



# INSURANCE AND PENSION ASSESSMENT

REPORT

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REPORT

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# ABSTRACT

This report present and discuss issues relating to (a) development of agricultural insurance and (b) pension fund assets, in relation to their ability to facilitate access to credit and financing by SMEs and individual entrepreneurs.

A quick market assessment and understand of the agricultural insurance and pension landscapes in Georgia was mainly performed and obtained by gathering of and analyzing information elicited from interviews with insurance company officials, officials of most concerned ministries of the Government of Georgia, some members of the Business Association of Georgia and the director of the Georgian Insurance Association. Information was supplemented by reading materials made available by the EPI project office in respect of recent studies, research and surveys relating to agricultural insurance and agri credit.

In relation to agricultural insurance vis-à-vis agri credit/finance a common barrier to their development expressed by stakeholders is the lack of positive and forward looking governmental support to agriculture. Certain of these barriers and how to address and overcome them are presented and discussed in the body of this report.

In respect of pension fund, the asset accumulation in existing voluntary pension is so small. There would be a need to look a compulsory pension mechanism that will promote and increase national savings. Some issues and moving forward recommendations are spelled in the main body of this report.

# ABBREVIATIONS

- DC – Defined contribution (pension system)
- GIA – Georgian Insurance Association
- GOG – Government of Georgia
- MFI – Micro Finance Institutions
- MPL – Maximum Probable Loss
- NBG –National Bank of Georgia
- PPP- Public – private partnership
- SME – Small and medium enterprises
- SOW – Statement of Work
- UNDP- United Nations Development Programme

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# EXECUTIVE SUMMARY

## AGRICULTURAL INSURANCE

Availability of, and farmers' access to, agricultural finance (agri credit) is almost nil, or at best insignificant in terms of amount depth and penetration. Data from NBG indicate that the average amount of loans extended to agriculture, forestry and fishery during the last 4 years (2007 to 2010) is a miniscule 1% of the total amount of loans in all sectoral categories. Banks and financial institutions consider the agricultural sector as high credit risk due mainly to low profitability of the sector. On the other hand, farmers, as confirmed by the 2010 UNDP survey, rely on bank loans to start and expand for more efficient and profitable agricultural activities.

Agriculture insurance plays important role of facilitating access to agri finance/credit. This is achieved if and when the insurance product is an effective instrument that would absorb certain of the credit risk faced by banks and lending institutions related to risk of default of SMEs and individuals engaged in agricultural activities in respect of their agri credit or financing. The Georgian agricultural insurance market is very nascent and thus limited, both in demand and supply sides. Farmers and the banking/financial sector have yet to understand and appreciate insurance as credit enhancer and risk transfer mechanism in agri credit. On the supply side, insurance products design is yet to be developed as effective financial instrument of credit risk transfers. Barriers to developing agriculture insurance are mainly due to very low awareness of the functions as well as the imitations of agricultural insurance and the lack of that "critical mass" that supports viability of insurance products. That "critical mass" in agricultural insurance does not arise by itself. It has to be created by positive acts of the government, banks and lending institutions as well as insurance companies for a sustainable cooperation among them to make agricultural insurance and agri credit/financing complement and supplement each other. For example, demand for agricultural insurance is created when government subsidizes and the extension of credit require insurance covers as pre-conditions

## PENSION FUND

Pension funds and the amount pension assets, at this time, are very insignificant to factor in any decision in respect of lending activities, much less to SMEs and small individual farmers. The current voluntary private pension schemes do not have, and are not designed to have, the ability to generate long term capital for long term investment because withdrawals of contribution before retirement are allowed as the rule rather than exception. In the meantime, the amount of national savings as a percentage of GDP has been constantly declining.

The Georgian government and business groups have shown their interests towards establishing a mandatory savings pension, in line with World Bank Pillar II pension model, as necessary, effective and efficient means of increasing national savings and at the same time create a system of ensuring that Georgian citizens and residents shall have decent retirement income through "self-provision". In addition, mandatory savings pensions is a predictable methodology of accumulating long term capital that could be mobilized for long term investment that, in turn, would spur increased economic activities and employment. The availability of long term funds would likewise create a platform for institutional investing that

would, as a matter of course, push the development of the capital market of Georgia. A strong public-private collaboration in working towards an enabling legislation for establishing a sound and prudential legal and regulatory framework of a Mandatory Savings Pension system would be needed.

# AGRICULTURAL INSURANCE

The focus of this consultancy is agricultural Insurance as a means to facilitate access to finance. Agricultural insurance comprise of types: (a) crop, (b) livestock, (c) bloodstock, (d) forestry, (e) aqua culture, and (f) greenhouse, insurance. Crop insurance makes more than 90% of agricultural insurance business and hence this consultancy gave particular emphasis to crop insurance which is most developed in relation to the other types of agricultural insurance. Understanding the nature, risks exposure, characteristics as well as the extent and limitations insurance coverage of crop insurance leads one to likewise understand and appreciates insurance covering the other types of agricultural insurance.

Information on types and extent of agricultural insurance were gathered from my visits to and interviews with insurance companies, including those that do not perform agricultural insurance business. The information from reports and surveys that were made available by the EPI Project Office to me supplemented by understanding of the current states of agricultural and credit/lending, vis-à-vis, agricultural insurance.

As in most countries, only a few of the insurers in Georgia carry out agricultural insurance business because this business segment involves very unique underwriting risks and requires specialization, in terms of product design, loss measurement, higher level of risk management, reinsurance support and other alternative risk transfer mechanism, such government subsidies. Thus, only three (3) insurance companies, at present, have some types of agricultural insurance products that cover very limited risks related to crop, vineyard, fruit harvest, vegetable, citrus, green-houses and livestock. As at December 31, 2010, a total of 156 agricultural policies were issued by these 3 companies, of which 150 policies belongs to Imedi L Insurance Company.

Banks shun from extending credit or financing to SMEs and small farmers because of the high credit risks due mainly the perceived unprofitability of the agricultural sector. On the other hand, MFIs do operate and provide microfinance, characterized with high interest rates (up to 48% pa, as one study suggests) for small amounts, more in the form of consumer loans which are not necessarily used as input for agricultural production.

Loans extended for agricultural activities, in the last 4 calendar years, averaged a miniscule 1% of the aggregate lending activity in Georgia. The anemic state of agri credit/financing demonstrated in the table below.

**Term Loans to National Economy, in Thousand Lari, Years 2007 to 2010**

Year	Aggregate Loans All Categories	Agriculture, Forestry & Fishery	Percent of Total
2007	40,785,686	403,283	0.98878%
2008	61,258,146	687,565	1.12241%

<b>Year</b>	<b>Aggregate Loans All Categories</b>	<b>Agriculture, Forestry &amp; Fishery</b>	<b>Percent of Total</b>
2009	62,436,040	592,530	0.94902%
2010	64,051,520	626,314	0.97783%
<b>Total</b>	<b>228,531,392</b>	<b>2,309,691</b>	<b>1.00951%</b>

Source: Source: <http://www.nbg.gov.ge/index.php?m=306>

There are current initiatives from the government, through the Ministry of Agriculture to supply seeds for maize growing to farmers, on credit payable at a fixed date(s). Information gathered is that farmers obtaining such seeds are required to provide insurance guarantees as security for payment of such credit. Because of lack of an “all risk” crop insurance policy, insurers issue instead guarantee payment bonds, the underwriting of which require farmers to provide collaterals in the form of pledge or mortgage of assets. Guarantee payments bonds are financing instruments by themselves and are not the types of agricultural insurance that this consultancy is to look into and work on.

Common barriers to developing agricultural insurance identified by the insurers (supply side) are the following:

- Lack of demand to create a “critical mass” that ensures healthy risk diversification
- Lack of data on crop, farm yield, meteorological and other factors that enable scientific pricing of product
- Lack of professional agricultural loss adjusters
- Lack of reinsurance support
- Lack of government support to upgrade agricultural/farming standards to improve productivity and profitability of farmers, especially to the following priority areas:
- Provide financial and other support to farmers, e.g.: cheap credit, agricultural machinery, etc.
- Training farmers on the methods of growing farm produce with new technologies that improve quality and quantity of production
- Training and deployment of agronomists, including employees of insurance companies to improve their skills/qualification in agricultural related matters and agricultural risks assessment.
- Training employees of banks and lending institutions on the nature and types of agricultural insurance and the role they can play as transfer mechanisms of borrowers’ risk of default.

