

## THE ROLE OF THE PRIMARY DEALERS IN THE GOVERNMENT SECURITIES MARKET

Olesea SPEIAN<sup>1</sup>

**Abstract:** Governments need money for good functioning. Following the COVID – 19 pandemic and the energy crisis, finding sources to cover the budget deficits has become a real challenge. One of the ways of accumulating funds is by issuing government securities through auctions. Thus, countries are continuously concerned about developing the domestic debt market to decrease the dependence on external creditors. The primary dealer system is the most widespread form of cooperation between the issuer and investors. The main goal of the research is to show the influence of the primary dealer system on the development of the government securities market. In order to meet the requirements of the debt manager's office they have to fulfil certain obligations. Despite the quantitative obligations of the primary dealers, the analysis focuses also on their qualitative aspects. Also, the paper presents a practical experience for selected countries regarding the evaluation of the activity of the primary dealers. The results of this research show a dependence between the development of the domestic government securities market and the methodology for evaluating the activity of the primary dealers.

**Keywords:** government securities, primary dealers, obligations, evaluation, auction.

**JEL Code:** D44, G18, H63

### Introduction

To develop the government securities market, countries have implemented different policies regarding the obligations, privileges and methodologies for evaluating the activity of primary dealers. The development of the government securities market is closely related to the primary dealers' activity, which are the leading players in the issuing process of the government securities.

The prominent role of the primary dealers in the developed markets is to facilitate the distribution of government securities, but in emerging markets – to promote the development of the domestic debt market. The objectives of primary dealers may differ from country to country, but some basic ones can certainly be listed: (i) providing a stable demand for government securities; (ii) ensuring liquidity on the secondary market of the government securities; (iii) expanding the investor base; (iv) promoting the confidence of government securities market.

Analyzing the experience of some countries regarding the primary dealer system, the methodology for evaluating the activity of primary dealers influences the development of the government securities market. The issuer tends to realize its objectives by imposing certain obligations on them. In such relationships, both parties tend to achieve their

---

<sup>1</sup> Olesea SPEIAN, PhD student, Moldova State University, Chisinau, Moldova, E-mail: [olesea.friscu@gmail.com](mailto:olesea.friscu@gmail.com), ORCID: 0000-0001-9957-372X

primary goals: the issuer – to accumulate the funds at cheaper costs, and the primary dealers – to make a profit on government securities.

It is prestigious to be offered the title of the primary dealer. This may lead to closer relations with the Ministry of Finance and the Central Bank. It could be the possibility to buy government securities on relatively more advantageous financial terms. The most significant benefit is that primary dealers can buy government securities without fees.

For the government, the impact of the primary dealer system may be as follows:

- enhance market liquidity: the obligation to trade a particular volume of government securities, to quote, contributes to the increase of liquidity;
- stable demand for government securities;
- broaden investment base;
- improve price discovery;
- reducing debt costs: the more liquid the government securities, the easier for the investor to sell them and the costs are lower;
- risk management tool: as liquidity increases, more investors will be willing to buy government securities, which can easily be converted into cash, thus reducing liquidity risk;
- improving the yield curve: facilitates the issuance of corporate bonds;
- access to domestic sources: with the government securities market development, the government have access to a reliable source of financing the budget deficit; the dialogue with the primary dealers contributes to the planning of the state budget with greater accuracy; the higher the issue volume, the higher the earnings of the primary dealers;
- manipulation on the government securities market: primary dealers can agree to offer at the auctions low prices for government securities, not reflecting the actual situation on the market, to sell them later at higher prices; this leads to an increase in debt service expenditures and a subsequent increase in the deficit.

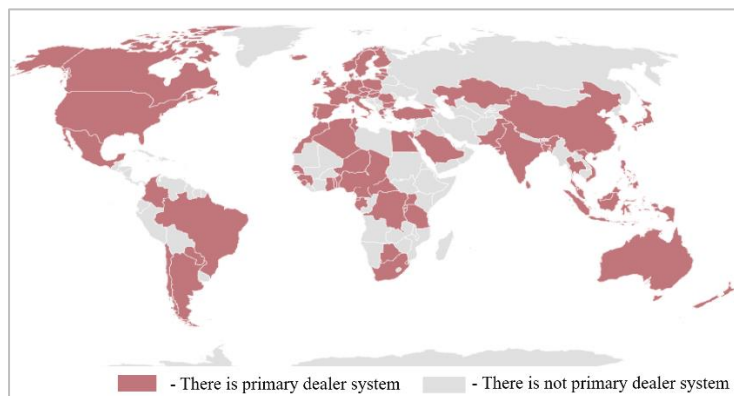
Taking into consideration the benefits from the primary dealers, the issuer introduces some obligations and a methodology of the evaluation the activity of the primary dealers. These depend on the level of the development of the government securities market and the financial market situation.

