branch offices of HayPost provide information to head-office of the Pension Fund about pensioners and any given branch that distributes the pension. The head-office prepares a unified list and forwards it to Treasury. The list contains the names of pensioners, the amount due to be paid and identification number of any given branch serving the pensioner. In Treasury the information is classified as per commercial bank that serves the branch offices of HayPost, and is forwarded to the commercial banks via EPS. Once the account of HayPost is credited by the bank, the respective branch office will make pension payment. The pension amount can be received as cash or by a payment card.

CHAPTER 4. PAYMENT SYSTEMS IN OPERATION

Funds transfers within the territory of the Republic of Armenia are made by means of the following payment systems:

1. Intra-bank payment systems, which ensure settlement between the customers of the same bank;

2. Inter-bank payment systems, which ensure settlement in mutual loro/nostro (correspondent) accounts of commercial banks;
3. CBA payment systems, in which settlement between system participants is performed through accounts with the CBA; and
4. “ArCa” unified card payment system, which implements the processing and clearing of “ArCa” card transactions and ensures settlement.

The share of intra-bank transfers in total payments is large in terms of both value and number. In 2009, in particular, intra-bank transfers accounted for 6.14 percent of the value and 52.19 percent of the number of total payments. The bulk of intra-bank inter-branch transfers are performed electronically using the “CBANet” inter-bank computer network, modems or, in some cases, the Internet. Intra-bank transfers are made in accordance with internal rules established by the bank, at the same time complying with the requirements set by the CBA.

Transfers using correspondent (loro/nostro) accounts of commercial banks are performed in both paper and electronic form, including SWIFT, telex, and modem connection. The settlement of transfers is performed by means of the correspondent accounts of commercial banks, which are subject to bilateral agreements. The share of these transfers in total payments is large: in 2009 these accounted for 93.67 percent of the value and 47.7 percent of the number of total payments.

In 2009 transfers through CBA payment systems accounted for 72.35 percent of the value and 43.65 percent of the number of total payments.

The “ArCa” unified card payment system is the only retail payment system functioning in the Republic of Armenia, which is used for processing and clearing of transactions with “ArCa” payment cards and, since 2003, for processing and clearing of transactions with VISA and MASTERCARD.

4.1 The CBA payment systems

In the Republic of Armenia inter-bank transfers are executed primarily using the payment and settlement systems of the CBA, including:

1. Electronic Payments System;
2. Paper-Based Gross Settlement System; and
3. Clearing Settlement (net) System.

Final settlement in these systems is performed in the CBA's "Operational Day" software system, which supports the General Ledger of the CBA and is used to maintain cash accounts of the CBA customers and financial transactions with such accounts.

These systems are designed to allow unlimited transfers in terms of monetary value, i.e. high-value and low-value payments (e.g. payments to the budget, payments made between economic actors, private remittances, and etc.).

4.1.1 The CBA electronic payments system (EPS)

The Electronic Payments System is a key system for inter-bank payments. It was launched in 1997. In 2009 payments through the EPS accounted for 51.38 percent of the number and 94.75 percent of the value of payments executed through the CBA. The CBA is the owner and operator of the EPS. The CBA is responsible for oversight and regulation of system operations; elaborates the system development policy and ensures its implementation. The EPS works in a real-time gross settlement (RTGS) regime, which means that the processing and settlement of payment orders admitted to the system are made separately for each payment order. The flow of payment messages within the system has the V-type structure.

a) legislative and regulatory framework

Activities in connection with operation of the Electronic payments system are regulated by Armenian laws, the "Electronic Payments System Operational Procedures" and the "Formats of Messages Used in Electronic Payments System" regulatory acts, developed by the CBA and contracts between the CBA and participants.

Safeguard mechanisms used in the electronic payments system, the use of electronic signatures, security requirements on system participants, and related dispute resolution procedure are defined in a multilateral inter-bank agreement.

Rights, responsibilities, and liability of the CBA (as the CBANet inter-bank computer network and electronic payments system implementer and provider) and participants (as users of the network and the payments system) are defined in bilateral agreements between the CBA and each participant in the Electronic Payments System.

In connection with creation of the Electronic Payments System, the CBA developed and implemented, since October 1 1996, a new system of account encoding, which complies with ISO standards. The

new system defines uniform encoding standards for all accounts with which money transfers can be made. Under the new encoding system, accounts are composed of 16 digits, 12 of which are mandatory. The first 5 digits reflect the bank/branch code; the next 6 indicate the customer account number; the 12-th digit is the control digit; the remaining 4 are non-mandatory digits.

b) system participants

Correspondent account in dram available with the CBA and membership to the CBANet inter-bank computer network are important preconditions for participation in the Electronic Payments System. The system participants must also comply with a number of technical and security requirements set by the CBA. Direct participants of the Electronic Payments System are the CBA, banks licensed by the CBA, Treasury and NASDAQ OMX Armenia JSC. Indirect participants are bank branches and Treasury offices. In 2001 it was decided to allow the Inter-State Bank – a resident entity of the Russian Federation – to become a remote direct participant in the Electronic Payments System. This decision allowed improving the efficiency of transfers with CIS countries through Inter-State Bank. Starting 2001 “Armenian Card” CJSC, too, is a participant in the Electronic Payments System. As of end-2009 the total number of participants in the CBA Electronic Payments System has been 269, including the CBA and its 3 regional cash centers; Treasury with its 44 offices; 22 commercial banks with their 191 branches, the “Armenian Card” Processing Center, NASDAQ OMX Armenia JSC, Central Depository of Armenia, the Inter-State Bank (Moscow) and 5 non-bank dealers.

At present, there are discussions on the participation in the EPS of non-bank financial organizations, which are direct participants in the securities or foreign currency markets.

c) messages delivered in the system

The EPS is used only for credit transfers, including commercial banks’ own transfers for various financial obligations, payments to the budget, payments between businesses, private remittances of citizens, and etc. Before the end of 2005 the system could only be used to make dram transfers. From the first quarter of 2006, making foreign currency transfers was made possible, for which the new MT203 format was developed in November 2005. Starting April 2007, a new MT231 format has been introduced which is used to deliver data on settlement of card transactions in ArCa system to the settlement bank electronically.

The EPS does not provide for the possibility of revoking or amending payment orders (i.e., the EPS payment orders are irrevocable). The system does not have limitations on the transfer amount. It can

be used for both large-value and low-value payments. Within the system, payment orders and other messages (account statements, payment rejection, and the like) are submitted in special formats developed by the CBA. The system can be used for either single-payment orders (instruction formats MT100, MT120, and MT121), or bulk transfers.

In 2009 70.36 percent of the value and 86.71 percent of the number of payments in the EPS were executed using single-payment orders. The rest of the payments were made using bulk payment orders, the majority of which were transfers under inter-bank payment orders and collective budget payment orders.

d) system performance

The EPS includes:

- A system of hardware and software for the delivery of electronic messages (“Bankmail”), which is installed at the EPS participants, including the CBA, and ensures the encrypting of payment orders, the generation of the electronic signature, the delivery of payment orders, and their validity, logical and semantic check-up; and
- “Operational Day” software system, which ensures final settlement (see Figure 1).

The EPS operates in accordance with the following principles:

- Settlements are made on a gross basis, separately for each payment order, during the operational hours established for settlements;
- Payment orders entering the EPS are executed in the order in which they are received (“FIFO” principle of order execution);
- The EPS executes only intraday payments (i.e. must be executed during the same day): if the payment order is submitted after the operational hours set for receipt of payment orders, then it shall be submitted for settlement after the opening of the next operational day;
- Final settlement is executed using the participants’ correspondent accounts with the CBA, within account balance. The settlement made by the system is final and irrevocable after execution through CBA accounts;
- There are no payment order sequence management mechanisms in EPS: if the respective account does not contain enough money to execute the order, the payment order will be rejected without execution, and in order for a rejected payment order to be executed, its initiator must enter that to the EPS again as a new order;

- The payment order sent to the CBA by the participant-payer will, after the appropriate checks, be automatically transferred to the “Operational Day” system, where, after the appropriate checks, final settlement will be performed by debiting the cash account of the participant-payer and crediting the cash account of the participant-beneficiary, after which a message confirming the settlement will be sent to the participant-beneficiary. Once the participant-beneficiary’s account is credited, the settlement will be final and irrevocable, and the funds can be used by the participant-beneficiary.

