

SECRET OF ARMENIAN EUROBONDS APPRECIATION

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Unlike bonds issued in national currency, bonds in foreign currency are usually more sensitive to processes occurring in the external environment. Armenian Eurobonds are no exception. 2022 was rich in events that affected the global currency bond markets. High inflation rates, higher interest rates by the central banks of the leading countries, the Russian-Ukrainian war and the uncertainty of the future have led to an increase in bond yields. In the paper the author examines the impact of these economic and political factors on the yield of Armenian Eurobonds and shows the main reasons for their recent appreciation, which are associated with an increase in demand for these bonds from resident investors and especially financial organizations.

Eurobond markets are subject to the influence of a wider range of external factors than national currency securities markets. Current global political and economic developments cannot but leave their mark on the trends of these markets. The economic effects of the Covid-19 pandemic, the Russian-Ukrainian war, the financial and economic consequences of sanctions against Russia, the biggest challenge in the global economy, inflation-driven interest rate hikes and the consequences of central banks' fight against it, have put stock and bond markets in a new situation. In this regard, the Armenian Eurobond market is no exception. So far, the Republic of Armenia has had four issues of Eurobonds. One of them has been redeemed



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In 2004 he graduated from ASUE and entered postgraduate studies. In 2007 he received a PhD degree in Economics and started working at ASUE Stock Market (currently Finance) department, first as an assistant, then as an associate professor. He is an author of a number of scientific publications and research papers.


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TABLE 1

Government currency bonds of Armenia¹

	<i>Armenia 2020</i>	<i>Armenia 2025</i>	<i>Armenia 2029</i>	<i>Armenia 2031</i>
Issue size	700 m USD	500 m USD	500 m USD	750 m USD
Issue date	30 September of 2013	26 March of 2015	26 September of 2019	2 February 2021
Maturity date	30 September of 2020	26 March of 2025	26 September of 2029	2 February 2031
Term	7 years	10 years	10 years	10 years
Coupon	6.0%	7.2%	4.0%	3.6%

and three are still circulating in the national and international markets (Table 1). Let's try to understand what the main driving factors of the bond market are and what we can expect in the future.

Macroeconomic factors or situation under inflation and uncertainty. After overcoming the Covid-19 pandemic, the world economy has entered a new stage of development. After a 3 percent decline in global real GDP in 2020, growth of nearly 6 percent was recorded in 2021. Armenia's economy was progressing through the same stages of development. In 2020, the economy recorded a 7.6 percent economic decline, and the following year, a 5.7 percent economic growth (Figure 1). The fall in 2020 was more drastic in our case, which was caused by the Artsakh war.

Accelerating economic growth and injections into economies during the

pandemic caused rising inflation. After the 3.2 percent inflation recorded in 2020, global consumer prices had already increased by 4.7 percent. In Armenia, inflation was 1.2 percent in 2020, and 7.2 percent next year (Figure 1). The inflation rate and the uncertainty of the future were further exacerbated by the Russian-Ukrainian war that began in 2022. If at the beginning of 2022 there was some optimism in terms of overcoming high inflation after the middle of the year, then in the spring of that year the situation is already different. The situation forces central banks to regularly raise refinancing rates, which, however, already raises expectations of recession for the next years. As a result, it can be said that the main macroeconomic factors related to inflation and interest rate growth do not create a good environment for bond appreciation.

