

The main characteristics of monetary policy and capital market in Armenia

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ՀՀ դրամավարկային քաղաքականության և կապիտալի շուկայի հիմնական առանձնահատկությունները

Տերյան Դիանա Գ.

Հայաստանի պետական տնտեսագիտական համալսարան,
ֆինանսների սահմանի ասպիրանտ (Երևան, ՀՀ)

Անփոփագիր. Կապիտալի շուկան յուրաքանչյուր երկրի ֆինանսական համակարգի կարևորագույն մասերից մեկն է: Այն կարևոր դեր է խաղում կենտրոնական բանկերի դրամավարկային քաղաքականության փոխանցումային մեխանիզմում: Չարգացած և լավ գործող կապիտալի շուկան կարող է օգնել դրամավարկային քաղաքականություն մշակողներին բարձրացնել արդյունավետությունը և բարելավել դրամավարկային քաղաքականության գործիքակազմի աշխատանքը:

Ուստի, սույն հոդվածի շրջանակներում արդիական է համարվել ուսումնասիրել ինչպես Կենտրոնական բանկի դրամավարկային քաղաքականության, այնպես էլ կապիտալի շուկայի հիմնական բնութագրերը Հայաստանում: Որպես դրամավարկային քաղաքականության հիմնական ցուցիչ մեր կողմից օգտագործվել է վերաֆինանսավորման տոկոսադրույքը: Կապիտալի շուկայի առանձնահատկություններն ուսումնասիրելու համար այն մեր կողմից հատվածավորվել է հետևյալ շուկաների՝ պետական պարտատոմսերի շուկա, կորպորատիվ պարտատոմսերի շուկա և բաժնետոմսերի շուկա: Հայաստանի կապիտալի շուկայի նշված հատվածները համեմատվել են իրար հետ՝ հաշվի առնելով Հայաստանի ֆոնդային բորսայում կնքված գործարքների ծավալները: Ավելին, ավելի լայն պատկերացում կազմելու համար գնահատվել են կապիտալի շուկայի տարբեր հատվածների, ինչպես նաև բանկային համակարգի ակտիվների հարաբերակցությունները ՀՆԱ-ի հետ: Կոռելյացիայի գործակիցների վերլուծությունը հնարավորություն է տվել ուսումնասիրել պետական պարտատոմսերի, կորպորատիվ պարտատոմսերի, բաժնետոմսերի շուկաների և դրամավարկային որոշ ցուցանիշների փոխհարաբերությունները:

Սույն հետազոտության հիմնական նպատակն էր ուսումնասիրել ՀՀ կենտրոնական բանկի դրամավարկային քաղաքականության և կապիտալի շուկայի տարբեր սեգմենտների ընդհանուր առանձնահատկությունները, ինչպես նաև դրանց միջև առկա կապի բնույթը:

Հանգուցաբառեր՝ դրամավարկային քաղաքականություն, կապիտալի շուկա, ՀՆԱ, հարաբերակցություն, կոռելյացիա

Основные характеристики денежно-кредитной политики и рынка капитала в Армении

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Аннотация. Рынок капитала является одной из важнейших частей финансовой системы в каждой стране. Он играет важную роль в трансмиссионном механизме денежно-кредитной политики центральных банков. Развитый и хорошо функционирующий рынок капитала может помочь разработчикам денежно-кредитной политики повысить эффективность и улучшить производительность инструментов денежно-кредитной политики.

Таким образом, в рамках данной статьи считается актуальным исследовать основные характеристики как денежно-кредитной политики центрального банка, так и рынка капитала в Армении. Мы использовали основную ставку рефинансирования в качестве ключевого индикатора направления денежно-кредитной политики. Чтобы изучить особенности рынка капитала, мы разделили его на следующие рынки: рынок государственных облигаций, рынок корпоративных облигаций и рынок акций. Указанные сегменты рынка капитала Армении сравнивались между собой с учетом объемов сделок, заключенных на фондовой бирже Армении. Более того, для более широкого понимания мы оценили связь показателей различных сегментов рынка капитала, банковской системы с ВВП. Анализ коэффициентов корреляции дал возможность изучить взаимосвязь между государственными облигациями, корпоративными облигациями, фондовыми рынками и некоторыми монетарными показателями.

