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## **The Role of Alternative Investments in the Development of Capital Markets: in Terms of the Transformation of Georgia with the EU**

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### **Abstract**

*In the modern economy investment plays an important role. Investment diversification ensures the development of various markets, including the development of the capital market, which depends on the socio-economic situation of the country and the financial policy. Therefore, it is important to review Georgia's, as a post Soviet country's capital (loan) market with State Securities, which is an important area of alternative investment. According to Georgia-EU Deep and Comprehensive Free Trade Area Agreement (DCFTA) Georgia has taken the obligation to make capital market compatible with the EU market, including the possibility of forming alternative investments and prospects for its development. Therefore, it is important to conduct a comparative analysis with the country of similar data with Georgia within the EU and reveal the possibility of alternative investments development and the supportive factors that may affect the decision of the potential investor.*

**Keywords:** *alternative investments, association agreement, EU capital market, eurobonds, inflation, state securities*

**JEL Classification:** *E20, E22, E27, E44*

### **1. Introduction**

Alternative investments are not confined by shares or bonds; there are various types of investments that can be considered as alternative ones because they do not belong to general characteristic group of investments. For instance, according to Avdiushkin speculation deals on the world product markets, purchase of banking organizations under bankruptcy and restructuration as well as investments in artworks may be assumed as one of the types of investments (Suchkova, et al., 2012, p.1).

The significant characteristic of alternative investments is a circumstance that success in such activities does not depend on market condition and/or trends but investor's qualification, practical skills and experience.

According To Anshin Alternative Investment Market (AIM) has been in operation since 1995 with the London Stock Exchange that ensures financing new, increasing companies and offers them advantage to issue securities and circulate shares (Suchkova, et al., 2012, p.1).

One of the main obstacles met by institutional investors upon assessing alternative investments is policy definition for investor: which alternative investments are to be included in its portfolio and in what proportion. We assess investments, which are typical for an institutional investor and offer to define that policy, which will be based on long-term return of capital in consideration of the nature of the risk, as well as other factors that are unique for alternative investments.

### 1.1 Investment Policy Analysis

Generally, mixed investment policy analysis is based on historic data (Gaurav, et al., 2003). Such approach is acceptable for ordinary assets that are frequently traded and observation on their prices may be carried out based on historic data. But from our point of view, historic data is significant to use for alternative investments for the purpose of political analysis, as those data is available for further assessment.

Return on assets and risk assessment, which is used both in ordinary and alternative investments policy is to be perspective as well as effective and reflect connection of basic economic risks with regard to assets. Historic dynamics of data implies both findings.

While elaboration of distributive policy, ordinary and/or alternative investments are important to use purposefully and assess riskiness of asset taking into account its return ability and various findings (for example, increase of asset price).

It is fact that in institutional investors' portfolio share of alternative investments is not extensional what could be recommended by optimization based on historic data. Such observation and approach is not new. Many authors, such as Brown, Goetzmann and Park [1999] Swensen [2000], and Asness, Krail, and Liew [2001] criticized historic income and risk parameters, which were used during such analysis (Terhaar, et al., 2003, p.102).

**Table 1: Conventional and Alternative Investments—Historical Return, Volatility, and Correlation Characteristics\***

		Return	Volatility	1	2	3	4	5	6	7	8
1	U.S. Equity	14.8%	12.8%	1.00	0.55	0.35	0.24	-0.46	-0.01	0.33	0.71
2	Ex-U.S. Equity	13.2	16.7	0.55	1.00	0.14	0.29	0.00	0.39	0.25	0.52
3	U.S. Fixed-Income	10.5	7.0	0.35	0.14	1.00	0.73	-0.47	-0.05	0.17	0.31
4	Ex-U.S. Fixed-Income	10.7	6.0	0.24	0.29	0.73	1.00	-0.10	0.23	-0.08	0.14
5	Private Equity	20.7	10.5	-0.46	0.00	-0.47	-0.10	1.00	0.47	-0.53	-0.30
6	Real Estate	7.8	5.9	-0.01	0.39	-0.05	0.23	0.47	1.00	-0.51	-0.18
7	Natural Resources	18.3	8.8	0.33	0.25	0.17	-0.08	-0.53	-0.51	1.00	0.23
8	Hedge Funds	18.2	9.4	0.71	0.52	0.31	0.14	-0.30	-0.18	0.23	1.00

\*Based on annual logarithmic excess returns 1981-2000 (Natural Resources 1987-2000).