## 1. Primary dealers: selected countries' experience

To ensure the development of the government securities market, governments enter into agreements with intermediaries, usually banks, who act as primary dealers. They buy and trade government securities to satisfy the government's credit needs and the investors' interests (Baker, 1984). In the European Union, twenty-two countries have a primary dealer system, and only five countries do not have a primary dealers' system: Croatia, Cyprus, Estonia, Luxembourg, and Malta, where the syndication system is applied (Preunkert, 2020). In this case, there is a temporary association of banks that participate in the collective placement of bonds. This system is analogous to the primary dealer, only that

the governments pay the fee to the participating banks (is a tax that is paid to banks that participate at the syndication. Usually, the government does not pay to primary dealers), what is not a common practice in case of primary dealers' system.

Currently, the primary dealers' system is widespread worldwide (Figure 1).

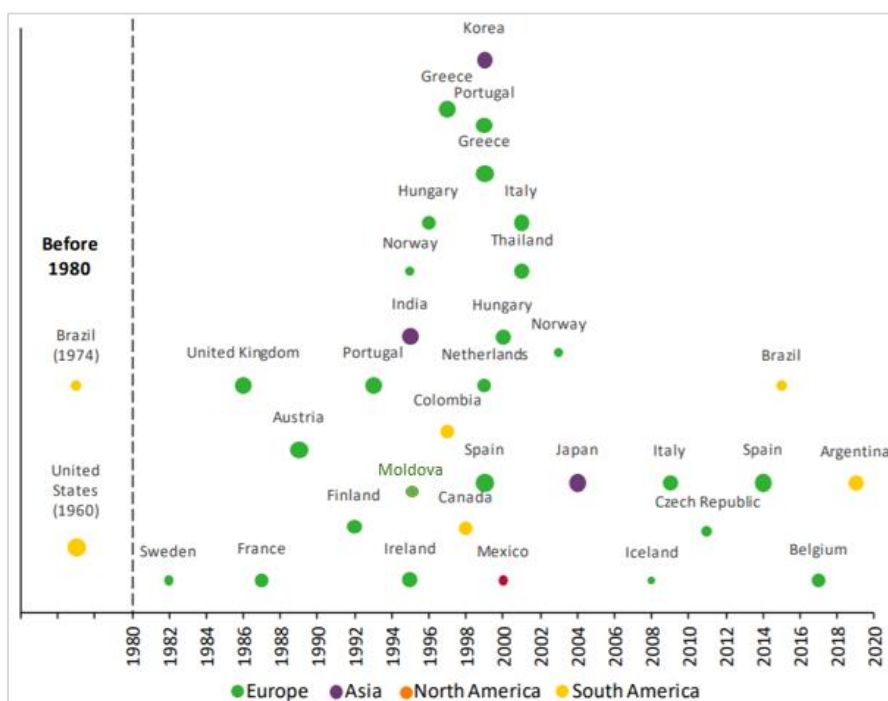


**Figure 1. Primary dealers globally**

Source: Multilateral Cooperation Center for Development Finance.

In some countries, the market works well without primary dealers, in others, it is one of the preconditions for developing the local government bond market.

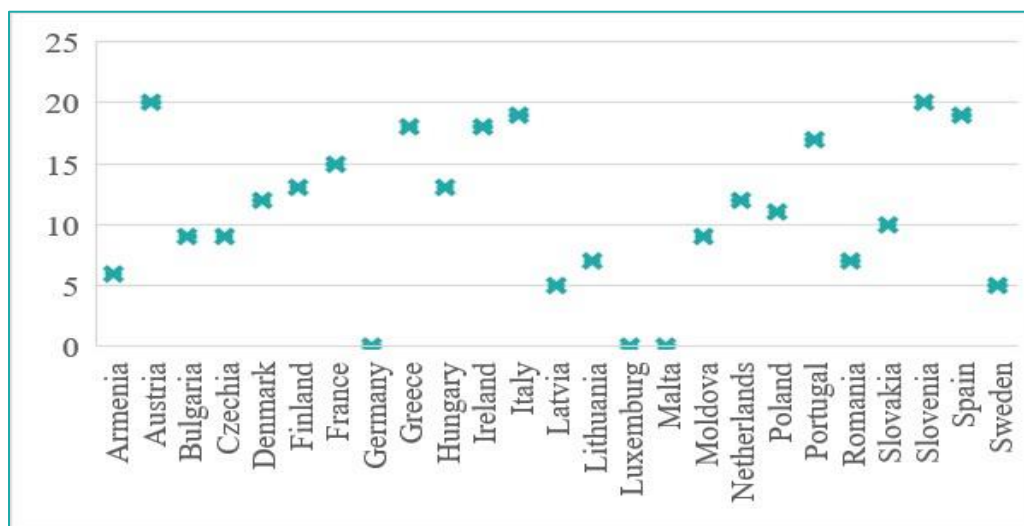
In 1960, the USA introduced the first primary dealers system and twenty-six years later it was introduced in Europe in the United Kingdom. The year of establishment of a primary dealers system differs from one country to another (Figure 2).