The operation of the EPS consists of the following stages:

- 1) 9 am Start of system operation.
- 2) 9 am – 9:15 am Technological stage (during this stage, the software is uploaded, tested, and system reports are sent/received). During this stage, no payments are made.
- 3) 9:15 am – 9:30 am Opening of access (during this stage, the EPS workstations are uploaded and access is opened).
- 4) 9:30 am – 4.00 pm Payments stage (all types of payment and other messages are shared between the participants). From 4:00 pm, the receipt of payment orders from banks to the CBA will stop.
- 5) 5:00 pm CBA access closing stage (during this stage, the payment orders received before 4:00 pm and not executed will be accepted and processed).
- 6) 5:00 pm – 5:45 pm Completion stage: prior to 5:00 pm, bank headquarters must accept payment orders coming in from the CBA. After 5:00 pm, only non-payment messages may be shared in all possible directions.
- 7) 6:00 pm End of system operation.

e) transaction execution (technical) environment

The electronic payments system works on the basis of the “CBANet” inter-bank computer network, the hardware and software of which, with the exception of leased lines, belong to the CBA. The CBA is responsible for general management of the hardware and software of the “CBANet” inter-bank computer network (communication devices and management of the central server). The “CBANet” inter-bank computer network is not only designed to ensure the operation of the EPS, but also used to exchange financial and non-financial electronic information between users of the “CBANet” inter-bank computer network. Users of the “CBANet” inter-bank computer network are the EPS

participants, credit organizations, insurance companies, State Tax Service, State Customs Committee with three customs houses, and the Union of Armenian Banks. Through the “CBANet” inter-bank computer network, commercial banks and credit organizations operating in Armenia submit reports to the CBA, on the basis of which the CBA’s “FINA” and “Credit Registry” information systems operate.

In case technical problems arise with an individual participant of the EPS or the whole system, there are a number of backup procedures that ensure the timely and smooth execution of final settlement within the EPS. In particular, there is a “hot” reserve at the level of hardware and software, a generator to ensure independent supply of electricity in case the electricity supply is interrupted, and the possibility to operate the system in a “reserve bank” outside Yerevan.

If the EPS is idle for any extended period of time, the CBA Paper-Based Gross Settlement System or the Clearing Settlement System can be used as a backup (see paragraphs 4.1.2 and 4.1.3).

If an EPS participant is unable to send electronic payment orders, payment orders may be submitted to the CBA either in paper form or, with prior approval, in any other electronic medium, and be executed through the Paper-Based Gross Settlement System.

If a recipient is unable to receive confirmation of executed payments via the EPS, the CBA will provide a printed and endorsed paper copy of the payment order.

Before 2005 the maximum capacity of the EPS was 15 thousand messages per day, while the average daily flow of messages was 3229.

In consideration of the trends for the growth of message flows, the EPS hardware and software has been upgraded, since 2005, to increase its capacity to 15,000 messages per day. In 2009 the average daily flow of payment messages in the EPS was 10133 with a total value of AMD 23 billion, representing 23.26 percent increase (AMD 4415 million) over 2008, while the number of messages increased by 23.24 percent (excluding transfers for stock exchange transactions). Using bulk payment messages by commercial banks contributes to the reduction of average daily flow of EPS messages.

f) risk management

Various arrangements for risk management and mitigation are used in the CBA Electronic Payments System.

The system participants are not subject to a “settlement bank” risk, because final settlements are made using ‘CBA money’ and the CBA cannot be the reason for liquidity or credit risks for the settlement participants.

The system is a V-type payment system in which the beneficiary bank will receive the payment document only after payment in the CBA has been executed, i.e. after the transaction becomes final, which precludes credit risk of the beneficiary bank.

The system does not provide for the possibility of CBA lending and, if there are not enough funds, the transaction will be rejected, which precludes credit risk to the CBA.

Monitoring is used as a mechanism of liquidity risk management. It enables the participants to monitor the balance of their accounts and, in case of a liquidity shortage, to replenish the account.

Error risk mitigation is ensured with a straight-through processing (STP) mechanism, which ensures a one-off manual entry of information into the system (by the initiator), generation of the electronic format message, and its subsequent automated processing and delivery to the recipient without human involvement.

The risk of fraud is minimized in the system using separation of functions, registration of all actions performed in the system, maintaining a “black box,” identification of participants, information encrypting, and the use of electronic signatures.

To minimize technical risks in the system, software testing is performed; technical equipment and software are regularly tested and monitored. Reserve copying of data on backup hardware is practiced. Reserve servers are used. Uninterrupted power supply sources are provided. An emergency plan has been developed. The EPS provides such a reserve of payment messages capacity that is thrice as great as the flow of payment messages at the current peak hours.

4.1.2 The paper based gross settlement system

The Paper-Based Gross Settlement System is the first inter-bank payment system of the CBA. The CBA is the owner and operator of the system. At the same time, the CBA supervises and regulates the activities of the system, elaborates the system development policy, and ensures its implementation. The Paper-Based Gross Settlement System is a gross settlement system, through which payments are initiated in paper form, and final and irrevocable settlement is performed on the same day. The flow of

payment messages within the system has a V-type structure. In 2009 payments through this system accounted for 44.7 percent of the value and 5.12 percent of the volume of payments made through the CBA.

a) legislative and regulatory framework

Rights and responsibilities of the participants in the Paper-Based Gross Settlement System are regulated by Armenian laws, correspondent account agreements with the CBA, and normative acts of the CBA.

b) system participants

Participants in the Paper-Based Gross Settlement System are all the customers of the CBA, which have bank, correspondent, or special clearing accounts with the CBA.

c) types of transactions in the system

The system is used for both the CBA's own payments and CBA's customers non-cash payments and cash withdrawals and entries, fulfilled on the basis of payment documents (credit and debit payment orders, cheques, etc.) presented by the customers of the CBA.

The Paper-Based Gross Settlement System is used for money transfers related to own financial transactions of the CBA (accepting and repaying loans and deposits, repurchase and reverse repurchase transactions, and foreign currency purchase and sale), transfers connected with inter-bank financial transactions, and final settlement of transactions carried out in the "ArCa" unified payment system, which is the main reason for large value of payments processed through this system.

d) system performance

To make payments through the Paper-Based Gross Settlement System, the payment initiators submit paper-based payment orders to the Operational Department of the CBA (credit, debit payment orders, cheques and cheque rolls and other documents). The payment initiators are the CBA's customers and, in cases defined by agreements, also the CBA units (Accounting Department and Financial Market Operations Department). The data of payment documents is manually entered into the "Operational Day" software system, where final settlement is performed. The final settlement is performed if sufficient funds are available in the payer's account – by debiting the payer's and crediting the beneficiary's accounts, after which the payment becomes final and irrevocable. If sufficient funds are

not available in the payer's account, the payment document is rejected and returned to the party which had presented it.

Payment documents are submitted to the CBA mainly for same-day execution, but they may also be submitted for deferred execution. The payment execution priorities or payment execution order are determined by the payment initiator, but if the payer has not set any priority, the CBA will execute the payments on the basis of the FIFO principle. The CBA Paper-Based Gross Settlement System operates from 9:30 am to 4:00 pm. Payment documents may be submitted to the CBA by customers from 9:30 am to 4:00 pm. The processing of payment documents and settlements lasts until 5:00 pm.

e) risk management

The credit and liquidity risk management mechanisms used in the Paper-Based Gross Settlement System are the same as those used in the EPS.

To minimize the risk of error, there is double control of data entry and separation of functions.

To minimize the risk of fraud, the system has mechanisms for separation of functions and recording of all actions performed in the system.