Source: Wilshire, MSCI, Salomon, NCREIF, Venture Economics, Ibbotson Associates, Adams Street Partners, UBS Global Asset Management, hedgefund.net.

In order to define alternative investments, the important method is to define clearly importance of those investments that belong to only alternative. For example, Marc J.P. ANSON, and Donald R offered five types of alternative investments in the book, *An Introduction to core Topics in alternative Investments*”:

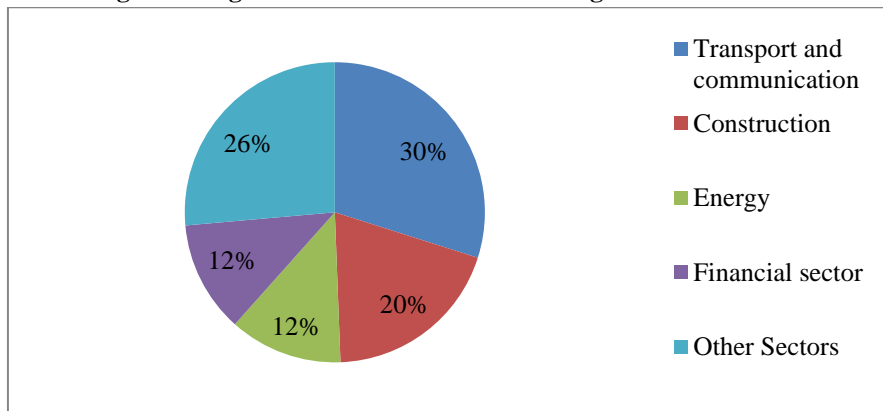
1. Real Assets (including real estate, real estate investment trusts, land, and infrastructure);
2. Hedge Funds;

3. Commodities;
4. Private equity (including mezzanine and distressed debt);
5. Structured Products (including credit derivatives) (CAIA Association, et al [online], 2012).

In the modern studies more and more attention is paid to addressing alternative investments in production of ecologically healthy goods. Consequently, investing in agricultural production is considered as one of the important sphere of alternative investments, namely, construction of “green houses” and increasing support from the side of the state makes really attractive that sphere for investments (Kendall, [online], 2016)

It should be mentioned that alternative investments under traditional understanding do not include putting up of money in securities and therefore, type of such capital investment is considered as portfolio investments. But in our opinion, difference in that approach and classification of investment types should be made based on social-economic and historic experience of a specific country. Georgia represents a post-soviet country, where no type of investments had been made till 1993. At the contemporary level, market for making investments is quite limited for local population and enterprises and capital market for securities in the process of formation and improvement. Accordingly, the question is raised in logical order: for those countries as such as Georgia, what can be considered as source of alternative investments? The answer can be controversial and different from traditional approach. Based on the previous year’s data in Georgia the volume of foreign direct investments in the agricultural sector amounted for \$ 5 million US dollars (according to III quarter of 2017 foreign direct investments were \$505 million US dollars). The volume of investments in agricultural production is very low. At the same time, the most spheres to be assumed in traditional alternative investments do not exist in Georgia; for example, Hedge Funds; Private equity (including mezzanine and distressed debt); Structured Products (including credit derivatives). Investments in transport and communication as well as in construction require large amounts that are not optimal capacity and option for most investors (FDI [online], 2017).

**Figure 1: The Largest Foreign Direct Investments According to the Sectors of Economy**



Source: www.geostat.ge, National Statistics Office of Georgia, (2017)

Therefore, we can discuss what should be considered under alternative investments taking into account the Georgian practice and such sphere and object is to be offered for investments, which really will be alternative possibility to putting up of money for the Georgian population

and can involve majority of the active part of the population. From our point of view, in case of Georgia, market for state securities will give such opportunity in consideration of certain changes and additions and the foreign practice.

It should also be noted that according to the Tax Code of Georgia (Article 82.1.T.U), the income received from government securities is exempt from income tax, which is an additional stimulus for investment.

## **2. Problem Formulation and Methodology**

### **2.1 Study Methods**

The study uses statistical and dynamic data from different countries (including the post-socialist countries, which are members of the EU), which represent the development and capacity of the alternative investment market, as well as legislative acts that are important for business entities.