**Figure 2. Year of the establishment of a primary dealer system**

Source: Adopted by the author based on source Pedila (2019).

In the Republic of Moldova, the primary dealers system was introduced in 1995 (Radziwiłł, Șcerbațchi, & Zaman, 1999), long before developed countries like Japan, Italy and Iceland. Internationally, there is no concrete number or range regarding the number of primary dealers system. For instance, it can variate from five (Latvia, Sweden) to over eighteen primary dealers (Spain, Austria) (Figure 3).



**Figure 3. Number of primary dealers**

Source: Author's elaboration based on websites of the countries.

The most selected countries have a number of primary dealers between five and fifteen. The institutions responsible for selecting and signing agreements with the primary dealers and supervising their activity are either the Ministry of Finance or the Central Bank. In some countries, both institutions are responsible. The procedure for offering status to the primary dealers differs from country to country. In Korea, for instance, the status of the primary dealer is offered in steps. First of all, it is given the title of the preliminary primary dealer, and later, if it meets all the conditions, it is offered the title of primary dealer (Kravchuk, Требеш, & Джуччі, 2007). Also, the status of the primary dealer may be revoked if the bank does not meet the terms of the agreement.

Usually, governments do not remunerate the activity of the primary dealers, with some exceptions. For instance, in Denmark, primary dealers are paid for their activity. The fee depends on their performance (AFME, 2020). However, for the activity carried out by them, the governments offer them some incentives: to participate in non-competitive bids after the auction, to reconstitute and exchange bonds, to have privileged access to syndicated issues, that is used for issuing bonds on the international capital markets (Ecofin, 2000), to be selected as the bank through which the state executes various payments and transfers, to be involved in the on-lending process or the issuance of Eurobonds.

Before signing the agreement between the issuer and the primary dealer, it has to meet specific criteria. The selection criteria in different countries can be both common and different (Table 1). It might depend on the goals of the issuer and the country's debt management policy. If it tends to develop more primary market then it will introduce stricter

conditions for this segment. In order to increase the liquidity on the secondary market, the specific requirement as the level of the turnover indicator and the minimum time of quotation might be introduced.

According to Table 1, one criterion is common for all selected countries – to be approved by a regulatory agency. Staff and technological resources are mandatory only in the United Kingdom, USA, Japan, and Moldova.

**Table 1. Selection criteria for primary dealers**

Country	Sufficient balance sheet capability	To be approved by a regulatory agency	Minimum market share/amount	Staff and technological resources	Viable business plan
United Kingdom	✓	✓	✓	✓	✓
USA	✓	✓	✓	✓	✓
India	✓	✓			✓
Japan	✓	✓	✓	✓	✓
Brazil	✓	✓			
Mexico		✓	✓		
Moldova		✓	✓	✓	

Source: Adopted by the author based on source Pedila (2019).

In exchange for privileges, primary dealers agree to perform certain obligations or functions in the government securities market (Arnone & Iden, 2003). In the primary market, some countries require a minimum amount of award to primary dealers, either by auction, either on quarter or yearly basis. Regarding the secondary market, a minimum trading volume may also be imposed. The essential requirement of the primary dealer is to fulfil the market maker' role (Table 2).

**Table 2. Primary dealers obligations**

Country	Minimum participation in every auction	Participate in every auction	Provide information and data	Maintain a minimum market share	To avoid distortion to auction prices
United Kingdom	✓	✓	✓	✓	
USA	✓	✓	✓	✓	✓
India	✓	✓	✓	✓	✓
Japan	✓	✓	✓	✓	✓
Brazil	✓	✓	✓	✓	✓
Mexico	✓	✓	✓	✓	✓
Moldova			✓	✓	

Source: Author's elaboration based on source Pedila (2019).

The common obligations for all selected countries are to provide information and to maintain a minimum market share or amount of government securities.

To develop the government securities market, governments use different methodologies for evaluation the primary dealers' activity (Table 3, 4 and 5).

For the activity on the primary market in Czech Republic primary dealers receive 10 points more than on the secondary market. The highest points on the primary market are awarded for the treasury bills share. On the secondary market, almost all the indicators have 10 points, and only for buy-bank and exchange operations are five points.

**Table 3. Criteria for evaluation of primary dealers, Czech Republic**

Primary market	55 points	Secondary market	45 points
Primary auction share – T-Bonds	30 points	Quoting obligations performance	10 points
Dependability	5 points	Qualitative performance	10 points
Auction pricing strategy	5 points	Traded volume	10 points
Auction participation	5 points	Ministry of Finance market operations	10 points
Primary auction share T-Bills	10 points	Tap issuance, buy-backs and exchange pricing strategy	5 points

Source: Author's elaboration based on the Ministry of Finance of Czech Republic.

In Greece, primary dealers receive more points for the activity on the secondary market than on the primary. The most points are for the activity related to the yield curve (Table 4).