Barriers to grant of agricultural credit, gathered from relevant and recent studies, research and surveys<sup>1</sup> conducted by other consultants involve mainly the following:

- Aside from the so-called high risk in agri credit, the administrative costs to service small farm loans are also very high
- Higher rate of return and lower credit risks in large corporate financing, real estate construction and development and other sectors
- Fragmented and small sized farms
- Low productivity in agriculture due to outdated and failed agricultural technology and methodologies
- Lack of any substantial improvement in primary agriculture
- Absence of steady market for agricultural produce
- Lack of a national strategy of promotion of agricultural lending and insurance and absence of long-term government subsidies for agriculture

On the part of the demand side (farmers) the following barriers to accessing credit were highlighted in the same studies, researches and surveys<sup>2</sup>:

- High interest cost
- Agri credit/loans have very short terms
- Documentary requirements of banks and lending intuitions
- Lack of collateral that are acceptable to banks and lending institutions
- Lack of government-provided agricultural credit or financing

These barriers, taking account the perspectives of insurers, banks and financial institutions and the farmers are not insurmountable. However, from all the supply and demand sides, one common denominator is lack (read, absence) of government support to agriculture. Indeed it would be unfair to expect that insurance companies have the responsible to bring in new technology and imposed farming standards. Only the government can. It is likewise understandable for banks and financial institutions not to focus their lending resources and activities in the agricultural sector when in the other economic sectors the grant or extension of credit and financing come with lesser risk of default, lesser administrative cost and higher returns. Only the government can.

Under the auspices of the USAID EPI project and in collaboration with the GIA, the consultancy, on April 20, 2011 conducted a workshop on “Best Practices in Agricultural

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<sup>1</sup> See: Agricultural Credit and Insurance Study, EnCana 2010; Financing Georgian Industry, Christophe Cordonnier, GEPLAC 2008

<sup>2</sup> Ibid

Insurance: Policy Options and Lessons Learned for Georgia<sup>3</sup>. The workshop gathered together top officials of the GOG, including the Minister of Agriculture, the NBC, banks and financial institutions, including MFIs and insurance companies. In this workshop, the consultancy stressed on the need to establish and sustain strong public private partnership (PPP) in providing technical as well as financial/credit supports aimed to up-grade and scale up agricultural productivity and profitability. Particularly, the consultancy stressed on the indispensable and urgent need for the GOG to:

- Actively support agricultural production, establish minimum farming standards and basic risk management practices for farmers
- Create and develop stable and sustainable market for agricultural produce
- Consider extending subsidized agri credit to select agricultural products
- Facilitate and support pilot farming where index based crop insurance can likewise be tested
- Lead in gathering data that would support development of scientifically priced insurance products, such as soil analysis, crop analysis, meteorological factors, etc.
- Provide at least an Excess of Loss or Stop Loss reinsurance to allow insurers to develop products based on “maximum probable loss” (MPL) related to insurable agricultural risks.
- Consider agricultural subsidies along the lines practiced in the EU member states including guaranteed minimum selling price of agricultural produce as a basis for designing and pricing agricultural insurance products.

## STEPS FORWARD

In order to develop agricultural insurance, not only as means of providing a financial caution in the form of indemnification of production losses suffered by farmers caused by specific insured risk(s) (or all risks, as the case maybe) as well as to ensure that agricultural insurance is financial instrument that absorbs certain of lenders’ credit risks and, thus facilitate access to agri credit/finance, certain preconditions are required. In this regard, the consultancy recommends, in collaboration with the GIA, the creation of an Agricultural Insurance Working Group (Group) to be composed of key officers of insurance companies, representatives of the banking and financial institutions (associations) and officials of concerned governmental bodies and/or agencies and build strong public-private partnership (PPP) to agree and adopt specific PPP- driven options to serve as the basic platform upon which agricultural insurance, (particularly focused on facilitating access to Agri credit/finance by agricultural entrepreneurs, SMEs, and individual small farmers) may be designed and developed. In this connection, continuing technical assistance may include the following:

- Preparation of “white paper” on strategies and options to developing agriculture insurance for dissemination to, study of, and discussion among, the members of the Group. Provide technical assistance and input to the Group, analyze the

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<sup>3</sup> Copy of the Consultancy’s presentation in Power Point Format in attached as Annex\_\_ in this report.

comments and suggestions from Group members and/or concerned institutions and, accordingly, advise the Group with recommendations to facilitate Group consensus and decisions.

- Study the feasibility and requirements of adopting and implementing an “index” based agricultural insurance product and, if needed, identify and suggest pilot farms for selected areas and crops.
- Conduct training to insurance sector and other stakeholder staff on specific areas of agricultural insurance as the GIA and/or the Group so identify.
- Prepare and submit a Report on Strategies in the Design of Agricultural Insurance Products for Georgia.

# PENSION

The challenge and thus objective of this consultancy was to identify and analyze gaps in the existing pension schemes in Georgia and identify how pension reform may be developed and introduced in order for pension funds to generate significant investible assets that will likewise provide resources for credit or financing to SMEs and small (individual farmers and entrepreneurs).

From my visits to and interviews of officials of insurance companies that are carrying the business of providing voluntary pensions, I observed that the current voluntary pension schemes do not have, and are not designed to have, the ability to generate long term capital for long term investment because withdrawals of contribution by participants before retirement is allowed. The very small accumulation of pension assets under the various voluntary pension schemes is clearly indicated in the 2009 Annual Report of the NBG as gleaned in the following table.

Insurance – Voluntary Pensions		
Assets in thousand GEL, as of Dec. 31, 2009	<b>331.5</b>	
Non investment assets		216.9
Invested assets		114.6
Total Liabilities	<b>276.3</b>	
<b>Technical reserves</b>		<b>212.1</b>
Non-contractual liabilities		64.2
Shareholders' Equity	<b>55.2</b>	
FDI in Equity is 47.15%		26.03
<b>Total Assets/Liabilities</b>	<b>663</b>	<b>607.8</b>
Non-investment assets	216.9	
Receivables from insurance		154.6
Shares of reinsurers in the tech reserves		30.6
Goodwill and intangible assets		16.6
Fixed Assets		15.1

Source: 2009 Annual Report of the National Bank of Georgia

There are six (6) insurance companies granted license to carry out the business of providers of Non-State Pensions (voluntary pensions). However, only 4 companies have actual pensions business at this time. Details of the current state of the voluntary pensions market in Georgia is as follows:

	JSC Insurance Company Aldagi BCI	JSC GPI Holding	JSC Insurance company Imedi-L	Insurance Company TAO Ltd	Total

Contributions	1,662,570	696,320	34,398		<b>2,393,288</b>
No of Agreements	217	11,440	7		<b>11,664</b>
Number of Participants	5,412	11,429	38		<b>16,879</b>
Amounts Withdrawn from PF	745,111	415,215	192	40,105	<b>1,200,623</b>
Accumulated Investment Income	512,158	238,320	24,571		<b>775,049</b>

It is obvious that the current pension system cannot spur national savings; it is elitist and basically sold to only to larger business corporates, and therefore not designed to target the “mass” of the working population of Georgia in order to provide for them a vehicle to save for their retirement. Thus the investible assets of these pension schemes do not offer potentials to providing credit to SMEs. The continuing decline of national savings in Georgia, do not offer positive build up of long term capital for mobilization of credit and financing.

This condition is likewise observed by Cordonnier<sup>4</sup>: “the drop in private saving (according to IMF, private savings fell from 13.8 percent of GDP in 2005 to 6.3 percent in 2007) becomes a serious cause for concern—we are once again forced to reiterate our recommendation to develop a “compulsory” system of long-term private savings, patterned on the best international benchmarks and, especially, the Chilean system of pension funds, as soon as possible. Without such an increase in savings, not only the strategic project of transforming Tbilisi into a regional financial hub will remain a dream—despite the manifest comparative advantages of Georgia in this field—but Georgia may enter into a dangerous macro-economic area especially if the flows of FDI which have hitherto covered its current account deficit would become slightly less consequent in the future”.

The consultancy immediately discussed these observations with the EPI Project leadership, pointing out the absence of an appreciable pension fund that can factor in providing access to credit and financing. In these discussions, the consultancy, as well, recommended

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<sup>4</sup> Financing Georgian Industry, Christophe Cordonnier, GEPLAC, 2008

working towards establishing a mandatory savings pensions following the Pillar II model of the World Bank.

The Pillar II pension model is a DC scheme, where a participant builds savings to capitalize the purchase of an annuity that will provide him/her an income stream during retirement. No withdrawal is allowed prior to retirement date. The participant's savings shall consist his/her contributions (including contributions made others for his/her account) and the net investment income of the accumulating pensions assets. Therefore, the amount of a participant's pension is dependent on the amount of his/her regular contributions, the length of the period of time for making the contributions, the investment income as well as the nature and amount of tax incentives that the government gives during the pension saving stage. Participants shall be given individual account statements reflecting the status of his pension savings at regular intervals and at reasonable requests. This pension system will be rigorously regulated and supervised.

On the request of the Deputy Chief of Party, the consultancy prepared a presentation on best international models and experiences in the implementation of mandatory pensions, how private pension funds are operated and supervised as practiced in several models used in the Latin American and Central Eastern European (ECC) countries. In collaboration with the BAG, the consultant made a presentation to a group of private enterprises as well as representative of the NBG. Following, this initial presentation, the BAG requested EPI to concretize the proposal for mandatory pensions in a Concept Paper, for further study and discussions within the BAG, concerned ministries and top government officials of the GOG, including the NBG. A copy of this presentation is attached to this report.

The concept note on Pension Reform Initiatives of GOG, containing the observations, comments and recommendations of this consultancy was drafted, discussed with the project's USAID Cognizant Technical Officer (CTO), refined and revised and now disseminated as DRAFT concept note to BAG and most concerned institutions.

