# BASIS FOR THE DEVELOPMENT OF THE LIQUIDITY OF THE GOVERNMENT SECURITIES MARKET IN THE REPUBLIC OF MOLDOVA

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*The unilateral structure of the domestic financial market, monopolized by banking institutions, requires a major reconfiguration by returning to representative positions of the capital market. This restructuring can be initiated by increasing investors' interest in the government securities market, giving it some quality elements, but also by creating a trading system that would increase the liquidity of all securities on the capital market. Increasing the quality of the GS market would allow the government on the one hand, to diversify its funding sources and manage its most important market risks more effectively, and on the other hand the financial sector would create opportunities for it to correlate and synchronize the development of the GS market with other segments of the capital market. In order to identify prerequisites for the development of the GS market in the RM, using the methods of research analysis, synthesis and deduction, we initially sought to identify the characteristics that define a market of government securities as a qualitative one. A comparative analysis of the historical evolution of government securities markets, which can be considered representative for the Republic of Moldova, can provide the necessary experience for the improvement of the liquidity level of the domestic government securities market. The results of this research have identified several possible actions, the implementation of which could lead to an increase in the quality of the domestic GS market.*

***Keywords:*** *government securities, government securities market, liquidity level of government securities market.*

*Structura unilaterală a pieței financiare autohtone, monopolizată de instituțiile bancare, necesită o reconfigurare majoră prin readucerea în poziții reprezentative a pieței de capital. Această restructurare poate fi inițiată prin intermediul sporirii interesului investitorilor față de segmentul pieței valorilor mobiliare de stat prin formarea unui sistem de tranzacționare, ce ar spori lichiditatea tuturor titlurilor pe piața de capital. Creșterea calității pieței VMS ar permite pe de o parte, guvernului să-și diversifice sursele de finanțare și să-și gestioneze mai eficient cele mai importante riscuri pe piață, iar pe de altă parte, sectorului financiar i-ar crea posibilități să coreleze și sincronizeze dezvoltarea pieței VMS cu celelalte segmente ale pieței de capital. În vederea determinării unor premise pentru dezvoltarea pieței VMS în RM, în acest articol au fost identificate caracteristicele ce definesc o piață a valorilor mobiliare de stat drept una calitativă, aceste caracteristici fiind pliate pe piețele valorilor mobiliare de stat ale unor țări, care pot fi considerate reprezentative pentru RM și pot furniza experiența necesară îmbunătățirii nivelului de lichiditate a pieței valorilor mobiliare de stat autohtone. Rezultatele cercetării au permis identificarea unor posibile acțiuni, implementarea cărora ar putea duce la creșterea calității pieței VMS autohtone.*

***Cuvinte-cheie:*** *valori mobiliare de stat, piața valorilor mobiliare de stat, lichiditatea pieței valorilor mobiliare de stat.*

*Однокомпонентная структура внутреннего финансового рынка, монополизированная банковскими учреждениями, требует значительной реконфигурации путем консолидации позиции рынка капитала. Эта реструктуризация может быть инициирована за счет увеличения интереса инвесторов к рынку посредством создания торговой инфраструктуры, обеспечивающей ему высокую ликвидность, взяв за основу рынок государственных ценных бумаг. Повышение качества рынка ГЦБ позволит правительству диверсифицировать источники финансирования и более эффективно управлять рыночными рисками, а также создаст новые возможности для*

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*финансового сектора, его корреляции и синхронизации с развитием рынка ГЦБ и другими сегментами рынка капитала. Для выявления предпосылок развития рынка ГЦБ в РМ, были определены факторы, составляющие качество рынка государственных ценных бумаг и произведен сравнительный анализ рынков ГЦБ некоторых стран, опыт которых представляется наиболее существенным для Республики Молдовы, исходя из данных параметров качества. Результаты исследования позволили разработать ряд рекомендаций по повышению качества внутреннего рынка ГЦБ.*

***Ключевые слова**: государственные ценные бумаги, рынок государственных ценных бумаг, ликвидность внутреннего рынка государственных ценных бумаг.*

***JEL Classification: G12, G23, H6, R30, R39, D40.***
***UDC 336.76(478)***

**Introduction.** A steady macroeconomic environment, in particular a credible monetary policy, together with a sustainable fiscal and economic policy, has proven to be the basic premise for the development of the bond market. Similarly, the development of the securities market contributes to increasing the efficiency of monetary management and the stability of the financial system. A developed securities market also contributes to the improvement of the efficiency of global economic governance by expanding the range of opportunities available to finance large-scale projects, contributing to better capital allocation, providing a non-inflationary source of government financing and facilitating debt management and contributes to promoting sustainable economic growth.

A mature and liquid government securities market can improve the allocation of resources by guiding efficiently the local and foreign economies into domestic investment, as well as by diversifying retail and institutional investment channels.

The government securities market in the Republic of Moldova is neither mature nor liquid, but tends to improve these parameters. Thus, we considered it appropriately to study the experience of other countries in the field of improving the quality of the government securities market in view of its application to Moldova.

**The need to develop a market of qualitative government securities.** The role of the government securities market for the development of a mature monetary market is indisputable. The problem faced by a state concerns not its existence, as an attribute of a developed economy, but especially to the quality of this market and the instruments traded on it. Thus, when in the specialised literature is emphasized the importance of the market of state financial instruments, it also refers to the minimum level of credit risk, the high liquidity of the market and the wide range of maturities. These are features that distinguish government titles from any other financial instruments [1]. M.S. Mohanti in his paper described the benefits of a liquid government securities market in emerging economies and highlighted the idea that all of these benefits did not reduce the financing of the low-cost budget deficit but also imply the creation of investment instruments for other participants of the financial market [7]. Treated as an important segment of the financial market, the government securities market must always be in the hands of governments to promote its liquidity. The economists Luengnaruemitchai and Ong also emphasize the critical role played by the benchmarks offered by government credit instruments in any domestic bond market [6].

The existence of state movable assets as a non-inflationary instrument of state debt financing, but also as an investment vehicle, is an insufficient condition for determining the quality of the credit market. Due to the importance to the entire economy of these markets, governments need to support the process of developing bond markets by creating and strengthening an internal market for government bonds, and also by providing a framework and an appropriate model for the development of corporate bond markets. In this regard, several studies have proven that the domestic bond market constitutes the ground on which domestic bond markets are built [2]. At the same time, the same study pointed out that the higher the internal market of the domestic securities market and the higher the level of quality are, the less the country needs to finance itself on the international markets, which usually propose capital at higher costs and can lead in this way to regional financial crises.