**Table 4. Criteria for evaluation of primary dealers, Greece**

Criteria	points
Trading volume in the primary market	20 points
Secondary market	25 points
Yield curve	37 points
<i>Number of quotes displayed</i>	<i>10 points</i>
<i>Abstention time</i>	<i>15 points</i>
<i>Bid-ask spread</i>	<i>5 points</i>
<i>Daily Compliance Report</i>	<i>7 points</i>
Further contribution to the Greek government bond market	18 points

Source: Author's elaboration based on Public Debt Management Agency of Greece.

The assessment of the primary dealers from Greece highlights the yield curve's importance. A reliable yield curve can help investors take managerial decisions and the issues to set up the coupon rate for new issuances.

In the Republic of Armenia, the index on primary market participation is based on competitive allocations in primary auctions on issuance and buy-backs, and it includes two indicators: the share of allocation for a primary dealer in the total allocation and the share of allocation for a primary dealer in the total bid submitted by the primary dealers. The index on secondary market activity is a weighted average index of the share of the exchange (NASDAQ-OMX) and OTC trading operations of a particular primary dealer in the total daily volume of trading activity. Secondary market activity in the NASDAQ exchange is given 60 percent weight, while the OTC market is assigned a weight of 40

percent. The assessment is done by five officials to ensure that the assessment is based on objective considerations and no personal opinions influence the ranking (Table 5).

**Table 5. Criteria for evaluation of primary dealers, Republic of Armenia**

Criteria	percent
Primary market	40 percent
Secondary market	50 percent
Work with issuer	10 percent

Source: Author's elaboration based on Ministry of Finance of the Republic of Armenia.

In Armenia the maximum number of points given to a primary dealer for quarterly evaluation is seven.

To evaluate the level of the development of the government securities market, it is important to consider the level of development because the same principles cannot be used. For instance, in a developed market, the demand of the primary dealers depends on the number of their customers and their role in the secondary market (Allen, Kastl, & Wittwer, 2020).

## 2. Moldovan primary dealers system

Before 2018, the National Bank of Moldova used to sign agreements with the primary dealers. Their obligations depended on asset level:

- At participation at the auctions:

1) primary dealers whose asset level is greater than or equal to 1.0 billion MDL participate in each auction;

2) primary dealers whose asset level is less than 1.0 billion MDL participate in at least 50% of the total number of auctions for the sale of government securities carried out during a month.

- Adjudicate during each quarter government securities in a minimum amount of:

1) 2.0% of the average quarterly volume provided by the Ministry of Finance during the previous four quarters – for primary dealers whose asset level is greater than or equal to 1.0 billion MDL;

2) 1.0% of the average quarterly volume provided by the Ministry of Finance during the previous four quarters – for primary dealers whose asset level is less than 1.0 billion MDL.

- Contributes to creating the liquidity of the secondary market, performing quarterly transactions in a minimum volume of 1.5% of the total volume of sale/purchase transactions performed with government securities in the previous quarter by all primary dealers (except open market of the National Bank).

Starting with implementation of new Regulation (2018), the Ministry of Finance is responsible for the selection and signing of the agreements with primary dealers. The access criteria and the obligations of the primary dealers have been modified (Figure 4).

Actual obligations are not based on the asset level of the bank. Primary dealers have additional obligations: (i) to buy minimum 3% of the total adjudicated amount by the Ministry

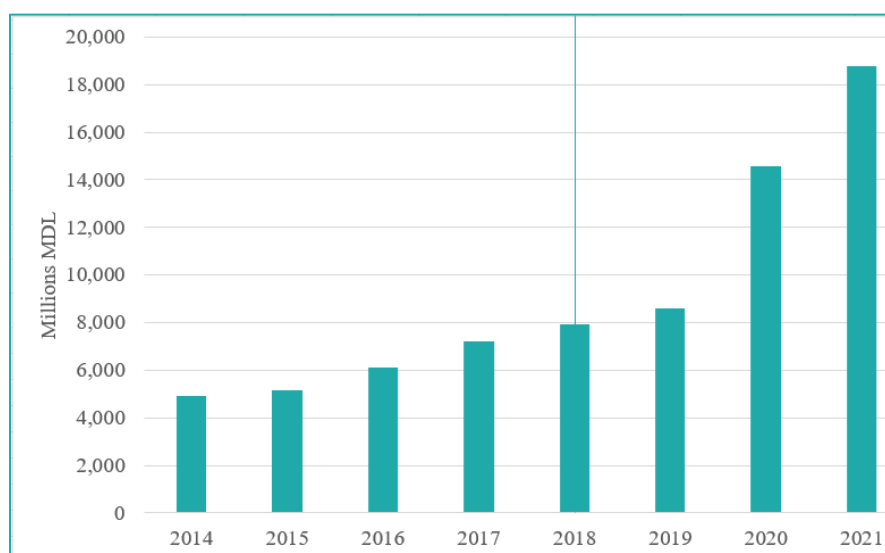
of Finance in the evaluation period, (ii) the weighted value of the government securities purchased in own name and account is minimum 2% of the total weighted value adjudicated by the Ministry of Finance, (iii) to trade minimum 3% from the total volume of the transactions made in the previous quarter, (iv) to quote daily from 10:00 am – 2:00 pm 100 thousand MDL to the nominal value of the government securities issued at the last two auctions.