4.1.3 The clearing settlements (net) system

The Clearing Settlement System was put into operation in 1994 and is owned by the CBA. The Clearing Settlement System was introduced to facilitate commercial bank liquidity with the CBA and increase the efficiency of paper-based payment document processing by the CBA and commercial banks. The Clearing Settlement System has enabled banks to make settlement on residual basis, i.e. to present payment orders for larger amounts than the amount available in their correspondent accounts with the CBA, in consideration of counter payments from other banks. It is a paper-based system, as clearing documents are presented in paper form in clearing packages. Settlement is performed in the system based on the principle of multilateral netting of participants' mutual liabilities, and final settlement is made in the amount of net positions only, at the end of the clearing session, on the day when clearing documents are submitted.

This system effectively operated before the implementation of the Electronic Payments System, after which the number of banks using the system and the total value of payments through it declined abruptly. In 1996 and 2000, payments through the Settlement Clearing System were 26.58 percent and 4.96 percent, respectively, of the value of payments through the CBA systems during such periods,

and 73.88 percent and 20.01 percent, respectively, of the number of payments. Presently, the Clearing Settlement System is no longer used for payments. It is a backup system against possible hold-up of the EPS.

a) legislative and regulatory framework

The operational rules of the Clearing Settlement System, including the participation, the procedure and terms of submitting clearing documents and making settlements are defined in the Decree of the CBA Chairman dated June 30, 2003 “On Activities of the CBA Clearing System” and the Order on Clearing Settlements.

b) system participants

Participants of the Clearing Settlement System are the CBA, commercial banks that are functional in Yerevan and hold correspondent accounts with the CBA, and the Treasury.

c) types of transactions in the system

The system can be used for credit transfers under paper-based payment orders; there is no minimum or maximum limit on the transfer amounts. According to statistics, the clearing method was mainly used for transferring low-value amounts.

d) system performance

Clearing settlement between participants is performed during settlement sessions. During the session, final settlement is made within the limits of the credit balance of the participants’ accounts with the CBA. To make clearing settlement, participants submit payment documents only at the hours defined for sessions. In the early stage of implementing the Clearing Settlement System, there was only one session per day, but later, another session was added to enable participants to present a package rejected during a previous session in the second session, by which time participants have higher liquidity. After sharp decline in payments through the Clearing Settlement System, only one session was scheduled in the system during the following hours:

- | | |
|----------------------|--|
| 1) 2:00 pm - 2:30 pm | Receipt of documents |
| 2) 2:30 pm - 2:45 pm | Netting of positions and final settlement |
| 3) 2:45 pm - 3:00 pm | Generating session outputs (output documents). |

A clearing participant classifies payments directed to other participants by including the payment documents addressed to each participant in a separate envelope. The amount payable to the respective participant and the number of payment documents are written on the envelope. Inside the envelope, documents are arranged in accordance with the established procedure, and lists of amounts are prepared by participants' structural units (branches and treasury offices). Each participant is allowed to present the payments directed to another participant in two envelopes. Each participant attaches the clearing payment order to the clearing session envelopes. The amount of the transfer against each envelope must be specified in the clearing payment order.

Upon completion of the receipt of clearing documents, the data of clearing payment orders is entered into the Clearing Settlement System, after which transactions in the "Operational Day" software system dealing with the accounts of the clearing participants are suspended; data on such account balances is transferred to the Clearing Settlement System, where the multilateral net positions of the clearing participants will be estimated. If a participant has a net debit position and his account balance is not sufficient to cover the position, then the participant's packages will be rejected for the part not sufficing.

After the netting is complete, net positions of participants are transferred to the "Operational Day" system, where the accounts of clearing participants that have net debit positions will be debited, and the clearing technical account will be credited, from which net credits will be repaid in favor of the clearing participants that have net credit positions.

After the end of the clearing system settlement session, each participant will receive the following documents:

- Participant clearing operations statement;
- Bundle of envelopes concerning amounts received;
- Envelopes submitted to the session by the participant, but rejected due to the insufficiency of the participant's correspondent account balance (if any); and
- A statement on the clearing effect.

4.1.4 The CBA pricing policy for its payment and settlement systems

The CBA uses the following principles in developing its price policies:

- In paper-based systems, the cost compensation principle is applied, according to which costs incurred by the CBA in connection with the transfers are estimated and, on their basis, the

- appropriate tariffs are calculated, which can be changed unilaterally by the CBA by giving 1 month's advance notice to the customers;
- The principle of encouragement is used in electronic payments systems, which means that the CBA does not charge commissions for transactions executed in the EPS and Securities Accounting and Settlement System;
 - For the operation of the CBANet inter-bank computer network, its subscribers are charged a fixed monthly service fee, which is AMD 60 000 for transactions outside Yerevan and AMD 40 000 for transactions inside Yerevan.
- Payment and settlement services are provided to the Government of Armenia at no cost.

4.2 Low-value payments system

As it was noted, in Armenia large-value and low-value payment systems are not separated as the CBA payment systems are used to execute both large-value and low-value payments.

The “ArCa” Unified Card Payments System is ranked as among the retail payment systems.

4.2.1 ArCa Unified Card Payment System

The “ArCa” unified card payment system was created in 2001 by commercial banks and the CBA, with the aim to develop a national non-cash payment system in the Republic of Armenia, promoting the bank/payment card business, reducing cash in circulation, and using the development of new IT to deliver new types of additional banking services to the Armenian public and foreign citizens. The owner and operator of the system is the “Armenian Card” CJSC, which at the same time supervises and regulates system activities, elaborates system development policies, and ensures their implementation.

Settlements are performed in the system in accordance with the principle of multilateral netting. Final settlement is performed using the participant banks' correspondent accounts with the CBA. The payment message flows in the system have the Y-type structure.

In 2009 payments through the ArCa system amounted to AMD 173 445 million drams in value and 4177660 in number.

a) legislative and regulatory framework

Activities of the ArCa system are regulated by regulatory acts of the CBA, system rules, trilateral agreements between the CBA, the “Armenian Card” CJSC, and commercial banks participating in the system on the final settlement of transactions made through the ArCa system, and bilateral agreements between the ArCa system operator and member-banks as well as international payment card systems rules (MASTERCARD, VISA).

b) system participants

The members of the ArCa system are entities that became ArCa system members and obtained appropriate system member status in accordance with the procedure defined in the “Armenian Card” CJSC By-Laws, the ArCa system rules, and other normative documents of the system, and have concluded relevant agreements with the “Armenian Card” CJSC and the CBA.

Financial, banking institutions, and such other organizations specializing in banking/payment cards business, which operate in the Republic of Armenia and abroad, may be system members. As of end-2009 the system members included the CBA and 19 commercial banks functioning in the Republic of Armenia.

The system offers the following membership status:

- Full members: system members that are shareholders of the “Armenian Card” CJSC and have received full membership status, which have the right to issue and acquire ArCa cards, may be sponsored by the “Armenian Card” CJSC to issue and/or serve international cards, and have the right to use any and all services offered by the “Armenian Card” CJSC in accordance with the procedure defined in the normative documents of the system. To obtain this status, membership fee must be paid to the “Armenian Card” CJSC. Annual fee may be established for full members.
- Issuing members: system members that have the right to issue “ArCa” cards and disburse cash at their service points. To obtain this status, membership fee must be paid to the “Armenian Card” CJSC, after which annual fees must be paid in the amount, procedure, and time defined by the Board of the “Armenian Card” CJSC.
- Acquiring members: system members that have the right to acquire “ArCa” cards. To obtain this status, membership fee and annual fee must be paid to the “Armenian Card” CJSC in the amount, procedure, and time defined by the “Armenian Card” CJSC.

c) system operation

The settlement phase of card transactions in the system includes a time-span from 9:30 am of the current banking day to 9:30 am of the next banking day. For each settlement phase, a settlement limit is established for each issuing member of the system, within which transactions may be performed using the cards issued by that issuing member. The settlement limit amount consists of an authorization limit and a floor limit. The procedure of calculating the settlement limit is set by the rules of the ArCa system and is communicated by the system members to the ArCa system operator. The operator's authorization of card transactions made during the settlement phase is performed within the amount of the system member's authorization limit and the cardholder's payment limit.