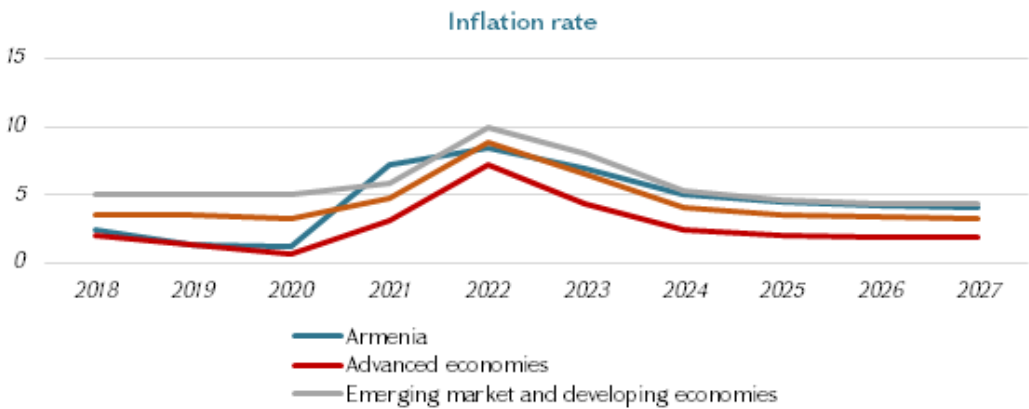


FIGURE 1

Real GDP growth and Inflation rate in 2018-2027 (Annual percentage change, 2022-2027 are forecasts)²

¹ Source: Ministry of Finance of Armenia: Reference on Foreign Currency Government Bonds, <https://www.minfin.am/website/images/files/e9dfeae3.pdf>

² Source: International Monetary Fund: World Economic Outlook, October 2022: Countering the Cost-of-Living Crisis, October 11, 2022: <https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022>

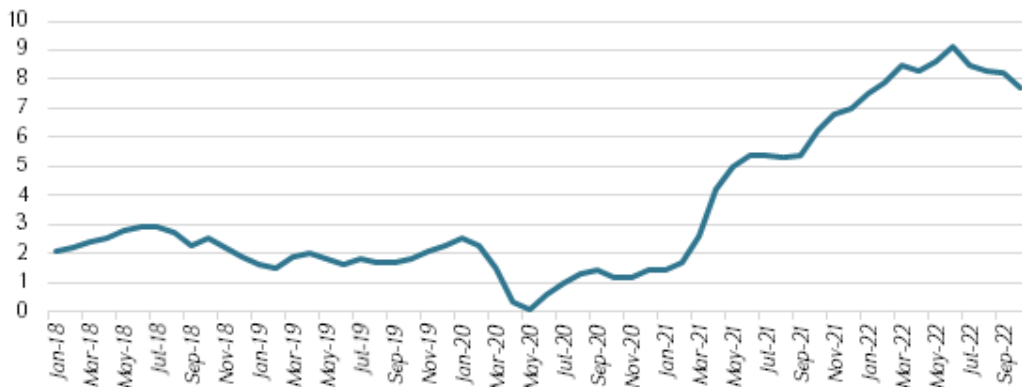


FIGURE 2

US historical Inflation Rates (in Percent) 2018-2022 October³

The bond market is also usually sensitive to political risks. After the end of the war in 2020, the internal and external political situation of Armenia continues to undergo shocks. 2022 made the situation even worse in this respect. First, the Russian-Ukrainian war, and then the September de facto war on Armenia's borders were significant political risks. Naturally, for investors, the region is not the best zone for investments, despite even high economic activity. Future political uncertainty is also a negative factor in this regard. On the one hand, the military situation on the borders of Armenia remains unsettled and the issue of signing the expected peace agreement remains uncertain,

and on the other hand, the outcome of the Russian-Ukrainian war is unclear in terms of the timing and results.

Inflation expectations in the United States and the impact of Federal Reserve policy. The prices of dollar-denominated financial instruments on international markets are significantly influenced by inflation rates in the United States, the policy pursued by the Federal Reserve System, as well as market expectations related to them. As such, these factors have a direct impact on the price or yield of US-issued government securities, which are treated as risk-free assets in the market and used in the calculation of risk premiums by other issuers or countries.