Selection Criteria
<ul style="list-style-type: none"> <li>• during 3 months before the bank purchased minimum 3% of the total amount granted by the Ministry of Finance in the respective period;</li> <li>• the bank complies with the requirements for own funds and capital established by the regulatory acts of the National Bank;</li> <li>• the National Bank did not decide on the application of supervisory measures;</li> <li>• to hold a settlement account at the National Bank of Moldova;</li> <li>• is a participant to the Central Depository;</li> <li>• has separate space which is necessary for the development of government securities operations and qualified staff;</li> <li>• has appropriate technical equipment;</li> <li>• has own procedures on the working methods with clients.</li> </ul>
Obligations
<ul style="list-style-type: none"> <li>• to act as intermediaries between the issuer and investors;</li> <li>• to assure the liquidity of the market by promoting the government securities transactions in the secondary market;</li> <li>• in own name and account, to purchase minimum 3% of the total amount allocated by the Ministry of Finance;</li> <li>• the weighted value of government securities purchased in own name and account shall constitute minimum 2% of the total weighted value allocated by the Ministry of Finance;</li> <li>• to contribute to the creation of liquidities in the secondary market of government securities, by making quarterly transactions in own name and account, of minimum 3% from the total volume of transactions made in the previous quarter;</li> <li>• The minimal daily quotes in E-bond are the following: (i) submission of sale and purchase quotes for government securities issued at the last two auctions, during 4 hours, in the time period 10:00 am – 2:00 pm; (ii) the minimal volume of government securities with a sale and purchase quote shall amount to MDL 100 thousand to the nominal value.</li> </ul>

**Figure 4. Selection criteria and obligations of the primary dealers**

Source: Author's elaboration based on Regulation on Placement, Transaction and Redemption of Government Securities in Book-Entry Form, approved by the Executive Board of the National Bank of Moldova no.170/2018 and the Order of the Minister of Finance no.129/2018.

The new obligations contributed to the improvement on the primary market (Figure 5).



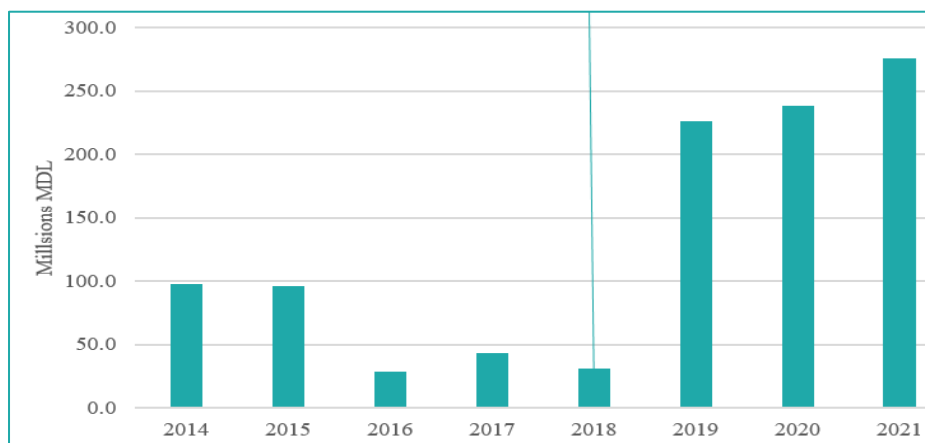
**Figure 5. Government securities issued in the primary market**

Source: Author's elaboration based on Ministry of Finance of the Republic of Moldova.



The volume of government securities issued on the primary market is increasing from 4.9 million MDL to 18.8 million MDL. A sudden increase is in 2019. The primary dealers must fulfil their obligations, to be active in the primary market.

New obligations have a positively influence not only in the primary market but also in the secondary market (Figure 6).



**Figure 6. Government securities traded in the secondary market**

Source: Author's elaboration based on source of National Bank of Moldova and Ministry of Finance.

The traded volume in the secondary market increased from 29.0 million MDL to 276.0 million MDL. In 2019 the traded volume in E-bond system increased considerably in comparison with before 2018. This is also explained by the new obligation of the primary dealers related to the secondary market.

For the development of the government securities market in addition to new obligations, a complex methodology was implemented to evaluate the activity of the primary dealers, which takes into account the activity in the primary and secondary market and also from the point of view of qualitative criteria (Table 6).