Основной целью данного исследования было изучение общих особенностей денежно-кредитной политики Центрального банка Армении и сегментов рынка капитала, а также изучение характера связи между ними.

Introduction

The capital market is one of the crucial parts of the financial system in every country. It plays important role in central banks’ monetary policy transmission mechanism. Developed and well-functioning capital market can help monetary policymakers to raise efficiency and improve monetary policy toolset performance.

Thus, in the frame of this article, it was considered relevant to investigate the main characteristics of both central bank’s monetary policy and capital market in Armenia. We used main refinancing rate as a key indicator of monetary policy path. In order to study capital market features, we segmented it into the following markets: government bond market, corporate bond market and stock market. We compared these parts of the Armenian capital market taking into consideration the values traded on Armenia securities exchange. Moreover, to get wider understanding we evaluated the relations between the indicators of different segments of the capital market, banking system with GDP. The correlation coefficients analysis gave an opportunity to study the relationship between government bond, corporate bond, stock markets and some monetary indicators.

The main aim of this research was to investigate general features of the monetary policy of the Central Bank of Armenia and capital market segments, as well as to study the nature of the connection between them.

Literature Review

In order to investigate the characteristics of monetary policy and different segments of the capital market we have studied the available researches in the literature.

By studying the results of a number of analyses, it can be concluded that the stock market is the least developed capital market in Armenia and, compared to this, the debt securities markets are more developed [1; 2]. During the investigation of the impact of monetary policy on the stock market in Armenia, it became clear that there was no connection between the stock market and monetary policy instruments, the corporate bond market was indirectly affected by monetary policy, but the government bond market was significantly affected [3].

Research methodology

The capital market was divided into different sectors to investigate the features of each part in Armenia. The main parts of the capital market are government bond market, corporate bond market and stock market. We studied the yields of government bond yields, the value of corporate bonds and stocks traded on Armenia Securities Exchange. In order to compare different segments of capital market and banking system, we calculated the ratios with gross domestic product (GDP). We also investigated the dynamics of the main refinancing rate of the Central Bank of Armenia. We counted correlation coefficients to reveal the features of the relations between monetary indicators and capital market variables.

Analysis and Results

The interest rate is considered to be the main tool of the monetary policy of the central bank. In order to study the monetary policy implemented by the Central Bank of Armenia (CBA), the dynamics of the main refinancing rate was observed (Figure 1).

