

Report on Valuation of Fair Value of Government Bonds

Client: Deposit Insurance Agency LEPL

Report Date: 2 July, 2021

Valuation Date: 1 June, 2021



Table of Contents

Introduction and Executive Summary	4
The Scope of the Valuation	4
The Valuator	4
Valuation Experts	4
The Client	5
Standards and framework of the Valuation	5
Purpose of the valuation	5
Assets to be valued	5
Basis of value	5
Valuation Date	6
Date of the Valuation report	6
The Currency of Valuation report	6
Assumptions	6
Valuation limitations	6
Nature and source of the information	6
Forms of report	7
General Valuation Methodology	8
Valuation Approaches	8
Income Approach	8
Deposit Insurance Agency LEPL Review	10
Agency overview	10
Technical Assignment overview	10
Government Bond Valuation	11
Government bond to be valued	11
Determine yield to Maturity - Methodology 1	12
Determine Yield to Maturity- Methodology 2	12
Georgia Government Bond Market Value	14

Government Bond Average Maturity.....	23
Government Bond Average Yiled to Maturity	23
Conclusion.....	24
Appendix #1-Government Bond Valuation	25

Otar Dzidzikashvili
Head of Agency
LEPL Deposit Insurance Agency
Georgia, Tbilisi
Sanapiro Street, N2

2 July, 2021

Dear Mr. Otar,

In accordance with your instructions, set out in the contract №13, dated 3 June 2021, signed between Deposit Insurance Agency LEPL and Grant Thornton LLC in accordance with tender announcement NAT210007914, we have pleasure in enclosing a copy of our report on estimation of the market value of the government bonds in portfolio of Deposit Insurance Agency LEPL, average annual maturity and average yield to maturity.

This report is confidential and has been prepared exclusively for Deposit Insurance Agency LEPL. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Deposit Insurance Agency LEPL for our work, our report and other communications or for any opinions we have formed.

We do not accept any responsibility for any loss or damages arising out of the use of the report by the addressee(s) for any purpose other than for estimation of the market value of government bonds, average annual maturity and average yield to maturity as of the valuation date determined in this report.

Yours Faithfully,
Vakhtang Tsabadze,
Managing partner,
Grant Thornton LLC



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Introduction and Executive Summary

The Scope of the Valuation

Grant Thornton LLC has been engaged by Deposit Insurance Agency LEPL to carry out independent valuation of government bonds, based on contract № 13, according to International Valuation Standards (IVS2020).

The Valuator

Grant Thornton LLC (“the Valuator”) operates as an independent valuator and the analysis and the views, expressed in this Report are independent, objective and unbiased.

The amount payable to the Valuator has no impact on the results and conclusions of the valuation and there are no any other threats that may negatively influence independence and objectivity of the Valuator.

The Valuator is in a position to provide an objective and unbiased valuation and is competent to undertake the valuation.

Valuation Experts

The presented valuation report was prepared by following valuation experts from Grant Thornton LLC:

Giorgi Usanetashvili	Director of Grant Thornton LLC Advisory department. Giorgi holds a Master's degree in International Financial Analysis from the University of Glasgow, UK and is a registered student of ACCA certification program. Giorgi is a certified business appraiser, Relevant Certificate Number: # B-0071 .
Irakli Pipia	Senior Consultant at Grant Thornton LLC Advisory department. Irakli holds a Master's degree from Purdue University (USA). He is a student of ACCA and CFA certification programs and has relevant experience in applying IFRS and IVS standards in the process of providing consulting and valuation services. Irakli is a certified business, real estate and tangible personal property appraiser. Relevant Certificate Numbers: # B-0070, A-0719, P-0405 .
Rati Phutkaradze	Senior Consultant at Grant Thornton LLC Advisory Department.

Rati holds a Master's degree in Marketing, Business Administration and Finance from the University of Texas A&M (Armenian Branch) and a bachelor's degree in Business Administration and Audit from Batumi Shota Rustaveli State University.

Rati is a certified business, real estate and tangible personal property appraiser. Relevant Certificate Numbers: # **B-0069, A-0718, P-0406.**

**Tengiz
Khrustali**

Consultant of Grant Thornton Advisory department.

Tengiz holds a Master's degree in Investment and Financial Management from the University of East Anglia, Norwich Business School (UK). He holds a Bachelor's Degree in Business Administration from Oxford Brooke's University (UK) International Business School (Budapest) and Grigol Robakidze University.

Tengiz is a certified appraiser of Tangible personal property. Relevant Certificate Number: # **P-0410.**

Other consultants from Grant Thornton advisory department also assisted the aforementioned experts in the working process. However, the final decisions on the results of the analysis, judgments used and opinions formed, were made by these experts based on their own professional knowledge, experience and judgment.

The Client

Deposit Insurance Agency LEPL (the client) is registered according to the Georgian legislation with identification number 205345722. The legal address of the agency is Georgia, Tbilisi, Old Tbilisi District, Sanapiro street N2.

Standards and framework of the Valuation

The Valuator have been requested to perform independent valuation in accordance with the provisions of International Valuation Standards (IVS). Accordingly, the Valuation was carried in accordance with the Framework and Requirements of International Valuation Standards (IVS2020).

Purpose of the valuation

The purpose of the valuation is to assess the fair value, average annual yeald and average maturity of government bonds, as of 1 June, 2021.

Assets to be valued

Assets to be valued comprise of government bonds listed in the register provided by Deposit Insurance Agency LEPL.