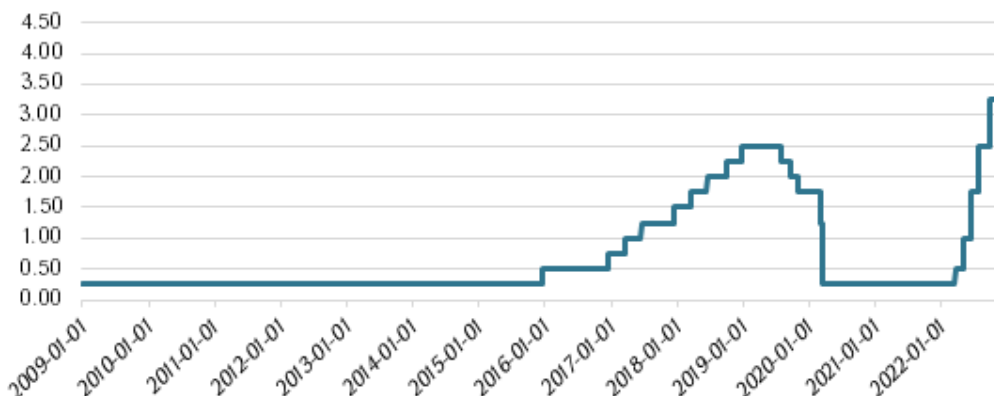


FIGURE 3

Federal Funds Target Range - Upper Limit, Percent, Daily, Not Seasonally Adjusted from 2008 December- to 2022 October⁴

³ Source: US Inflation Calculator - <https://www.usinflationcalculator.com/inflation/historical-inflation-rates/>

⁴ Source: Federal Reserve Economic Data -Federal Funds Target Range-<https://fred.stlouisfed.org/series/DFEDTARU>



FIGURE 4
Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis from 2018 - to 2022 November⁵

Inflation, rising after May 2021, reached 7.7 percent in October 2022. The maximum level of inflation was in June 2022 at the level of 9.1 percent (Figure 2). In the case of such inflationary rates, the Federal Reserve System could not avoid the policy of raising interest rates. Uncertainty and high inflation in this case forced to take more drastic steps.

Prior to that, the interest rate was raised starting from January 2016, when at the beginning of 2019, the interest rate reached 2.5 percent. It was then lowered again from July 2019 and was again at 0.25 in early 2020. This time the increase started in March 2022 and at the beginning of October, it is already 4 percent. It should also be noted that this time the steps to increase the interest rates were quite large. The first increase was 0.25 percent, the second - was 0.5 percent, and the subsequent increases were already 0.75 percentage points (Figure 3).

The increase in the market yield of US government bonds started from the end of December 2021. As a result, the yield of 1.5 percent at the beginning of January reached 3.68 percent at the end of November. In the mentioned period, the maximum level of the interest rate was at the beginning of November - 4.22 percent (Figure 4).

Essentially, bond market yields have responded to both the inflation rate and the expectations for rate hikes by the Federal Reserve. The reduction of interest rates from mid-November 2022 is mainly due to the improvement of the inflationary environment, as there are mainly expectations of a decline in economic activity and a recession for the coming year.

Inflation indicators in the Euro area were also not encouraging and the 5 percent inflation at the end of December 2021 reached 10 percent in November⁶. The European Central Bank also raised interest rates. It raised its rate from zero to 0.5 percent at the end of July 2022, and then to 0.75 percent in September and November. As a result, the interest rate was 2 percent at the end of November⁷.

For the reasons mentioned above, bond yields in the European region also started to rise sharply from the beginning of 2022. At the end of December last year, the yield of 10-year bonds increased from 0.29 percent to 2.94 percent at the end of November. The maximum indicator was recorded at the end of October with a level of 3.19 percent (Figure 5).

The index of dollar government bonds of

⁵ Source: Federal Reserve Economic Data -Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, <https://fred.stlouisfed.org/series/DGS10>

⁶ Source: Eurostat Data Browser- HICP - monthly data 'annual rate of change', https://ec.europa.eu/eurostat/databrowser/view/PRC_HICP_MANR/default/table?lang=en&category=prc-prc_hicp

⁷ Source: European Central Bank: Key ECB interest rates, https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html