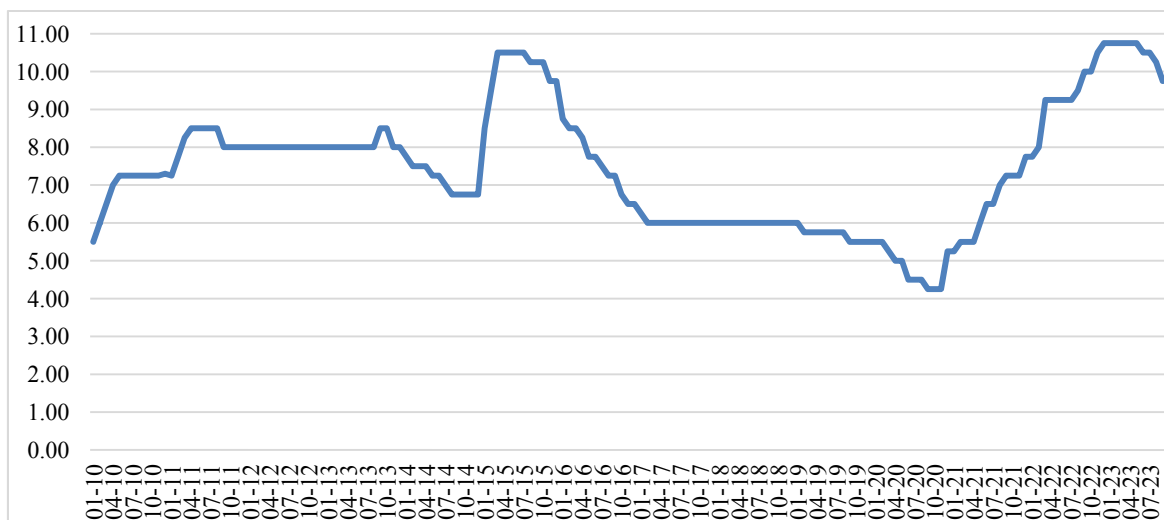


Figure 1. The CBA interest rate 2010-2023 [4]

As can be seen, in 2020, the CBA continued to conduct expansionary monetary policy. In particular, the interest rate was lowered by 1.25% from 5.5% in January 2020 becoming 4.25% in November. It was aimed at overcoming the low inflation environment. During the year, the rapid spread of the coronavirus pandemic in the world and in the Republic of Armenia, the war with Azerbaijan in September and, as a result, the imposition of martial law in Armenia created serious economic, health, social and other problems, which prompted the Central Bank to implement a stimulating monetary policy. However, in December 2020 the Central Bank raised the refinancing rate by 1%, setting it at 5.25%. This was due to the emergence of high inflationary expectations. In the subsequent period, the Central Bank maintained a tight monetary policy, gradually increasing the interest rate. The contractionary monetary policy was maintained in 2022 as well, as a result of which the refinancing rate reached the highest level of the entire considered period of 10.75%. The tightening of monetary conditions was aimed at curbing the hyperinflationary environment, which was largely caused by the Russian-Ukrainian conflict and its economic consequences. During the first half of 2023, the Central Bank maintained its

tight monetary policy, leaving the interest rate at the same level. However, since June, due to a certain deflationary environment, the Central Bank has started to reduce the interest rate, moving to softer monetary conditions.

In international practice, the capital market is considered to consist of the stock market and the bond market. Therefore, in the frame of our analysis, the indicators of Armenian government and corporate bonds and equity market were taken as characteristics of the capital market.

Government bond market is the most developed and established sector of the Armenian securities market. To analyze this segment of the capital market, government bond yield curves were considered (Figure 2). We averaged the yields of government bonds with different maturities. As can be noticed, the fluctuations of government bond yields, the main trends of the market are very similar to the dynamics of the refinancing rate of the Central Bank of Armenia. Recently, after the high levels of interest rates, there is a decline in yields, mainly due to the easing of the monetary policy and the decrease in the general level of interest rates in the financial market.

