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## DESIGNING TERMS AND CONDITIONS OF WAR BONDS

**Abstract.** *With the Russian invasion in Ukraine, the problem of war financing became extremely topical for our country. To make the optimal decision, our government has to consider the experience of countries facing the same challenges in the days of the First and Second World Wars.*

*The paper deals with some aspects of war financing, analyzing the arguments of the proponents and opponents of debt financing, paying particular attention to the most sound reasoning for bond emission instead of raising taxes. While paying heed to military bonds, the paper hones in on the practical issues of war bonds emission during WWI and WWII in belligerent countries. The subjects of research, in particular, are the following: peculiarities of war bonds in different countries in different periods, the purposes of bond emission, procedure of debt securities placement, denomination of bonds and their maturity, coupon rate (if any) and procedure of interest rate payment, tax status and marketability of military bonds. Distinct consideration is given to the analysis of costs of war bonds servicing with regard to the interest rates of corresponding national central and commercial banks.*

*Based on the review of analyzed options, specific proposals are mapped out for the fine-tuning of the terms and conditions of Ukrainian military bond emissions. In particular, the soundness of the advertising campaign preceding and accompanying bonds placement, as well as ways and means of dynamizing investment in war bonds are substantiated. Exploration of the structure of the main customers of Ukrainian war bonds (which appeared to be Ukrainian commercial banks) in parallel with the comparative analyses of the yield on US and Ukrainian military bonds led the authors to the conclusion of the expediency of reducing coupon rate on war bonds alongside with the reduction of key policy rate of the National Bank of Ukraine.*

**Keywords:** *war bonds, interest rate, maturity, tax exemption, risk*

**Introduction.** On February 24, 2022, Russia launched a full-scale military invasion of Ukraine, bombing the entire Ukrainian territory, killing people, and destroying homes, infrastructure and whole cities. At present Ukraine is withstanding the most significant military aggression in Europe since WWII, with the total costs of armed resistance being hard even to comprehend. With each month of war costing the Ukrainian state over 10 billion dollars, the Ukrainian government desperately needs additional resources – similar to countries waging the first and second World wars.

Discussions on the topic of war financing have been in progress for several centuries. In former times, whether in classical antiquity or Middle Ages, neither sovereigns nor scientists argued about the advantages and disadvantages of different sources of war financing – gold or silver were defrayed out of accumulated treasures, reinforced by taxes and reimbursed to the victor by the defeated enemy. Heated debates on the sources of war financing started at the days of World War I, with three main sources of war financing (money printing, debt securities or higher taxes) becoming the subject matter of dispute. While scientists were arguing, governments of the belligerent countries made use of all of them (in the USA, for example, financing of WWII was realized in the ratio 48 (by explicit taxes) to 7 (by direct government money creation) to 14 (by private money issue) to 31 – by interest-bearing government securities not matched by money creation [*Schwartz, 1980, p.154*].

Ukraine has also resorted to emission of war bonds, issuing short term (not exceeding 19 months) tax free military bonds with rather a high coupon rate (not less than 11%). The very name “war bonds” indicates that the funds will be used to cover the needs in the military sphere. As of end of 2023 Ukrainian government has received equivalent of UAH 773 billion [*Ukraine’s Government, 2023*].

Comparative analyses of the terms and conditions of different methods and tools of war financing, enforced at the time of WWI, WWII, and Ukrainian-Russian war, seem essential both from theoretical and practical perspectives due to the fact that the examination of the effects of war bonds emission during WWI and WWII can provide scientists and top management of our country with the profound comprehension of causal relations between terms and conditions of war bonds and post-war realities. Eventually, such knowledge might come in handy when designing new emissions of national military bonds.

**Analysis of resent research.** By and large, all scientific papers on the topic of war financing can be divided into two groups: those dealing with the general problem – principles

that underlie the preference among the respective methods of war financing, and those analyzing the specific issues of the nature, form, and terms of each war bond.

In real life, all of the fighting countries make use of money printing, doubling or tripling money supply, but alongside with this the states do not refrain from other two significant components of war financing. The principal difference between two methods of war financing – debt securities emission and tax raising – is the choice of the generation to bear the costs of war expenditures [Garwood, 1954]. In the days of World War I, the majority of economists believed that increasing taxes was the best course of action, following Hume, Ricardo, Mill, and Adam Smith, the latter arguing that to make the public aware of the true cost of war, taxes had to be raised. Oliver Sprague specified, that it was unfair "to draft men into the armed forces and then expect them to come home and pay higher taxes to fund the interest and principal on war bond" [Sprague, 1917]. He claimed that the idea that the *burden of war expenditures can be deferred to future generations* is the supreme fallacy of finance.