Basis of value

Basis of value for this valuation is the Market Value. In accordance with International Valuation Standards, market value is the estimated amount at which an asset or liability can be exchanged at the valuation date,

between the buyer and seller of the transaction, after appropriate marketing arrangements and in an open-ended transaction, prudently and without force.

Valuation Date

The valuation date is 1 June 2021.

Date of the Valuation report

The valuation report is issued as of 2 July, 2021.

The Currency of Valuation report

The currency of Valuation report is GEL.

Assumptions

Valuation cannot be regarded as an exact science and in most cases, conclusions are subjective and depend on an individual approach. While having the same data base and sources of information, specialists' opinions may differ, depending on differences in expectations, estimates and professional judgement.

This report is issued on the understanding that the Client has drawn our attention to all matters, financial or otherwise, of which they are aware which may have an impact on the report up to the date of signature of this report.

Valuation limitations

The process of any valuation has limitations, which is also true for current valuation engagement and must be taken into account in order to properly understand the valuation report, including the following issues:

1. The valuation process may use various forecasts and expectations based on the appraiser's professional views on current market conditions and possible developments and may not be fully materialised or developed in the future as expected initially;
2. Appraiser does not conduct a special legal examination of the documents obtained during the appraisal process determining the legal status of the assets and considers them to be correct and flawless;
3. The valuation implies, that there were no hidden factors, that could affect the outcome of the assessment;

Nature and source of the information

The information contained in this report is based primarily on:

- Information provided by the Client;
- Publicly available sources.

We do not accept responsibility for information which remains the responsibility of the Client. We have made an effort, as far as possible, that the information presented in our report is consistent with other information,

which was made available to us in the course of our work in accordance with the terms of the Contract. However, we did not attempt to establish the reliability of the sources through other evidence. Where our report makes reference to 'Grant Thornton Analysis', this indicates only that we have (where specified) undertaken certain analytical activities on the underlying data to arrive at the information presented; we do not accept responsibility for the underlying data.

Forms of report

For your convenience, this report may have been made available to you in electronic as well as hard copy format. Multiple copies and versions of this report may therefore exist in different media and in the case of any discrepancy the final signed hard copy should be regarded as definitive.

General Valuation Methodology

Valuation Approaches

According to IVS, valuation techniques applied to the appraisal of any asset may broadly be classified into three main approaches namely:

Market approach (direct comparison) – provides an indication of value by comparing the asset with identical or comparable (that is similar) assets for which price information is available. Due to the fact, that publicly bond trading on the Georgian market is carried out only in the case of government bond, information on other trading is not available and market-based valuation is not appropriate for the valuation purpose of the appraiser.

Cost approach (replacement cost) – provides an indication of value using the economic principle that a buyer will pay no more for an asset than the cost to obtain an asset of equal utility, whether by purchase or by construction, unless undue time, inconvenience, risk or other factors are involved. Determining the value of government bonds by the cost approach does not meet the objectives of determining the market value and the appraiser does not use this approach.

Income approach – provides an indication of value by converting future cash flow to a single current value. Under the income approach, the value of an asset is determined by reference to the value of income, cash flow or cost savings generated by the asset. To determine the market value of government bonds, the appraiser used the income approach.

Income Approach

The income approach generally ascribes a value to a business interest, shareholding or intangible asset by using one or more of the methods that convert anticipated benefits into a present single amount.

In the income approach, an economic benefit stream of the asset or business interest under analysis is selected, usually based on forecasted profits or cash flow. Cash flow is then discounted to present value with an appropriate risk-adjusted discount rate.

Discount rate factors often include general market rates of return at the valuation date, business risks associated with the industry in which the entity operates and other risks specific to the asset being valued.

The income approach is particularly appropriate, when valuing companies forecasting above market growth in profits, either due to planned business expansion or a profit turnaround plan. To determine the most effective use of an asset, the biggest income-generating application of an asset is chosen.

The most common methodologies within income approach are the income capitalization method and discounted cash flow method.

The most commonly used method of income approach is discounted cash flow (DCF) method. DCF valuation is based on the Valuator's assessment of two fundamentals:

- expected future cash flows to be generated by the asset being valued (whether that is an entire business, an individual asset, a project, shares, etc.);



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- and the appropriate discount rate, that allows for risk and uncertainty (the probability that the future cash flows will not turn out exactly as expected) and the time value of money.

Deposit Insurance Agency LEPL Review

Agency overview

Deposit Insurance Agency LEPL was established on July 24, 2017 in accordance with the Law of Georgia on Deposit Insurance System, which entered into force on May 17, 2017. Deposit Insurance Agency is an independent legal entity under public law, whose main function is to insure the deposits of resident and non-resident individuals in all commercial banks operating in Georgia. Deposit insurance system, in accordance with prudential regulation, liquidity support and effective supervision, represents an important component of the financial stability and safety and protects depositors from losing their deposits.

In accordance with the Law of Georgia on “Deposit Insurance System”, all commercial banks, operating in Georgia, are members of the Deposit Insurance System.

The main source of cash income of the Deposit Insurance Agency is the initial and regular insurance premiums, paid by commercial banks. These sources are invested in two-year and five-year government bonds, issued by the Ministry of Finance of Georgia, in accordance with the investment policy, defined by law, except for the resources required for the operational activities of the Agency.

The source of income is also the coupon payments, which is reinvested in the same government bonds. The Agency holds the bonds until the maturity date and, the par value received at maturity date, is also additionally reinvested in government bonds, in accordance with the same investment policy.

Technical Assignment overview

According to the agreement, between the Deposit Insurance Agency LEPL and Grant Thornton LLC, the technical assignment is to determine the market value of the government bonds in the portfolio as of June 1, 2021, calculate their average maturity (holding period) and average yield to maturity.