At the same time, the development of the government securities market usually serves as a basis for the evolution of the capital market [5], which becomes one of the means of promoting economic development, being considered as an essential tool for economic growth A steady domestic capital market reduces interest rate risks by lowering volatility and increasing their diversity, setting a longer-term horizon for investment. The money market usually constitutes the first step in the development of a steady market of government bonds then of the domestic bond market, followed by the corporate bond market and ultimately by the derivatives market. This logical sequence has not always been pursued, as certain factors, such as the level of competition, the degree of macroeconomic stability or investor base may change it. However, these four markets have a close relationship because one contributes to building or improving the other: the money market helps to provide liquidity for the development of the government bond market; in addition, supports in the short term the process of building the yield curve and reduces financing costs through government securities. On the other hand, the government bond market offers, in the short term, long-term bonds and standardized money market issuances, providing instrumental supply to maintain an adequate liquidity level. Both the money market and the government bond market contribute to the construction of the private sector debt market as it provides infrastructure, price discovery tools and risk hedging mechanisms. The corporate bonds market extends investor choices and leads to a more balanced internal financial structure, strengthening the development of the entire bond market. Finally, the derivatives market arises from the fact that participants have to counter their risks and lead to low interest rates, but also to better financial management practices. The links between these markets show not only their crucial role as an instrument of economic development but also the importance that governments take into account when developing economic policies. Thus, this article will focus on the experience of several countries, which follow the development of capital markets by giving the quality of government securities, some of which are useful for the development of the domestic government securities market.

**Liquidity – the main criterion for the quality of the government securities market.** The Government Securities Market, which acts as an important source of domestic government loans, is an integral part of the financial systems of all developed economies. By attracting funds, the state pursues a wide range of goals, such as financing the current budget deficit, refinancing previous loans, conducting open market operations, financing state programs. In addition, an efficient government securities market provides participants with the opportunity to invest in ultra-reliable instruments and ensures the formation of a common risk-free benchmark for both the corporate bond market and other segments of the financial market, and economy as a whole.

The efficient operation of the government securities market depends to a large extent on its liquidity level. If the market is not liquid enough, it increases the risk of price volatility, which can negatively affect interest rates and increase the cost of new loans, as well as it can have an impact on promoted monetary policy.

The concept of *liquidity on the market* is complex, with an all-encompassing definition difficult to formulate. In several sources, a liquid market is considered the market where large transactions are quick and without substantial loss of value. The following indicators can be used for market quantification: market penetration, tightness, and resiliency.

***Market depth*** measures the size of the market, reflected by the possible volume of order that the market is willing to absorb at one time. Its level is estimated either by the total turnover or by the total volume of the sales / purchase orders negotiated within a certain time frame. If market penetration is estimated on the basis of the volume of sales / purchase orders, it also reflects the potential capacity of transactions made by market participants and can be perceived as an infrastructure quality indicator. The assessment of market penetration can also be estimated by the total turnover index, which reflects the actual demand and supply of government securities. The higher the value of this index, the more liquid the market will be. At the same time, market penetration is correlated with the risk indicator as it can estimate the level of market vulnerability to the size of transactions by identifying the critical limit of the volume of traded securities that can be achieved without leading to a substantial change in the price state-owned securities.

***Density*** characterizes the level of transaction costs and is represented by the deviation of transaction prices from the average market price. The density is usually characterized by the difference between bid and ask spreads. The lower the value of this parameter, the more liquid the market is.

***Elasticity*** reflects the time it takes for the market to return to its normal state after a particular transaction and its size is directly proportional to the degree of liquidity of the market in question. Depending on the purpose of the analysis, the market can also be characterized by the speed of executing the sale/purchase orders.

In the context of the need to quantify the quality of the government securities market, it is necessary to develop its previously defined liquidity definition. Thus, *the liquidity of a static securities market is a characteristic, derived from market penetration, its elasticity and its density, which in common ensures the rapidity of capital movements with minimal value losses*. This definition already contains not only the effect but also the method of measuring liquidity (if not all, then at least some aspects of it), all of these indicators in the complex giving it a better picture of the real market liquidity.

However, it should be noted, that there is no a single indicator of depth, density, elasticity and volatility that would characterize the level of liquidity of the government securities market and establish criteria of comparability between different markets. This is due to the specificity of the national markets, which do not allow the unification of the factors leading to the development of the liquidity level of the market, but also because of the different formulas for each liquidity indicator, and this diversity results from the imperfection of each of these indicators. In this context, we will further analyze the quality of government securities markets that can be considered representative for the Republic of Moldova and can provide the necessary experience to improve the liquidity level of the domestic government securities market.

**Organization of the internal market of Government securities (GS), international experience and good practices.**

***The internal market for public debt in Armenia*** is characterized by a moderate liquidity level, but is on an upward trend in development. The Government Securities are issued by the Ministry of Finance of the Republic of Armenia from 1995 with the purpose of financing the state deficit and are provided by the entire property of the country. Their diversity is reduced to 4 types of government securities:

• Treasury bills / treasury bills (T-bill) (1-2 weeks, 3-12 weeks, 13, 26, 39, 52 weeks);
• Medium-term government bonds (3, 5 years);
• Long-term government bonds (10, 20 years);
• Debt securities for savings (0.5, 1, 2, 3 years).

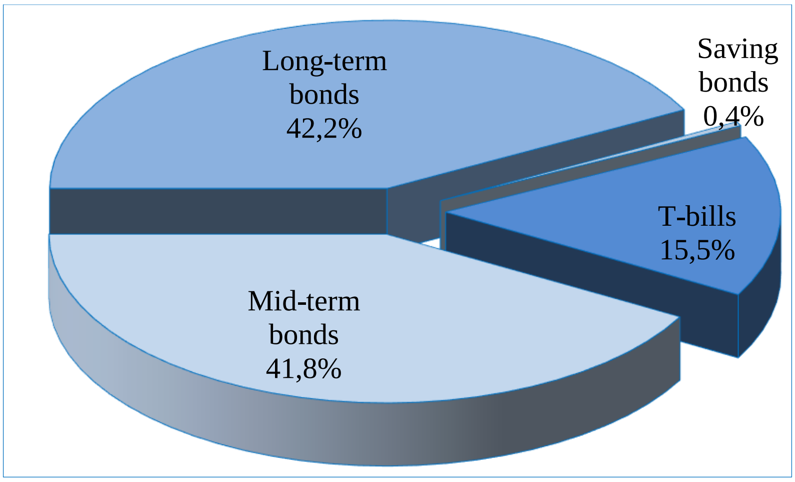


**Figure 1. Structure of the SS market in Armenia according to the titles issued**
*Source: http://minfin.am/en/*

Each of these titles has its segment of investors, still the most demanded are state bonds with a long and medium maturity, with a major share of the volume of GS in circulation on the Armenian market (figure 1).