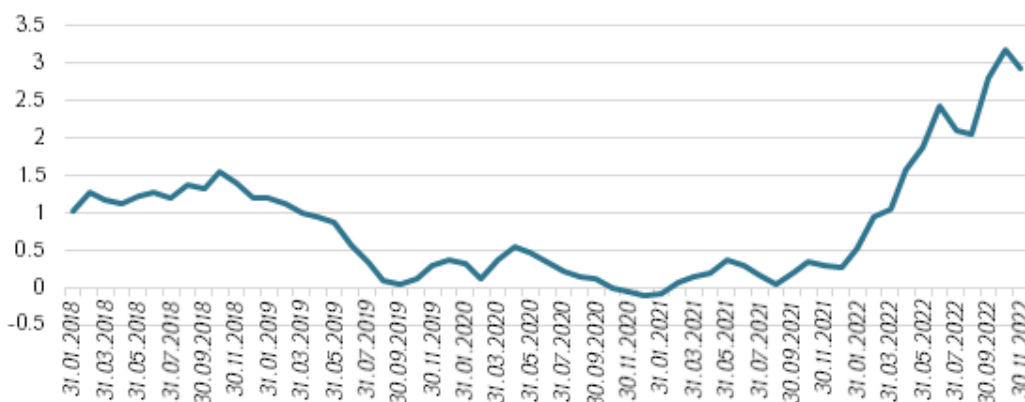


FIGURE 5

Euro area 10-year Government Benchmark bond yield from 2018 - to 2022 November⁸

emerging markets, calculated by City Bank, also indicates the recent increase in their yield. This is evidenced by the growth of the index calculated based on the spread of these bonds since the beginning of the year. As of the end of November 2022, the index increased by 167 basis points compared to the previous year (Figure 6). The rapid tightening in spread over June is driven by the removal of Russia from the index.

The behavior of Armenian Eurobonds. Armenian Eurobond yields have always shown sensitivity to all political and economic processes taking place in the country or region.

Bond yields responded to the upheavals in the RA financial market at the end of 2014, due to the sharp fluctuation of the dollar-dram exchange rate, and then recorded a specific increase during the revolution of 2018. The most significant shock to bond yields came in the spring of 2020 with the lockdown due to the Covid-19 pandemic, and then in the fall, there was some growth during the 44-day Artsakh war. In the spring of 2022, a jump in bond yields was recorded during the Russian-Ukrainian war. The increase in yields had already started since the beginning of the year due to inflation and interest rate hikes by the

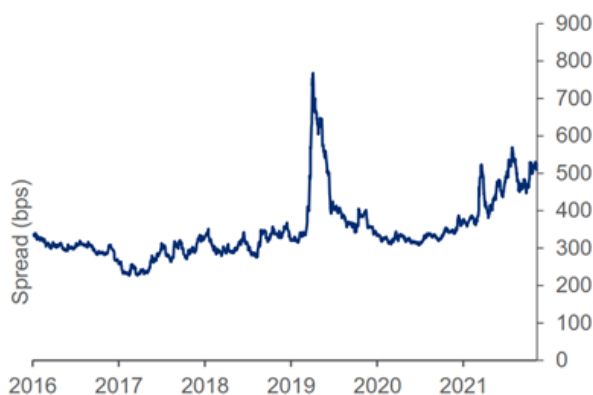


FIGURE 6

Citi Emerging Market USD Govt. Bond index⁹

⁸ Source European Central Bank - Euro area 10-year Government Benchmark bond yield, https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=143.FM.M.U2.EUR.4F.BB.U2_10Y.YLD

⁹ Source: Citigroup - CEEMEA DCM Market Update October 28 2022

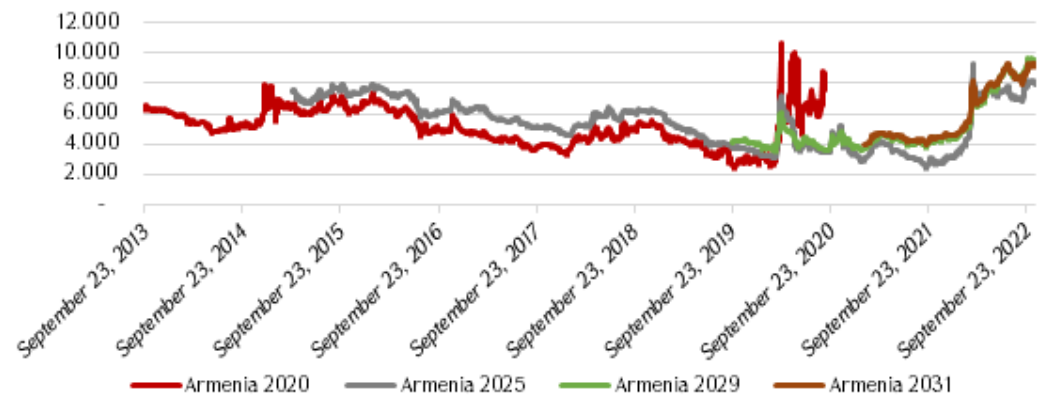


FIGURE 7
The dynamics of yields of Armenian Eurobonds of different maturities from September 2013 to October 2022¹⁰

central banks of the leading countries. However, the beginning of the war in the spring accelerated its growth. As a result, by the end of spring, compared to the end of February, the yield of bonds maturing in 2025 increased by 2.4 percentage points, those maturing in 2029 by 2.3 percentage points, and in the case of bonds maturing in 2031, the increase was 2.1 percentage points (Figure 7). Bond yields also responded to the September war events.