The purpose of the technical assignment is to provide information to the Supervisory Board of the Deposit Insurance Agency LEPL regarding the market value of the bonds portfolio as of June 1, 2021.

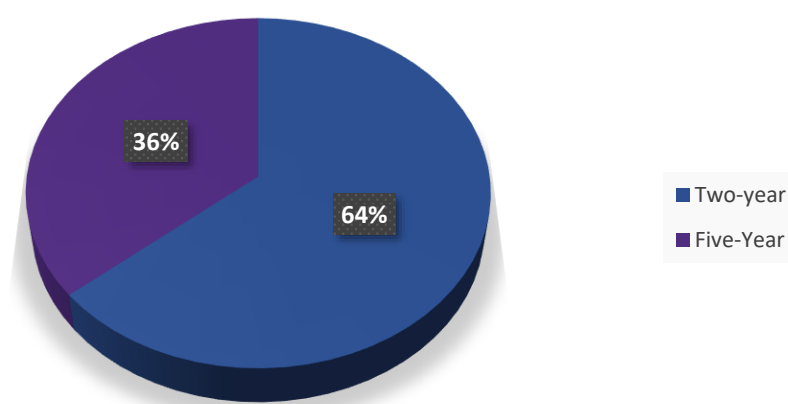
Government Bond Valuation

Government bond to be valued

The government bonds, in the portfolio of the Deposit Insurance Agency LEPL, are two-year and five-year government bonds issued by the Ministry of Finance of Georgia.

As of the valuation date, June 1, 2021, the number of the bonds in the portfolio of the Deposit Insurance Agency LEPL are 43 units, with a total par value of GEL 71,230,000.

Government Bond share distribution, Par value



Each government bond contains the following components:

Maturity - The period between the issue and maturity dates of the bonds;

Par value – Amount of money to be received at the maturity date of the government bonds;

Coupon payment - Annual interest rate paid on a bond, expressed as a percentage of the face value and paid from issue date until maturity.

Coupon rate - The coupon rate, recorded on every primary auction of the government bonds, which is used to calculate the income to be received in the form of a coupon;

Purchase price - Amount paid in bonds at the time of purchase; Equal to, more or less, than face (Par) value;

Yield to maturity – Expected rate of return;

In order, to determine the market value of Georgian government bonds, the appraiser used the income approach, in particular DCF method, to determine the present value of the future cash flows to be received from holding the bonds - coupon payments and par value at the maturity date, has been discounted with the relevant discount rate.

Determine yield to Maturity - Methodology 1

To assess the market value of government bonds, owned by the Deposit Insurance Agency, the appraiser determined the interest rate, at which the future cash flows to be received from the valuation date to the maturity date will be discounted and market value of each bond will be determined.

To determine the interest rate, according to the first methodology, the appraiser used the GEL yield curve, developed by the National Bank of Georgia, which reflects the one-week, two-week, one-month, two-month, three-month, six-month, one-year, two-year, five-year, ten-year yield to maturities.

To develop GEL Yield curve, the National Bank of Georgia uses the data on the results of the primary sale of government bonds. The bonds include as government treasury bonds issued by the Ministry of Finance of Georgia, as well as certificates of deposit issued by the National Bank of Georgia itself. The latest results of the sale auction, take part in the creation of the GEL yield curve, assuming that no more than one hundred and twenty days have passed since the auction. The GEL yield curve is updated on wednesday of each month.

To develop Gel yield curve, the National Bank of Georgia uses Nelson-Siegel parametric model, which is one common method to calculate yield to maturity by different central banks in different countries. Nelson-Siegel parametric model is based on the following equation:

$$Y(m) = \beta_0 + \beta_1 * (1 - \text{EXP}(-m/\lambda)) / (m/r) + \beta_2 * ((1 - \text{EXP}(-m/\lambda)) / (m/\lambda)) - \text{exp}^*(-m/\lambda)$$

Exp –Exponential function;

β_0 –Long-Term (more than one year) yield;

β_1 –Gel yield curve slope;

β_2 –Gel yield curve convexity;

λ –Convexity level and β_1 , β_2 weights based on historic results;

This method is used at the end of each sale auction and according to all maturity groups participating in the auction (six categories in total) and determine average yield to maturity. The β_0 , β_1 , β_2 parameters are then calculated by the least squares method, so that they correspond to the curve.

From the GEL yield curve, created through this methodology, which is public information and available on the official website of the National Bank of Georgia (source: <https://www.nbg.gov.ge/index.php?m=643>), the appraiser determined as of June 1, 2021, Interest rates on government bonds, with two-year and five-year periods, set at 9.05% for the first sub-group and 8.9% for the second sub-group.

Average Yield to Maturity, according to GEL Yield Curve:

GEL Yield Curve	
Maturity (Year)	Average Yield to Maturity
2Y	9.05%
5Y	8.92%

Determine Yield to Maturity- Methodology 2

For more accuracy, the appraiser also used a second methodology to calculate the interest rate, which is widely used in financial guidelines, is publicly available in different appraisal reports and is considered a publicly agreed methodology for determining the interest rate on a debt obligation (Cost of Debt). According to this methodology, determining interest rate involves calculating risk default spread by

comparative analysis of government bonds and, through various adjustments, correcting interest rate to be appropriate for valuation purpose.