Among the proponents of tax raising as a primary tool of war financing, the most influential were finance ministers of the UK (Bonar Law) and the USA (William Gibbs McAdoo). Being in office the latter has affirmed his word with deed: in October 1917, six months after the USA declared war on Germany, the tax rate was increased from 1.2 percent in 1916 to 7.8 percent for an income of \$10,000. The rate increased from 10.3 percent in 1916 to 70.3 percent in 1918 for income of \$1,000,000 [Rockoff, 2008].

Leading economists justified such significant increases: "conscription of men should logically and equitably be accompanied by something in the nature of conscription of current income above that which is absolutely necessary. The obligation that each citizen furnish the state in case of war a large portion of his current income manifestly would impose no more oppressive burden than the obligation of military service " [Sprague, 1917].

It should be noted that almost all opponents of debt financing paid attention to the limits of heavy taxation. US Secretary William McAdoo believed that a funding ratio of roughly 50% from taxes and 50% from bonds would be appropriate [Rockoff 2008]. Further increase in tax burden (particularly progressive taxation) could, as McAdoo stated, terrify the wealthy classes and erode their support for the war.

As if condensing the arguments of the opponents of war bonds during WWI, professor Edwin Seligman wrote: "Government loans are indispensable to sound war finance. To attempt to finance a war exclusively through loans is short-sighted. To attempt to finance a war exclusively through taxes is suicidal" [Seligman, 1918].

With time going on, the cohort of the supporter of debt financing was growing at a high pace, especially after the outbreak of WWII, incorporating almost all finance ministers of the belligerent countries. They were supported by numerous researchers who analyzed in their papers different aspects of war bonds emission. Nearly all of them dwelt upon the advantages of debt financing, mentioning that tax increases society's unwillingness to support a war [Heller, 1966], demotivating citizens even more with rising costs of prolonged war [Levi, 1988, Gibbons, 2014]. The same problem of the future generations bearing the burden of war was discussed by Flores-Macías et al. [2017].

With the end of WWII the interest to comparative analysis of alternative ways of war financing and specifics of the terms and conditions of issued war bonds started to fade away, as the majority of researchers focused their attention on the indirect consequences of war bonds emission, either historical or potential. While Chiu and Brener [2022] concentrated on the analysis of the role of central bank in dealing with these securities and predictable consequences of their activities, Hilt, Jaremski, and Rahn [2022] analyzed the role of war bonds in the transformation of American finance, stating that increases during WWI in the level of households' participation in the stock market (by way of Liberty bond purchases) reduce the demand for bank deposits, and that this decline in deposits reduces the availability of bank loans; eventually higher liberty bond subscription rates has led to an increase of assets in investment banks and a contraction of assets in commercial banks. Recent publications have compiled international historical interest rate series and examined long-term trends (as it was done by Officer and Williamson [2021], Chen et al. [2022]). The paper of Jonathan Payne, Bálint Szőke, George Hall, and Thomas Sargent [2024] presents usage of a statistical model with drifting parameters to infer term structures of yields on US federal bonds (both real and nominal) at the time of the gold standard era .

Thorough review of the various theoretical aspects of war bonds emission leaves the practical issue of the design of such bonds (optimal for specific conditions) unresolved. So far, to the best of our knowledge, no research on this aspect has been published. The main objective of this paper is to find out and analyze all the possible options of the design of war bonds, basing on the analysis of similar bond emissions at the time of WWI and WWII by the then belligerent countries. The ultimate goal is to develop proposals for the fine-tuning of the terms and conditions of Ukrainian military bond emissions.

**Research results.** A War bond (Bonds of the Internal State Loan – BISL), like any other bond, is a fixed-income investment that represents an obligation to reimburse to the

claimants of the bonds their nominal value with the payment of income in accordance with the terms of their placement. In a broad sense, war bonds represent a form of tradable credit to a government supplied by the general public due to the patriotic mood of the population. The citizens agree to give the state a specific amount of money for a particular period in exchange for interest payments at designated intervals. Contrary to 'general' bonds, which are used to obtain funds for all kinds of public activities, war bonds allow obtaining financial resources to finance specific tasks, namely military needs.