**Table 6. Evaluation criteria of the activity of the primary dealers, Republic of Moldova**

Primary market	45 points	Secondary market	40 points	Qualitative criteria	15 points
T-Bonds volume	20 points	T-Bonds volume	25 points	Activity on the primary and secondary market	10 points
T-Bills volume	15 points	T-Bills volume	15 points	Marketing and distribution	5 points
Acceptance rate	5 points				
Regularity of purchasing debt securities	5 points				

Source: Author's elaboration based on Regulation on Placement, Transaction and Redemption of Government Securities in Book-Entry Form, approved by the Executive Board of the National Bank of Moldova no.170/2018 and the Order of the Minister of Finance no.129/2018.

The maximum number of points which can be obtained by a primary dealer is 100. The highest score is for the activity in the primary market, followed by the secondary market and qualitative criteria. Based on this evaluation results, the annual ranking of primary dealers is made. The Ministry of Finance may decide on the termination of the validity of primary dealer status for the dealers which are positioned in the last two places of the ranking. The new evaluation of the primary dealers increased the competition between them, and, as a result, the volume of the government securities issued in the primary market increased and, also, there is an improvement of the liquidity of the secondary market.

### 3. Data and methodology

The purpose of the economic modelling is to determine the factors influencing the volume of the government securities issued by the Ministry of Finance of the Republic of Moldova. In this case, the author uses the data of the National Bank of Moldova for the period January 2012 – June 2022. The variables used in the model are represented in Table 7.

**Table 7. Description of the variables**

Symbol	Variable	Description	Units
GS	Government securities	The volume of the government securities issued by the Ministry of Finance	Thsnd. MDL
OF	Offered amount	The volume of the government securities offered by the Ministry of Finance	Thsnd. MDL
NR	Number of participants	Number of participants in the auctions	Units
MA	Maturity	The number of days from the settlement date to maturity date of the government securities	Days

Source: Author's elaboration.

*Government securities* is the dependent variable, and *offered amount*, *number of participants*, and *maturity* are the independent variables. In Table 8 there is a descriptive statistics of the variables.

**Table 8. Descriptive statistics of the variables**

Variable	Mean	Std. Dev.	Minimum	Maximum	Obs.
GS	78 747	105 420	0	970 059	1 646
OF	96 933	159 498	5 000	1 200 000	1 646
NR	10	2	0	15	1 646
MA	380	400	20	2 557	1 646

Source: Author's elaboration.

The minimum value of the volume of the government securities issued by the Ministry of Finance and the number of participants in the auction is 0. This happens in case there is no demand from the participants in the auction and, respectively, the adjudicated volume of the government securities is 0. The offered amount announced by the Ministry of Finance varies from 5 million to 1 200 million MDL, depending on the need to finance the budget deficit. The maturity of the government securities is from 20 days up to 7 years.

At the moment, the shortest maturity of the government securities issued in the primary market is 91 days, and the maximum maturity is 7 years.

Using the EViews 9.5 software package, the author has developed the following model:

$$GS = 0,56 \times OF + 2\,878,80 \times NR - 10,44 \times MA \quad (1)$$

Equation 1 was estimated using the least squares method (Table 9).

**Table 9. The results of testing the quality of model 1**

Variable	coefficient	standard error	t-statistic	p-value
OF	0.5578	0.0085	65.7236	0.0000
NR	2878.7790	179.6529	15.9853	0.0000
MA	-10.4365	2.9692	-3.5148	0.0005
<b>Value</b>				
R-squared	0.7231			
Adjusted R-squared	0.7227			
Durbin-Watson statistic	1.2631			
Akaike info criterion	24.6883			
Schwarz criterion	24.6982			
Hannan-Quinn criterion	24.6920			

Source: author's elaboration

The Durbin-Watson statistic shows that in model 1 there is autocorrelation, because the result for significant level 0.05 is less than  $d_L$  (1,915) In this case, for removing the autocorrelation it is introduced the variable AR(1) as independent variable (equation 2).

$$GS = 0,54 \times OF + 3\,581,05 \times NR - 22,13 \times MA + [AR(1) = 0,40, UNCOND, ESTSMPL = '1\,1646'] \quad (2)$$

The results of testing equation 2 are represented in Table 10.

**Table 10. The results of testing the quality of model 2**

Variable	coefficient	standard error	t-statistic	p-value
OF	0.5407	0.0044	122.2721	0.0000
NR	3581.0500	418.2729	8.5615	0.0000
MA	-22.1304	3.4692	-6.3791	0.0000
AR(1)	0.3954	0.0066	59.7085	0.0000
SIQMASQ	2.63E+09	34412659	76.3872	0.0000
<b>Value</b>				
R-squared	0.7633			
Adjusted R-squared	0.7627			
Durbin-Watson statistic	2.0012			
Akaike info criterion	24.5338			
Schwarz criterion	24.5502			
Hannan-Quinn criterion	24.5399			

Source: author's elaboration

The second model shows that 76,3% of the volume of the government securities issued is influenced by these independent variables. The remaining 23,7% depends on other factors. The chosen significant level is 0.05. According to p-value, all the results are 0.0000 that means the null hypothesis, the variables are not significant, is rejected and it is taken an alternative hypothesis. All variables are significant.