### **2.2 Characteristics of Release-Reporting for Georgia-European Union State Securities**

#### **2.2.1 Georgia**

In Georgia the following types of state securities are used: treasury obligation, treasury and state bonds. Treasury obligation is short-term discount state securities issued by the Ministry of Finance. Issuance of treasury obligation is carried out during the period up to one-year, with discount and covered by nominal value. Treasury bond is mid-term coupon state securities. Currently, treasury bonds are issued with the period of 1-10 years by paying coupon in 6 months. Issuance of state securities is carried out in national currency in intangible form. Nominal value of one state security is 1000 GEL. State securities are sold via auction. Auction is conducted by the National Bank of Georgia at auction dates announced in advance. Owner of securities may be legal and physical persons, residents and non-residents; Purchase of securities is possible for resident and non-resident legal and physical persons through any commercial bank of Georgia. The sum volume of own statement presented in auction by each bank must not exceed 75% of declared emission volume. The sum volume of statement for one client presented by each bank must not exceed 50% of declared emission volume.

Issuance, circulation, reporting and coverage of treasury obligations and treasury bonds by the Ministry of Finance of Georgia are regulated by the relevant provision.

In March 2006, the government of Georgia and the National Bank of Georgia concluded an agreement “on measures to cover indebtedness of the government of Georgia to the National Bank of Georgia”. Based on the agreement, the part of indebtedness within the amount of 832.9 million GEL as of 17 May 2006 will be transformed in bonds on an annual basis, with the period of 16-60 months. Indebtedness will be completely covered in 2030. The bonds may be used by the National Bank for open market operations.

Public offer of state bonds is carried out via auction of state bonds. Commercial banks and resident and non-resident physical and legal persons with the support of commercial banks have the right to participate in auction. Issuance of state bonds is made in national currency. Conduction of auction is based on multiple-price method (State Securities [online], 2018).

Purchase price for one treasury obligation is calculated as follows:

$$\text{Price of purchase} = \frac{\text{Nominal Value}}{1 + \left[ \frac{\text{Interest rate}}{100} \times \frac{\text{Number of days left to coverage}}{365} \right]} \quad (1)$$

Purchase price for one treasury bond is calculated in the following way:

$$P = \frac{F}{\left(1 + \frac{i}{n}\right)^w} \left[ \frac{R}{n} \times \frac{\left(1 - \frac{1}{\left(1 + \frac{i}{n}\right)^N}\right)}{\left(1 - \frac{1}{\left(1 + \frac{i}{n}\right)}\right)} + \frac{1}{\left(1 + \frac{i}{n}\right)^{N-1}} \right] \quad (2)$$

where,

- P – purchase price;
- F – nominal value of treasury bond;
- i – annual interest rate offered by auction participant divided in 100; n – number of coupon payments during year;
- W – number of days between purchase date of treasury bond and next date of coupon payment divided into 7/10 number of days between coupon payments;
- R – interest rate of annual coupon income divided into 100;
- N – number of non-paid coupons left before coverage of treasury bond.

Noncompetitive statements will be satisfied with average weighted percent, which will be calculated in the following way:

$$C = \frac{\sum(N \times P)}{\sum(N)} \quad (3)$$

where:

- C – average weighted percent;
- E – sum;
- N – nominal value of competitive statement satisfied in auction;
- P – interest rates of satisfied statements;

Coupon to be paid will be calculated as follows:

$$Q = N \left( \frac{P}{2} \right) \quad (4)$$

Where:

- Q – price of coupon;
- P – coupon rate;
- N – nominal value of treasury bond (Provisions [online], 2015).

Comparative analysis between profitability of state securities with different terms and inflation (table 2) showed that the practice of Georgia does not consider state (treasury) obligation and correction of bonds with regard to inflation rate, what by itself does not make attractive securities for potential investors (State Securities Emissions [online], 2017).