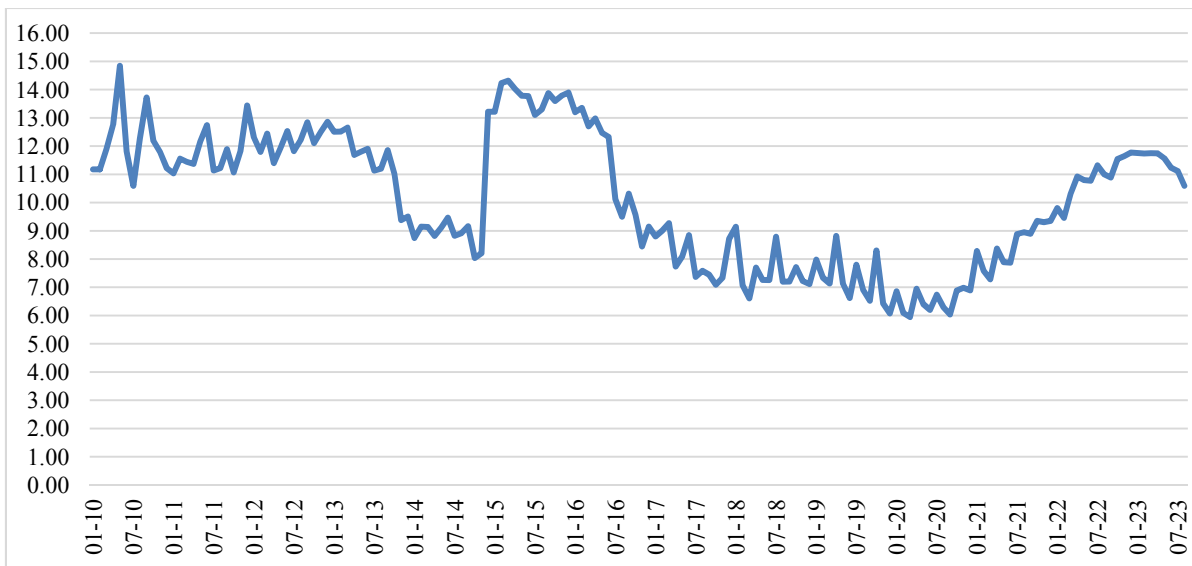


Figure 2. Government bond weighted average yields (%) [4]

In order to get an idea of the corporate bond market, we studied the total values of corporate bond transactions in the Armenian securities exchange (AMX) (Figure 3). An increase in the volume of securities exchange transactions was observed in the corporate bond market in recent years, especially in 2021-2022. But during the observed months of 2023, a slowdown in the growth of indicators was observed. At the same time, the number of securities exchange transactions registered an increase.

The stock market can be considered the least developed part of the capital market in Armenia. In this market the dynamics of the transactions do not have a clear noticeable trend, the transactions are mostly performed at a pre-known price between pre-known parties, as a result of which the market price of shares is not formed in most of cases. There is also a little number of stock market participants and companies whose shares are traded. Monthly value of stocks traded on the exchange did not register a general trend during the observed period (Figure 4).

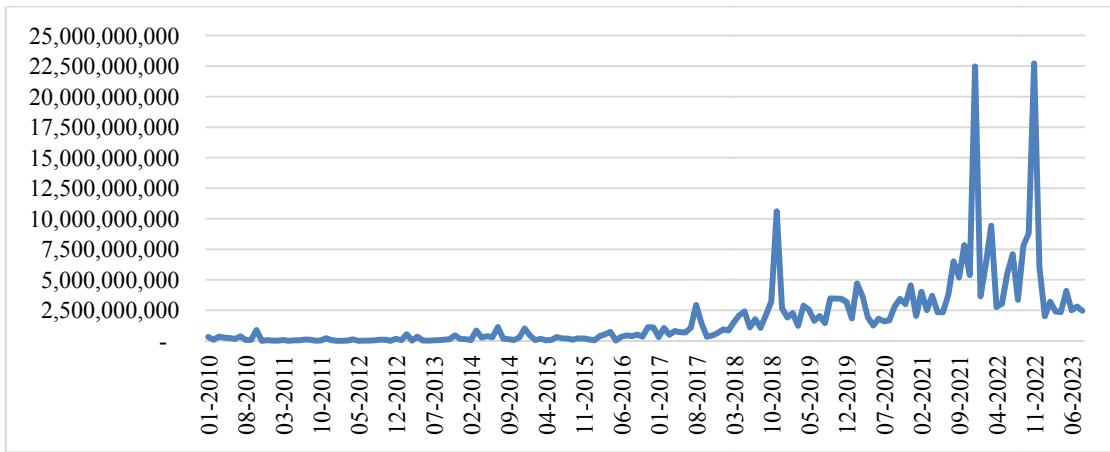


Figure 3. Corporate bond value traded on the AMX [5]