Copies of the Concept Note with all the annexes are attached to form an integral part of this report.

A pension reform initiative must be pursued taking into account various legislation and regulations particularly those concerning labor and social, finance and fiscal, banking and non-banking supervision to ensure that the macroeconomic remain stable and fundamentally sound. The need to form a working group to define and suggest policy options in the framing of the pension legislation on establish mandatory savings private pension is highly recommended and highlighted in the attached Concept Note.

# ANNEX 1

## A CONCEPT NOTE ON THE PENSION REFORM INITIATIVE OF THE GOVERNMENT OF GEORGIA

### 1. INTRODUCTION

- 1.1 This note is intended to present a concept of pension reform for the Government of Georgia and to describe lessons learned from pension reforms undertaken in selected Central and Eastern European (CEE) and Latin American countries which would be useful guides in shaping fundamental pension policy options for Georgia.
- 1.2 It is hoped that this concept note generates interests, debate and opinion sharing among the various stakeholders and builds, in the process, a strong public-private consensus on how best a pension reform is taken forward taking account the most relevant social, economic, cultural and political environments in Georgia.
- 1.3 This paper will give special focus on funded private pension systems of selected CEE countries and will likewise attempt to point out challenges faced by providers of pension and the supervisory authorities charged with oversight functions over private pension funds.
- 1.4 One essential objective of social protection policies is ensuring that older citizens and residents of the nation have the financial means to fulfill their requirements at old age when their competitiveness and/or opportunities to earn wages or income wane or disappear so that, even at their old age, they do not slip into poverty or become dependents to the meager government welfare programs.
- 1.5 As the population grows, the number of people joining the unemployed because of old age likewise expands at rates higher than the accretion rate of the population. This is so because of the global resolve to control birth rates coupled with the improvements in the quality of life and advancement of science and medicine, both of which lengthens the living years of the population (life expectancy rates).
- 1.6 Governments, the world over, have the social responsibility of providing certain minimum benefits to its inhabitants who are economically unable to earn enough for their subsistence because of old age, disability or other causes through a system of unfunded pension, dole-outs and/or various welfare programs. Unfortunately, most countries struggle with the

attendant fiscal constraints in providing these benefits both in terms of payment amounts and timing. The fiscal burden could only multiply because of increasing number of eligible beneficiaries and the pressure to provide benefits that take into account the impact of inflation.

- 1.7 A sound pension system seeks to establish a healthy caution to the fiscal burden particularly in respect of the “old age” group that comprises an enormous part of beneficiaries of the public pension system. Pension reforms in the last two (2) decades have been emphasizing the importance of a pension system driven by a national savings mechanism where people engaged in economic activity set aside a portion of their wages and earnings during their working years to self-provide for their financial needs during retirement. The amount saved will capitalize regular payments to a retiree as replacement income, in the form of pension.
- 1.8 Current conditions in Georgia lend unique opportunities for the promotion, development and growth private funded pensions taking into account the government’s long-term objectives of social protection and the important role that a pension system will play in creating and accumulating enormous amounts of capital that could be mobilized for the advancement of the nation’s economic growth.
- 1.9 A strong public-private initiative would be necessary to build a well thought-out approach, philosophy and objectives of a pension system. A very useful first step is to form and convene a Working Group on Pension comprising members that represents a strong cross-section of public officials, industry leaders, labor, trade and business organizations and top private business executives. At the end of this concept note, an outline of a “terms of reference” for, and suggested members of, this working group leaders is proposed.
- 1.10 A glossary<sup>5</sup> of commonly used pension terms is annexed (Annex 1) to this note for ready reference.

## 2. TEMPLATE OF PENSIONS SYSTEM

- 2.1 For the last two (2) decades, the three (3) pillar pension system has been promoted by the World Bank as a template for pension reforms; the main objective of which is to move away from the pay-as-you-go unfunded system. It is combination of public and private pension schemes that supplement and complement each other in providing for old age pension.

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<sup>5</sup> Adopted from OECD Private Pension Classifications and Glossary, 2005

- 2.2 Pillar 1 is a public pension that basically comprise unfunded universal basic pension provided by the state and financed by appropriations from the state budget. Because of the consequential fiscal burden, the benefits are minimal and most countries define the benefits as the amount needed to provide for the “food basket” of the pensioner. Beneficiaries under this pillar consist enormously of old people (age 65 is the most commonly used trigger for eligibility to receive pension benefits)<sup>6</sup>. The amount of benefit and the period to receive those benefits are highly dependent on the resources of the government.
- 2.3 Pillar 2 is the mandatory, privately managed, savings pension where all wage/salary and income earning individuals, usually with certain tax incentives, are to set aside (contributes) a fixed percentage of their monthly salary or taxable income into an individual pension savings account. The total amount of contributions together with the investment earnings of such contributions will capitalize the pension of the participant at retirement. The pension plan is a defined contribution (DC). This pension scheme is founded on the principle of “self-provision”. The savings are intended to accumulate and, as a general rule, the funds are not accessible to the participant on any date prior to his/her retirement.
- 2.4 Pillar 3 is the voluntary, privately managed, savings pension, usually with certain tax incentives that are typically given in capped amounts that are predicated to the amounts saved under Pillar 2. There are usually high penalties that are imposed on withdrawals prior to retirement. These plans could be defined benefits or defined contributions, although the World Bank model discourages defined benefit pensions because of the difficulties and uncertainties of funding the pension accumulating liabilities.
- 2.5 Studies and reform experience suggest that Pillar 2 and Pillar 3 pensions are best administered by private institutions because the private sector proved to be more efficient than the government in fund mobilization, in providing awareness and education to the pension participants as well as in the transparency in fund investment and in maintaining reliability in record keeping.

### 3. DESIGNING A PENSION SYSTEM FOR GEORGIA

- 3.1 As of date, Georgia does have a Pillar 1 pension platform and a very nascent Pillar 3 (Voluntary Pensions) mostly with insurance companies. There is no Pillar 2 pension, where workers are made responsible to build

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<sup>6</sup> For purposes of this concept note, we will consider as Pillar 1, the pension cum welfare system now in place in Georgia and also as described in point 1.6, above

their old age retirement income through capitalized individual savings. There are also no known occupational pension schemes either in the form of defined benefit or defined contribution plans either for government personnel and private sector employees. This condition affords less constraints in the design and implementation of Pillar 2 funded private pension system; absent the usual difficulties of establishing a pension system because of the transitional challenges relating to adjusting existing pension schemes into a new pension regime.

- 3.2 The 2009 annual report of National Bank of Georgia (NBG)<sup>7</sup> reported that there were six (6) insurance companies that are registered to carry out the business of providing voluntary pensions.<sup>8</sup> Only 4 of them, however, have actual operations in respect of pensions.
- 3.3 As of December 31, 2009, the total assets of the four (4) pension providers totaled a measly amount of GEL 6.3 Million. Out of this amount, only GEL 2.121 Million represents pension liabilities (total members' savings). This indicates that no significant accumulation of capital is being achieved or expected to be achieved in the near term through the voluntary pension schemes.
- 3.4 Pension is a means to promote long term national savings, thus, accumulate long term capital for long term investment. A quick synopsis of the aggregate voluntary pension liabilities, vis-à-vis, pension assets, as of December 31, 2009 is indicated in Table 1, below.

**Table 1: Insurance – Voluntary Pensions**

Assets in thousand GEL, as of Dec. 31, 2009	<b>331.5</b>	
Non investment assets		216.9
Invested assets		114.6
Total Liabilities	<b>276.3</b>	
<b>Technical reserves</b>		<b>212.1</b>
Non-contractual liabilities		64.2
Shareholders' Equity	<b>55.2</b>	
FDI in Equity is 47.15%		26.03
<b>Total Assets/Liabilities</b>	<b>663</b>	<b>607.8</b>
Non-investment assets	216.9	

<sup>7</sup> Under current legislation the NBG is the regulatory authority for insurance and pensions.

<sup>8</sup> For purposes of this concept note, we will refer the voluntary pension products of insurance companies as pensions falling under Pillar 3.

Receivables from insurance		154.6
Shares of reinsurers in the tech reserves		30.6
Goodwill and intangible assets		16.6
Fixed Assets		15.1

Source: 2009 Annual Report of the National Bank of Georgia

3.5 National savings in Georgia have been decreasing. Cordonnier<sup>9</sup> rightfully observed that “the drop in private saving (according to IMF, private savings fell from 13.8 percent of GDP in 2005 to 6.3 percent in 2007) becomes a serious cause for concern—we are once again forced to reiterate our recommendation to develop a “compulsory” system of long-term private savings, patterned on the best international benchmarks and, especially, the Chilean system of pension funds, as soon as possible. Without such an increase in savings, not only the strategic project of transforming Tbilisi into a regional financial hub will remain a dream—despite the manifest comparative advantages of Georgia in this field..”.