**Table 2: State Securities Emissions in 2017**

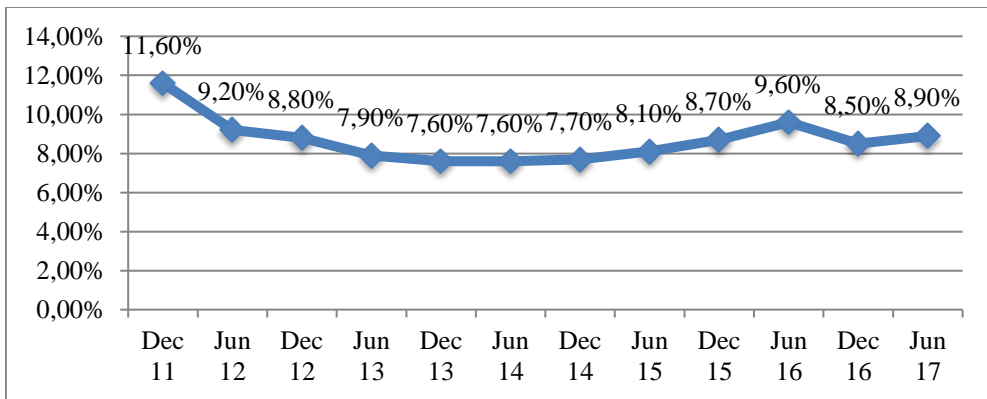
Auction date	Maturity (year)	Volume of emission	Average weighted rate	Amount received in the budget	Discount / Premium
11.01.2017	1	20,000,000	6.968	19,328,442	671,558
08.02.2017	1	20,000,000	7.040	19,321,785	678,215
07.03.2017	1	20,000,000	7.128	19,313,599	686,401
12.04.2017	1	20,000,000	6.971	19,328,41	671,859
10.05.2017	1	20,000,000	7.143	19,312,158	687,842
14.06.2017	1	20,000,000	7.167	19,309,937	690,063
		<b>120,000,000</b>	<b>7.1</b>	<b>115,914,062</b>	
04.01.2017	1	40,000,000	7.510	37,212,971	2,787,029
18.01.2017	1	40,000,000	7.623	37,181,253	2,818,747
01.02.2017	1	40,000,000	7.735	37,135,641	2,864,359
01.03.2017	1	50,000,000	7.788	46,396,566	3,603,434
05.04.2017	1	45,000,000	7.654	41,808,821	3,191,179
03.05.2017	1	40,000,000	7.552	37,198,619	2,801,381
07.06.2017	1	50,000,000	7.447	46,543,421	3,456,579
21.06.2017	1	50,000,000	7.383	46,570,952	3,429,048
		<b>220,000,000</b>	<b>7.6</b>	<b>330,048,244</b>	
11.01.2017	2	40,000,000	8.171	39,966,527	33,473
08.02.2017	2	40,000,000	8.210	40,187,789	187,789
07.03.2017	2	30,000,000	8.253	30,307,673	307,673
12.04.2017	2	40,000,000	7.995	40,003,633	3,633
10.05.2017	2	30,000,000	7.970	30,196,580	196,580
14.06.2017	2	40,000,000	7.739	40,718,551	718,551
		<b>220,000,000</b>	<b>8.1</b>	<b>221,380,753</b>	
25.01.2017	5	20,000,000	8.938	19,411,675	588,325
22.02.2017	5	20,000,000	9.181	19,366,700	633,300
29.03.2017	5	20,000,000	9.065	20,07,449	47,449
26.04.2017	5	25,000,000	8.638	25,652,272	652,272
31.05.2017	5	20,000,000	8.378	20,893,852	593,852
28.06.2017	5	20,000,000	8.228	21,143,680	1,143,680
		<b>125,000,000</b>	<b>8.7</b>	<b>126,515,627</b>	
15.02.2017	10	20,000,000	11.206	19,332,691	667,309
19.04.2017	10	20,000,000	9.973	20,988,873	988,873
		<b>40,000,000</b>	<b>10.6</b>	<b>40,321,564</b>	
		<b>860,000,000</b>	<b>7,940</b>	<b>834,18,250</b>	
			<b>(Average)</b>		

Source: www.mof.ge, Ministry of Finance of Georgia, (2017)

Since 2009 the regimen of monetary policy of the National Bank of Georgia implies inflation targeting. During this regimen targeted rate of inflation is determined in advance that is to be maintained in middle term period. Targeted rate of inflation is defined by the National Bank of Georgia and then approved by the Parliament of Georgia. Inflation targeting regimen is a relatively new practice and has been appeared quite successful in fight against inflation since the 90s. This regimen was introduced for the first time by the central bank of New Zealand in 1990 (Inflation targeting [online], 2018). Targeted rate of inflation in 2017 was 4%, but in 2018

it was 3%. With regard to real inflation in 2017, it amounted to 6.7%, which 67.5% shift from targeted rate, at the same time, as it is seen from table 2, average weighted interest rate on state securities was 7.940%, but taking into account inflation rate, then real profitability on the mentioned securities is respectively low  $-7,940-6,7=1,340$ . In respect of average weighted interest rate for treasury securities, for the last 6 years it has been revealed in the following way (Statistics of Internal Debt [online], 2017):