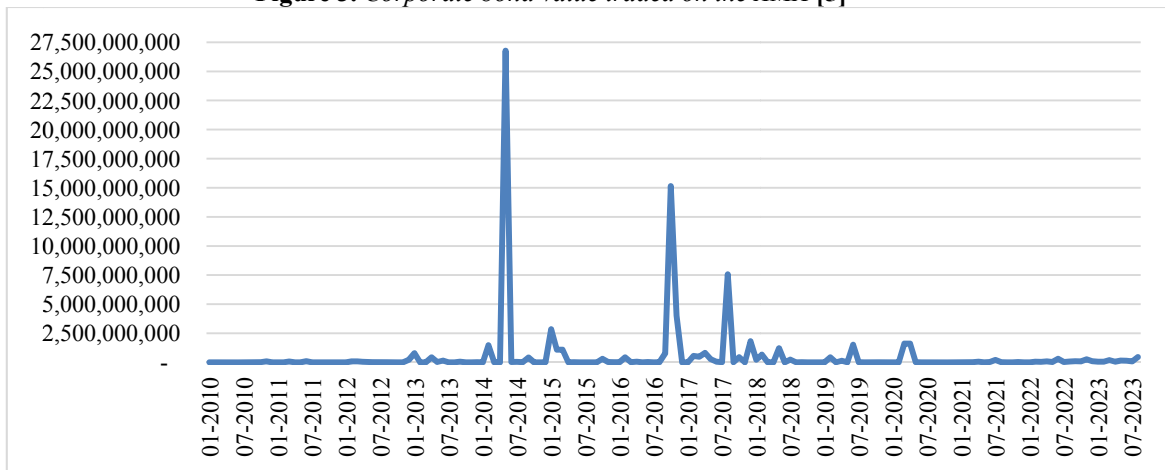


Figure 4. Stocks' value traded on the AMX [5]

The distribution by traded instruments of the annual total volume of transactions carried out in Armenia securities exchange was also studied (Figure 5). The volumes of transactions with stocks, government bonds and corporate bonds were presented. Other instruments are repo agreements, including extended ones. In the entire observed period, the largest share in the total volume belonged to transactions with government bonds. Particularly throughout recent years, the volume of

transactions with corporate bonds has been gradually increasing, and the stocks continue to occupy the smallest share in the total volume of transactions carried out on the securities exchange. As of 2022, according to the official publications of the Statistical Committee of the Republic of Armenia, 40.2% of the total volume of the transactions belonged to government bonds, 38.9% to corporate bonds, and only 0.49% to shares.