Government Bonds Comparative Analysis:

AAA Rating Government Bonds			
Country	Rating	5 Y Yield to Maturity	2 Y Yield to Maturity
The United States of America	AA+	0.80%	0.15%

According with credit default spread methodology, credit spread is the difference in yield between a U.S. Treasury bond and another debt security of the same maturity, but different credit quality.

Calculating Risk Default Spread:

Calculating Risk Default Spread		
Country	Moody's Rating	Credit Spread
Georgia	Ba2	2.65%
The United States of America	AAA	0.00%

The appraiser defined methodology steps as follows: According to the publicly available data, the appraiser determined interest rate for two-year and five-year U.S Treasury bonds, which is considered as base and risk-free rate, as AAA rating bond. The appraiser also used another publicly available data, based on international credit agency Moody's rating and defines difference between AAA rating Treasury bond's interest rates and a low rating (BB, CC) government bonds' yields. Difference between U.S Treasury bonds and Georgia government bonds yields defined as 2.65%, according to the latest data (as for 2021.01.01), which is then added two-year and five-year U.S Treasury bonds interest rate, as base benchmark, determined for government bond yield to maturity and on the basis of which the nominal interest rate is determined. Nominal interest rate is adjusted by appraiser by inflation target rates for 2023Y and 2025Y, both for Georgia and U.S.

Inflation Target Rates:

Inflation Target Rates according to IMF			
	Year:	2023	2025
Inflation Target Rate, Georgia		3.0%	3.0%
Inflation Target Rate, U.S		2.5%	2.4%

Average Yield to Maturity= (2Y or 5Y U.S Treasury Bond Yield +risk default spread+1) * (1+Inflation Target Rate, Georgia 2023Y or 2025Y) / (1+Inflation Target Rate, U.S 2023Y or 2025Y)-1

According to the above equation, average Yield to Maturity is determined as following:

Yield to Maturity determined by Government Bond Comparative Analysis		
Maturity	Nominal Yield to Maturity	Yield to Maturity adjusted with Inflation target rates
2Y	2.80%	3.31%
5Y	3.45%	4.06%

Accordingly, with this methodology, the appraiser determined two different Yield to Maturity, one for two-year Georgian government bonds and the other for five-year government bonds.

In order, for the yield to maturity, calculated by the appraiser, to be in consistency with real market conditions, both of the above methodologies were used to determine the final Yield to maturity. 0.6 weight

is given for the rate, calculated by the National Bank of Georgia and 0.4 weight for rate, calculated by government bond comparative analysis.

Calculating Average Yield to Maturity

Average Yield to Maturity		
	Maturity	
	2Y	5Y
Gel Yield Curve Methodology	9.05%	8.92%
Weight	0.6	0.6
Government Bond Comparative Analysis Methodology	3.31%	4.06%
Weight	0.4	0.4
Average Yield To Maturity	6.75%	6.98%

Georgia Government Bond Market Value

To determine Georgia Government Bond market value, the appraiser calculated Yield to maturity for two-year and five-year maturity government bonds.

The following financial equation is used to determine purchased government bond present value:

$$PV = \frac{PMT}{(1+R)^1} + \frac{PMT}{(1+R)^2} + \dots + \frac{PMT}{(1+R)^N} + \frac{FV}{(1+R)^N}$$

In where,

PV – Present value;

FV – Par value to be received at maturity date (face value);

PMT – Coupon payments according with periods;

R – Discount rate;

N – Period;

To determine purchased government bond market value, the appraiser used PV function in Excel working file with the following parameters:

Rate (discount rate) - Yield to Maturity for two-year and five-year government bonds divided by days amount in a year (365);

Nper (The number of days remaining between the appraisal date and the maturity date)- Number of days remaining between appraisal date 01.06.2021 and maturity date;

PMT (Coupon payment) - Par value of the purchased security multiplied by the coupon rate and divided by the number of days per year (365);

FV (par value to be received) - The Par value of the bonds purchased, which will be received by the Deposit Insurance Agency LEPL for the maturity date.

Due to the fact, that the time period between the appraisal date and the maturity date of each bond did not exactly match the full year (2 or 5 year), the appraiser determined the remaining bond term by days to obtain the most consistent results for the valuation purpose.

According to the explained equation above, the determination of the market value for each bond is described in the tables below:

Bond #1

Government Bond Overview	
ISIN	GETC22831381
Issue Date	30.08.2017
Maturity Date	31.08.2022
Maturity, Year	5
Coupon Rate	8 %
Par Value	1,450,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	456
Coupon Payment (PMT)	116,000
Discount Rate (R)	6.98%
Par Value (FV)	1,450,000
Market Value (PV)	1,467,738

Bond #2

Government Bond Overview	
ISIN	GETC23125056
Issue Date	24.01.2018
Maturity Date	25.01.2023
Maturity, Year	5
Coupon Rate	8.125%
Par Value	20,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	603
Coupon Payment (PMT)	1,625
Discount Rate (R)	6.98%
Par Value (FV)	20,000
Market Value (PV)	20,358

Bond #3

Government Bond Overview	
ISIN	GETC23125056
Issue Date	24.01.2018
Maturity Date	25.01.2023
Maturity, Year	5
Coupon Rate	8.125%
Par Value	1,160,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	603
Coupon Payment (PMT)	94,250
Discount Rate (R)	6.98%
Par Value (FV)	1,160,000
Market Value (PV)	1,180,770

Bond #4

Government Bond Overview	
ISIN	GETC23125056
Issue Date	24.01.2018
Maturity Date	25.01.2023
Maturity, Year	5
Coupon Rate	8.125%
Par Value	1,130,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	603
Coupon Payment (PMT)	91,813
Discount Rate (R)	6.98%
Par Value (FV)	1,130,000
Market Value (PV)	1,150,232