**Figure 2: Average Weighted Interest Rate for Treasury Securities**



Source: www.mof.ge, Ministry of Finance of Georgia, (2017)

As we've seen average weighted beneficial interest rate on state securities is relatively high, at the same time, while doing historic-comparative analysis, we can conclude that in 2012-2013 interest rate was declining, then it is increasing up to 2018, which is attractive for investors. But inflation rate is to be taken into account, which changes from targeted rate that makes an impact on real profitability of securities.

Unfortunately, we could not obtain information from the National Bank and the Ministry of Finance about what subjects participate in auction of state securities and what can be share volume of physical persons in purchase of state securities. This would give us a real picture about involvement and provision of information for population in alternative investment.

Like Georgia, Latvia uses state-owned securities as source of alternative investment from post-socialist and EU countries. The comparative analysis will give us an opportunity to reveal and evaluate the ways of perfection. Comparative analysis is based on variables and features, such as the types of state securities, the peculiarities of their release, realization and redemption, and diversification of attracted financial resources.

### 2.2.2 Latvia

First issuance of state securities in both Latvia and Georgia took place at the end of 1993. In the following years governmental financing was increasing and internal market of securities developed. Long-term securities were offered for investors. There are short-term treasury obligations from 6 to 12 months, midterm bonds-from 3 to 5 years and long-term bonds with the period of 10-11years. Emissions of securities in Latvia as well as Georgia are carried out by the Ministry of Georgia. Governmental securities of Latvia sells on the initial marker if securities. Auction date is announced in advance by the Treasury Service. There are two types of auctions:



Competitive multiple-price auction is organized by the Treasury Service at NASDAQ OMX Riga Stock Exchange. Auction takes place on Wednesdays and applications are received until 12:00.

Noncompetitive fixed rate is organized by the Treasury Service at NASDAQ OMX Riga Stock Exchange. Auction takes place on Wednesdays after receipt of applications at competitive auction until 3:00.

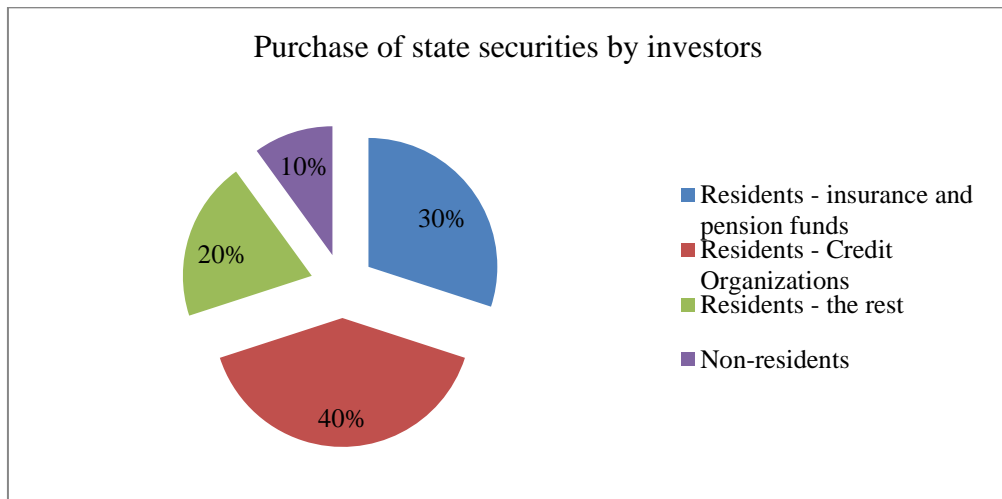
All state securities are registered in the Central Depositor of Latvia. Since 10<sup>th</sup> August 1999 state securities of Latvia, which are sold at initial market via auction, have been subject to registration in the official list of NASDAQ OMX Riga Stock Exchange. Physical persons and legal entities can participate in auction through dealers, which are commercial banks:

1. **ABLV Bank** (with regards to primary and secondary market issues);
2. **Citadelebanka** (with regards to primary and secondary market issues);
3. **DNB banka and DNB bankas** (DNB banka with regards to primary market issues and DNB bankas with regards to secondary market issues);
4. **SEB bankas** (with regards to primary and secondary market issues);
5. **Swedbank** (with regards to primary and secondary market issues).