Due to the fact that the only public institution of the GS in Armenia is the Ministry of Finance this structure has been slowly developed and implemented. Initially two entities were involved in this process: the Ministry of Finance and the Central Bank, but in 2008 they signed an agreement under which the BCA pledged to stop the issuance of its own debt instruments and the MF was obliged to issue, treasure bills with 3, 6, 9 and 12 months at least once every two months. This created a prerequisite for the use of GSs issued for government debt financing as open-market monetary policy instruments, with BCS being provided with the necessary tools. This avoids the doubling of volumes of GS on the market in situations of growth of money, and the function of maintaining market liquidity lies exclusively with a body – the Ministry of Finance, which simplifies the control mechanism and intervention when necessary.

Since 1995, the volume of government securities issued is steadily increasing and, starting with 2008, Armenia has also begun to provide investors with benchmark bonds (bonds with more than 7 billion AMD) with a view to relaunching and activating the secondary market. Bonds are issued with a maturity of 3, 5, 10 and 20 years and aim to refinance older, low-volume issues by increasing emissions. This has led to the possibility of increasing the volume of GS delivered on the market at a reasonable rate (figure 2) and, thus, to increasing penetration of the market by developing the offer of securities without appreciably affecting borrowing costs for the budget.

Reference bonds are placed on stock exchange on a daily basis by primary dealers. This allows the formation of the price and the identification of the fair value with minimum costs (based on quotations), a criterion attributed to market density.

At the same time, access to bargaining only for primary dealers makes the entry costs of the end-investors higher, so we can consider the liquidity level of the Armenian GS market, estimated on the basis of the density criterion as moderate.

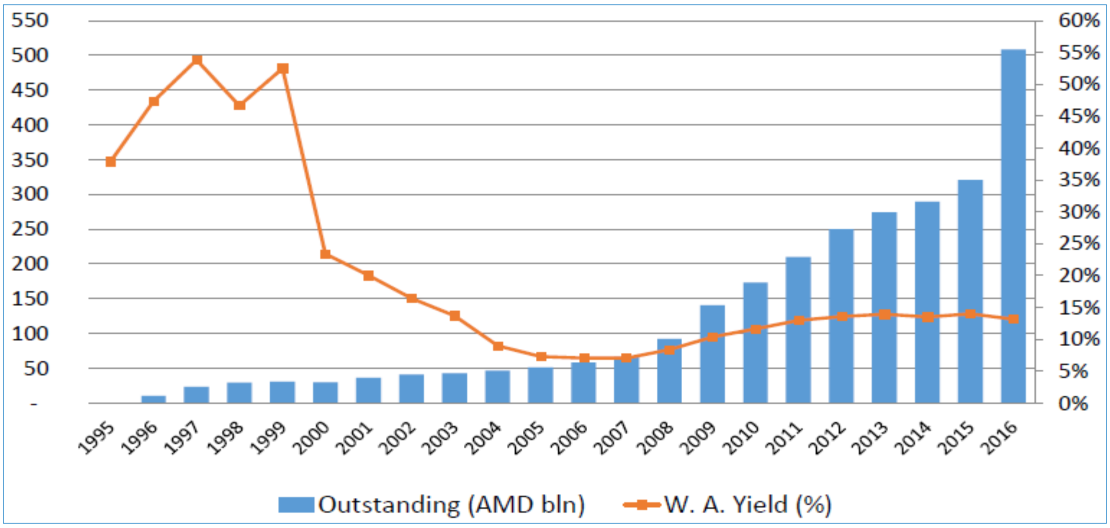


**Figure 2. Outstanding GS value and weighted average yield**

*Source: http://minfin.am/en/*

The main investors in the domestic debt market in Armenia are the banks, together with the Central Bank representing 84.3% of the investors. Otherwise, non-bank residents and non-resident investors participate as investors in the GS market as individual investors in the retail market.

Government securities are allotted through auctions, with the participation of major mayor dealers, formerly elected on the basis of clear criteria stipulated by the Ministry of Finance. The retail market was founded in May 1999 and operates through a direct Treasury Direct sales system managed by the Ministry of Finance. At the end of 2016, the retail market accounts for 0.8% of the total GS and is characterized by low liquidity.

The sale of GS takes place through 5 service centers located in the banks of different capitals. Savings bonds with 6-month, 1, 2, 3-year and 10% treasury bills are allocated via Treasury Direct. Savings bonds are sold exclusively to individuals and treasury bills – to non-banking legal entities. The interest earned by individuals in the GS is not subject to taxation (Figure 3).

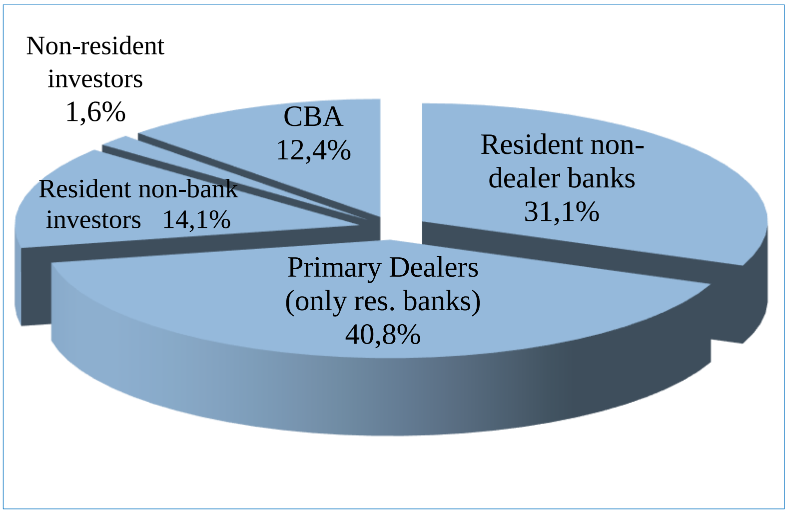


**Figure 3. Structure of the SS market by type of investor, end of 2016**

*Source: http://minfin.am/en/*

The analysis of the evolution of the GS volume, the dynamics of the maturity terms and their efficiency allow to observe a tendency in the increase of the maturity terms of GS (which currently weighted average is 6 years) and a decrease their efficiency compared to the first years of issuance. The GS price is formed on the market in the auctions, without setting an initial minimum price, and in case it is considered unfavourable, the auction will be cancelled (Figure 4).