## 4. THE NEED FOR PILLAR 2 PENSION STRUCTURE, DEFINED CONTRIBUTION, IN GEORGIA

- 4.1 Pillar 2 of the World Bank Model emphasizes on mandatory pension savings. As in every other nation, people who and while are earning income, unless made mandatory, do not set aside part of their wages and income in a pensions savings accumulation account that will provide for them the income stream from where they can draw the needed cash when they are no longer in a position to get employed or be engaged in self-employment.
- 4.2 Unless a system of compulsory saving for retirement is made part of being employed or of being engaged in economic activity, the putting aside a part of one’s wage or income to a pension fund would not be a “need of the time”. Most people of the “working age” group (15 to 65 years of age), unless legally mandated, fail to self-provide themselves with some modest replacement income during their retirement. At that point in time, without pensions, they sadly realize there is nothing other than charity or welfare that can provide for their financial needs at old age.
- 4.3 Pillar 2 is a capitalized individual pension savings scheme where the amounts contributed to a pension fund and earnings thereof accumulate.

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<sup>9</sup> Financing Georgian Industry, Christophe Cordonnier, GEPLAC, 2008

The accumulated amount will capitalize the purchase of annuity or other arrangement that ensures regular receipt of income on retirement.

- 4.4 The amount of post employment (retirement) income depends on the amount of one's savings (pension contributions), the period of time of making those contributions and the amount of income earned from those contribution.
- 4.5 By its very nature, this pension system serves best the interests of the younger participants who have the longest period of time to save until retirement. The functioning of this pension savings structure requires long term (experience seem to indicate at least 20 years) to attain maturity and optimum effectiveness. The pension system is referred to as "matured" when all target participants (beneficiaries) are already enrolled in the system. At that time retirees shall have completed at least 20 years of contribution to their individual pension savings account.
- 4.6 Table 2 below illustrates the fact that in most countries the mandatory Pillar 2, defined contribution pension system is the model most favored in pension reform.

**Table 2: Private Pensions Structure in Selected Countries; DB VS DC**

Country	Date Started	Mandatory	Voluntary	% DB	% DC
Latin America					
• Argentina	1994	X			100
• Bolivia	1997	X			100
• Brazil	1977		X (O)		100
• Chile	1981	X			100
• Columbia	1994	X			100
• Costa Rica	2001	X	X		100

• <b>El Salvador</b>	1998	X			100
• <b>Peru</b>	1993	X			100
• <b>Mexico</b>	1998	X			100
• <b>Uruguay</b>	1996	X			100
<b>Central Europe</b>					
• <b>Czech Republic</b>	1994		X		100
• <b>Estonia</b>	2002	X			100
• <b>Hungary</b>	1998	X	X		100
• <b>Poland</b>	1999	X			100
• <b>Kazakhstan</b>	1998	X			100
<b>North America</b>					
• <b>Canada</b>	1965		X (O)	84	16
• <b>USA</b>	1947		X (O)	71	29
<b>Western Europe</b>					
• <b>Netherlands</b>	1952	X (O)		95	5
• <b>Sweden</b>	1967/2000	X (O)	X (O)	95	5
• <b>United Kingdom</b>	1834		X (O)	79	21
<b>Asia &amp; the Pacific</b>					
• <b>Australia</b>	1992	X (O)		10	90
• <b>Hong Kong</b>	2000	X (O)			100

• <b>Japan</b>	1944		X (O)	99	1
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Source: Tapia (2007b), OECD, Global Pension Statistics

X – Personal or open pension

- **X (O) – Occupational pension**

## 4.7 POPULATION AND DEMOGRAPHICAL CONSIDERATIONS

- 4.7.1 The population of Georgia is particularly young in comparison with other countries in the CEE. As of the beginning of year 2010, the total population is estimated at 4,436,500. As of the same date, people aged 65 and above (elders) make up 14% of the population while people within the “working age” (15 to 64 years old) totaled about 3,058,000, representing almost 70% of the population. About 17% of the population comprises people below 15 years of age.
- 4.7.2 The ratio of the elderly to people of working age (demographic dependency ratio) is about 0.2. This ratio indicates that there are only two (2) elderly for every ten (10) people within the working age.
- 4.7.3 While the number of elder people at current statistics indicates modest decline, the current demographic dependency ratio of 0.2, offers the right and best time to consider initiation of pension for old age.
- 4.7.4 The demographic dependency ratio in most European countries is roughly: one (1) elderly in every three (3) people in the working – age<sup>10</sup>. Pension reform initiatives in most European countries with high dependency rates have had serious fiscal challenges. The current Georgian demographic dependency ratio of 0.2 enables the initiation and development of mandatory savings pension with lesser socio-economic implications because a demographic dependency ratio of 0.2 would not necessarily require too much social burden in the form of payroll or employment related taxes. The table below illustrates the current Georgian population and age demography.

<sup>10</sup> See World Bank Social Protection Discussion Paper No. 0707, On Kosovo Pension Reform: Achievements and Lessons by John Gubbels, David Snelbecker and Lena Zezulin 2007

**Table 3: Georgian Population and Demographics**

<b>Population, beginning of the year</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Total, in thousands	4394.7	4382.1	4385.4	4436.4
Live births	49287	56565	63377	NA
Deaths	41178	43001	46625	NA
Natural Accretion	12503.7	17946.1	21137.4	NA
Accretion rate per 000	2.86743	2.0549	2.54876	NA
Demographics:				
Gender				
Male	2079.5	2078.4	2080.8	2108.9
Female	2315.2	2303.7	2304.6	2327.5
<b>Total Population</b>	<b>4394.7</b>	<b>4382.1</b>	<b>4385.4</b>	<b>4436.4</b>
Age Group				
Below 15 years old	779.2	755	749.6	756.5
15 to 44 years old	1986.4	1973.8	1958.1	1967.8
45 to 64 years old	985.8	1010.4	1047.4	1090.2
Over 65 years old	643.3	642.9	630.3	621.9
Total	4394.7	4382.1	4385.4	4436.4
Percent of Total				
Below 15 years old	18%	17%	17%	17%
15 to 44 years old	45%	45%	45%	44%
45 to 64 years old	22%	23%	24%	25%
65 and above	15%	15%	14%	14%

Source: GeoStat

4.6.5 It is a valid argument that the population growth rate of approximate 2.5 per thousand, in 2008-2009, would tend to increase the ratio of younger to elder population group so that the demographic dependency will further reduce to less than 0.02.

## **4.8 CAPITAL ACCUMULATION – RESOURCES FOR MOBILIZATION**

4.8.1 As mentioned earlier, the population in Georgia is relatively young and about 70% are within the working age of 15 to 64. This condition lends justification to adopting and implementing a mandatory savings pension along the lines of the World Bank Pillar 2 model.

- 4.8.2 The ability of the mandatory pension system to accumulate long term funds for mobilization would greatly contribute to the economic growth of Georgia, e.g. increase employment rate, provide funds for long term investments, push or complement the development of the capital market and ease the fiscal burden in and for a sustainable universal pension and social assistance for the old and the poor, to mention a few.
- 4.8.3 Tables 4 and 5 below depict basic data that we can use to estimate and project the growth and expansion of capital that would be generated in the mandatory pension system.

### TABLE 4: EMPLOYMENT STATISTICS

In thousands	2007	2008	2009
Active Labor Force, in thousands	1,965	1,918	1,992
Employed, in thousands	1,704	1,602	1,656
Unemployed, in thousands	261	316	336
Unemployment rate	0.13282	0.16475	0.16867

Source: GeoStat

### TABLE 5: ECONOMIC ACTIVITY INDICATORS, AVERAGE SALARIES/WAGES

Economic Activity Indicators	2007	2008	2009
<b>Active Labor Force</b> (in thousands):			
Hired-Formal Labor Sector			
Male	331.9	313.1	317.4
Female	293.6	259.3	278.6
Total	625.5	572.4	596.0
Self-employed			
Male	556.2	542.5	560.1
Female	522.6	487.0	500.0

Total	1078.8	1029.5	1060.1
Unemployed			
Male	143.7	172.4	193.7
Female	117.3	143.4	141.9
Total	261.0	315.8	335.6
<b>Total, Male</b>	<b>1031.8</b>	<b>1028.1</b>	<b>1071.3</b>
<b>Total, Female</b>	<b>933.5</b>	<b>889.7</b>	<b>920.5</b>
<b>Overall total</b>	<b>1965.3</b>	<b>1917.8</b>	<b>1991.8</b>
<b>Average Monthly Salary</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Male	704.4	772.87	762.48
Female	376.1	405.22	438.77

Source: GeoStat

4.8.4 The performance, fund accumulation and growth of pension assets in a Pillar 2 mandatory savings pension model for Georgia after the end of the fifth (5<sup>th</sup>) year is projected to exceed GEL 3.5 Billion. This estimate is arrived at using basic data contained in Tables 4 and 5, above and projected in Tables 6 and 7 below.