Emission of the bonds is sometimes preceded (i) by a *massive propaganda campaign* and always – (ii) by a bond indenture.

(i) In the USA, in particular, four distinct Liberty loan drives in 1917-1918 enlisted millions of volunteer salesmen and saleswomen, backed by entire commercial and investment banking industries and rallies led by movie stars, respected politicians, and prominent sportsmen. The purchase of war bonds was compared to conscription of income. By any standard, the campaigns' efforts were successful: In total, the liberty loans raised about \$22 billion for the federal government, equivalent to more than \$5 trillion today as a constant share of GDP [Hilt, 2022].

(ii) A bond indenture is a core legal document (contract), that includes a description of the bond features, restrictions placed on the issuer, and the actions that will be triggered if the issuer fails to make timely payments. As a rule, bond indenture includes the following clauses: the purpose of emission, interest rate, interest calculation, payment dates, and maturity date (if any). Below is presented the variety of different terms and conditions of different war bond emissions in different countries.

**Purpose of emission.** Alongside the clearly stated aim of covering the cost of war, then the Secretary of the US Treasury, William Gibbs McAdoo mapped out the three-pronged **purpose** of the famous Liberty Loans: (i) the public had to be educated about bonds, the causes, and objectives of the war, and the financial power of the country; (ii) the entire effort of bonds placement would rely upon volunteer labor, avoiding the money market, brokerage commissions, or a paid sales force; (iii) the government would appeal to patriotism and ask everyone – from schoolchildren to millionaires – to contribute to victory by purchasing bonds [Sutch, 2015].

Like quite a few of his foreign colleagues during WWI, McAdoo strived to create a broad market for government bonds by following an aggressive policy of "capitalizing patriotism" [Kang, Rockoff, 2006].

Appealing to patriotic sentiment, war bonds were also regarded by citizens as a form of investment and by the state – as some sort of referendum (demonstrating the level of support of the government). One more not-so-clearly expressed reason for debt securities emission is the belief that grass-roots buying of bonds decreased the likelihood of civil unrest by making the government a debtor to as many people as possible.

Almost all the governments that resorted to debt financing of war issued bonds periodically, in series (installments). The reasons for this can be explained both from psychological and economic viewpoints. As far as psychology is involved, all the governments were not sure of the success of sales; proposing to sell \$1000 worth of bonds, and receiving offers to buy \$1001, one can interpret this as a success, and a confirmation of enthusiasm as “the issue has been oversubscribed” [Kang, Rockoff, 2006]. At the same time, the offer of \$1 000 000 worth of bonds with a subscription for \$999 000 can be seen as a ‘failure.’ That is why all the countries issuing war bonds proposed these securities in a series by subscription.

Besides, from the economic viewpoint, the emission of bonds in separate blocks provides governments with an opportunity to promptly correct the terms and conditions of the next series of proposed bonds to place them in full. In the USA, in particular, the interest rate was rising with new emission of Liberty loans: for the First, it was 3.5%; for the Second – 4.0% and the Third – 4.25%.

After the placement of the marketable securities, the governments have to monitor the price of their bonds on the market in order to stabilize them. In the USA, for example, specially created off-budget federal agency War Finance Corporation was authorized to buy Liberty bonds and later Victory notes to stabilize prices, repurchasing up to 5 percent of the outstanding issues annually [Butkiewicz, 2016].

One of the main attributes of any bond is its **denomination**.

The denominational structure of bonds reflected the contradictional /dual tasks of bond placement. On the one hand, the price of the bond had to be low enough to be affordable to all segments of the population. On the other, bonds should not be used as a cash substitute.

Making war bonds affordable for low-paid workers was complicated by the average compensation of a production worker in manufacturing, approximately 35 cents per hour, which meant that a worker had to work for two weeks to buy one bond for \$50. Fixing the lowest denomination at the level of \$10 would enable all segments of the population to purchase bonds. But it could be accompanied by one of the two negative consequences, triggering either need of additional costs for keeping and tracking the payment records (if it

were registered bonds) or displacement of cash (if it were bearer bonds, that could be used as a medium of exchange).