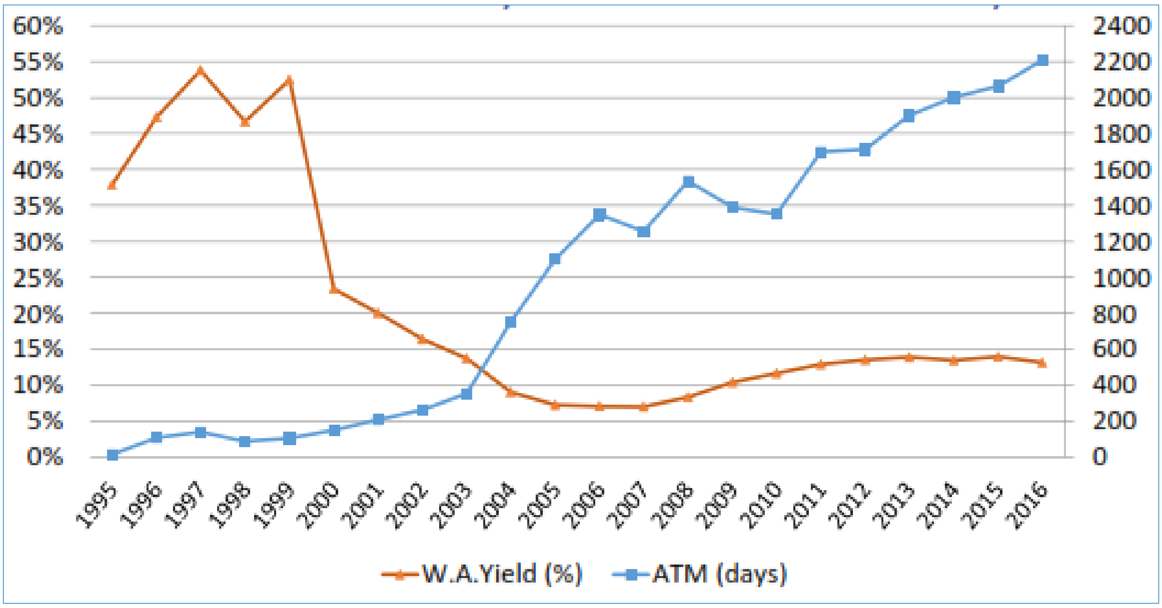


**Figure 4. Government securities efficiency and the evolution of maturity terms in Armenia**
*Source: http://minfin.am/en/*

Respectively, in the management of the quality of the government securities market in Armenia, over the past few years there have been accomplishments in several directions:

- extending the maturity curve of traded instruments on the GS market;

- the issue of debt instruments by the Central Bank is limited and as a result the non-use of the GS issuance act as monetary policy instruments respectively;

These efforts have led to the increase of the liquidity of the GS market and can be taken as good practices for implementation in the Republic of Moldova. Although in both Armenia and Moldova the GS market was founded in 1995, Armenia has stepped up more quickly to form a market with sufficient quality to handle state borrowing issues.

***The government securities market in Serbia*** can be characterized by moderate liquidity, the country being interested especially in state debt financing rather than in the development of the capital market's investment capacity. The structure of the securities market depends on the main purpose of public debt management and includes the following financing instruments:

• Treasury bills (T-bills) with a maturity of 3, 6 months and 53 weeks,

• Treasury bonds (T-bonds) with a maturity of 2, 3, 5, 7, 10 and 15 years emitted in RSD (up to 10 years maturity) and EUR.

The fragmented composition and the plurality of state-owned securities after maturity give flexibility to the major budget to debt financing but create multiple problems in managing the market and maintaining its liquidity as it requires additional efforts in the issuance and formation of active asset offerings.

The main characteristics of Serbia's securities market are:

- GS are issued by the Ministry of Finance and their primary sale is organized by the Public Debt Management Service through auctions;

- The efficiency curve is described over a period of up to 10 years for GS in RSD and up to 15 years for those in EUR;

- The secondary market is made up of the Belgrade stock market, a market characterized by limited activity and limited liquidity and OTC market (off-market trading);

- In the absence of a system of primary dealers, the main market investors are local banks and external institutional investors that submit bids via authorized brokers at the national level and approved in advance by the Public Debt Management Service (currently 31 brokers);

- Limitation of bids per investor (minimum 50000 RSD or 5000 EUR, maximum 50% of the auction volume);
- Non-residents are not allowed to invest in short-term securities (issued with a maturity of ≤ 1 year);
- Investments in the GS are exempt from tax obligations.

Thus, the penetration of the market is limited by the maximum possible volume to buy by an investor and the restrictions on the participants in this market. Market density is dictated by the extreme segmentation of securities and the additional cost of entry for investors due to the lack of primary dealers, to which they can call for smaller volume transactions.

At the same time, the offer of maturity bonds is also conditioned by the reference currency, but also by the specificity of the bonds and the possibility of their quota on the international market. The benchmark bonds are the most insured investment instruments, which began to be issued in 2015, and up to date there have been 5 issues with maturities of 3 years and 7 years in national currency. For the future, it is planned to develop secondary market transactions and include Serbia's government bonds in the global index (Figure 5).