- 4.8.5 Table 6 below estimates the accumulation of participants' contributions during the years indicated, applying the following conservative assumptions:
- Contribution Rate to Mandatory Retirement Savings per participant = 7.5% of salary/wage
  - Active labor force increases at 5% every year for the next 5 years
  - Average annual unemployment rate of 16% in first year and 10% in year 5; decreasing by 2% annually
  - Percentage of participation which is projected to merely 60% of employed individuals takes into account the difficulty of reaching out to the unorganized labor and self-employed
  - Average monthly salary increases at 10% yearly for the next 5 years

## **Table 6: Estimated Yearly Amount of contributions to the Pillar 2 Pension**

<b>Five (5) Years Projections:</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Active Labor Force, in thousands	2,092	2,196	2,306	2,421	2,542
Employed, in thousands	1,757	1,845	1,983	2,131	2,288
Percentage of participation	40	45	50	55	60
Number of participants, in 000	703	830	992	1,172	1,373
Monthly Wage/Salary	612	674	741	815	897
Monthly contribution	46	51	56	61	67
Annual Individual Contribution	<b>551</b>	<b>606</b>	<b>667</b>	<b>734</b>	<b>807</b>
Annual Total Contribution, GEL 000	<b>387,394</b>	<b>503,369</b>	<b>661,372</b>	<b>859,814</b>	<b>1,107,987</b>

4.8.6 Using the conservative annual rate of return of pension assets at 2%, mean, for the year's contributions and 4% on the accumulated assets from prior years, the capital accumulation in the Pillar 2 pension system grows to approximately GEL 3,605,335,000 at the end of year 5.

**Table 7: Projected Capital Accumulation under the Pillar 2 Pension Structure**

<b>In thousand GEL</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Contributions	387,394	503,369	661,372	859,814	1,107,987
Net Investment Income:					
Current year's contribution	7,748	10,067	13,227	17,196	22,160
Previous accumulation		15,806	36,343	63,327	98,608
Total Pension Assets	395,142	513,436	674,599	877,010	1,130,147
Accumulated Prior Years Balances		395,142	908,578	1,583,178	2,465,188
Benefit Payments	0	0	0	5,000	10,000
Net Pension Assets	<b>395,142</b>	<b>908,578</b>	<b>1,583,178</b>	<b>2,465,188</b>	<b>3,605,335</b>

## 5. Legal and Regulatory Framework of Mandatory Pension – Pillar 2

- 5.1 Mandatory Savings Pensions, as earlier mentioned is best carried out by the private sector under legal and regulatory framework of private sector legislation. However, pension reform and legislation should be harmonized with and aligned to relevant and enabling Labor and Social and Fiscal legislation, as well as reform initiatives in the financial sector, including the capital market.
- 5.2 The legal and regulatory framework to establish and support the pension reform in Georgia could be developed and framed along the experiences of pension reforms in other countries, particularly CEE countries, that successfully reformed their pension systems.
- 5.3 A brief analysis of mandatory savings (Pillar 2) pension systems in selected CEE and Latin American countries and the corresponding fundamental legislative and regulatory issues relating to private pensions is summarized in Annex 2 of this concept note.
- 5.4 The analysis does not at all imply that legal and regulatory issues in private funded pensions are confined solely to the matters and areas analyzed and presented in the Annex. Certain policy issues, particularly germane to the Georgian culture, political, socio-economic, labor, fiscal and other governmental policies need to be sensitized within the pension structure in order that the pension system is able to withstand initial and future challenges as it gains maturity and attains success.
- 5.5 This analysis could serve as ready reference for study and analysis and offers policy options that would guide both the government policy-setters and the private sector stakeholders towards establishing and building a pension system that is best suited for Georgia and its people that is consistent and sustainable with long-term objectives of the Government of Georgia
- 5.6 In addition, the Chilean model, in its more than 20 years of implementation is considered as a mature pension system. It also provides a wealth of historical data and information that can be helpful for policy makers in the Government of Georgia in shaping pension policies.
- 5.7 The Chilean model not only raised the interest of other South American states but also of some European countries in search of an efficient reform. Guided by the Chilean model, Argentina, Colombia, Peru, Bolivia, Mexico

and El Salvador privatized their old age pension in the 90s.<sup>11</sup> In 1999, Poland led other ECC countries in pension reforms that adopted the mandatory funded private pensions. In 1997, Russia introduced the voluntary pension and in 2002 commenced implementing the mandatory private funded pension. The original template of mandatory private funded pensions is the Chilean model.<sup>12</sup> ..

- 5.8 The Chilean pension system surely is not perfect. Its implementation, in part, had rough consequences for the population. Anyway, it seems that a state (e.g. the *Government of Georgia, inserted by author*) in search of alternatives to a state pension system should take a close look on the Chilean model, which is given highest ranks in actual discussions of pension system reforms<sup>13</sup>.

## 6. Conclusions

- 6.1 A mandatory savings pension system ensures increased national savings, generates long term capital that could be ploughed into the economy in an array of various programs that generates employment opportunities, increases domestic productivity, eases the long-term fiscal burden of the universal public pension and social assistance programs of the government, primes increased activities in the financial services sector, to mention a few.
- 6.2 A private funded savings pension structure needs to be “tax-advantaged” so that, in principle, the government is also part of paying for (increasing the amount of) participants’ contributions to the extent of the tax incentive given to contributions and earnings of pension assets. The tax incentives would be a critical component in promoting social support of the pension system, attaining large participation to pension plans and for increasing pension savings.
- 6.3 A well structured mandatory savings pension would facilitate the attainment of, but not limited to, the following long term policy objectives of the Government of Georgia<sup>14</sup>:

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<sup>11</sup> See: The Restructuring of the Chilean Pension System, by Irina Becker

<sup>12</sup> See: Private Pension System in Central and Eastern Europe. Milliman Research Report, January 2010

<sup>13</sup> See: The Restructuring of the Chilean Pension System, by Irina Becker

<sup>14</sup> See World Bank Social Protection Discussion Paper No. 0707, On Kosovo Pension Reform: Achievements and Lessons by John Gubbels, David Snelbecker and Lena Zezulin 2007

- 6.3.1 Creation of a pension system that covers the whole population - The European pension systems, consistent with the classic 3 Pillar system, cover almost the entire population. The development and implementation of a mandatory savings pension in Georgia will necessarily result to the rationalization of the universal basic pension (Pillar 1) and other social assistance programs to the poor and elder population. It will likewise sensitize the framework and development of the voluntary pension (Pillar 3) system to attract and enhance long term savings aimed to supplement the retirement income especially for workers and income earners who are left with a few years to save until retirement.
- 6.3.2 Long term solutions - The best pension policy leads in creating a pension system that is sustainable in the long term while at the same time addresses immediate and recurring socio-economic and political pressures as well as fiscal/budget constraints, consistent with the development of a market economy and changing demographics.
- 6.3.3 Promote economic development. The pension system facilitates savings and investment of the population, rather than relying on mechanisms that are similar to issuance of government debt. Furthermore, the pension system promotes development of the labor market requiring that contribution rates are at reasonable levels. The pension system, as a natural consequence, pushes the development of the capital market because pension providers and asset managers need to continually seek investment opportunities that give the participants the optimum return (income) for their pension savings. The pension system creates the large corpus of assets that are most efficiently invested in long-term investment instruments.
- 6.4 The demographics of the Georgian population indicate an increasing number of people above 65 years of age (elderly). The current dependency rate of 2 elderly in every 10 people within the working ages (15 to 64) offers the right time to establish a mandatory savings pension system for people who are earning wage or other income under the principle of self-provision
- 6.5 The interests of the government and private sector to create and establish long term capital resources to spur investment and financial intermediation is currently very high. A system of mandatory savings pension would ease the political pressure in respect to many issues relating to availability of

long term funds that could finance infrastructure development which are so essential to develop and grow the economy.

- 6.6 Because an efficient pension system accumulates large amount of funds for payment of long-term pension benefits, the capital and solvency requirements of providers of pension, the administration of pension funds, investment of pension assets, record keeping and reporting of individual savings accounts to all pension participants need to be placed under rigorous regulation and supervision.

## 7. Suggestions for Steps Moving Forward

- 7.1 Pension reform requires legislation, and the legal framework should be in harmony with other legislation, such as those relating to labor and social protection, fiscal/taxation, banking and financial intermediation services. Its functioning should ensure the macro-economic stability of Georgia.
- 7.2 The initiative for introducing mandatory private funded pension needs to be performed in consultation with all relevant and concerned public and private institutions in order to build a strong public-private consensus on how best the pension system is designed and taken up in an enabling legislation.
- 7.3 A dedicated Working Group needs to be established and convened to lead and facilitate discussions of policy issues that would address the long term objectives of the government and concerns of the private sector in an effort to obtain public-private consensus on the structuring of Georgia's private funded pension regime.
- 7.4 The Working Group would be composed of cross-sectional representations of government policy planners/setters, industry leaders, labor, trade and business associations. A strong government representation from the most concerned ministries (i.e. Economy, Finance, Labor and Social Services) and the National Bank of Georgia in this working group would be most productive and preferred.
- 7.5 The Working Group would need to function under a definitive Terms of Reference (TOR) in order to ensure maximal and optimal use of their time in moving forward with the pension reform.
- 7.6 A brief outline of Working Group's TOR, which will necessarily be spelled out in more detail at proper timings, is suggested as follows:
- Review the cultural, socio-economic, fiscal and political and environments in Georgia to determine constraints to building a

platform upon which mandatory (Pillar 2) private pension can be establish.