For each settlement phase, the ArCa system operator submits the settlement limits defined by the participants for the current settlement phase through the EPS system or, when the EPS is non-functional, through the CBANet network. The CBA freezes funds equivalent to such limits in the system members' correspondent accounts with the CBA. During settlement phases, an issuer member may increase its settlement limit for times. After the end of the settlement phase, the ArCa system operator, using the information on authorized card transactions of the current settlement phase, calculates net positions of rights and responsibilities arising from each member's authorized card transactions, prepares the appropriate settlement orders, and submits them to the CBA through the EPS system or, when the EPS is non-functional, through the CBANet network. Based on the orders received, the CBA will debit the accounts of clearing participants that have net debit positions, and credit the ArCa system operator's clearing technical account, from which net credits will be repaid in favor of clearing participants that have net credit positions. After final settlement, new settlement limits of system participants will be automatically generated for the next settlement phase.

The operation of the system consists of the following stages:

- 1) 9:30 am – 9:50 am Increase of settlement limit for the previous settlement phase.
- 2) 9:30 am – 12:30 am Presenting to the CBA settlement participants' net positions on card transactions from the previous settlement phase.
- 3) up to 12:30 am Making final settlement and freezing the settlement limit for the next settlement phase by the CBA. Notification by the CBA of the final settlement to the ArCa system operator and members, through relevant messages.
- 4) 9:30 am – 4:00 pm Settlement limit change.
- 5) 4:00 pm End of banking day.

d) risk management

Final settlement of the ArCa system is performed through the CBA. There are several measures designed for management of the settlement-specific risks.

Financial risk

The following mechanism of final settlement is used to reduce financial risks in the system:

- To ensure the final settlement for payments by cards between the system participants is performed, an issuer member of the system will freeze the amount of settlement limit (which consists of authorization limit and non-reducing balance) in the settlement bank (the CBA) through the Armenian Card CJSC. The freezing of the settlement amount, the authorization of card transactions, the take-out of positions and final settlement are performed in accordance with trilateral contracts, rules, and rules and procedures of the clearing and take-out positions in the system;
- The authorization of card transactions is performed within an authorization limit for the system participant and payment limit for the cardholder. No authorization is performed when the authorization amount exceeds each of the above-noted limits.

Operational risk

- The system has developed mandatory requirements on operational risk reduction, which generally concern security arrangements established in system rules; the principles of using different types of electronic keys; analysis aimed at discovering and preventing fraud; an emergency action plan; software testing; the use of UPS; regular cheques and supervision of hardware and software; backup copying of data on backup devices; recording and analyzing technical failures; and performing a number of other activities.

In the event of the need to modify the system rules or general performance, the CBA has an opportunity to take measures as appropriate, by using its prestige and competence. It is worthwhile to note, however, that the CBA's policy is to gradually downsize its participation in the system.

4.3 Systems for international transfers

Armenian commercial banks execute international transfers through their correspondent accounts with foreign banks – mainly using the S.W.I.F.T. telecommunications network.

In Armenia, the group of S.W.I.F.T. members and users was set up in 1996. During 1997, 12 commercial banks and the CBA joined the S.W.I.F.T. system in order to reduce the timing for interbank payments, minimize costs and increase reliability in making payments. The group in Armenia is an undertaking to unite all banks as members and users of the S.W.I.F.T. system, and it acts on their behalf and to their benefit. The group provides its Armenian members with legal and organizational information, organizes meetings, training seminars, and represents the Armenian S.W.I.F.T. users in annual S.W.I.F.T. conferences. As of the end-2009 the CBA and 22 commercial banks were members to the S.W.I.F.T. system.

Overseas transfers of business entities are executed chiefly by means of traditional bank transfers systems, while inbound and outbound foreign currency remittances of individuals are made primarily using a number of money transfer systems that do not require opening of bank accounts and have become rather popular in Armenia, including the internationally-recognized Money Gram, Anelik, Contact, Unistream, Migom, Bistraya Pochta, RIA Money Transfer, Leader, among others.

In effect, all these systems have the same structure and are designed mainly for natural persons to make non-commercial money transfers without opening accounts. These systems operate on a mutual correspondence basis, subject to internal system rules and policies. Price and commission policies, organizational and technical capacities of these systems vary across countries in which they are located.

Compared to bank transfers, the advantage of money transfer systems without opening bank accounts is that this is less time-consuming, no need for the beneficiary to open/have an account with a bank. The beneficiary can receive his amount in any outlet which offers services of these systems. The transaction is documented on the spot and, in a matter of minutes or hours, the funds become accessible for the beneficiary.

Though the share of money transfer systems without opening an account is not large in international practice, part of such systems can be treated in Armenia as payment systems of prominent importance⁵, since Armenia is heavily dependent on transfers, determined by the volume of payments via the system. The CBA therefore should always pay due attention to such systems. One of the objectives in developing of the Armenian Law on Payment and Settlement Systems and payment and

⁵ Payment systems of prominent importance include the systems in which the hold-ups may cause material economic consequences thus undermining public confidence in the payment and settlement systems and, generally, in the national currency.

Settlement Organizations was the input of the mechanism to allow such systems to operate and to issue an activity license to money transferring organizations. The Law has empowered the CBA to issue permission for creation and operation of payment and settlement organizations in Armenia and participation in foreign payment and settlement systems. This makes it possible to carry out a certain preliminary study of the payment and settlement system performance, settlement rules, system safeguards and system operator's and system-members' rights, liabilities and risks. This instrument enables the CBA to control, to a certain extent, the occurrence of system-specific risks in order to take action to handle such risks. The licensing of money transferring organizations in Armenia allows reducing the likelihood of illegal performance and associated fraud and, hence, emergence of credit risk. There is procedure in place which the CBA uses to oversee the activity of such organizations.

In 2009 the volumes of international bank transfers via S.W.I.F.T. and telex from/to Armenia amounted to AMD 3742 billion and AMD 2669 billion, respectively. The aforementioned money transfer systems were used to transfer AMD 42 billion from and AMD 363 billion to Armenia.

In Armenia, international payment instruments such as international payment cards and traveler's cheques can be serviced. Presently, debit and credit cards of international organizations can be drawn on banks or used to make non-cash payments in retail trade and service outlets that accept such cards. However, traveler's cheques are not accepted as a means of payment in Armenia; rather, they may be drawn on a bank. As for foreign currency payments by Armenian citizens abroad, they are mainly performed in cash form, as well as by traveler's cheques and international payment cards obtained from Armenian banks.

4.4 Foreign currency trades settlement systems

Foreign currency trades at NASDAQ OMX Armenia are executed by the use of a transactions settlement system which was introduced in October 2005.

Foreign currency trading at NASDAQ OMX Armenia is open to the CBA, Armenian commercial banks, credit organizations, and currency dealers, which have entered into an Admission to Foreign Currency Trading Agreement.

Foreign currency trading at NASDAQ OMX Armenia and the clearing and settlement of transactions are regulated by the NASDAQ OMX Armenia JSC Rules, namely "Foreign Currency Trading Rules", "Foreign Currency Clearing and Settlement Rules", and the Foreign Currency Trading Transactions Settlement Agreement concluded between the CBA, NASDAQ OMX Armenia JSC and the stock exchange trade participants.

Settlement of foreign currency trading transactions at NASDAQ OMX Armenia is made by the CBA using the dram and foreign currency accounts of stock exchange trade participants with the CBA. Settlement is made on the transaction day (T+0) on the basis of the preliminary deposition of dram and foreign currency.