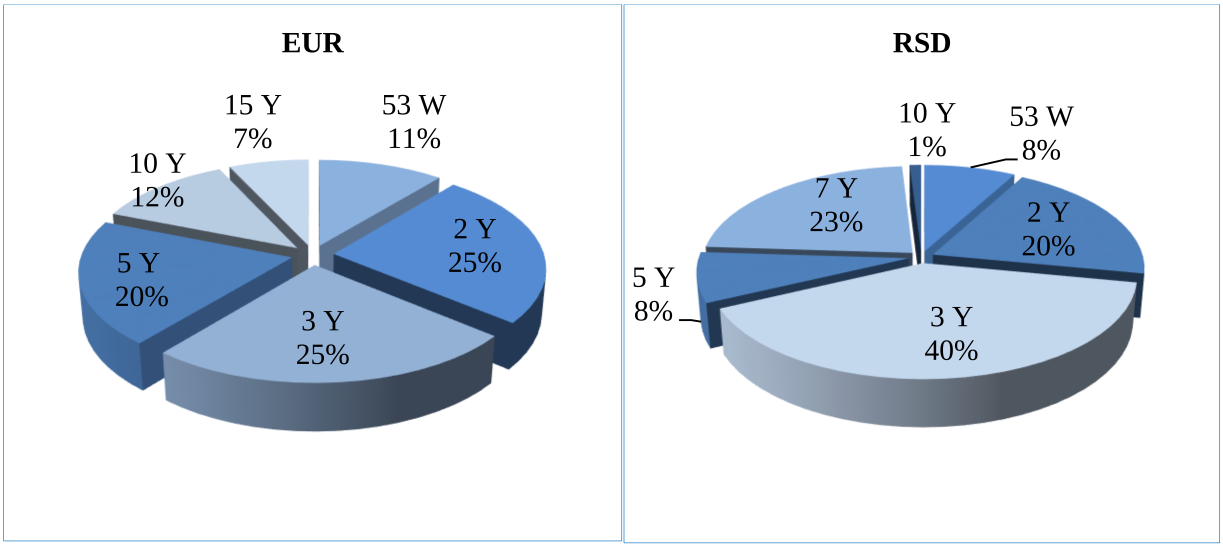


**Figure 5. Distribution of GS issued in RSD and EUR according to maturity date (end 2016)**
*Source: http://www.mfin.gov.rs/*

In recent years, considerable efforts have been made in Serbia to change the frequent but low-volume emission practice by gradually reducing the number of auctions and increasing emission volumes / values, introducing benchmark bonds, eliminating the 12-month treasury bills, the replacement of the treasury bills with maturity of 18 and 24 months with two-year treasury bonds. It is also intended to meet the investors' needs in the process of creating value instruments, by issuing securities denominated in EUR and introducing indexed bonds, and those with damping (Figure 6).

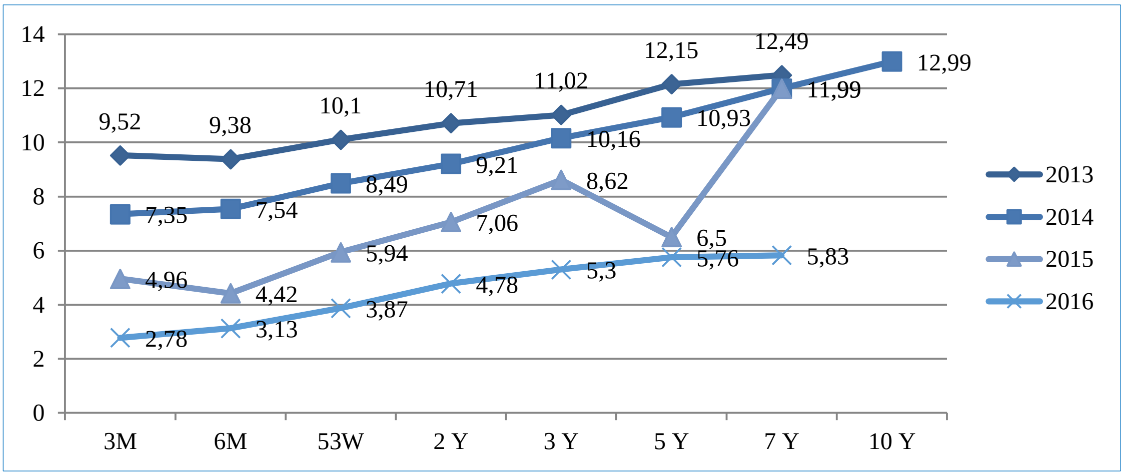


**Figure 6. Weighted average rate accepted in RDS for primary auctions (%) in Serbia**
*Source: http://www.mfin.gov.rs/*

At the same time, it was intended to increase the transparency and liquidity of the GS market through a series of actions adopted by the Government in this respect:

• publishing the auction calendar,

• drawing up a draft annual auction program,

• on time display of auction results and statistical data,

• establishing clear reporting requirements for secondary market transactions,

• creating an informational website for the Public Debt Management Service (PAD), where investors can obtain information about the planned volume of issues, the type and maturity of the securities.

All of these actions reduce the probability of discrepancies between government financing needs and investment plans of potential buyers, contributing to the quality of the GS market.

The main problems that still persist in Serbia's GS market are more of potential investors; which are little diversified and consist mainly of local banks and non-resident institutional investors. Thus, other non-bank local investors (pension funds, investment funds, insurance companies) are very poorly involved in the GS market and the local retail segment is inactive.

In this respect, some actions have already been adopted at Government level, such as introducing an equal tax treatment for all (e.g. cessation of coupon tax in 2011), removing barriers to capital flows, stimulating long-term savings by offering tax incentives, market promotion and investors' professional development (conferences for investors, market assessments, meetings, investors' guides, etc.), increased transparency on the secondary market, but these have not yet resulted in an expected outcome. However, these actions, as well as those listed above, are not costly but sufficiently effective to form an opinion on the attractiveness of the GS market and its liquidity and may be recommended for implementation in the Republic of Moldova.

***The Government Securities Market in Romania.*** The Romanian Government Securities Market has had two major development stages – even after the country's accession to the EU, in this context, the experience of organizing the primary and secondary market segments of the GS market in the neighboring country is relevant for the Republic of Moldova, whose strategy are geared towards building an economy harmonized with EU requirements and prepared for integration into the economic and also common financial space.

The main features of the Romanian GS market are:

- The Ministry of Public Finance is the main issuer on the primary market, acting through the treasury and public debt directorate, and the National Bank of Romania is the MPF agent for primary market auctions, with only primary dealers acting on their own account or customer names.

- The auction platform is a fully electronic platform launched in 2014. In this respect, all the offers are presented electronically via XML files and confirmed by scanned documents handwritten by authorized persons;

- In order to maintain market liquidity and penetration, the primary segment of the GS is operated by primary dealers, which have to meet a minimum of requirements, such as:

• Purchase (in its own name and / or its customers) of at least 3% of the total value allocated during the year;

• The amount allocated in its own name is at least 2% of the total weighted value of issued government securities;

• The value traded in its own name is at least 3% of the total weighted value of government securities traded on the secondary market in the last 12 months.