Internal debt of the Central Government of Latvia is 1 506 million euro, external debt- 8 223 million euro (Government Domestic Securities [online], 2017).

The following types of investors participated in purchase of state securities at the second markets as of June 2017 (Central Government Debt Management [online], 2017):

**Figure 3: Purchase of State Securities by Investors**



Source: [www.kase.gov.lv](http://www.kase.gov.lv), Treasury Republic of Latvia (2017)

Since 19 June 2013 the Treasury service issued saving bonds for physical persons. The purpose for issuing saving bonds is to offer the population additional investment possibility and crediting of the government may be carried out that ensures economic growth. Distribution channel is online internet portal available for 24 hours, on any day of week. The internet portal is managed by the Central Depositor of Latvia. Any physical person having an account in any commercial bank of Latvia is able to purchase saving bonds via internet banking. Records on saving bonds for physical persons are kept to the Central Depositor that also make payments.

The main characteristics of saving bonds are:

- Validity period for saving bonds is 6 months, 12 months, 5 or 10 years.
- Coupon benefit- is fixed and determined by the Treasury Service that takes into accounts state obligations and profitability of bonds and other factors.
- Nominal value -1 euro.
- Minimal volume of investment -50euro.
- Maximum volume of investment -100 000 euro.
- Second market-not exist
- Early redemption-is possible at any time with nominal value, but penalty is also used.

Based on the experience of other countries, the Treasury service of Latvia aims that participation of physical persons in state debt volume in the form of saving bonds may achieve 2% in middle-term period (from 3-to 5 years). Emission of saving bonds ensures diversification of debt of central government and enhances conservative segment with regard to internal investors (Savings bonds [online], 2017)

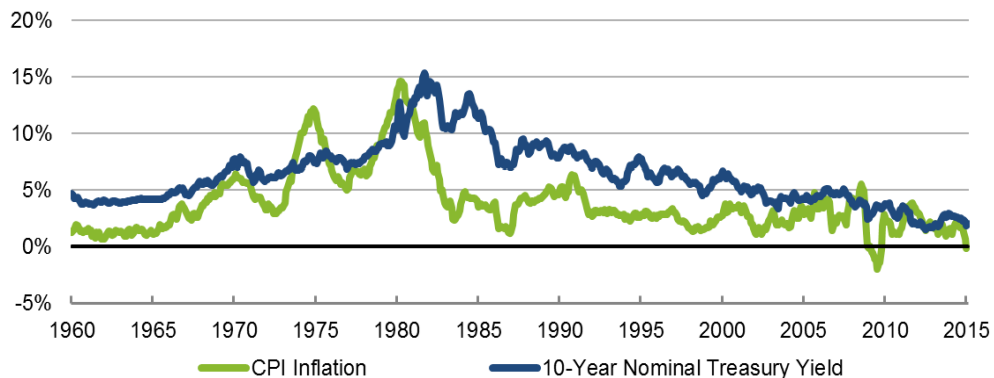
### 2.3 Specific Character of Formation of Interest Rate in Different Countries

The study proves that interest rates in various countries on short-term and long-term securities are low. The USA can borrow some amount within 2% for 10 years, but in case of 30-year bonds –approximately within 2.5%. Interest rate in other industrial countries is much lower. For instance, in Germany interest rate on 10-year state bonds amounts to 0.2%, in Japan-0.3% and Great Britain-1.6%.

Low interest rate –it is a part of not short-term, but long-term tendency. As drawing 1 reveals, profitability in US 10-year bonds in 1960 was low, but in 1981 it increased to maximum and achieved 15% and after that it has continued declining. This regularity is somehow explained by increase and decrease of inflation. In other equal conditions, investors require high profitability, when inflation is high to compensate with purchase power of dollar. Nowadays, incomes received from bonds are not protected from inflation. Real or corrected interest rate on 5-year US bonds amounts to inflation rate minus 0.1% (Bernanke, 2015).