Before the start of the trade, stock exchange trade participants shall deposit the necessary amount of cash on the special dram and foreign currency clearing accounts of NASDAQ OMX Armenia JSC with the CBA. These funds are transferred through the CBANet network and the confirmation of the transfer is delivered automatically to NASDAQ OMX Armenia JSC. Foreign currency trades can be executed within the limits of funds (drams and foreign currency) deposited by the trade participants. After the end of the trading session, NASDAQ OMX Armenia JSC, based on data on executed transactions, calculates net positions (for drams and each foreign currency) of rights and responsibilities arising from the participants' transactions, prepares the appropriate payment orders, and submits them to the EPS. The CBA automatically performs final settlement of transactions in dram and foreign currency based on payment instructions received and notifies trade participant of this accordingly. The system has adjustment procedures in the event data contain inconsistencies.

Foreign currency trading at NASDAQ OMX Armenia JSC and final settlement of transactions are performed in accordance with the following procedures and timeframe:

	Function	Time
1	Submitting payment instructions to the Settlement Bank by trade participants.	10:15
2	Checking and finalizing payment instructions by the Settlement Bank; transfer of funds to stock exchange clearing accounts; and notification of the transfer of funds.	10:45
3	Determining original balance of foreign currency and dram funds of trade participants.	10:45
4	Submitting payment instructions to the Settlement Bank by trade participants for additional depositing.	12:15
5	Checking and finalizing instructions on additional depositing by the CBA; transfer of funds to stock exchange clearing accounts; and notification of additional depositing to the stock exchange.	12:45
6	Increasing balance of foreign currency and dram funds of trade participants in the additional depositing system.	13:00

7	Possibility for de-depositing of funds by trade participant in a trading session. Where a message of de-depositing is received, the stock exchange will, within 15 minutes, prepare and send an electronic message to the Settlement Bank asking for refund from its account.	11:30, 12:30, 14:00
8	Trading session at stock exchange.	11:00-15:00
9	Checking and finalizing positions of trade participants; preparing electronic payment instructions for final settlement and submitting the ones to the Settlement Bank.	15:30
10	Sending confirmation for final settlement made by the Settlement Bank.	16:00
11	Checking results and matching data relating to funds transferred to clearing accounts of trade participants and relating to transactions executed in stock exchange. Consistencies identified shall be reported to the stock exchange and the Settlement Bank.	16:30
12	Where reported inconsistencies are unreasonable (or reasonable) the stock exchange shall communicate this to the trade participant and the Settlement Bank.	17:00

CHAPTER 5. SECURITIES, MARKET STRUCTURE, AND TRADE SYSTEMS

5.1 Forms of securities

In Armenia, securities can be issued in a documentary and non-documentary form. Having said this, documentary securities which are publicly offered or admitted to trading in a regulated market shall be dematerialized or immobilized by Central Depository of Armenia, subject to the CBA regulations and CDA rules, before the public placement of securities or application for admitting these to trading in a regulated market.

5.2 Types of securities

In Armenia, securities are classified into three groups:

- 1) nominal securities;
- 2) bearer securities (note that issuing, selling or making an offer to sell or inviting an offer to purchase bearer securities that are subject to public offer or admitted to trading in regulated market is disallowed); and
- 3) order securities.

In Armenia, shares, bonds, certificates of deposit, checks, bills and other securities, as specified under the Armenian Law can be issued and circulated.

Share is a security that certifies its owner's (shareholder's) right over the proportion of the company profit, the participation in the management of the company and the proportion of the property left after liquidation of the company. Shares are equity securities that are issued by joint stock companies and can only be nominal, as required under the Armenian Law.

Bond is a security that certifies its owner's right over receiving the nominal value of or other property equivalent to the bond from the issuer in a specified period of time. The bond entitles its owner to receive also an interest on its nominal value or other property rights.

Check is a security that contains the drawer's non-conventional instruction in writing to a bank to pay the bearer of check an amount specified in the check. Check is a payment and settlement document and, in essence, is a bill of exchange, the payer of which is the bank.

Certificate of deposit is a security that certifies the amount of deposit and the depositor's right over receiving the amount of deposit and interest thereon from the bank having issued that certificate or from any branch thereof, after the end of a specified period of time. The certificate of deposits can be in the bearer or nominal form.

Bill is a security that certifies the non-conventional liability of its issuer (note of hand) or other payer noted therein (bill of exchange) to pay a certain amount specified in the bill to the holder (owner) of the bill.

5.3 Securities identification code

Armenia uses its own numbering system for government, CBA and corporate securities, which is however fully ISIN-compliant (ISO 6166) by its length and structure. The codes consist of 12 characters: i) a prefix which is the alpha-2 country-code; ii) the basic number which is 9 characters (letters and digits) in length; and iii) a check digit which is computed using the principles set in above mentioned standard.

Identification codes are assigned to publicly traded securities when these are registered with the CBA or stock exchange. These codes are issued by the CBA. Codes of government securities are issued by the Ministry of Finance.

5.4 Transfer of ownership

The ownership over securities is stipulated in the register of holders (nominees) of nominal securities. The register is run:

- by the Central Depository for reporting issuers;
- by the issuer or depository for non-reporting issuer companies.

Under the Armenian Law, the ownership over publicly traded securities is deemed assigned when it is recorded with the Central Depository or trustee in favor of the purchaser (or its nominee).

5.5 Pledging of securities

Securities can be pledged as a means of security, as provided for under the Republic of Armenia Civil Code.

5.6 Treatment of lost, stolen or destroyed securities

Because publicly traded securities in Armenia can be issued in a non-documentary form, therefore the likelihood of lost of such securities is very low. Central Depository, which maintains the register of reporting issuers, has adequate technical capacities to make sure information is secured and the likelihood of loss of securities minimized. In addition, Central Depository maintains all the documents as validation for assignment, and should there be any case of theft of securities the sufferer would be able to recover its ownership, as required under the Armenian Law.

5.7 Regulatory framework for depositaries

The activity of depositaries is governed by the Republic of Armenia Law on Securities Market and the CBA Regulation 33 “Depositaries of Securities” (CBA Board Resolution No. 33N 06/02/2007). The Regulation establishes the procedure for the securities depository activities, the general principles for registration of securities and technical requirements to depositaries.

5.8 Primary government bonds market

The CBA acts as financial agent to the Armenian Government and is responsible for the placement, circulation, and redemption service of bonds issued by the Government. Government bonds issued by the Ministry of Finance are of the following periods of maturity:

- short-term – circulation of 7 days to 1 year;
- medium-term – circulation of 15 months to 5 years; and
- long-term – circulation of 6-30 years.

Bonds issued by the Ministry of Finance can be obtained by agents, dealers and Treasury Direct from the primary market. Agents are partners to the MF in the area of domestic public debt management.

Agents have clearly defined rights and liabilities. Dealers participate in primary placement with limited rights. Investors using the system Treasury Direct can only buy short-term government bonds.

There are two ways with which the Ministry of Finance is entitled to repurchase its bonds: i) organizing auction by submitting bids; and ii) repurchasing at a pre-announced yield rate. Since October 2006, the MF has been issuing government saving coupon bonds that are only marketed to natural persons. These bonds are issued for the maturity of 3 months to 25 years. Starting 2006, bonds issued by commercial organizations that have been high-rated by, and registered with, the CBA can serve as items for repurchase transactions carried out by the CBA. The primary placement of government bonds is executed electronically through the Government Securities Accounting and Settlement System.

In pursuit of a more effective monetary policy the CBA issues government short-term discount rate securities with maturities of 3 and 6 months.

***Government bonds allocated and in circulation,
as of December 31 of 2006-2009***

Domestic public debt

(mln AMD)

Short-term government bonds

(mln AMD)

Medium-term government bonds

(mln AMD)

Long-term government bonds

(mln AMD)

Total

Bonds allocated, 2006, 2007, 2008, 2009

Domestic public debt, 2006, 2007, 2008, 2009

5.9 Secondary government bonds market

Transactions in the secondary market of government bonds are carried out by concluding purchase and sale contracts as required under the Armenian Law. The secondary market participants include investors, commercial banks, agents, dealers, and professionals dealing with brokerage, dealer, and trust management activities.