Bond #5

Government Bond Overview	
ISIN	GETC23125056
Issue Date	24.01.2018
Maturity Date	25.01.2023
Maturity, Year	5
Coupon Rate	8.125%
Par Value	1,190,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	603
Coupon Payment (PMT)	96,688
Discount Rate (R)	6.98%
Par Value (FV)	1,190,000
Market Value (PV)	1,211,307

Bond #6

Government Bond Overview	
ISIN	GETC23125056
Issue Date	24.01.2018
Maturity Date	25.01.2023
Maturity, Year	5
Coupon Rate	8.125%
Par Value	2,245,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	603
Coupon Payment (PMT)	182,406
Discount Rate (R)	6.98%
Par Value (FV)	2,245,000
Market Value (PV)	2,285,196

Bond #7

Government Bond Overview	
ISIN	GETC23125056
Issue Date	24.01.2018
Maturity Date	25.01.2023
Maturity, Year	5
Coupon Rate	8.125%
Par Value	20,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	603
Coupon Payment (PMT)	1,625
Discount Rate (R)	6.98%
Par Value (FV)	20,000
Market Value (PV)	20,358

Bond #8

Government Bond Overview	
ISIN	GETC23927394
Issue Date	26.02.2019
Maturity Date	27.09.2023
Maturity, Year	5
Coupon Rate	7.375%
Par Value	1,239,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	848
Coupon Payment (PMT)	91,376
Discount Rate (R)	6.98%
Par Value (FV)	1,239,000
Market Value (PV)	1,249,564

Bond #9

Government Bond Overview	
ISIN	GETC24530221
Issue Date	28.05.2019
Maturity Date	30.05.2024
Maturity, Year	5
Coupon Rate	7.00%
Par Value	1,320,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1094
Coupon Payment (PMT)	92,400
Discount Rate (R)	6.98%
Par Value (FV)	1,320,000
Market Value (PV)	1,320,805

Bond #10

Government Bond Overview	
ISIN	GETC24530221
Issue Date	28.05.2019
Maturity Date	30.05.2024
Maturity, Year	5
Coupon Rate	7.00%
Par Value	845,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1094
Coupon Payment (PMT)	59,150
Discount Rate (R)	6.98%
Par Value (FV)	845,000
Market Value (PV)	845,515

Bond #11

Government Bond Overview	
ISIN	GETC24530221
Issue Date	28.05.2019
Maturity Date	30.05.2024
Maturity, Year	5
Coupon Rate	7.00%
Par Value	1,455,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1094
Coupon Payment (PMT)	101,850
Discount Rate (R)	6.98%
Par Value (FV)	1,455,000
Market Value (PV)	1,455,888

Bond #12

Government Bond Overview	
ISIN	GETC21711295
Issue Date	09.07.2019
Maturity Date	11.07.2021
Maturity, Year	2
Coupon Rate	6.750%
Par Value	2,045,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	40
Coupon Payment (PMT)	138,038
Discount Rate (R)	6.75%
Par Value (FV)	2,045,000
Market Value (PV)	2,044,995

Bond #13

Government Bond Overview	
ISIN	GETC21711295
Issue Date	09.07.2019
Maturity Date	11.07.2021
Maturity, Year	2
Coupon Rate	6.750%
Par Value	1,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	40
Coupon Payment (PMT)	67,500
Discount Rate (R)	6.75%
Par Value (FV)	1,000,000
Market Value (PV)	999,998

Bond #14

Government Bond Overview	
ISIN	GETC21711295
Issue Date	09.07.2019
Maturity Date	11.07.2021
Maturity, Year	2
Coupon Rate	6.750%
Par Value	1,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	40
Coupon Payment (PMT)	67,500
Discount Rate (R)	6.75%
Par Value (FV)	1,000,000
Market Value (PV)	999,998

Bond #15

Government Bond Overview	
ISIN	GETC21711295
Issue Date	09.07.2019
Maturity Date	11.07.2021
Maturity, Year	2
Coupon Rate	6.750%
Par Value	605,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	40
Coupon Payment (PMT)	40,838
Discount Rate (R)	6.75%
Par Value (FV)	605,000
Market Value (PV)	604,999

Bond #16

Government Bond Overview	
ISIN	GETC21711295
Issue Date	09.07.2019
Maturity Date	11.07.2021
Maturity, Year	2
Coupon Rate	6.750%
Par Value	1,020,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	40
Coupon Payment (PMT)	68,850
Discount Rate (R)	6.75%
Par Value (FV)	1,020,000
Market Value (PV)	1,019,998

Bond #17

Government Bond Overview	
ISIN	GETC25530055
Issue Date	28.01.2020
Maturity Date	30.05.2025
Maturity, Year	5.3
Coupon Rate	9.125%
Par Value	486,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1459
Coupon Payment (PMT)	44,348
Discount Rate (R)	6.98%
Par Value (FV)	486,000
Market Value (PV)	502,404

Bond #18

Government Bond Overview	
ISIN	GETC25530055
Issue Date	28.01.2020
Maturity Date	30.05.2025
Maturity, Year	5.3
Coupon Rate	9.125%
Par Value	1,500,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1459
Coupon Payment (PMT)	136,875
Discount Rate (R)	6.98%
Par Value (FV)	1,500,000
Market Value (PV)	1,612,358