• The secondary market is open to both primary and secondary dealers – 15 active banks on the Romanian market. Its structure is complex and consists of an over-the-counter (OTC) interbank market supervised and regulated by the NBR, which operates through different channels (platforms) – Bloomberg (EBND, ALLQ), Reuters etc., a separate segment of the Bucharest Stock Exchange, launched in July 2008 only for bonds and retail instruments. On the BVB platform, however, trading is very limited due to high costs, inconvenience due to time limits and disclosure requirements, etc. in this respect, we can see that the density of the official stock market in which all willing investors can participate, is very small;

• The Romanian GS market has a high volatility, with interest rates on government securities being set every working day, with the presence of at least 8 participants invited by the organizer (NBR with the support of ACI Romania – Romanian Financial Markets Association) (Figure 7);

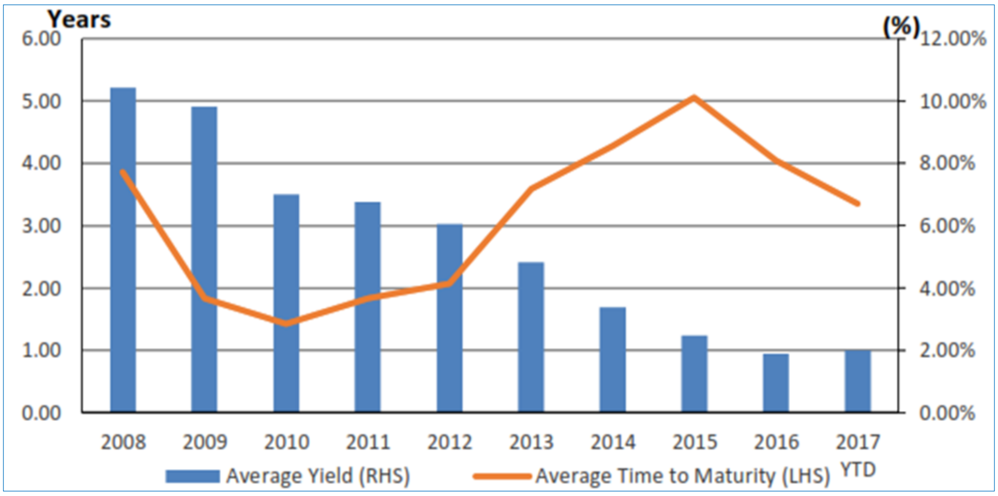


**Figure 7. Average Yield and Average Remaining Time to Maturity (Auctions)**

*Source: http://www.mfinante.ro/*

• The structure of securities after maturity denotes a medium-term investment trend, the weight of GS for up to 1 year and over 10 years is 21.74% and 7.14%, respectively. This is due to efforts to extend the maturity curve of domestic debt financing and refinancing instruments. Thus, there is an increase in the volume of government securities maturing at 2, 3 and 5 years and an issue of government securities maturing at 7, 10 and 15 years. By refinancing the short-term domestic public debt by long-term government bonds and the reduction of interest rates on government securities, the domestic public debt service diminished (Figure 8).

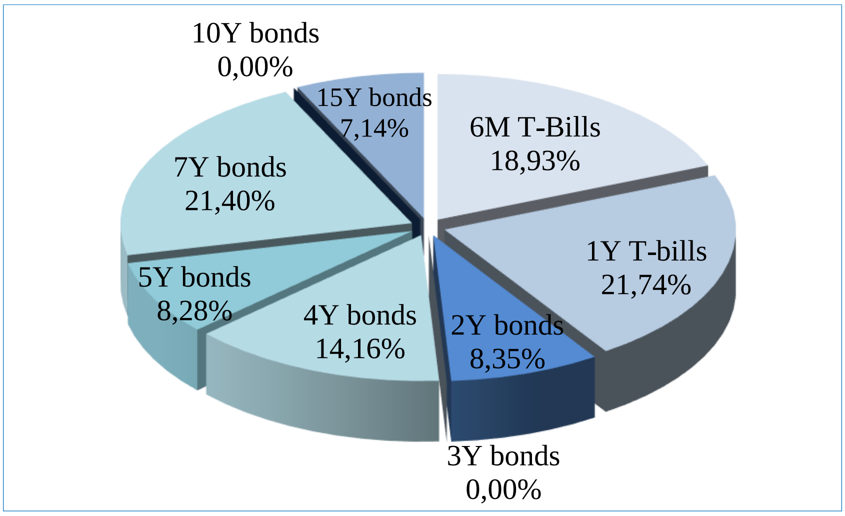


**Figure 8. Romania Government securities issued between January 1st – February 28th, 2017 (initial maturity)**

*Source: http://www.mfinante.ro/*

Investors in the GS are mainly banks and private pension funds. The banking system currently holds approx. 47.1% of government securities issued on the domestic market, and pension funds – 13.8%. At the same time, there is also an obvious interest of non-residents, who, although higher in 2013, is maintaining the last years to an acceptable level (Figure 9).

Building an efficiency curve for the government securities market is a public good as it forms reference prices for all issuers in the money market and corporate credit. At the same time, this curve is informative for many fund managers that aim to use GS to hedge against credit risks and / or maintain the liquidity of the investment portfolio. The internal market of GS in Romania also has a major function, being the main source of funding for the public budget. In case of external shocks, the availability of a solid and diversified investor base on the local market is important to meet the financial needs of the state.

An important step was the inclusion of Romania in international indexes (J.P.Morgan and Barclay's) starting in 2013, raising an increasing interest from external participants, which was demonstrated by the increase of the share of non-residents from less than 5% up to about 25% of government securities holdings in a very short period of time.

The regulatory framework for the primary and secondary market of the GS was improved by creating incentives for trading – market formation in order to increase liquidity and price display, improve communication and dialogue with market participants by organizing official monthly meetings with fund managers and Primary Dealers.