The CBA shall execute government bonds purchase and sale transactions with commercial banks functioning in the Republic of Armenia, with which it has entered into relevant agreements.

Transactions in the secondary government bonds market

	2006	2007	2008	2009
Total value of transactions (mln AMD)	66 723.7	92 358.1	69 687.3	115 490.6
Average daily value of transactions (mln AMD)	263.7	368	275.4	458.3
Average weighted yield of transactions	6.2478 %	6.6340 %	8.8061 %	10.75 %
Number of transactions	727	976	725	1341

CHAPTER 6. CLEARING AND SETTLEMENT SYSTEMS FOR GOVERNMENT AND CORPORATE SECURITIES

6.1 Market participants

6.1.1 NASDAQ OMX Armenia

According to the Republic of Armenia Law on Securities Market, a regulated market is defined to be an environment of organizational, legislative and technical capacities accessible, whether directly or indirectly, to the general public, which organizes, makes it available and provides for a venue or means for an offer to buy or sell securities on a regular basis, or which takes on functions customary to organizing trades with securities. The regulated market involves stock exchange and other regulated markets.

The Operator is entitled to organize public trades of foreign currency in accordance with the law and normative and legislative acts adopted pursuant thereto and with requirements established under market rules. In this case the Operator is entitled to determine and make settlement (clearing) of reciprocal liabilities/claims arising from transactions entered into during public trades of foreign currency.

The Operator is authorized to establish a guaranty fund as and when determined by the Republic of Armenia Law on Securities Market and normative and legislative acts of the CBA, which is called to minimize risks emerging in connection with trades of foreign currency. The CBA is authorized to

establish extent, composition as well as conditions for creation and usage of the guaranty fund under its normative and legislative acts.

The CBA may permit the Operator to engage in such types of additional activity that is closely relevant to the operator activities by establishing, where appropriate, additional rules and requirements to the implementation of such activities.

The Operator is prohibited to perform any activity that is not associated with market organization or any other activity that is associated with market organization, but, in the reasonable judgments of the CBA, may hinder normal functioning of the market, unless otherwise specified by normative and legislative acts adopted by the CBA.

The Operator shall undertake to determine market rules to make sure market functions normally and lawfully.

Market rules, as well as changes and addenda thereto (hereinafter also referred to as ‘market rules’), approved by supervisory council of the Operator shall be presented to the CBA for registration.

The CBA may establish, under its normative and legislative acts, mandatory stipulations and requirements to admission of securities to trade in the market, for protection of investor interests and achieving fair pricing of securities in the market.

Investment service providers are prohibited to enter into any transactions with securities in breach of requirements of the Republic of Armenia Law on Securities Market, normative and legislative acts of the CBA and market rules adopted thereto; the Operator is prohibited to agree to such transactions with securities or to ignore tracing such breach.

Securities admitted to trade on the market shall be prohibited to trade on other markets, except for the following circumstance:

- The CBA is entitled to establish, under its normative and legislative acts, exceptions from the requirements of the relevant article of the law for the following cases:
 - 1) private transactions, i.e. transactions parties to which are known beforehand;

- 2) transactions executed by underwriters within the framework of securities distribution; and
- 3) admission to trade on other regulated markets or sale of securities admitted to trade in the market.

The Operator shall undertake to oversee pricing and entering into transactions in the market to identify and prevent transactions concluded by the use of insider information, price abuse and in breach of normative and legislative acts.

The Operator shall oversee market participants and reporting issuers as established under law, other relevant regulations and market rules.

The Operator and the CBA shall cooperate for effective supervision over the market by the CBA.

The Operator shall undertake to notify the CBA of any breach of requirements established under the law, in accordance with the procedure defined by the CBA.

Stock exchange is a regulated market which conforms to minimum requirements established under the Republic of Armenia Law on Securities Market and normative and legislative acts of the CBA.

A stock exchange member is person which is empowered by the stock exchange operator to enter into transaction with all or some of securities admitted (listed) to trade in the regulated market, and which acts in compliance with stock exchange rules.

Only investment service providers which comply with requirements established under stock exchange rules can be eligible to become stock exchange members.

The stock exchange operator will permit trade of those securities only which have been listed on the stock exchange in compliance with the law, normative and legislative acts adopted pursuant thereto and stock exchange rules.

Only those securities can be subject to listing on the stock exchange, which and the issuers of which comply with requirements established under the law, normative and legislative acts of the CBA adopted pursuant thereto and stock exchange rules.

At present, there is one regulated market functioning in the territory of the Republic of Armenia the operator of which is NASDAQ OMX Armenia JSC (the former Armenian Stock Exchange JSC) which also functions as Stock Exchange Operator based on the activity license issued by the CBA.

As of end-2009, securities of 19 classes issued by 18 issuers have been listed on NASDAQ OMX Armenia JSC, of which 12 classes of shares (issued by 11 issuers) and 9 classes of bonds (issued by 8 issuers).

6.1.2 Central Depository of Armenia

In February 2008 the Republic of Armenia Law on Securities Market took effect. The law establishes that the “Central Depository of Armenia” JSC the sole owner of which is NASDAQ OMX Armenia JSC is authorized to take on functions of a centralized custodian, centralized roll-runner, and operator of clearing and settlement system for securities.

Central Depository is competent to perform the following:

- 1) As a centralized custodian, it shall:
 - a) provide custodian services to sub-custodians and other persons as defined by regulations of the CBA,
 - b) dematerialize securities and maintain the accounts of such securities,
 - c) donate distinctive codes to securities.
- 2) As a centralized roll-runner, based on the contract signed with the issuer, it shall maintain a uniform data-base (registry) to include data about the securities owners (nominees), number of securities they hold (registered on their names), type and class of securities;
- 3) as an operator of the clearing and settlement system, it shall:
 - a) determine and clear mutual liabilities and claims rising as a result of transactions in securities (clearing),
 - b) transfer securities to respective accounts and execute final settlement, as a result of transactions with securities,
 - c) based on the contract signed with the clearing and settlement service provider specified in point 1 of Article 18 of the Law of the Republic of Armenia on Clearing and Settlement Systems and Clearing and Settlement Organizations, organize fulfillment of money obligations amongst the members of clearing and settlement system,

- d) conduct necessary surveys for implementation of clearing and settlement of securities and the funds in a procedure defined by the law, legal acts, rules of the clearing and settlement system and contracts executed thereof,
- e) establish and manage guaranty funds to guarantee fulfillment of mutual liabilities of members of clearing and settlement system as well as for risk mitigation purposes with respect to performance of the functions of clearing and settlement system,
- f) act as a party to all transactions (central agent for parties) in accordance with the rules of the clearing and settlement system in matters related to fulfillment of mutual liabilities arising from transactions with securities.

6.2 Clearing and settlement systems for corporate securities

6.2.1 Government securities and CBA bonds

According to the Armenian Law, the CBA is the financial agent for the placement, circulation, and redemption service of bonds issued by the Government's authorized body. To serve transactions in the primary and secondary government bonds markets, the CBA acts as a central depository, records transactions, registers rights arising out of transactions, and performs final settlement. The CBA organizes and conducts bonds placement auctions, interest income payment, and bonds redemption and repurchasing.

The CBA is the owner and operator of the Government Securities Accounting and Settlement System, the GSASS.

The GSASS generated 1867 instructions for a total value of AMD 174 billion for primary allocation and redemption of government securities. In 2009 banks transferred AMD 107 billion in return for government securities purchased at the primary allocation, while Treasury transferred AMD 67 billion for the redemption of government securities. The Treasury Direct executed payment of AMD 3.2 billion for government securities, of which AMD 1.5 billion for allocation, and AMD 1.7 billion for redemption of, government securities.

The GSASS generated 27 instructions for a total value of AMD 8 billion for primary placement and redemption of CBA bonds. Commercial banks transferred AMD 1.6 billion for purchase of CBA bonds. This represented some 97 percent decrease (AMD 51 billion), while transfers for redemption of the CBA bonds also reduced by 92 percent (AMD 82 billion), with transfer for a total value of AMD 6.5 billion.