In model 2 the Durbin-Watson statistic level is greater than  $d_u$  (1,925), that means that the null hypothesis, positive autocorrelation does not exist, cannot be rejected. In model 2 there is not autocorrelation.

According to equation 2, the number of participants has the greatest influence on the volume of issued government securities. As well, the volume of offered amount positively influences the volume of the government securities issued in the primary market through the auctions. In the case of the maturity of the government securities, it influences negatively. This happens because investors in government securities are interested in buying short term government securities because the risk is lower. Usually, higher maturity means higher interest rate. Investors expect higher yields for longer maturity, which is not convenient for the issuer, because it contributes to higher expenditure for debt service.

## Conclusions

The main objectives of the primary dealer system are:

- to support the development of the domestic debt market;
- to help the debt manager's office to meet funding needs;
- to help building a reliable demand for debt securities;
- to help broadening the investor base;
- to provide liquidity in the secondary market.

Considering the primary dealers' influence on the government securities market, the governments have introduced different evaluation methodologies. Some countries require a minimum amount of award to primary dealers, either by auction, quarter, or year. Regarding the secondary market, a minimum trading volume may also be imposed. Others add qualitative obligations. Depending on the government's needs, the methodology is changing. If the government wants to develop a specific segment of the primary market, it will introduce more points for this or introduce new evaluation indicators.

With the introduction of the new evaluation method on the activity of the primary dealers in the Republic of Moldova, the primary and secondary market as well have improved essentially. The model shows that the number of participants in the auction positively influences the issued volume of the government securities, because it has the highest positive coefficient. The same, offered volume in the auction influences positively the issued volume of the government securities. This happens because 3% of the offered volume shall be announced for placement at the auctions for the ordinary non-competitive bidding for the clients of primary dealers. Taking into account its coefficient it influences less than number of participants in the auction. Only maturity of government securities influences negatively the issued volume, having a negative coefficient.

Considering permanent changes in the financial market it is important to update the evaluation methodology. However, the essential requirement of the primary dealer is to fulfil the role of the market-maker.

## References

- Agence France Trésor. (2022). *Primary dealers presentation*. <https://www.aft.gouv.fr/en/primary-dealers-presentation>
- Allen, J., Kastl, J., & Wittwer, M. (2020). Primary Dealers and the Demand for Government Debt. *Bank of Canada*, Staff Working Papers 20-29.
- Arnone, M., Iden, G. (2003). Primary Dealers in Government Securities: Policy Issues and Selected Countries Experience. *IMF Working Paper*, 03/45.
- Arnone, M., Iden, G. (2003). Primary Dealers in Government Securities: Policy Issues and Selected Countries' Experience. *International Monetary Fund Working Paper*, 03/45.
- Association for Financial Market in Europe (AFME). (2020). *European Primary Dealers Handbook*. <https://www.afme.eu/Portals/0/DispatchFeaturedImages/PD%20Handbook%20Updated%202019%202020-v2-1.pdf>
- Baker, W.E. (1984). The Social Structure of a National Securities Market. *American Journal of Sociology*, 89 (4), 775–811. <http://dx.doi.org/10.1086/227944>
- Bank of Greece. (2022). *Evaluation of Primary Dealers' performance*. <https://www.bankofgreece.gr/en/news-and-media/press-office/news-list/news?announcement=5e48b890-5cee-47b6-9b87-e49c834a5c29>
- Danmarks Nationalbank. (2022). *Primary dealers*. <https://www.nationalbanken.dk/en/governmentdebt/Secondarytradingandmarketmaking/Pages/primary-dealers.aspx>
- Debt and Liquidity Management Agency of Slovakia. (2022). *List of PD*. <https://www.ardal.sk/en/government-securities/primary-dealers/list-of-pd>
- Debt Management Agency of Hungary. (2022). *Primary dealers*. <https://akk.hu/securities-issuance-and-trading/primary-dealers>
- Department of the Treasury of the Italy. (2022). *List of Specialists in Government Bonds*. [https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti\\_en/debito\\_pubblico/elenco\\_specialisti/elenco/List-of-Specialists-in-Government-bonds-From-July-1-2022.pdf](https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_en/debito_pubblico/elenco_specialisti/elenco/List-of-Specialists-in-Government-bonds-From-July-1-2022.pdf)
- Dutch State Treasury Agency. (2022). *Dealers*. <https://english.dsta.nl/subjects/dealers>
- Ecofin. (2000). *Progress Report on Primary Dealership in EU Public Debt Management*. EFC/ECFIN/665/00-En-fin. Economic and Financial Committee, Brussels, November 20.
- Kravchuk, V., Требеш, К., & Джуччі, Р. (2007). A Primary Dealer System for Government Bonds in Ukraine. Why and How it Should be Introduced. *Institute for Economic Research and Policy Consulting in Ukraine*. [http://pdc.ceu.hu/archive/00003437/01/w1\\_en.pdf](http://pdc.ceu.hu/archive/00003437/01/w1_en.pdf)
- Ministry of Finance of Republic of Bulgaria. (2022). *Primary dealers of government securities*. <https://www.minfin.bg/en/1340>
- Ministry of Finance of Republic of Slovenia. (2022). *Primary dealers of government securities*. <https://www.gov.si/en/topics/borrowing-and-state-budget-debt-management/#e49505>
- Ministry of Finance of Romania. (2022). *Primary Dealers*. <https://mfinante.gov.ro/static/10/Mfp/trezorerie/RomaniaPrimaryDealers2022.pdf>
- Ministry of Finance of the Czech Republic. (2022). *Evaluation of dealers*. <https://www.mfcr.cz/en/themes/state-debt/dealers/evaluation-of-dealers>
- Ministry of Finance of the Czech Republic. (2022). *List of dealers*. <https://www.mfcr.cz/en/themes/state-debt/dealers/list-of-dealers>