The behavior of the Eurobond risk premium is also equivalent to the course

of events mentioned above. Note that the risk premium is calculated by the difference between the nominal yields of Armenian Eurobonds and American bonds with the same maturity. In this case, it can also be said that the market showed an adequate response to the increase in risks. In this regard, the largest increase in the risk premium occurred in the summer of 2022, and the jump at the beginning of spring was equivalent to the increase in the risk premium at the end of 2014. It can be said that the growth that started in the spring



FIGURE 8
The dynamics of the risk premium of Armenian Eurobonds from September 2013 to October 2022¹¹

¹⁰ Source: Ministry of Finance of Armenia: Daily Quotations Dynamics of Foreign Currency Government Bonds: <https://www.minfin.am/website/images/files/577f49ba.xlsx>
¹¹ The calculation was made by the author on the basis of the yield difference between Armenian Eurobonds and American bonds with the same maturity. Sources: U.S. Department of the Treasury Daily Treasury Par Yield Curve Rates, https://home.treasury.gov/resource-center/data-chart-center/interest-rates/TextView?type=daily_treasury_yield_curve&field_tdr_date_value_month=202212 , Ministry of Finance of Armenia: Daily Quotations Dynamics of Foreign Currency Government Bonds: <https://www.minfin.am/website/images/files/577f49ba.xlsx>

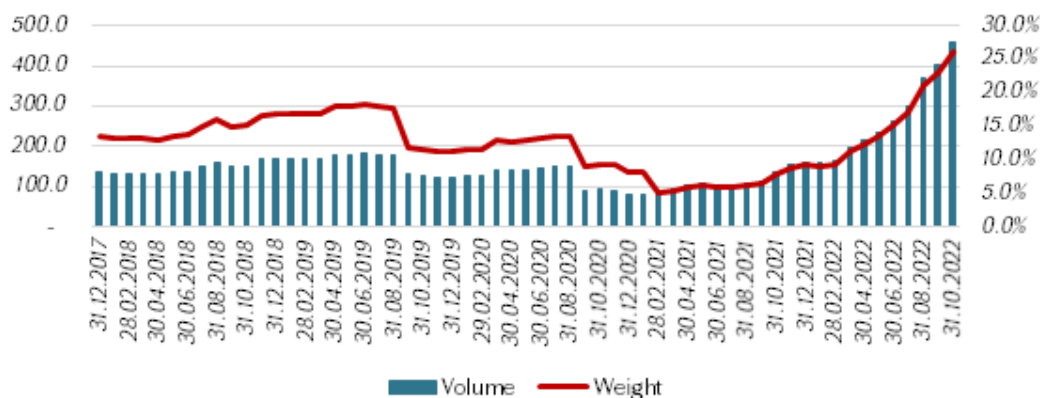


FIGURE 9
Volumes (million dollars) and weight of bonds denominated in foreign currency purchased by residents December 2017 to October 2022¹²

reaches its maximum level in the summer, but from the middle of the summer, the risk premium starts to decrease until the September war. Then again, the risk premium decreases, remaining at the level of the beginning of summer (Figure 8).

The main reason for the decrease in the yield of Armenian Eurobonds. It can be seen from the yield chart of bonds that they show a certain relative stability. After the spring growth, in contrast to the acceleration of inflation rates, the increase of key interest rates of central banks or the main dominant growth trend of bond yields in emerging and developed markets in general, they increase as a result of certain shocks but return to a certain equilibrium state.

Such a situation indicates the presence of a certain growing demand for bonds. Although Eurobonds were listed on the stock exchange, the main trade volumes are in OTC markets. The study of the structure of investors shows that the main investors are non-residents.