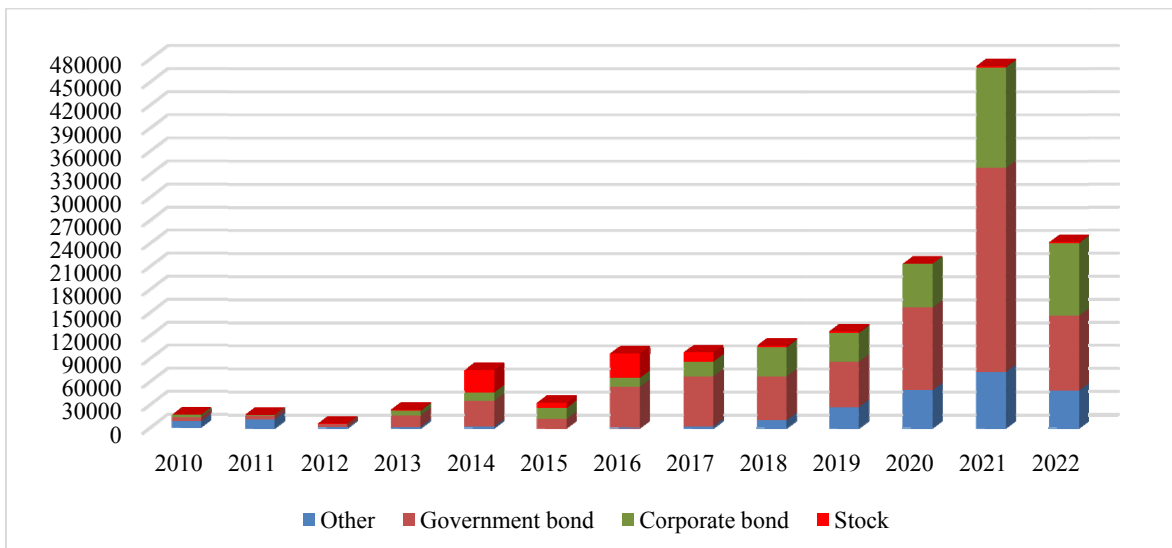


Figure 5. Stocks' value traded on the AMX [6]

In order to assess the development of different sectors of the Armenian capital market and to compare it with the volumes of the banking system, the ratios of the volumes of these markets to the gross domestic product (GDP) of the RA were calculated. Figure 6 shows the ratios of the annual volumes of securities exchange transactions with government bonds, corporate bonds and stocks to GDP, as well as the banking system's assets to GDP ratio. The latter is represented on the secondary axis.

As can be seen, the indicators of the banking system are extremely large compared to the securities market. During some years, the bank assets/GDP ratio has even exceeded 100%, particularly 108.2% and 101.5% in 2020 and 2021 respectively. Currently, it fluctuates around the

100% level, which indicates the high development of the banking system compared to the other observed markets. Among three observed segments of the capital market, as previously mentioned, the largest ratio belongs to the government bond market. In 2021 government bond value traded /GDP ratio reached 3.79%, but it declined to 1.14% in the following year. During recent years, corporate bond market has become active. The ratio between securities exchange transactions of these securities to GDP ranges from 1-2%. The worst situation, as expected, was recorded in the stock market. The volume of stock transactions/GDP ratio is even less than 1%, which indicates that the given securities market is underdeveloped.

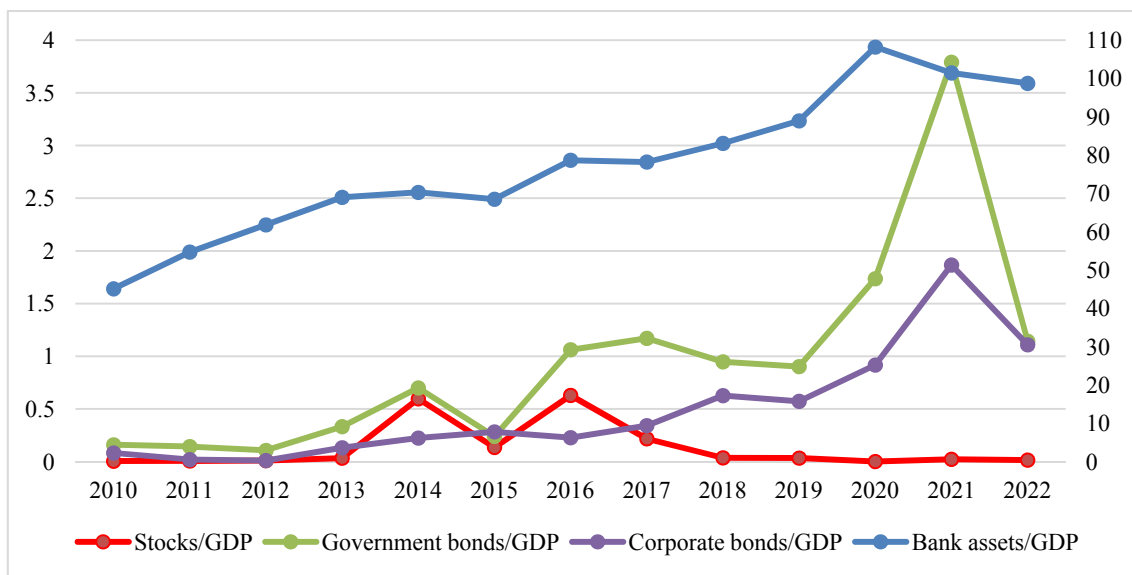


Figure 6. The ratios of government bonds, corporate bonds, stocks values traded and bank assets to GDP (%) [7]

Furthermore, correlation coefficients between some of the abovementioned economic indicators were calculated in order to investigate the nature

and direction of the relationship between the variables. The results of the correlation analysis are presented in Table 1.