Bond #19

Government Bond Overview	
ISIN	GETC25530055
Issue Date	28.01.2020
Maturity Date	30.05.2025
Maturity, Year	5.3
Coupon Rate	9.125%
Par Value	1,500,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1459
Coupon Payment (PMT)	136,875
Discount Rate (R)	6.98%
Par Value (FV)	1,500,000
Market Value (PV)	1,612,358

Bond #20

Government Bond Overview	
ISIN	GETC25530055
Issue Date	28.01.2020
Maturity Date	30.05.2025
Maturity, Year	5.3
Coupon Rate	9.125%
Par Value	1,500,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1459
Coupon Payment (PMT)	136,875
Discount Rate (R)	6.98%
Par Value (FV)	1,500,000
Market Value (PV)	1,612,358

Bond #21

Government Bond Overview	
ISIN	GETC25530055
Issue Date	28.01.2020
Maturity Date	30.05.2025
Maturity, Year	5.3
Coupon Rate	9.125%
Par Value	1,500,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1459
Coupon Payment (PMT)	136,875
Discount Rate (R)	6.98%
Par Value (FV)	1,500,000
Market Value (PV)	1,612,358

Bond #22

Government Bond Overview	
ISIN	GETC22409022
Issue Date	06.01.2020
Maturity Date	09.04.2022
Maturity, Year	2.25
Coupon Rate	9.375%
Par Value	3,280,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	312
Coupon Payment (PMT)	307,500
Discount Rate (R)	6.75%
Par Value (FV)	3,280,000
Market Value (PV)	3,351,447

Bond #23

Government Bond Overview	
ISIN	GETC22409022
Issue Date	06.01.2020
Maturity Date	09.04.2022
Maturity, Year	2.25
Coupon Rate	9.375%
Par Value	1,550,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	312
Coupon Payment (PMT)	145,313
Discount Rate (R)	6.75%
Par Value (FV)	1,550,000
Market Value (PV)	1,583,763

Bond #24

Government Bond Overview	
ISIN	GETC22409022
Issue Date	06.01.2020
Maturity Date	09.04.2022
Maturity, Year	2.25
Coupon Rate	9.375%
Par Value	1,650,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	312
Coupon Payment (PMT)	154,688
Discount Rate (R)	6.75%
Par Value (FV)	1,650,000
Market Value (PV)	1,685,941

Bond #25

Government Bond Overview	
ISIN	GETC22409022
Issue Date	06.01.2020
Maturity Date	09.04.2022
Maturity, Year	2.25
Coupon Rate	9.375%
Par Value	1,510,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	312
Coupon Payment (PMT)	141,563
Discount Rate (R)	6.75%
Par Value (FV)	1,510,000
Market Value (PV)	1,542,892

Bond #26

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	2,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	165,000
Discount Rate (R)	6.75%
Par Value (FV)	2,000,000
Market Value (PV)	2,040,908

Bond #27

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	2,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523 days
Coupon Payment (PMT)	165,000
Discount Rate (R)	6.75%
Par Value (FV)	2,000,000
Market Value (PV)	2,040,908

Bond #28

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	2,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	165,000
Discount Rate (R)	6.75%
Par Value (FV)	2,000,000
Market Value (PV)	2,040,908

Bond #29

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	1,180,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	97,350
Discount Rate (R)	6.75%
Par Value (FV)	1,180,000
Market Value (PV)	1,204,136

Bond #30

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	1,180,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	97,350
Discount Rate (R)	6.75%
Par Value (FV)	1,180,000
Market Value (PV)	1,204,136

Bond #31

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	2,320,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	191,400
Discount Rate (R)	6.75%
Par Value (FV)	2,320,000
Market Value (PV)	2,367,453

Bond #32

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	2,620,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	216,150
Discount Rate (R)	6.75%
Par Value (FV)	2,620,000
Market Value (PV)	2,673,589

Bond #33

Government Bond Overview	
ISIN	GETC22B06330
Issue Date	04.08.2020
Maturity Date	06.11.2022
Maturity, Year	2.25
Coupon Rate	8.250%
Par Value	2,980,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	523
Coupon Payment (PMT)	245,850
Discount Rate (R)	6.75%
Par Value (FV)	2,980,000
Market Value (PV)	3,040,952

Bond #34

Government Bond Overview	
ISIN	GETC26128024
Issue Date	26.01.2021
Maturity Date	28.01.2026
Maturity, Year	5
Coupon Rate	8.125%
Par Value	2,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1702
Coupon Payment (PMT)	162,500
Discount Rate (R)	6.98%
Par Value (FV)	2,000,000
Market Value (PV)	2,091,348

Bond #35

Government Bond Overview	
ISIN	GETC26128024
Issue Date	26.01.2021
Maturity Date	28.01.2026
Maturity, Year	5
Coupon Rate	8.125%
Par Value	2,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1702
Coupon Payment (PMT)	162,500
Discount Rate (R)	6.98%
Par Value (FV)	2,000,000
Market Value (PV)	2,091,348

Bond #36

Government Bond Overview	
ISIN	GETC26128024
Issue Date	26.01.2021
Maturity Date	28.01.2026
Maturity, Year	5
Coupon Rate	8.125%
Par Value	2,380,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1702
Coupon Payment (PMT)	193,375
Discount Rate (R)	6.98%
Par Value (FV)	2,380,000
Market Value (PV)	2,488,704

Bond #37

Government Bond Overview	
ISIN	GETC26128024
Issue Date	26.01.2021
Maturity Date	28.01.2026
Maturity, Year	5
Coupon Rate	8.125%
Par Value	770,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	1702
Coupon Payment (PMT)	62,563
Discount Rate (R)	6.98%
Par Value (FV)	770,000
Market Value (PV)	805,169