- Discuss, deliberate and agree on policy approaches and options towards creating and establishing a mandatory private pensions system and its regulation
- Promote and conduct public-private consultative forums to disseminate and discuss information of the development of the pension system among wider realm of stakeholders in the pension reform.
- Define and prescribe directions in drafting the pension legislative and regulatory framework
- Review and validate the proposed pension legislation
- Maintain continuing liaison with as many members of the Parliament to gather legislative support to the new the mandatory pension law
- Work for the submission and passage of the new mandatory pension

7.7 On the first meeting of the Working Group, a timeline to execute and deliver reports relating to its TOR shall be decided. The agreed timelines would be included in the finalized TOR of the Working Group.

7.8 USAID, through the Economic Prosperity Initiative Project in Georgia, would need to provide technical assistance to Working Group and will coordinate the meetings and finalize reports of the Working Group.

## ANNEX 2

# ATTACHMENT TO THE DRAFT CONCEPT NOTE ON PENSION REFORM RE: 5 YEARS PROJECTION, SCENARIO ANALYSIS

### Notes:

1. Scenario 2, is what is depicted in the concept note.
2. Scenario 3 & 4 – exclusively relates to employees that are hired in the formal labor sector, using net return of asset of 6% and 4%, respectively
3. Scenario 5 & 6 – uses the projections in Scenario 3 & 4 in respect of employees in the formal labor sector with a projected participation rates of 10%, 15%, 20%, 30% and 40% of people in the self-employed (informal labor), in the years indicated.
4. The projections will need to be refined and reworked as we progress with the reform initiative and learn more of the GOG's policy preferences, such as:
  - (a) Within what age range should the scheme be mandatory
  - (b) The mandatory contribution rate (the assumed 7.5% of monthly salary/income),
  - (c) The nature and level of tax incentives (this is not factored in current projections)
  - (d) The definition “self-employed” as used by the National Statistical Office,

(e) Other factors that may influence contribution and accumulation.

## Base Data

<b>Active Labor Force:</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Hired-Formal Labor Sector			
Male	331.9	313.1	317.4
Female	293.6	259.3	278.6
Total	<b>625.5</b>	<b>572.4</b>	<b>596.0</b>
Self-employed			
Male	556.2	542.5	560.1
Female	522.6	487.0	500.0
Total	1078.8	1029.5	1060.1
Total, Male	888.1	1028.1	1071.3
Total, Female	816.2	889.7	920.5
Overall total	1704.3	1917.8	1991.7
Ratio of Hired people	0.36703747	0.2984923	0.29925172
Average Monthly Salary	<b>2008</b>	<b>2009</b>	<b>2010</b>
Male	704.4	772.87	762.48
Female	376.1	405.22	438.77

## Analysis of Participants' Contributions

Five (5) Years Projections:	Year 1	Year 2	Year 3	Year 4	Year 5
Estimate total Employed people	1,757	1,845	1,983	2,131	2,288
Hired (formal)	<b>615</b>	<b>646</b>	<b>793</b>	<b>852</b>	<b>1,144</b>
Self-employed (informal)	<b>1,142</b>	<b>1,199</b>	<b>1,190</b>	<b>1,279</b>	<b>1,144</b>
Employed, in thousands	1,757	1,845	1,983	2,131	2,288
Percent of participation	40	45	50	55	60
Number of participants, in 000	703	830	992	1,172	1,373
Monthly Wage/Salary	612	674	741	815	897
Monthly contribution	46	51	56	61	67
Annual Individual Contribution	551	606	667	734	807
Annual Total Contribution	<b>387,394</b>	<b>503,369</b>	<b>661,372</b>	<b>859,814</b>	<b>1,107,987</b>

## Projection of Pension Fund Accumulation

### SCENARIO 1 - NET RETURN ON INVESTMENT IS 6% PER ANNUM

	Year 1	Year 2	Year 3	Year 4	Year 5
Contributions	387,394	503,369	661,372	859,814	1,107,987
Net Investment Income					
Current year's contribution	11,622	15,101	19,841	25,794	33,240
Previous accumulation		23,941	32,545	42,825	55,706
Total Pension Assets	399,016	542,411	713,758	928,434	1,196,933

Accumulated Balances	Prior Years		399,016	941,427	1,655,185	2,578,619
Benefit Payments		0	0	0	5,000	10,000
Net Pension Assets		<b>399,016</b>	<b>941,427</b>	<b>1,655,185</b>	<b>2,578,619</b>	<b>3,765,551</b>

### SCENARIO 2 – NET RETURN ON INVESTMENT IS 4% PER ANNUM

	Year 1	Year 2	Year 3	Year 4	Year 5
Contributions	387,394	503,369	661,372	859,814	1,107,987
Net Investment Income					
Current year's contribution	7,748	10,067	13,227	17,196	22,160
Previous accumulation		15,806	36,343	63,327	98,608
Total Pension Assets	395,142	513,436	674,599	877,010	1,130,147
Accumulated Prior Years Balances		395,142	908,578	1,583,178	2,465,188
Benefit Payments	0	0	0	5,000	10,000
Net Pension Assets	<b>395,142</b>	<b>908,578</b>	<b>1,583,178</b>	<b>2,465,188</b>	<b>3,605,335</b>

### SCENARIO 3 - PARTICIPANTS CONSIST ONLY OF HIRED EMPLOYEES (FORMAL LABOR SECTOR), NET ROI IS 6% ANNUAL

	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage of participation	<b>0.6</b>	<b>0.7</b>	<b>0.75</b>	<b>0.8</b>	<b>0.9</b>
Number of participants	<b>369</b>	<b>452</b>	<b>595</b>	<b>682</b>	<b>1030</b>
Contributions	203,405	274,073	396,859	500,376	831,271
Net Investment Income					
Current year's contribution	6,102	8,222	11,906	15,011	24,938

Previous accumulation		12,570	30,262	56,604	90,623
Total Pension Assets	209,507	294,865	439,028	571,992	946,832
Accumulated Prior Years Balances		209,507	504,372	943,399	1,510,391
Benefit Payments	0	0	0	5,000	10,000
Net Pension Assets	<b>209,507</b>	<b>504,372</b>	<b>943,399</b>	<b>1,510,391</b>	<b>2,447,223</b>

**SCENARIO 4 – PARTICIPANT CONSIST ONLY OF HIRED EMPLOYEES (FORMAL LABOR SECTOR), NET ROI IS 4% ANNUAL**

	Year 1	Year 2	Year 3	Year 4	Year 5
Percentage of participation	<b>0.6</b>	<b>0.7</b>	<b>0.75</b>	<b>0.8</b>	<b>0.9</b>
Number of participants	<b>369</b>	<b>452</b>	<b>595</b>	<b>682</b>	<b>1030</b>
Contributions	203,405	274,073	396,859	500,376	831,271
Net Investment Income					
Current year's contribution	4,068	5,481	7,937	10,008	16,625
Previous accumulation		8,299	19,813	36,797	58,485
Total Pension Assets	207,473	287,853	424,609	547,181	906,381
Accumulated Prior Years Balances		207,473	495,326	919,936	1,462,117
Benefit Payments	0	0	0	5,000	10,000
Net Pension Assets	<b>207,473</b>	<b>495,326</b>	<b>919,936</b>	<b>1,462,117</b>	<b>2,358,498</b>

**SCENARIO 5 – PARTICIPANTS CONSIST OF HIRED EMPLOYEES (FORMAL LABOR SECTOR) AND A CERTAIN PORTION OF THE “SELF-EMPLOYED” (INFORMAL LABOR SECTOR) AT PERCENTAGE OF PARTICIPATION INDICATED IN THE TABLE. NET ROI IS 6% ANNUAL**

	Year 1	Year 2	Year 3	Year 4	Year 5
Hired - % of participation	0.6	0.7	0.75	0.8	0.9
Number of participants-hired	369	452	595	682	1030

Self-employed % of participation	<b>0.1</b>	<b>0.15</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>
Number of participants-SE	<b>114</b>	<b>180</b>	<b>238</b>	<b>384</b>	<b>458</b>
Total number of participants	<b>483</b>	<b>632</b>	<b>833</b>	<b>1066</b>	<b>1488</b>
Contributions	266,245	383,216	555,603	782,113	1,200,903
Net Investment Income					
Current year's contribution	7,987	11,496	16,668	23,463	36,027
Previous accumulation		10,969	27,197	51,175	85,245
Total Pension Assets	274,232	405,682	599,468	856,752	1,322,176
Accumulated Prior Years Balances	274,232	274,232	679,915	1,279,383	2,131,135
Benefit Payments	0	0	0	5,000	10,000
Net Pension Assets	274,232	<b>679,915</b>	<b>1,279,383</b>	<b>2,131,135</b>	<b>3,443,311</b>

**SCENARIO - PARTICIPANTS CONSIST OF HIRED EMPLOYEES (FORMAL LABOR SECTOR) AND A CERTAIN PORTION OF THE "SELF-EMPLOYED" (INFORMAL LABOR SECTOR) AT PERCENTAGE OF PARTICIPATION INDICATED IN THE TABLE. NET ROI IS 4% ANNUAL**