US government found an unconventional solution: in order to make war bonds affordable to the poorest, in 1917 the USA government put up for sale “War Thrift Stamps,” which cost only 25 cents. They were called “little baby bonds,” and like the Liberty Bonds, they earned interest. The stamps had to be pasted on a card until 16 of them had been collected; after that, they were exchanged for a \$5 stamp called a “War Savings Stamp.” In the next round, 10 “War Savings Stamps” had to be affixed to a “War-Savings Certificate,” which could be exchanged for a \$50 Liberty Bond. The key to this scheme was that the certificate was registered to its owner and could be cashed only by that person. That made the certificate non-negotiable [*Liberty Bonds, 2015*].

Thanks in large part to such policy, by the end of the war, the average sum of subscription for war bonds was over \$2000 per person, when the average income was \$2000 per year.

Almost in all countries, war bonds were made available in a wide range of denominations to make them affordable for both the general public and financial institutions. In the USA during WWI, Liberty bonds were issued with face value \$50, \$100, \$500, \$1000 and \$5000 with the most significant share of sold bond (41,49%) with denomination of \$1000 [*Kang, 2006*].

Results of stamp conversion into the bonds demonstrates their **yield**: in exchange for a \$25 bond, the customer pays 75 times \$.25. which equals only \$18.75 or 75 percent of face value. [*War Bonds, 2021*]. The \$6.25 difference between the face (\$25) and purchase price (\$18.75) was the income of the owner of such zero-coupon bond which the owner received when redeeming this bond 10-30 years after emission.

Parallel with discount bonds at the days of both world wars, the states were also issuing coupon bonds with a fixed, as a rule, coupon/interest rate.

When determining in 1917 the level of coupon rate the Secretary of the US Treasury William McAdoo stated that offering high **rates of interest** would not work. He was opposed to high rates because of the significant burden on the treasury it would cause in the future and because that would reward the rich (the main customers of bonds). He chose to keep the interest rates below the current return on comparable assets and raise rates only in response to the rise of interest rates on alternative assets (from 3.5 percent on the first loan to 4 percent on the second and 4.25 percent on the third and fourth). Of the same opinion was the British

government, which, in memory of the costly debts of World War I, at the time of the next world war imposed an interest rate limit of three percent.

While fixing the rate, the monetary authorities have to take into account the rate paid by national savings banks on customers' deposits: fixing a coupon rate higher than the banks' rate could cause an outflow of clients from a financial institution, causing banks' resistance to bond placements. That is why the first offering of bonds in the USA in 1917 promised a 3.5 percent – with the rate of 3.5-4 percent paid at that time by savings banks on deposits.

Based on the regularity of interest payment, the most common for coupon war bonds were semiannual interest payments, but revenue could also be annual, quarterly, or monthly. The coupon was always tied to a bond's face or par value and was quoted as a percentage of par. On the basis of principal payment war bond could be a 'bullet bond', whose entire principal value and interest was paid all at once on the maturity date, as opposed to an 'amortizing bond,' that repays part of the principal (face value) along with the coupon payments according to an amortization schedule, typically through equal payments.

Alternative way of invigorating purchase of war bonds was connected with the problems of taxation. An option of making bonds tax exempt provided the national fiscal authorities with three sub-options: to exempt from taxes (i) all or a part of all the income of operations with bonds; (ii) only income gained through interest payment or (iii) only capital gain (difference in buy/sell prices). In the history of war bond emissions, we can see the application of all suboption, with the tax status of gains varying from issue to issue.

Each alternative has different political and economic costs and benefits. Some governments were picking out their optimal option by trial and error. In the USA, for example, while all Liberty loans were exempt from state and local taxes, the First one was exempt from almost all peaceful income taxes (excluding estate and inheritance taxes) and the wartime surtax. Immediately after the First Liberty bonds emission, US fiscal authorities were confronted with solid criticism for imposing high marginal taxes on the one hand and then creating a loophole on the other. That is why the authorities were compelled to impose limited graduated additional income taxes, commonly known as surtax exemption: for the second and third bonds issues, the surtax exemption was limited to the interest on the first \$5,000 worth of bonds at face value. But with the weak market for the fourth issue, the limit to the exemption from the surtax was raised to \$30,000. Provision was made to extend the surtax exemption to interest on the second and third issues, provided specified amounts of the fourth issue were purchased [*Kang, Rockoff, 2006*].