- Ministry of Finance of the Republic of Armenia. (2022). *The list of the primary dealers for 2022*. [https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.minfin.am%2Fwebsite%2Fimages%2Fwebsite%2Fdocuments%2Fcopy\\_1\\_PM-en.docx&wdOrigin=BROWSELINK](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.minfin.am%2Fwebsite%2Fimages%2Fwebsite%2Fdocuments%2Fcopy_1_PM-en.docx&wdOrigin=BROWSELINK)
- Ministry of Finance of the Republic of Lithuania. (2022). *Government Securities Auctions*. <https://finmin.lrv.lt/en/competence-areas/state-debt-management/government-securities/government-securities-auctions/www.afme.eu/Divisions-and-committees/Primary-Dealers>
- Ministry of Finance. (2022). *Public Sector Debt*. <https://mf.gov.md/ro/datoria-sectorului-public/rapoarte/datoria>
- Ministry of Finance of Poland. (2022) *Treasury Securities Dealers*, <https://www.gov.pl/web/finance/primary-dealers>
- Multilateral Cooperation Center for Development Finance. (2022). *Primary dealers in the government bond market*. <https://jigsaw.themcdf.org/knowledge/detail?id=1485427787670831105&title=Knowledge%20Database>
- National Bank of Moldova. (2022). *Report: Information about secondary market trading of Moldova's State Securities*. <https://www.bnm.md/bdi/pages/reports/dop/DOP11.xhtml>
- National Treasury Management Agency of Ireland. (2022). *Primary dealers*. <https://www.ntma.ie/news/ntma-recognises-cantor-fitzgerald-ireland-as-a-primary-dealer-in-irish-government-bonds>
- Österreichische Bundesfinanzierungsagentur. (2022). *Austrian Treasury*. <https://www.oebfa.at/en/funding/primaerhaendler.html>
- Pedila, J.R.G.P. (2019). *Primary Dealer Systems in Government Securities*. <https://www.cemla.org/actividades/2019-final/2019-09-financial-markets/2019-09-financial-markets-18.pdf>
- Portuguese Treasury and Debt Management Agency. (2022). *Primary Dealers and other Auction Participants*. <https://www.igcp.pt/en/1-4-399/market-participants/oevt-and-omp/>
- Preunkert, J. (2020). Primary Dealer Systems in the European Union. *MaxPo Discussion Paper*, 20/1.
- Public Debt Management Agency of Greece. (2022). *Operating Rules of the Primary Dealers System*. [https://www.pdma.gr/images/docs/ENG-PRIMARY\\_DEALERS\\_RULES.pdf](https://www.pdma.gr/images/docs/ENG-PRIMARY_DEALERS_RULES.pdf)
- Public Treasury of Spain. (2022). *Primary dealers list*. <https://www.tesoro.es/en/deuda-publica/mercado/participantes/creadores-de-mercado/creadores-de-mercado-de-letras-del-tesoro/lista-de-creadores-de-mercado-de-letras>
- Radziwiłł, A., Șcerbățchi O., & Zaman, C. (1999). Financial Crisis in Moldova - Causes and Consequences. *CASE Network Studies and Analyzes*, 192, p.11. <http://dx.doi.org/10.2139/ssrn.1446714>
- Regulation (2018) on Placement, Transaction and Redemption of Government Securities in Book-Entry Form, approved by the Executive Board of the National Bank of Moldova no.170/2018 and the Order of the Minister of Finance no.129/2018.
- State Treasury Republic of Finland. (2022). *Primary dealers*. <https://www.treasuryfinland.fi/funding/primary-dealers/>
- Swedish National Debt Office. (2022). *Primary dealers*. <https://www.riksdagen.se/en/our-operations/central-government-borrowing/issuance/primary-dealers/>
- Treasury Republic of Latvia. (2022). *Primary dealers*. [https://www.kase.gov.lv/en/debt-management/securities-in-domestic-capital-markets/primary-dealers?disclaimer\\_agree=true](https://www.kase.gov.lv/en/debt-management/securities-in-domestic-capital-markets/primary-dealers?disclaimer_agree=true)