Bond #38

Government Bond Overview	
ISIN	GETC23204042
Issue Date	02.02.2021
Maturity Date	04.02.2026
Maturity, Year	2
Coupon Rate	8.00 %
Par Value	5,000,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	613
Coupon Payment (PMT)	400,000
Discount Rate (R)	6.75%
Par Value (FV)	5,000,000
Market Value (PV)	5,099,047

Bond #39

Government Bond Overview	
ISIN	GETC23204042
Issue Date	02.02.2021
Maturity Date	04.02.2026
Maturity, Year	2
Coupon Rate	8.00 %
Par Value	2,500,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	613
Coupon Payment (PMT)	200,000
Discount Rate (R)	6.75%
Par Value (FV)	2,500,000
Market Value (PV)	2,549,523

Bond #40

Government Bond Overview	
ISIN	GETC23204042
Issue Date	02.02.2021
Maturity Date	04.02.2026
Maturity, Year	2
Coupon Rate	8.00 %
Par Value	2,530,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	613
Coupon Payment (PMT)	202,400
Discount Rate (R)	6.75%
Par Value (FV)	2,530,000
Market Value (PV)	2,580,118

Bond #41

Government Bond Overview	
ISIN	GETC23204042
Issue Date	02.02.2021
Maturity Date	04.02.2026
Maturity, Year	2
Coupon Rate	8.00 %
Par Value	50,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	613
Coupon Payment (PMT)	4,000
Discount Rate (R)	6.75%
Par Value (FV)	50,000
Market Value (PV)	50,990

Bond #42

Government Bond Overview	
ISIN	GETC23204042
Issue Date	02.02.2021
Maturity Date	04.02.2026
Maturity, Year	2
Coupon Rate	8.00 %
Par Value	2,750,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	613
Coupon Payment (PMT)	220,000
Discount Rate (R)	6.75%
Par Value (FV)	2,750,000
Market Value (PV)	2,804,476

Bond #43

Government Bond Overview	
ISIN	GETC23204042
Issue Date	02.02.2021
Maturity Date	04.02.2026
Maturity, Year	2
Coupon Rate	8.00 %
Par Value	2,750,000

Government Bond Valuation, Gel	
Valuation Date	01.06.2021
Remaining Period (N), day	613
Coupon Payment (PMT)	220,000
Discount Rate (R)	6.75%
Par Value (FV)	2,750,000
Market Value (PV)	2,804,476

Georgia government bonds Market Value:

Government Bond Valuation, GEL

Government bond Group	Par Value	Carrying Value 2021/06/01	Market Value 2021/06/01
2 Y	45,520,000	45,789,564	46,335,647
5 Y	25,710,000	25,955,094	26,656,136
Total	71,230,000	71,744,658	72,991,784

In conclusion, the market value of government bond portfolio for Deposit Agency LEPL has been estimated by the valuator to be GEL 72,991,784 for valuation date 2021/06/01.

Government Bond Average Maturity

To determine government bonds average maturity, the appraiser used the following methodology: The share of the market value of each purchased bond was determined in the total market value of the bonds and the share amount was multiplied by the remaining term of the bond (number of days remaining between the valuation date and maturity date) and than was divided by 365 days per year. In conclusion, average maturity has been estimated by the valuator to be 2 Year.

Government bond average maturity:

Government Bond Average Maturity, Year	
Average Maturity	2.00

Government Bond Average Yiled to Maturity

To determine average yield to maturity, the share of each bond market value in total market value of bonds is multiplied by the interest rates calculated for two-year and five-year old bonds and summed up. The average yield to maturity is accordance with refinancing rate, set by National Bank of Georgia in long term as risk-free and base rate in the GEL market.

Government bond average Yield to maturity %:

Government bond average Yield to Maturity, %	
Average Yield to Maturity, %	6.83

Conclusion

The Valuator has conducted analysis, made conclusions, expressed opinions and prepared the present report based on International Valuation Standards (IVS).

In order to derive the Market Value for government bonds in the portfolio of Deposit Insurance Agency LEPL, the Valuator has used Market Approach as a most suitable approach in this case. The estimated Market Value of each bond, average maturity and average yield are shown in the Appendix table #1.

Name	Par Value	Carrying value 2021/06/01	Market Value 2021/06/01	Average Yield (%)	Average Maturity (Year)
Government Bond	71,230,000	71,744,658	72,991,784	6.8%	2

In conclusion, the market value of Georgia government bond in the portfolio of Deposit Insurance Agency LEPL has been estimated to be GEL 72,991,784 (Seventy-two million nine hundred ninety-one thousand seven hundred eighty-four), average yield to maturity 6.8% and average yield 2 year.