Taking into consideration that in the days of WWI the highest marginal rate reached 77 percent on incomes over \$1 million, tax exemption of war bonds undoubtedly made these bonds attractive to investors in high tax brackets, this being testified by statistics: 70.7 percent of all bonds outstanding in 1920 was purchased in denomination from \$1000 to \$100,000 [*Kang, Rockoff, 2006*].

In this way the Treasury, gaining from lower interest rates on war bonds, was losing from lower tax revenues.

Another feature determining the attractiveness of the war bonds is their marketability, which depends on the transfer method's form – whether this security is a bearer bond (an official certificate issued without a named holder) or a registered bond. A registered bond is a debt instrument whose bondholder's information is kept on record with the issuing party. The peculiarity of registered bonds is that since they contain the owner's name and contact information registered in the file of the issuing country, then only an individual recognized as the registered owner on the date of an interest payment can receive the agreed profit. Because of the mentioned features, registered bonds are considered illiquid.

Contrary to this, bearer bonds (negotiable/marketable/liquid) are very risky because they can be lost or stolen, but at the same time, they may be traded like cash. The main advantage of their emission for the governments – avoidance of expenses for dealing with the administrative cost of tracking ownership and payment records. The main attraction of bearer bonds for investors – is the simplicity of trading them on the stock exchange or over-the-counter to receive capital gains. In the USA, as in other countries, we have seen the emission of both types of bonds: while the Liberty Bonds of the First World War were negotiable (but war savings stamps – non-negotiable), during the WWII securities with large denominations of between \$50 and \$1000 were non-negotiable bonds.

The choice between registered and non-registered bonds preconditions the existence of the secondary market, where war bonds can be traded as any other security.

Another important problem to solve before issuing war bonds is the choice of the optimal **tenor** of the debt instrument. In the days of world wars, the government issued short-term (bills, maturing in less than one year), medium-term (notes, maturing in one to 10 years), long-term (bonds, maturing in more than ten years), ultra-long-term debt instruments or consoles (perpetual bonds). France, for instance, in 1914 started issuing bills (Bons de la défense Nationale) continuously with 3, 6, or 12 months periods of circulation, raising by 1918 above FF15.8 billion. Later on, France commenced issuing Obligations de la défense Nationale with ten years of circulation and later on – perpetuities with no conversion prior to

1931 or to 1945 [*di Jorio, Oosterlinck, & Pouillard, 2006*]. At the time of WWI, the British government issued perpetual bonds, considered the best-selling instruments of that time, and completely redeemed them only in 2015, almost 100 years after their emission.

As a rule, facing the tremendous damage caused by the war (both actual and potential) and the long time needed for recovery, the governments of all belligerent countries were interested in the emission of the longest-term debt instruments. At the same time, investors in war bonds were less eager to freeze funds for a long time, considering the risk.

The particular period of circulation depended on the goals of security and planned sources of redemption. It seems evident that the governments of all belligerent countries were expecting that the burden of paying their war bonds would fall on their enemies: at the day of WWI, the German finance minister assured the Reichstag that the "lead weight of billions" would be carried by Germany's enemies, while the French finance minister assured the French parliament that France's enemies would service French war bonds [*Sargent et al., 2019*].

Placement of war bonds had to be preceded by the arrangement of several prerequisites: (i) possibility of the war bonds placed/traded abroad; (ii) decision on limitation of the sale of bonds only to residents of the country, and (iii) currency denomination of the bonds. In the history of war bond emissions, we can see both positive and negative answers to these questions and aggressive market interventions of the governments into the market.

As the government debt securities, war bonds are considered the safest investment as they are backed by the "full faith and credit" of the national governments. But history has demonstrated that (a) the states themselves can disappear (as it happened with Austria-Hungary, making the first and the only Austria-Hungarian war bonds issue worthless); (b) the country defeated in the war can go bankrupt – as Austria (with 8 emissions) and Hungary (with 8 emissions) after WWI. Germany has finished paying off its WWI debts only in 2010; (c) due to inflation coupon rates may not keep up with inflation: in France, in particular, the gains of investing in WWI bonds were annihilated by inflation, devaluing the gains by 80 percent.

**Emission of the military bonds in Ukraine.** In quest of funding the government of Ukraine, right after the Russian military aggression issued the Ruling “On the issue of bonds of internal state loan “Military bonds”” dated February 25, 2022 No. 156, which outlined the intention to raise up to UAH 400 billion. The first military debt obligations were issued on the fifth day of war, March 1, 2022.