By the end of 2021, the weight of resident investors was 9.2 percent. From the end of 2017 until then, the maximum level was at the end of June 2019 - 18.2 percent. However, in 2022, the weight of resident investors

among the owners of Eurobonds increased significantly. At the end of October, it was 26.1 percent. The volume of Eurobonds owned by resident investors increased by about 297 million dollars or 2.8 times (Figure 9).

The main reason for the increase in the volume of resident investors is the situation of the Armenian economy and financial market. In the conditions of the growing rates of economic activity, lending volumes do not increase adequately, and in the case of increasing foreign exchange flows, many financial institutions have accumulated quite large non-interest incomes. If we take into account that the foreign currency instruments in the domestic market are mainly the bonds of financial organizations, the yields of which have not increased adequately, and the volumes are quite small, Eurobonds become the best investment alternative for financial institutions.

If the situation remains unchanged, the weight of non-residents will continue to increase. And since the main expectation, for the next year is in favor of lower inflation and lower interest rates by central banks, trends in the pricing of these bonds may bring more investors.

¹² Source: Ministry of Finance of Armenia: Monthly Statistical Bulletin, https://www.minfin.am/en/page/monthly_statistical_bulletin/

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Եղգար ԱՂԱԲԵԿՅԱՆ

ՀՊՏՀ «Ամբերդ» հեղափոխական կենտրոնի փորձագետ, փնտեսագիտության թեկնածու, դոցենտ

ՖԻՆԱՆՍԱԿԱՆ ՀԱՄԱԿԱՐԳ

ՀԱՅԱՍՏԱՆՅԱՆ ԵՎՐՈՊՈՆԴԵՐԻ ԱՐԺԵՎՈՐՄԱՆ ԳԱՂՏՆԻՔԸ

Ի տարբերություն ազգային արժույթով թողարկվածների, արտարժույթային պարտատոմսերը, սովորաբար, ավելի զգայուն են արտաքին միջավայրում տեղի ունեցող գործընթացների նկատմամբ: Բացառություն չեն հայաստանյան եվրոբոնդերը: 2022 թվականը հարուստ էր իրադարձություններով, որոնք ազդել են արտարժույթային պարտատոմսերի համաշխարհային շուկաների վրա: Գնաճի բարձր տեմպերը, առաջատար երկրների կենտրոնական բանկերի կողմից տոկոսադրույքների բարձրացումը, ռուս-ուկրաինական պատերազմը և ապագա անորոշությունները հանգեցրել են պարտատոմսերի եկամտաբերության աճին: Հեղինակը հոդվածում դիտարկում է տնտեսական և քաղաքական նշված գործոնների ազդեցությունը հայաստանյան եվրոբոնդերի եկամտաբերության վրա և ցույց տալիս դրանց արժևորման հիմնական պատճառները վերջին շրջանում՝ կապված ռեզիդենտ ներդրողների և հատկապես ֆինանսական կազմակերպությունների կողմից այս պարտատոմսերի հանդեպ պահանջարկի մեծացման հետ:

Հիմնաբառեր. *Եվրոբոնդ, եկամտաբերություն, գնաճ, տոկոսադրույքներ, ռուս-ուկրաինական պատերազմ, կենտրոնական բանկեր, ներդրողներ, ռիսկի պարզակալմար*

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ФИНАНСОВАЯ СИСТЕМА

СЕКРЕТ УДОРОЖАНИЯ ЕВРООБЛИГАЦИЙ АРМЕНИИ

В отличие от облигаций, выпущенных в национальной валюте, облигации в иностранной валюте обычно более чувствительны к процессам, происходящим во внешней среде. Еврооблигации Армении не являются исключением. 2022 год был богат событиями, затронувшими мировые рынки валютных облигаций. Высокие темпы инфляции, повышение процентных ставок центральными банками ведущих стран, российско-украинская война и неопределенность будущего привели к росту доходности облигаций. В статье автор рассматривает влияние указанных экономических и политических факторов на доходность еврооблигаций Армении и показывает основные причины их удорожания в последнее время, которые связаны с увеличением спроса на эти облигации со стороны инвесторов-резидентов и особенно финансовых организаций.

Ключевые слова: *еврооблигации, доходность, инфляция, процентные ставки, российско-украинская война, центральные банки, инвесторы, премия за риск*