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Hired - % of participation	0.6	0.7	0.75	0.8	0.9
Number of participants-hired	369	452	595	682	1030
Self-employed % if participation	<b>0.1</b>	<b>0.15</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>
Number of participants-SE	<b>114</b>	<b>180</b>	<b>238</b>	<b>384</b>	<b>458</b>
Total number of participants	<b>483</b>	<b>632</b>	<b>833</b>	<b>1066</b>	<b>1488</b>
Contributions	266,245	383,216	555,603	782,113	1,200,903
Net Investment Income					

Current year's contribution	5,325	7,664	11,112	15,642	24,018
Previous accumulation		8,147	20,118	37,723	62,637
Total Pension Assets	271,570	399,028	586,833	835,479	1,287,559
Accumulated Prior Years Balances	271,570	271,570	670,598	1,257,431	2,087,910
Benefit Payments	0	0	0	5,000	10,000
Net Pension Assets	271,570	<b>670,598</b>	<b>1,257,431</b>	<b>2,087,910</b>	<b>3,365,468</b>

## ANNEX 3

### ANALYSIS OF MANDATORY (PILLAR 2) PENSION SYSTEMS OF CENTRAL EASTERN EUROPEAN AND LATIN AMERICAN NATIONS

Particulars	Poland	Hungary	Romania	Russia	Chile	Bolivia
<b>Year Started</b>	1999	1998	2008	2002	1988	1997
<b>Age of member</b>	<p>Mandatory for those born after Dec. 31, 1968 (30 years old &amp; below).</p> <p>All others-voluntary</p>	<p>Mandatory for persons who enters the workforce before age 35. Individuals who were employed when the law took effect had the option to participate. About 50% of them opted to participate</p>	<p>Mandatory for those born after Jan 1, 1972 (35 yrs old)</p> <p>Voluntary for those born between Jan 1, 1963 to Dec 31, 1971 (45 yrs old)</p>	<p>Mandatory for those born after Jan 1, 1967 (35 years old).</p> <p>Voluntary for all others</p>	<p>Mandatory for all workers in the formal sector, below age 65 for men and 60 for women.</p> <p>Voluntary for self-employed and free-lance workers</p>	<p>Mandatory for all workers who were 25 years old as of end of 1995.</p> <p>Voluntary for self-employed and free-lance workers</p>

<b>Retirement Age</b>	60 for female, 65 for male	60 for female, 65 for male	60 for female, 65 for male	60 for male and 55 for female	60 for female 65 for male	65, both for male and female
<b>Contribution Rate</b>	7.3% of monthly wage/salary	8% of gross salary plus up to 2% as additional contribution.	2% of gross salary but will rise to 6% by 2016	6% out of the 14% social tax is transferred to the pension of those born after 1-1-67. The remaining 8% goes to the basic and insured benefits administered by the Pension Fund of Russia.  Additional contribution up to amount fixed by law is allowed. The state matches the amount placed as additional contribution.	10% of gross taxable wage/salary  There is additional premium for insurance to cover disability.	10% of gross salary  There is additional premium for insurance to cover disability.

<p><b>Collection of Contribution</b></p>	<p>Centralized with the ZUS (Social Security Institution)</p>	<p>Directly to Pension Companies</p>	<p>Centralized with the National Pension and Social Insurance Authority through the Tax Collection System</p>	<p>Centralized with the Pension Fund of Russian Federation, which transfers, on an annual basis pension contributions to private pension entities</p>	<p>Employers collect and remit the pension contributions to the Pension Fund Administrator selected by plan contributor (member)</p>	<p>Employers collect and remit the pension contributions to the Pension Fund Administrator selected by plan contributor (member)</p>

				selected by participants.		
<b>Record Keeping</b>	Pension Company	Pension Company	Pension Company	Pension Company	Pension Company	Pension Company
<b>Benefits – Savings (Accumulation) Phase</b>	If member dies before retirement, 50% of the account balance is deposited to the pension account of the surviving spouse; the other 50% passes as inheritance  Account balance cannot be less than the	If participant dies before retirement, account balance is paid to legal heirs (inheritance)	If participant dies before retirement, account balance is paid to legal heirs (inheritance)  Insured benefits may be offered by the pension fund company  Account balance cannot be less	If participant dies before retirement, account balance is paid to legal heirs (inheritance)	If participant dies before retirement, account balance is paid to legal heirs (inheritance)	If participant dies before retirement, account balance transferred to the retirement account of his/her qualifying dependent

<p><b>Guarantees</b></p>	<p>accumulated contributions</p>	<p>No guarantees</p>	<p>than the accumulated contributions</p>	<p>No guarantees. Account balance is solely dependent on investment performance of the pension assets</p>	<p>State guarantees minimum pension for those who have contributed for at least 20 years  State also guarantees pension if Pension Administrator becomes insolvent</p>	<p>No guarantees</p>
<p><b>Pension Provider (PP)</b></p>	<p>Private (Open) Pension Funds (OFE), managed by  Pension Fund Management Companies (PTE)</p>	<p>Private Pension Funds (PPF)</p>	<p>Private Pension Funds</p>	<p>Non-state (Private) pension funds, (NSPF) which must be a not-for-profit entity. Participants may also opt to have their mandatory</p>	<p>Private Pension Fund Administrators  dedicated solely to administer pension funds</p>	<p>Pension Fund Administrators</p>

				pensions with the Pension Fund of the Russian Federation.		
<p><b>Prudential Regulations</b></p> <ul style="list-style-type: none"> <li>• <b>Capital – paid in</b></li> <li>• <b>Reserves</b></li> </ul>	<p>Regulated</p> <p>100% funded</p>	<p>Regulated</p> <ul style="list-style-type: none"> <li>• <b>the funding reserve is 95.51% (it must be at least 95.5%)</b></li> <li>• <b>the operational reserve is 4.44%</b></li> <li>• <b>the liquidity reserve is 0.05%</b></li> </ul>	<p>Euro 4 M</p> <p>100% funded</p>	<p>100% funded</p>	<p>Regulated</p> <p>100% Funded</p>	<p>Regulated</p>

• <b>Solvency regime</b>	None	Required Annual	None	Asset back-up not less than RUR 50 M (Euro 1.1M)	NA	NA
• <b>Independent Audit</b>	Required, annual		Required, annual	Required, annual	Required annual	Required annual
• <b>Actuarial</b>	Determination of all guaranteed liabilities	Hungarian Financial Services Authority	Determination of all guaranteed liabilities		Determination of all guaranteed liabilities	Determination of all guaranteed liabilities
• <b>Regulator</b>	KNP		CSSSPP	Federal Financial Market	Superintendent of Pensions of Pension Fund Administrator	Superintendent of Retirement, Pensions, Securities and Insurance

				Service		
<b>Investment of Pension Funds</b>	Regulated as to asset types and diversification	Regulated as to asset types and diversification	Regulated as to asset types and diversification  Independent asset custodian	Regulated as to asset types and diversification  Independent asset custodian  Asset Management Companies invest pension assets	Regulated as to asset types but not regulated as to diversification	Regulated as to asset types but not regulated as to diversification  During the first 5 years, pension assets were required to be invested in Government Securities
<b>Portability</b>	Yes, with certain fees	Yes, after at least 6 months with a	Yes, with certain fees	Yes, with certain	Yes, at time	Yes , after 3 years with the Administrator of

		particular PPF		restrictions		Pension Fund
<b>Tax Regime</b>	Exempt, Exempt, Taxed (EET)	TEE (contributions in excess of regulatory minimum is taxed)	EET	EEE, with certain conditions	EET	EET
<b>Guarantee Fund</b>	<ul style="list-style-type: none"> <li>.1% of NAV (basic) plus</li> <li>.4% of NAV (additional)</li> </ul> Separate legal entity	.4% of quarterly contributions GF should at least be .1% but not more than 1.5% of the total combined assets of PFs.  Separate legal entity	.3% per year of AUM  Separate legal entity	Proposed- but legislation is not yet in place	Government takes responsibility to pay for pension liabilities in case of insolvency of Pension Fund Administrator	Guarantee Fund being considered

<p><b>Revenue of PPs and Fees to Other Service Providers</b></p>	<p>Fees based AUM-scaled from .045% to .015% depending on the size of the AUM</p> <p>Contribution – 3.5%</p>	<p>Fees based on AUM are scaled down, from .8% in 2008 to .4% by 2014.</p> <p>No fee to participate in the Pension Fund</p>	<p>Administration fees – not to exceed 2.5% of monthly contribution</p> <p>Asset Management Fees- not more than .05% of AUM per month</p>	<p>Asset Management Fee (AMF) not more than 10% of investment income. No AMF is paid if NAV decreased compared to prior NAV.</p> <p>NSPF –not more than 15% of investment income less AMF.</p> <p>Custodian of pension assets – not more than .1% of average NAV for a given year</p>	<p>No limits on fees provided that all fees are uniform for all participants in a particular Pension Fund</p>	<p>Not to exceed .233% of AUM</p>