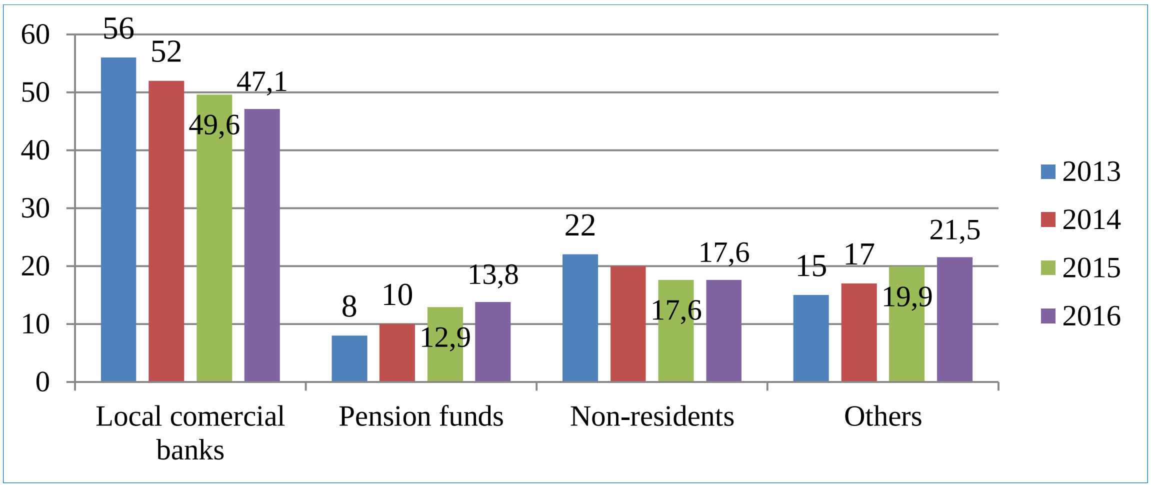


**Figure 9. Distribution by investor type (end of December 2016)**

*Source: http://www.mfinante.ro/*

The improvement of the government securities market infrastructure has finally resulted in the achievement of the sovereign wealth good for investments, stable and solid macroeconomic framework and financial stability. In this context, we can conclude that the level of liquidity of the Romanian GS market is acceptable, being clearly superior to that of the Armenian or Serbian market. At the same time, it is worth mentioning that this result has been achieved in rather small terms, transforming a market of government securities quite passive into an interesting one for foreign investors. In our opinion, Romania's experience in the formation and consolidation of a quality and liquid GS market, is a good example for the Republic of Moldova to follow.

**The Internal Market of Government Securities in the Republic of Moldova, the current situation.** The development of the domestic market of government securities for the Republic of Moldova is of major importance, especially in the context of macroeconomic indicators development in recent years. This would allow on one hand the government to diversify its funding sources and manage its most important market risks more effectively and, on the other hand, the financial sector would enable it to correlate and synchronize the development of the GS market with the other segments of the capital market.

The issue of the need to increase the liquidity of the national government securities market has been discussed at various levels many times, from national strategies to analyses and reports at international level. However, despite some successes in this chapter, the low market capacity, the low number of effective market participants and the "prudent" policy of state debt do not allow this market to have a consistent impact on the macroeconomic situation and to meet its role in macroeconomic regulation. The devaluation of the domestic banking system and its economic consequences led to the decrease of the tax revenues, respectively, the issuance of state securities became an important source of financing of the budget deficit, and the issue of increasing the liquidity on the government securities market became of particular importance.

In the Republic of Moldova, GS are issued by the Ministry of Finance and the National Bank of Moldova (NBM), as a tax agent, manages the primary market and the interbank secondary market of government securities issued in the form of internal accounts.

A lot of effective measures have been taken in the field of GS market development since the issuing of treasury bills in March 1995 and during the entire period of operation of the GS market. In cooperation with the Ministry of Finance, the NBM has established and applies the regulation of the activities and operations on the primary market of the GS, it has developed a series of measures aimed at creating the necessary conditions for the development of a regular GS market and the transparency of the issues, maintaining a suitable liquidity level.

There are two types of GS that are issued on the domestic market of Moldova (figure 10):

• Treasury bills – securities with different circulation times of up to one year (91, 182, 364 days);

• Government bonds – securities with a maturity of more than one year (2,3 years).

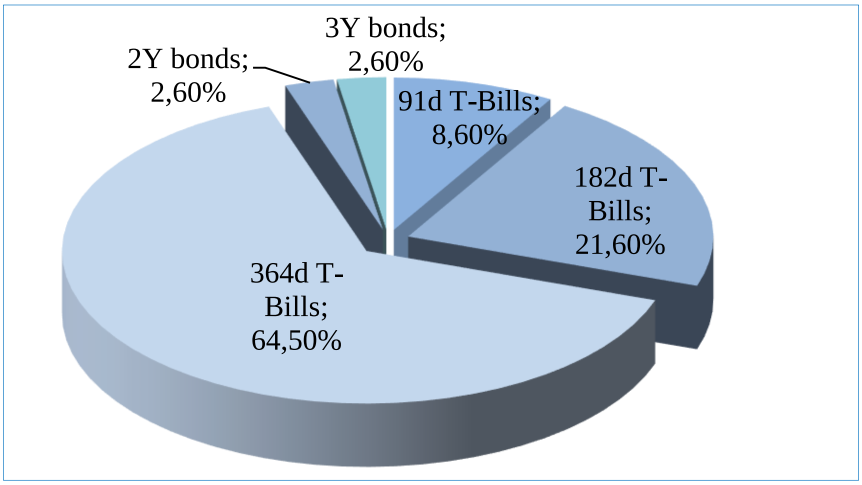


**Figure 10. Government bonds – securities issued on the primary market, 31.01.2017**

*Source: Monthly Bulletin of the Ministry of Finance, January 2017.*

The essential features of the Government securities market of the Republic of Moldova are:

- Short-term and ultra-short titles.
- Government securities are mainly associated with foreign exchange risk and refinancing risk in the Internal Market (e.g. first semester 2015 / first semester 2016);
- The secondary market is non-liquid and the active repo market is missing;
- Large number of outstanding GS lines / arrears (over 150 at any time);
- The non-diversified investor base is largely represented by local banks.
- In general, the existence of a limited capital market.

The development of the domestic securities market is hampered by the difficulty of contracting long-term fixed rate loans in national currency, even on the domestic market. This is due in large part to the lack of an efficient market infrastructure, but also to other specific factors, including the narrow regulatory framework of the GS and the lack of a private pension system that would provide other participants on the secondary market. To overcome this problem, it is necessary initially to create the conditions for market development, a favourable macro-economic and political environment. Changing the issuance policy of the GS that needs to be adapted to market preferences through efficient collaboration between the issuer and market participants could address the issue of the inactive secondary segment by providing investors with the securities they requested but not those issued by the Ministry Finance.

The liquidity analysis of the domestic government securities market highlights some of its specific features:

- lack of penetration, the secondary market activity and the number of transactions are characterized by a permanent decline. In fact, the transactions that take place are located only between primary dealers and the NBM;

- low density, due to high transaction costs and a lack of frequent bargaining, which would set up the up-to-date prices of supply and demand correlation;

- low volatility, due to the lack of daily auctions, which condition the price change. This explains the low market risk, which is associated with the investments in GS in the Republic of Moldova.

In our opinion, the low liquidity of the government securities market may be caused by several factors, but the investors' structure is obviously the main. In order to increase significantly market liquidity it is necessary to enhance the diversity of participants with different capacities and investment goals and facilitate their access to the market.