**Figure 4: Interest Rate on 10-Year Bonds and Inflation in The USA**

Interest Rates and Inflation



Source: [www.brookings.edu](http://www.brookings.edu), Federal Reserve Board, BLS, Bernanke Ben, (2015)

In order to understand why interest rates are so low, it is important to use the conception called balanced real interest rate (frequently called Wicksellian interest rate). Balanced interest rate is a real rate, which envisages work force and volume of capital resources and its correction is possible after a while. Many factors have impact on balanced rate, which may be changed in time. In rapidly grown dynamic economy, it is expected that balanced interest rate will be high, in other equal conditions, as the expectation exist that it will be high perspective on return of investment. But in slowly grown or recession economy (for example Georgia and post-soviet countries), presumably balanced interest rate will be low, as investment possibilities are low or unfavorable. State costs and tax policy also has an effect on balanced interest rate. Big deficits increase balanced interest rate, as loans received by the government make economy be away from private investments. If the Federal Reserve System (FRS) wants to analyze the volume of capital market and working resources, the task will be to use its power to establish such level of interest rates that comes closer balanced rate. If FRS establishes higher market interest rate than balanced rate is, then growth of economy declines (it is possible to have recession), capital investments will not be attractive. FRS established such rates that do not cover expected potential profitability of investors.

If FRS tries to establish low interest rates compared to balanced rate, economy starts “overheating” causing inflation-unfavorable and instable situation. Therefore, it is important to define that a country’s economy and not FRS determined real interest rate, which may be taken by savers and investors. FRS can have certain influence on market rates, but not indefinitely.

### **3. Problem Solution**

In case of Georgia source for alternative investments is to be considered investments in state securities and not in Hedge Funds, in immovable property and goods, because it gives investors equal possibilities for optimal investment. At the same time, it should be mentioned that only one stock exchange is operating in Georgia and commercial banks take leading positions with regard to volume of deals made there that by it impedes development of this market.

Georgia, based on association agreement with the European Union, takes the obligation to develop capital market, which is to be closer to stock exchanges of the countries of the European Union. One of the reasons for emission of state securities is to develop capital market, but simultaneously, it should be a market with equal opportunities for any interested investors. According to the applicable provision, which regulates purchase and reporting rules of state securities, we cannot meet state securities that will be oriented on resources attracted by physical persons.

The forecasting becomes impossible as the state bodies do not provide information on the volume of state securities according to types of investors and their supervision analysis. It would be better if the Ministry of Finance and the National Bank write in their quarterly reports classification of investors purchasing securities according to physical persons and legal entities. Elaboration-assessment of those data will give the possibility to make conclusions on sharing experience of the European Union with regard to physical persons (example of Latvia) that would enable diversification of state internal debt.

For developing countries it is characteristic high level of interest rate on state securities, and Georgia in not exclusion. For the last 7 years minimum interest rate has not been less than 7.5%. However, inflation expectations should be taken into account, which really decline profitability range. Inflation targeting regimen is in Georgia, by which inflation rate of current year is defined in advance. But historic statistical dynamics gives the possibility to see that significant shift for targeting rate takes place, which increases risk for investments. The way

to solve this problem is insure profitability to be expected from state securities in case of shift of targeting rate.

#### 4. Conclusion

We have established legislative shortcomings that impede the functioning and development of the capital market. It is also proposed to introduce different types of government securities, Which includes EU member country with a similar productive and territorial scale such as a Georgia. It is also proposed to adjust the current state securities revenue by different methods that will give an additional stimulus to the business entity for the purchase of such securities and will facilitate the development of alternative investment markets, as investor's inflation risk will be cleared.

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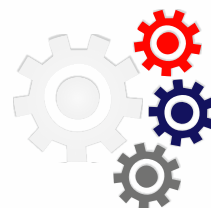
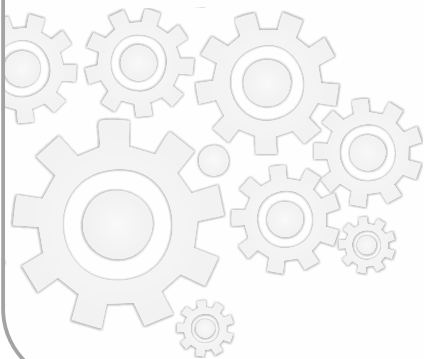


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