The system takes on the following functions:

- registration of global certificates on the government bonds issuances;
- maintenance of depo accounts of system participants, ensuring the registration, assignment and limitation of rights arising out of participants' deals with government bonds;
- organizing government bonds placement auctions;
- trades with government bonds as well as depo and cash settlements for repurchase and reverse repurchase transactions in accordance with the "delivery versus payment" principle;
- depo and cash settlements connected with loan disbursement/repayment transactions against government bonds pledge in accordance with the "pledge versus loan" and "pledge release versus loan repayment" principles; and
- redemption (or partial redemption) of government bond; calculation and payment of coupon income to system participants.

The system operates in accordance with the following principles:

- Depo and cash settlements are performed using a gross method, separately for each order, during the operational hours scheduled for settlement.
- Depo orders entering the system are executed in an order in which they are received ("FIFO" principle of order execution).
- Where depo order received in the system provides for transfer of money, in addition to the bonds transfer, the cash and depo settlement will then be performed simultaneously in accordance with the "delivery versus payment" principle.
- Final settlement in the system is performed by participants depo accounts maintained in the system (for securities settlements), and participants' dram accounts with the CBA (for cash settlements) within the accounts balances. Cash settlement of commercial bank- participants is performed using their correspondent accounts with the CBA. The cash settlement of other participants is performed using special dram accounts opened with the CBA in the name of such participants in accordance with appropriate agreements, maintained exclusively for settlement of bonds transactions.
- The day of submitting the order is considered the day of executing bond transactions in the system. If the depo order is submitted after the operational hours set for receipt of depo orders, then it shall be deemed submitted on the next working day.
- The system does not provide for queue management mechanisms: if the respective depo account balance is not enough to execute the depo order and/or the cash account does not contain sufficient funds (if the depo order concerns the transfer of money), the depo order will be rejected without execution, and in order for a rejected order to be executed, its initiator must enter it into the system again as a new depo order.

- Settlements made by the system are final and irrevocable from the moment they are executed in depo accounts managed under the system.

A banking (correspondence) account in dram and a depo account with the CBA as well as membership to the CBANet interbank computer network are important preconditions for participation in the GSASS.

Dealer or agent banks and non-banks, Treasury Direct, the Ministry of Finance, the CBA, and non-agent/non-dealer commercial banks are system participants of the GSASS.

Commercial banks, credit organizations and non-bank financial organizations (such as brokers/dealers of securities market) which have entered into a relevant contract with the CBA and the Ministry of Finance authorizing their participation in primary placements of treasury bills can be agent/dealer of treasury bills and act as sub-custodians of treasury bills. Commercial banks which have entered into a relevant contract with the CBA authorizing their participation in primary placements of treasury bills can be agent/dealer of treasury bills and act as sub-custodians of treasury bills.

Treasury Direct is a system which offers an immediate (non-brokered) sale of treasury bills to investors. A structural unit within the Ministry of Finance is designed to perform functions of Treasury Direct. Treasury bills can only be obtained at primary placements through the system of Treasury Direct by non-competitive bids. No transactions with treasury bills that are accounted by the system of Treasury Direct can be concluded in secondary market, and such treasury bills are maintained in investor depo accounts in the system of Treasury Direct up to their maturity.

As of end-2009 participants to the GSASS included 5 agents and 17 dealer banks, Deposits Guaranty Fund, Central Depository of Armenia, NASDAQ OMX Armenia JSC in the capacity of stock exchange, 1 non-bank dealer, the Ministry of Finance in the capacity of issuer of government bonds, Treasury Direct, and the CBA in the capacity of central custodian and issuer of central bank securities.

In the GSASS, settlement under the “delivery versus payment” principle is performed in accordance with the procedures mentioned below.

The GSASS participants that are bond buyers and sellers shall use the CBA’s Electronic Delivery System to submit to the CBA depo orders in the appropriate formats, which will be automatically entered into the GSASS. After entering each depo order into the system, the system will look for a match. Once the match is found, the appropriate value of securities will be frozen in the depo account

of the seller, after which the GSASS will generate a payment order that will automatically be entered into the CBA's "Operational Day" system, where the buyer's cash account will be debited and the seller's will be credited. After the funds settlement is performed, the "Operational Day" system sends a funds settlement execution confirmation to the GSASS, on the basis of which the GSASS debits the seller's and credits the buyer's depo account with the respective value of securities. After the depo settlement is completed, the GSASS sends confirmation of final settlement to the buyer and seller participants. If the final settlement does not take place due to any reason (such as the non-availability of the sufficient value of securities in the seller's depo account, the non-availability of sufficient cash in the buyer's cash account, and the like), the participants will receive a rejection message. A depo order that does not find match is rejected before closing of the GSASS operational day.

Depo orders, primary placement auction bids, statements, transaction confirmations, and other financial and information documents are submitted in electronic form of the appropriate format, using the CBA's CBANet inter-bank computer network and the necessary protective mechanisms (information encrypting, electronic signature, safety keys).

If a system has technical problems, making it impossible to send and/or receive financial and information documents in electronic form, there are backup procedures under which the participant submits the depo orders in paper form, which is entered into the GSASS by CBA competent official: at the same time, the system participant may be given a printed and endorsed paper copy of the undelivered electronic information sent to him.

The system executes the transactions with government bonds in a matter of minutes, provided the simultaneous settlement of securities and money, which rules out the risk of counterparty default.

The operation of the GSASS comprises the following stages:

- 1) 9:00 am – 9:30 am Opening of system operational day.
- 2) 9:30 am – 4:30 pm Execution of all types of transactions.
- 3) For primary placement of bonds:
 - up to 10:30 am acceptance of bids
 - 10:30 am deadline for bid acceptance.
- 4) For redemption/partial redemption of bonds:
 - up to 12:30 pm execution of redemptions.

- 5) 4:30 pm Access closing stage (electronic messages are no longer received from the Electronic Delivery System, and paper documents are no longer received).
- 6) 5:00 pm Completion of the entries of paper documents.
- 7) 4:30 pm – 5:30 pm Printing of statements, paper notices (confirmations), operation confirming orders.
- 8) 5:30 pm – 6:00 pm System operational day closing and depo account statements generation and delivering.
- 9) 6:00 pm – 7:00 pm Archives generations and other software and database service work performance.

The activities of the GSASS are regulated by normative and legislative acts of the Armenian Government and the CBA regarding placement, circulation, and redemption of government bonds, the GSASS Rules and GSASS Accounts Coding Procedures adopted by the CBA, and the decree that defines the Electronic Formats of Messages related to transactions with government bonds.

6.2.2 Clearing and settlement systems for corporate securities

In Armenia, the stock exchange is the only regulated marketplace for corporate securities. This is the place where exchange trading is executed by satisfying anonymous double-sided counter-bids. A transaction will be concluded as securities purchase and sale bids are entered into the trades system by the participants (professional entities, banks), provided that the terms and conditions contained in the bid are satisfied. As such, no trade participant is aware of who else has placed bids to the trade system.

Clearing and final settlement of transactions in the Central Depository of Armenia is executed by a centralized (a liability determination, offset and implementation property) and fully secured (a securities and monetary assets accrual property) way, using the netting component, whereas the function of a settlement bank was empowered to the CBA. CDA executes clearing and settlement on the same day when transactions in regulated market take place.

CDA may, on a contractual basis, determine and execute offsetting (netting) of reciprocal liabilities (claims) in respect of securities transactions concluded in regulated market.

Presently, NASDAQ OMX Armenia executes clearing of transactions with government securities in regulated market and presents documents for final settlement to the CBA.

At stock exchange, there is only a trade of securities and monetary funds with preliminary deposition, which is based on the final settlement with full security. The principle is that the trade participants will conclude transactions at the stock exchange only for such amounts of securities and monetary funds which have been accrued to their trade accounts established with the CBA on behalf of Central Depository or blocked in their individual accounts with Central Depository before the start of any given trade session.