Appendix #1-Government Bond Valuation

Government Bond Valuation, Gel

#	ISIN	Auction Date	Issue Date	Maturity	Remaining Days Number	Valuation Date	Carrying Value	Market Value	Average Maturity (YEAR)	Average Yield To Maturity (%)
1	GETC22831381	27.12.2017	30.08.2017	5 Year	456	01-06-21	1,467,253	1,467,738	0.0251	0.001
2	GETC23125056	24.01.2018	24.01.2018	5 Year	603	01-06-21	20,002	20,358	0.0005	0.000
3	GETC23125056	21.02.2018	24.01.2018	5 Year	603	01-06-21	1,166,124	1,180,770	0.0267	0.001
4	GETC23125056	21.03.2018	24.01.2018	5 Year	603	01-06-21	1,141,441	1,150,232	0.0260	0.001
5	GETC23125056	25.04.2018	24.01.2018	5 Year	603	01-06-21	1,207,551	1,211,307	0.0274	0.001
6	GETC23125056	27.06.2018	24.01.2018	5 Year	603	01-06-21	2,289,747	2,285,196	0.0517	0.002
7	GETC23125056	22.08.2018	24.01.2018	5 Year	603	01-06-21	20,303	20,358	0.0005	0.000
8	GETC23927394	26.02.2019	26.02.2019	5 Year	848	01-06-21	1,258,384	1,249,564	0.0398	0.001
9	GETC24530221	25.06.2019	28.05.2019	5 Year	1094	01-06-21	1,324,157	1,320,805	0.0542	0.001
10	GETC24530221	24.09.2019	28.05.2019	5 Year	1094	01-06-21	842,680	845,515	0.0347	0.001
11	GETC24530221	22.10.2019	28.05.2019	5 Year	1094	01-06-21	1,424,010	1,455,888	0.0598	0.001
12	GETC21711295	13.08.2019	09.07.2019	2 Year	40	01-06-21	2,048,689	2,044,995	0.0031	0.002
13	GETC21711295	10.09.2019	09.07.2019	2 Year	40	01-06-21	1,000,959	999,998	0.0015	0.001
14	GETC21711295	10.09.2019	09.07.2019	2 Year	40	01-06-21	1,001,169	999,998	0.0015	0.001
15	GETC21711295	12.11.2019	09.07.2019	2 Year	40	01-06-21	602,892	604,999	0.0009	0.001
16	GETC21711295	10.12.2019	09.07.2019	2 Year	40	01-06-21	1,017,456	1,019,998	0.0015	0.001
17	GETC25530055	28.01.2020	28.01.2020	5 Year	1459	01-06-21	483,525	522,404	0.0286	0.000
18	GETC25530055	25.05.2020	28.01.2020	5 Year	1459	01-06-21	1,532,540	1,612,358	0.0883	0.002
19	GETC25530055	25.05.2020	28.01.2020	5 Year	1459	01-06-21	1,537,940	1,612,358	0.0883	0.002
20	GETC25530055	28.07.2020	28.01.2020	5 Year	1459	01-06-21	1,542,392	1,612,358	0.0883	0.002
21	GETC25530055	28.07.2020	28.01.2020	5 Year	1459	01-06-21	1,547,131	1,612,358	0.0883	0.002
22	GETC22409022	04.02.2020	06.01.2020	2 Year	312	01-06-21	3,299,083	3,351,447	0.0392	0.003
23	GETC22409022	02.03.2020	06.01.2020	2 Year	312	01-06-21	1,565,606	1,583,763	0.0185	0.001
24	GETC22409022	02.06.2020	06.01.2020	2 Year	312	01-06-21	1,676,570	1,685,941	0.0197	0.002
25	GETC22409022	07.07.2020	06.01.2020	2 Year	312	01-06-21	1,541,625	1,542,892	0.0181	0.001
26	GETC22B06330	04.08.2020	04.08.2020	2 Year	523	01-06-21	2,001,454	2,040,908	0.0401	0.002
27	GETC22B06330	04.08.2020	04.08.2020	2 Year	523	01-06-21	2,002,664	2,040,908	0.0401	0.002
28	GETC22B06330	04.08.2020	04.08.2020	2 Year	523	01-06-21	2,003,877	2,040,908	0.0401	0.002
29	GETC22B06330	01.09.2020	04.08.2020	2 Year	523	01-06-21	1,186,591	1,204,136	0.0236	0.001
30	GETC22B06330	01.09.2020	04.08.2020	2 Year	523	01-06-21	1,187,981	1,204,136	0.0236	0.001

31	GETC22B06330	06.10.2020	04.08.2020	2 Year	523	01-06-21	2,343,610	2,367,453	0.0465	0.002
32	GETC22B06330	03.11.2020	04.08.2020	2 Year	523	01-06-21	2,656,350	2,673,589	0.0525	0.002
33	GETC22B06330	01.12.2020	04.08.2020	2 Year	523	01-06-21	2,999,389	3,040,952	0.0597	0.003
34	GETC26128024	26.01.2021	26.01.2021	5 Year	1702	01-06-21	2,006,076	2,091,348	0.1336	0.002
35	GETC26128024	26.01.2021	26.01.2021	5 Year	1702	01-06-21	2,002,023	2,091,348	0.1336	0.002
36	GETC26128024	23.03.2021	26.01.2021	5 Year	1702	01-06-21	2,374,635	2,488,704	0.1590	0.002
37	GETC26128024	27.04.2021	26.01.2021	5 Year	1702	01-06-21	767,182	805,169	0.0514	0.001
38	GETC23204042	02.02.2021	02.02.2021	2 Year	613	01-06-21	5,000,000	5,099,047	0.1173	0.005
39	GETC23204042	02.02.2021	02.02.2021	2 Year	613	01-06-21	2,497,733	2,549,523	0.0587	0.002
40	GETC23204042	02.03.2021	02.02.2021	2 Year	613	01-06-21	2,549,832	2,580,118	0.0594	0.002
41	GETC23204042	06.04.2021	02.02.2021	2 Year	613	01-06-21	50,237	50,990	0.0012	0.000
42	GETC23204042	01.06.2021	02.02.2021	2 Year	613	01-06-21	2,775,829	2,804,476	0.0645	0.003
43	GETC23204042	01.06.2021	02.02.2021	2 Year	613	01-06-21	2,779,969	2,804,476	0.0645	0.003
	Total						71,744,658	72,991,784	2.002	6.83



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