In total during the period from Martial Law introduction till the end of 2023 Ukraine's Government has raised equivalent of nearly UAH 773 billion from offering domestic government debt securities through auctions.

The nominal value of one bond is 1,000 monetary units of the currency in which it is denominated. Each of the individual issues of war bonds has its own "life cycle" lasting from 2 months to 693 days. Short-term bonds with a maturity of no more than one year are sold on the terms of discounting the face value of the bond. Medium-term bonds provide coupon income. Nominal yield level for different emissions varied from 9,7% to 19,75% (for UA4000227656 hryvnia-denominated bonds with a maturity of 1.5 years). Currently the state is issuing war bonds, depending on the maturity period, with yields of 10-11% in hryvnia, 3.7% in US dollars and 2.5% in Euros. As of the end of 2023 NBU has allocated UAH 354,975.0 million, USD 4,871.4 million, and EUR 1,192.4 million for redemption of domestic government debt securities [*Ukraine's Government, 2023*].

*Financial environment of military bonds emission in Ukraine (by comparison with the conditions of the US financial market during WWII).*

Following Russian invasion National bank of Ukraine promptly raised key policy rate from 10% (in February, 2022) to 25% (in the very beginning of June, 2022). As a result, as Bogdan Danylyshin and Ivan Bogdan pointed, "the economy received a restrictive shock from monetary policy, the credit process stalled, foreign exchange risks and debt stability risks in the fiscal sector intensified [*Danylyshyn, Bohdan, 2022*].

For comparison: In April 1942 the FRS formally committed to maintaining a low interest-rate peg of 3/8 percent on short-term debt obligations and capped the rate on long-term Treasury bonds at 2.5 percent. The goal of the peg was to provide the US government to engage in cheaper debt financing of World War II. To purchase war bonds with a price of \$1,000, the US Treasury urged the Americans to "borrow and buy," that is, to finance their purchases with a credit from a bank. The Fed supported this policy by lending to member banks at low interest rates when the proceeds were used to buy bonds.

In 2022 Ukrainian banks offered hryvnia deposits with rates ranging from 6% to 13% per year; annual deposit interest rate in Ukraine in 2022 was 7,42%. For these the owners of the deposits had to pay 19.5% tax on the income received from its placement. For comparison: US WWII war bonds, or Series E bonds, were supposed to have a maturity of 10 years, had a 2.9% interest rate, compounded semiannually.

The results of the last in 2023 placement of war bonds (UA4000229264) demonstrate that their main customers are banks: legal entities have bought 56 times more than individuals.

Contrary to this during the WWII the monetary authorities of the majority of belligerent countries, following advice of professor Fisher, pursued a policy of ‘borrowing funds as far as possible outside the banking system’ [Youngman, 1945]. To this end, they varied terms (coupon rate, maturities, marketability, redemption features, etc.) within limits of offerings in order to obtain funds from wage earners and corporations, and even directly forbade selling bonds to specific categories of customers. For example, non-negotiable war savings bonds Series E could be purchased only by individuals. With minor exceptions, commercial bank purchases of new issues have been limited to securities with not more than ten years to run, with interest rates of 2 percent or less [Youngman, 1945].

One last comparison: annual rate of inflation in Ukraine in 2022 was 26.6% while in the USA between April 1942 and June 1946 it was just 3.5 percent.

**Conclusions and recommendations.** To conclude the research findings, it seems reasonable to present a more than 100 years old quote from prof. Sprague [1917]: “Although in all these ways borrowing as a means of financing a great war is most unsatisfactory, it has one advantage which cannot be questioned. It works”.

To find the optimal tradeoff between sources of war financing is the task for both scientists and policymakers. Another not less necessary task is the choice of denomination, maturity, coupon rate, and currency of the issued war bonds, best for the specific country at the particular moment.

Summing up the results of the research the following suggestions can be articulated:

- The placement of bonds should be preceded and accompanied by a large-scale advertising campaign, invigorating the patriotic sentiments of the citizens.
- Purchase of bonds should not be regarded as a source of income for commercial banks, but as a patriotic duty of citizens of Ukraine. For this purpose it seems appropriate to reduce coupon rate on war bonds against the background of drastic reduction of key policy rate of the National Bank of Ukraine.

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