Table 1. The correlation matrix of CBA refinancing rate (R), M2X monetary aggregate, CPI, government bond yields (GB), corporate bond value traded (CB) and stock value traded (S) [8]

	R	M2X	CPI	GB	CB	S
R	1.000000	0.101175	0.329728	0.791519	0.030341	0.011893
M2X	0.101175	1.000000	0.029304	0.027620	0.311514	-0.003161
CPI	0.329728	0.029304	1.000000	0.308721	0.070400	-0.033745
GB	0.791519	0.027620	0.308721	1.000000	0.123876	0.014257
CB	0.030341	0.311514	0.070400	0.123876	1.000000	-0.017852
S	0.011893	-0.003161	-0.033745	0.014257	-0.017852	1.000000

As can be noticed, the strongest correlation was recorded between the CBA refinancing rate and the government bond yields of 0.79. The relationship is direct, that is, an increase in the interest rate leads to

an increase in the yields of government bonds and vice versa. Also, the correlation coefficient is positive and relatively great between the government bonds yields and consumer price index

(CPI). In case of corporate bonds, the strongest correlation was observed with M2X monetary aggregate, amounting to about 0.31. In case of the stock indicator, the correlation coefficients with the other observed variables were mostly negative and very small.

Conclusion

According to our research, it can be concluded that the government bond market is the most developed part of the capital market in Armenia. The corporate bond market has gained popularity during recent years. However, the stock market still remains the most underdeveloped segment. The monetary policy main refinancing rate is highly correlated with government bond yields. The correlation coefficients between other segments of capital market and the observed monetary indicators are mainly insignificant.

The relations between government bond, corporate bond, stock markets, banking system assets and GDP affirmed that the banking system is larger and much more developed compared to the securities market. Among different sectors of the capital market, the government bond value traded on Armenia securities exchange/GDP ratio is the biggest compared to the other indicators. The stock market volume is less than 1% of the GDP in Armenia.

References

1. **Yakovlev I., Shvandar K.**, “Armenian Financial Market: Development, Present Conditions and Perspective”, Financial Journal, Financial Research

- Institute, Moscow 127006, Russia, issue 4, 2018 <https://doi.org/10.31107/2075-1990-2018-4-90-102> ;
2. **Bayadyan A., Baghdasaryan A.**, “Problems of Development and Integration of the Securities Market in the Countries of the EAEU”, International Organisations Research Journal 12(4), 2017 <https://doi.org/10.17323/1996-7845-2017-04-91>
3. **Արամյան Հ.**, «Արժեթղթերի շուկայի վրա դրամավարկային քաղաքականության ազդեցությունը ՀՀ-ում», «Տնտեսության և հասարակության զարգացում. 21-րդ դարի մարտահրավերներ և հնարավորություններ» ՀՊՏՀ 27-րդ գիտաժողովի նյութեր, Երևան, Տնտեսագետ, 2018, <https://artsakhlib.am/wp-content/plugins/download-attachments/includes/download.php?id=46898>
4. Official website of the CBA (<https://www.cba.am/en/sitepages/statmonetaryfinancial.aspx>)
5. Official website of the AMX (https://amx.am/en/guides_and_insights)
6. Official website of the Statistical Committee of the Republic of Armenia (<https://armstat.am/am/?nid=82>)
7. The figure was created by the author based on own calculations and the data from the official website of the Statistical Committee of the Republic of Armenia (<https://armstat.am/am/?nid=82>) and the CBA (<https://www.cba.am/am/SitePages/statfinorg.aspx>)
8. The table was created by the author based on own calculations.

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