Volatility is an essential component of market liquidity, because it attracts investors interested in the possibility of obtaining revenues, especially from price differences. In the Republic of Moldova, however, these prices are negotiated at the primary auction and do not change over the GS maturity period, rather than only in the resale on the secondary market, by applying a fee charged by the primary dealership.

Factors of influence on the formation of prices to government securities may be objective and subjective in nature. On the whole, price formation for securities is influenced by:

- the market relations degree of development;
- the ratio between demand and supply.
- measures to coordinate and regulate prices to the state
- the tax system;
- degree of monopolization of the market;
- the primary and secondary market trading technology;
- the deposit and settlement system;
- set of derivatives of government securities traded on the market;
- the cost of the services of the organizers of transactions, depositories, financial agents, management companies;
- the availability of similar financial instruments, their substitutability, etc.

In practice, there is a big variety of factors that should be taken into consideration for price formation, which can be classified into three groups: demand and supply, costs and competition. Under the supply and demand law, the price level of government securities depends on the ratio between demand and supply. The factors that determine demand are: the volume of potential investments, the tastes and habits of investors, their income, the presence of similar securities on the market and the price for them, the value of other financial instruments.

Unfortunately, in the Republic of Moldova, all the listed factors are underdeveloped. The poor state of the GS market is conditioned by the lack of investors' interest.

The price of securities is also influenced by competition between financial market segments, as the state budget, the credit market and the securities market not only complement each other, but also compete with each other for attracting financial resources. The determining factors of competition are: the number and variety of issuers, the presence of similar securities to the state as maturity and profitability, the price level of the competitors.

In the case of GS, prices are predetermined from the stage of developing and adopting the terms of issue of the mobile values, the choice of the market segment for their distribution. If this segment is very limited, the price is determined by the initial bid price and the redemption price. In this case, the price is related to the date of the sale of government securities in relation to the business cycle period. If the financial flows are directed to the real sector, the GS offer will not find sufficient demand and the issue price will increase. Unfortunately, nowadays, situations where the volume of securities offered is not contracted are much more frequent than those in which demand exceeds the offer. In particular, this phenomenon is valid for GS with a maturity of more than 1 year, which increases the costs of financing the state debt [9, p.3].

Even though there are securities issued regularly over a long period of time, securities with a maturity of more than 3 years are missing in the Republic of Moldova, so that neither the profitability curve of GS can be traced. This greatly hinders investors from shaping options for future profits. Although Moldova's country rating revised by Moody's in November 2017 is stable at B3, indicating a moderate risk, investors are not willing to buy GS in the amount desired by the state [8].

**Conclusions and recommendations**

The development of a government securities market is a complex action, depending on the evolution of the financial and market system of each country. For the Republic of Moldova this involves huge challenges caused by problems that inhibit the development of the market, but also those that are deeply under the economy. Nowadays, the GS market in the Republic of Moldova is based on the few domestic banks for funding, which makes the competition low and the transaction costs remain high. The absence of a healthy market infrastructure leads to a liquidity shortage, and the absence of institutional investors, low domestic savings rates and lack of interest from international companies result in a small, very homogeneous group of titles, contrary to the heterogeneity needed for an efficient market. In addition, economic instability, often conditioned by high fiscal deficits, rapid money supply growth and sharpening of trade, damages investor confidence and may increase the risks associated with the lack of liquidity of a government bond market.

The need to develop the government securities market in the Republic of Moldova derives from the desire to boost the development of the capital market and the national financial system as a whole. The development of the capital market, as we have identified earlier, can be greatly driven by the optimization of the GS market and offering it a higher degree of liquidity, which can serve as a viable alternative for securing the financing needs of the Government and the creation of financial resources term of maturity. At present, the current market placement and trading mechanism of the GS does not fully ensure the need to finance projects with a long term realization and no optimal cost relative to the reduced risk assumed in the investment process. At the same time, the capital market cannot cover the deficiencies generated by the banking sector over the mediation process, its liquidity is reduced and the access to it is limited.

Market development is not possible without close coordination between the institutions responsible for fiscal-budgetary and monetary policy. The reference rate, inflation, exchange rate, dollarization level of the economy, all have an impact on the success of the issuance policy and the interest rates on the GS. Increasing the quality of the GS market involves a series of actions aimed to facilitate investors' access, increasing competition on the financial market and accelerating the movement of capital, among which are:

1. The existence of a clear and transparent strategy on public debt management will guide the investor in his decision to buy GS over a longer period of time.

2. The possibility of shaping an extended return curve represents the necessary conditions for conferring the GS market liquidity.

3. When introducing new value instruments, it is necessary to take into account the needs of potential investors.

4. It is necessary to avoid frequent small-scale emissions, where possible, in order not to fragment the market (e.g. with a maturity of 18 and 24 months, and 2 years).

5. The objective is to develop a solid and diversified investor base. In addition to measures to attract local and non-resident banks, it is important to mobilize the potential of non-bank local investors (insurance companies, pension and investment funds, retail investors).

6. Creating an infrastructure (possibly an electronic platform) that would allow any investor to access the GS market when purchasing, negotiating or tracking price developments. In this case, in order to increase market density, it would be desirable that the cost of accessing the trading platform to be close to zero.

7. In a small-sized economy to ensure compliance with the competition principles and a sufficient number of participants, all GS must be traded on the same platform so that the private investor can access any title and engage in transactions on an integrated or quasi-integrated platform.

8. Implementation of market-maker-type conditions for primary dealers and exclusion of banks that do not meet such conditions from auctions to issue. Thus, the market will be able to maintain liquidity, and the demand-supply side of the GS is constantly present.

9. In order to stimulate the development of the GS market, it is crucial that primary auctions have access only to entities that are interested in the secondary market liquidity intermediation and supply process. Given the excess liquidity situation in the financial sector, banks are naturally not interested in fulfilling the role of intermediary, preferring to invest liquidity in secure interest-generating instruments, such as GS, to the detriment of private sector lending and retention to maturity a subsequent reinvestment of income in the same instruments. Thus, trading on the secondary market occurs only when a customer does not want to keep the GS until maturity. To counteract this phenomenon, it is important to extend the list of primary dealers to include entities whose primary purpose is financial intermediation.

10. Increasing the level of financial education of the population will lead to the expansion of the categories of investors that would intensify the competition on the GS market.

The objective of developing the internal market of the GS and expanding its maturity has been and remains one of the priority actions of the Ministry of Finance. In order to achieve this objective it is necessary to settle concrete actions.

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