<p><b>Expenses of PPs</b></p>	<p>Regulated:</p> <ul style="list-style-type: none"> <li>• Supervision- .1% of contribution</li> <li>• Ombudsman - .007% of contributions</li> <li>• Guarantee Fund: .1% of NAV (basic) plus .4% of NAV (additional)</li> <li>• ZUS for collection cost – not more than .8% of contributions</li> </ul> <p>Not Regulated:</p> <ul style="list-style-type: none"> <li>• <b>Acquisition costs, including costs of marketing</b></li> <li>• <b>General management costs including salaries</b></li> <li>• Minimum required rate of return and elimination of</li> </ul>	<p>Supervision fee paid to the regulator:</p> <p>Fixed – HUF 2 M (Euro 7,500)</p> <p>Variable: .025% of market value AUM</p>				<p>Commission to Pension Administrator should not exceed 1% of contributor's salary</p>
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	deficits					
<b>Guaranteed Rate of Return</b>	<p>The greater of:</p> <ul style="list-style-type: none"> <li>• 50% of the weighted average rate of return of all OFEs, or</li> <li>• Weighted average rate of return minus 4%</li> </ul>		<p>The greater of:</p> <ul style="list-style-type: none"> <li>• 50% of the weighted average rate of return of all OFEs, or</li> <li>• Weighted average rate of return minus 4%</li> </ul>	No guaranteed minimum rate of return.		
<b>Distribution</b>	Agents and brokers		<p>Tied agency forces</p> <p>Multi-level agency forces operated by brokers</p> <p>Bank branches</p> <p>Union organizations</p>	Banks, brokers, agent network, corporate sales, etc.	Agents and brokers working for the Pension Fund Administrator	Agents and brokers working for the Pension Fund Administrator
<b>Pension Payout Options</b>	<p>Fixed period annuity</p> <p>Life Annuity</p>	Lump sum option for those participants of less	Annuity payments is intended in the proposed	Life Annuity mechanics still to defined by	<p>Life Annuity</p> <p>Or Scheduled payments</p>	Annuity for life or period certain

		than 15 years Fixed Annuity for all others	legislation	legislation.	from the Pension Fund Administrator Early retirement is allowed if accumulated balance is more than 50% of the member's total salary for the last 10 years and that pension payment is more than 110% of minimum pension.	Early retirement is possible if the account balance (pension savings) is sufficient to pay monthly annuity of at least 70% of the member's salary
<b>Entire Person System</b>	Pillar 1 Pillar 2 Pillar 3	Pillar 1 (old age) Pillar 2 Pillar 3	Pillar 1 (old age) Pillar 2 Pillar 3	Pillar 1 (old age) Pillar 2 Pillar 3	Pillar 1 (old age) Pillar 2 Pillar 3	Pillar 2 Pillar 3

# ANNEX 4

## List of Individuals Interviewed during the course of the SOW

Name	Company	Position or Title	Subject of Interview
Mr. Mikheil Machavariani	Parliament of Georgia	First Deputy Chairman of Parliament	Pension
Mr. George Tagamadze	Parliament of Georgia	Leader Parliamentary Minority	Pension
Ms. Magda Anikashvili	Parliament of Georgia	Deputy Chairperson, Committee on Health and Social Affairs	Pension
Mr. Papuna Petriashvili	MOF	First Deputy Minister	Pension
Mr. Lasha Jugeli	NBG	Member of the Board	Pension
Ms. Manana Tsitsishvili	NBG	Head-Non-Bank Supervision	Pension & Insurance
Mr. Konstantine Kobakhidze	MoA	Head of Agricultural Development Dept.	Agro Insurance
Mr. Vakhtang Gogaladze	MoA	Deputy Head of the Agricultural Development Dept.	Agro Insurance
Mr. Vakhtang Butskhirkize	TBC Bank	CEO	Pension & Insurance
Mr. Irakli Mekvabishvili	EBRD	Senior Banker	Agro Insurance
Dr. Vato Surguladze	Referral Hospital	General Director	Pension
Dr. Devi Khechinashvili	GIA	Chairman of the Board	Agro Insurance & Pension
Mr. Irakli Kilasonia	GIA	Head, Organizational Development and Project Support	Agro Insurance & Pension
Mr. Alexander Lordkipanidze	Imedi L International	General Director	Agro Insurance & Pension
Mr. Lasha Nikoladze	Imedi L International	Deputy Gen. Director	Agro Insurance & Pension
Mr. Giorgi Baratashvili	Aldagi BCI	Deputy Gen. Director	Agro Insurance & Pension
Mr. Giorgi Tatishvili	Aldagi BCI	Head, Pension Fund Div	Agro Insurance & Pension
Ms. Nina Kiziria	IC Group Insurance	Director, Underwriting & Reinsurance	Agro Insurance
Mr. Giorgi Kvirikadze	GPIH Insurance	General Director	Agro Insurance & Pension
Mr. Vasil Gomurashvili	ARDI Group Insurance	Executive Director	Agro Insurance & Pension
Mr. Karthos Koranashvili	ARDI Group Insurance	Head, Legal and Administration	Agro Insurance & Pension
Mr. Paata Lomadze	IRAO Insurance Group	General Director	Agro Insurance & Pension

Mr. Andro Kukhunashvili	Partner Insurance	Director, Sales and Marketing	Agro Insurance & Pension
Mr. Eduard Tskhovrebadze	Alpha Insurance	CEO	Agro Insurance & Pension
Mr. Nika Kitiashashvili	Chartis Insurance	General Manager	Agro Insurance & Pension
Mr. George Glonti	KBS Bank	CEO	Pension
Ms. Tato Makharadze	JSC Iberia-Pepsi	CEO	Pension
Mr. Vasil Revishvili	Bank of Georgia, Global Wealth Management	Member, Management Board	Pension
Mr. Paata Georgashvili	Tao Insurance	General Director	Agro Insurance & Pension
Mr. Faud Kuliyeu	Acting Director	Standard Insurance	Agro Insurance & Pension
<b>USAID/EPI</b>			
Mr. Stephen Wade	EPI	COP	Value Chains, Insurance and Pensions
Ms. Irina Salukvadze	EPI	DCOP	Value Chains, Insurance & Pension
Mr. Dennis Zeedyk	EPI	ASC Component Lead	Agriculture & Insurance
Mr. Allan Saffery	EPI	NCS Component Lead	Insurance
Mr. Chris Thompson	EPI	BEE Component Lead	Insurance & Pension
Mr. Natalia Beruashvili	EPI	BEE Deputy Component Lead	Insurance & Pension
Mr. Levan Jioshvili	EPI	NAS Component Lead	Insurance & Pensions

# ANNEX 5: LIST OF DOCUMENTS READ DURING THE COURSE OF THE SOW

1. EPI Assessment Report
2. UNDP Microfinance Survey
3. Financing Georgian Industry, GEPLAC, 2008
4. Georgian Economic Review, GEPLAC, 2009
5. Agricultural Credit and Insurance Study, Elcana 2010
6. The 2009 Annual Report of the National Bank of Georgia
7. Agricultural Insurance Fact Sheet – Germany
8. (EU) Agricultural Insurance Schemes, by Maria Bielza, Costanza Conte, Christoph Dittmann, Javier Gallego, Josef Stroblmair, Final Report, December, 2006, Modified February 2008
9. Agricultural Insurance in India: Problems and Prospects, by SS Raju and Ramesh Chand, March 2008
10. Agricultural and Crop Insurance, by Ramiro Iturrioz, Primer series on Insurance Issue 12, November 2009
11. US Agricultural Insurance, information from Google
12. Law of Georgia on Insurance
13. The Law of Georgia on Non-State Pension Assurance and Provision
14. Government of Georgia, Primer on Personal Income Tax (PIP)
15. Government of Georgia, Primer on Corporate Income Tax
16. Private Pension Systems in Central and Eastern Europe, Milliman Research, January 2010
17. Pension Fund Performance by Pablo Antolin, OECD Working Paper on Insurance and Pensions No.20
18. Pension Classification and Glossary, OECD
19. Fees in Individual Account Pension Systems: A Cross Country Comparison, by Waldo Tapia and Juan Yermo, OECD Working Paper on Insurance and Pensions No. 27
20. Pension Market in Focus, OECD, December 2008, Issue 5
21. Pension Reform in Russia: A Challenge of Low Age Pension, by Oxana Sinyavskaya
22. Pension System in Lithuania (a Primer)
23. Pension Legislation and Gender Equity in Latin America, by Laura C Pautassi, UN ECLAC, October 2004
24. The Restructuring of the Chilean Pension System, By Irina Becker
25. An Analysis of Chile's Pension Scheme in Post-Pinochet Society, Sarah Hagberg, INTS 4763 Paper #4
26. The Private Chilean Pension System- a Model Worthy Of Imitation? by *Paloma González Bosque*
27. Information Concerning the Pension System in Poland, By Marcin Zieleniecki, NSZZ Solidarnosc
28. The Kosovo Pension Reform Achievements and Lessons, By: John Gubbels, David Snelbecker and Lena Zezulin, WB Social Protection Discussion Paper, No. 0707, April 2007.



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