The trade of securities and monetary funds with preliminary deposition is executed using a mechanism as follows:

- A securities market participant (bank, professional entity) wishing to purchase/sell securities at stock exchange should beforehand deposit, on its or its customer's behalf, monetary funds/securities in its trade account established with the CBA on behalf of Central Depository and/or block the technical account established with Central Depository on behalf of the Depository.
- Before the start of trade session, a trade participant and the CBA should file a statement to Central Depository about the monetary funds transferred to the account of Central Depository established with the CBA.
- Central Depository should match the statements filed.
- Before the start of trade session, Central Depository should file a statement about monetary funds transferred and securities blocked by trade participants. Stock exchange should use the statement to produce original balances of securities and monetary funds (i.e. the quantity of each trade participant's securities and monetary funds with which the participant will be able to conclude transactions).
- After the trade session is over stock exchange should file a statement to Central Depository about the results of transactions concluded during the trade session.
- The statement filed to Central Depository serves a basis for performing clearing and settlement. Short statements issued to trade participants by Central Depository follow thereafter.

Securities registration and depository (custodian) processes

In a transaction with securities the ownership is deemed assigned when it is recorded with Central Depository or trustee in favor of the purchaser (or its nominee). The depository system in Armenia is two-tiered. Tier 1 involves Central Depository and tier 2 involves investment service providers that are entitled to perform sub-depository functions. Central Depository now is place where securities

accounts of both end-investors and sub-depositories and customers can be maintained. Such accounts are considered as the nominee's account. According to the Law, each depository/custodian acts as sub-depository of Central Depository. Depositories should be technically equipped to be able to exchange information with Central Depository based on a 'link agreement'.

Guarantee schemes

Presently, trading of securities at stock exchange is executed on a condition of 100 percent preliminary deposition of securities and monetary funds. Therefore, there is no need to use any other guarantee scheme.

Borrowing by securities

Presently, no borrowings by securities are originated for clearing and settlement purposes.

Clearing and settlement for derivatives

Presently, no derivatives transactions are concluded.

Pending projects with depositories, clearing and final settlement

There is intention to create conditions for moving to a T+3 final settlement cycle of securities trade without preliminary deposition of securities and monetary funds, by the use of guaranty funds.

CHAPTER 7. ROLE OF THE CENTRAL BANK IN CLEARANCE AND SETTLEMENT SYSTEMS

7.1 Settlement

In Armenia, transfers of monetary funds are executed through intra-bank payments (payments between customers of the same bank), inter-bank payments (settlement in mutual loro/nostro (correspondent) accounts of commercial banks), and the CBA payment systems (settlement in accounts of system participants with the CBA).

In Armenia, inter-bank transfers are executed primarily through payment systems of the CBA:

- electronic payments system RTGS; and
- paper-based gross settlements system DNS.

The CBA is the owner, operator and settlement bank for the RTGS and DNS systems, and it maintains commercial banks' correspondent accounts and other participants' settlement accounts. As the final

settlement agent for card transactions through the unified payment system of ArCa cards and the foreign exchange deals at the Armenian stock exchange, the CBA makes the settlement of cash transactions by commercial securities and government securities at the Armenian stock exchange.

7.2 Payment system oversight

7.2.1 Objectives and scope

In end-2007 the CBA approved and published a concept paper on payment system oversight. The concept paper has been approved by a resolution of the Chairman of the CBA, and has already been made public through the CBA website.

The concept paper defines the objectives, the scope and the process of the oversight function, as well as the requirements to systems falling under the scope of CBA oversight. These requirements are based on the CPSS Core Principles for Systemically Important Payment Systems⁶.

7.2.2 Instruments and methods

As stated in the concept paper on payment system oversight, the CBA intends to use moral suasion as an important tool to implement the oversight function. In case the dialogue with system operators is not fruitful and may result in material risks or loss of public confidence, the CBA can:

- a) establish technical, safety and software requirements to system operation;
- b) define rules to payment sand settlement services and/or payment instruments and/or settlement forms; and
- c) enforce its recommendations legally demanding the relevant operator to perform the required modifications, or in the extreme prohibiting the operation of the system in question.

7.2.3 Organizational structure

A unit in charge of payment system oversight activities is within Financial System Policy and Financial Stability Department of the CBA.

In 2009 functions and tasks and scope of responsibility of the unit were cleared up. These are:

- a) development of principles/requirements for payment and settlement systems oversight in the Republic of Armenia and approaches and methodologies relevant to the oversight;
- b) activities for assessment of systematically important payment systems in the Republic of Armenia; reporting risk identification and prevention measures to the Board of the CBA;

⁶ CPSS “Core Principles for Systemically Important Payment Systems”, BIS, 2001.

- c) monitoring of payment and settlements systems of the Republic of Armenia for event review and analysis with the purpose to identify and prevent risks that threaten financial stability of the Republic of Armenia;
- d) evaluation of risk exposure to the payment and settlement systems of the Republic of Armenia in the context of financial stability;
- e) preliminary assessment of activities for development of the payment and settlement systems of the Republic of Armenia and for development of the mechanisms for granting permission to participate in payment and settlement systems of other countries.

The unit in charge of payment system oversight activities has been staffed in late 2009, and consists of a unit head and two analysts.

7.2.4 Dissemination of information

The concept paper on oversight provides the periodicity and content of information for public disclosure. It states that the CBA will periodically (normally, once a year) release public information on its oversight efforts and activities including an outline of results of the assessments.

General and statistical information about payment systems of Armenia is already available at the CBA website⁷.

7.2.5 Cooperation with domestic and international regulators

The concept paper outlines the scope of cooperation of structural units of the CBA with each other and with other competent authorities of the Republic of Armenia. It further states that the CBA cooperates with central banks of other countries and other international experts on a basis of principles for international cooperative oversight, as developed by Bank for International Settlements⁸.

Considering that the oversight function is relatively new and somewhat sophisticated to Armenia, the CBA underscores the importance of more knowledge and the know-how transfer in this sphere. At an international level the CBA has established working relationships with central banks in Europe and CIS countries for more effective organization of the oversight task, among other purposes.

⁷ “Payment and Settlement Systems in the Republic of Armenia”, CBA, 2007, “Armenian Financial System: Development, Supervision, Regulation”, CBA, 2009, “Annual Report of the Central Bank”, CBA, 2009.

⁸ “Central Bank Oversight of Payment and Settlement Systems”, BIS, 2005.

7.3 Pricing policy

In general, membership to the CBA payment and settlement systems is free of charge. For participants, settlement services are offered on a *breakeven point* basis. The pricing policy is structured so as to encourage development of electronic payment systems, therefore payments through EPS are offered at no cost to participants.

CHAPTER 8. SUPERVISION OF SECURITIES CLEARANCE AND SETTLEMENT SYSTEMS

8.1 Regulatory and supervisory responsibilities

Since 2006 the CBA took over the responsibilities for regulation and supervision of securities market. This brought along considerable shifts in regulatory field and gave rise to the market development vision. As a result, banks and credit organizations were allowed to offer professional services in the securities market.

The CBA is responsible for control over compliance with requirements established under the Republic of Armenia Law in Securities Market and other regulations adopted pursuant to the law. The CBA supervises activities of investment service providers, persons making public offer of securities, reporting issuers, regulated market operators, Central Depository as well as performance of their managers, parties acting on their behalf, parties with qualifying holding, and parties engaged, directly or indirectly, in major transactions in securities market.

Supervision of investment companies is carried out through on-site and off-site inspections. These two types of inspections complement each other while ensuring continuity and integrity.

Inspection in investment companies is aimed, on the whole, to make sure companies are financially sound and reliable. Further, on-site inspections allow supervisors to deal with more information which gives them an opportunity for a more comprehensive and informed judgment of financial standing of the company, for in-depth understanding of management system, adequacy of policies and decision-making as well as internal control procedures. In inspecting an investment company, supervisors should pay a due attention to risk management and how the company evaluates its exposures to risk. Disclosure of transactions that are purported to improve financial performance of the company artificially or keep prudential standards afoot is also important.