

ULOGA BANKE NA TRŽIŠTU HARTIJA OD VREDNOSTI

FUNCTION OF BANKS ON THE SECURITIES MARKET

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REZIME

U radu se tretira problematika u vezi sa tržištem investicionih hartija od vrednosti, a u funkciji uloge banaka u tom procesu. Naglasak se stavlja na iskustva razvijenih zemalja, a posebno SAD. Poslednjih godina, banke i druge deponentne institucije pokazuju tendenciju da prihvate veći rizik i složenije investicije u svom portfelju. Pojavili su se novi instrumenti čija je svrha više od jednostavnog obezbeđivanja likvidnosti i prihoda, a, posebno, u slučajevima slabe potražnje zajmova. Banke i druge institucije-zajmodavci bave se zamenom portfelja svojih investicionih hartija od vrednosti imajući u vidu kako poreze tako i veće prihode.

Ključne reči: Hartije od vrednosti, banke, tržište hartija od vrednosti.

UVOD

Tržište za investicione hartije od vrednosti nije samo jedno od najvećih tržišta na svetu već je, takođe, i jedno od najjačih i najefikasnijih tržišta. Trilioni dolarskih sredstava cirkulišu dnevno, a plaćanja kao i dostavljanje kupljenih hartija od vrednosti obično se obavlja na vreme. Potrebno je razmotriti šta se desilo posle terorističkih napada 11. septembra 2001. godine. Za nekoliko časova sistem za uručenje američkih državnih hartija od vrednosti najpopularnije finansijske investicije na svetu, za banke i druge kupce, počeo je da se raspada. Mnogi prodavci državnih hartija od vrednosti nisu bili u mogućnosti da ispune svoja obećanja i da dostave hartije od vrednosti, a neki kupci nisu mogli

ABSTRACT

This paper describes the issues related to the investment securities market, and the function of the role of banks in the process. Here, the emphasis is on the experiences of developed countries, especially the U.S.A. In recent years, banks and other deponent institutions have had a tendency to accept higher risks and more complex investments in their portfolio. There have appeared new instruments whose purpose is more than just provision of liquidity and income, especially, in cases of poor loan demand. An instrument for swap of the bank portfolio and other institutions-lenders mostly practice replacing the portfolios of their investment securities, bearing in mind tax, as well as higher revenues.

Keywords: Securities, Banks, Market of securities.

INTRODUCTION

The investment securities market is not only one of the largest markets in the world, but also, one of the strongest and most efficient markets. Trillions of dollars of assets circulate on it daily, and payments and delivery of purchased securities are usually done on time. Now we will consider what happened after the terrorist attacks of September 11, 2001. In a few hours, the system for the delivery of U.S. government securities – the most popular financial investment in the world – to banks and other customers began to disintegrate. Many sellers of government securities were not able to fulfill their promises to deliver securities, and some customers were unable to make payments for

da izvrše njihova plaćanja na utvrđeni datum. Ova takozvana neizmirena plaćanja povećala su se od prosečno ispod 2 milijarde \$ dnevno pre terorističkih napada, na čak 190 milijardi \$ dnevno odmah posle napada.

POJAVE NEIZMIRENIH PLAĆANJA

Do pojave neizmirenih plaćanja došlo je zato što su neki vitalni komunikacioni sistemi koji povezuju dilere, banke i njihove klijente bili uništeni ili oštećeni kada su kule bliznakinje osim Svetskog trgovinskog centra srušene. Osim toga, nekim ključnim institucijama za tržište hartija od vrednosti je sva arhiva bila uništena. Došlo je do velike nestašice nekih normalno raspoloživih državnih hartija od vrednosti, a uobičajen postupak u slučaju takve nestašice je pozajmljivanje hartija od vrednosti putem specijalnih kolateralnih ugovora o ponovnoj kupovini. Međutim, to je postalo isto tako skupo kao i nemogućnost da se izvrši potrebno i obećano uručenje.

Federalne rezerve i Ministarstvo finansija SAD, dve značajne vladine agencije, su brzo reagovale. Federalne rezerve su snabdele bankarski sistem likvidnim sredstvima, tako da je preko potreban novac bio na raspolaganju. Ministarstvo finansija SAD, iako nije moralo da pozajmljuje dodatna sredstva, objavilo je ponovno izdavanje jedne ključne nove emisije hartija od vrednosti – državne menice na 10 godina. Ministarstvo je istog dana na aukciji povećalo ponudu ovih menica za 50%, što je doprinelo da pozajmice ovih hartija od vrednosti postanu mnogo povoljnija alternativa od propusta da se izmiri plaćanje.

U odličnom članku koji su pripremila dva službenika Banke za federalne rezerve u Njujorku, Michael J. Fleming i Kenneth D. Garbade, daju se neki predlozi u slučaju da se tragedija slične razmere ponovo dogodi. Ovi predlozi uključuju formiranje posebnog sistema unutar Ministarstva kojim bi se omogućilo pozajmljivanje hartija od vrednosti za koje postoji velika potražnja. Pored toga, da bi se izbeglo neizmirenje plaćanja, mogla bi da se

the same on a specified date. These so-called outstanding payments increased from an average of under \$ 2 billion a day before the terrorist attacks, to even \$ 190 billion a day immediately after the attacks.

THE OCCURRENCE OF OUTSTANDING PAYMENTS

In the beginning, the outstanding payments emerged due to the fact that some vital communication systems linking dealers, banks, and their clients were destroyed or damaged when the Twin Towers, instead of the World Trade Center, collapsed. In addition, all the archives were destroyed in some key institutions of the securities market. An enormous shortage of some normally available government securities occurred, and a common remedy in the event of such shortage was lending securities through special collateral repurchase agreements— which became just as expensive as the failure to perform the necessary and promised delivery.

Fortunately, two significant government agencies responded quickly. The Federal Reserve supplied the banking system with liquid assets, thus, the money urgently needed was available. U.S. Department of the Treasury, although it did not have to borrow additional funds, announced the re-issuance of a key new emission of securities – Treasury bills of 10 years. On the same day (snap), Department increased the offer of these bills of exchange in 50% at the auction, which contributed to the fact that the loans of these securities became a much better alternative than the failure to settle the payment.

In an excellent article which was written by two officers of the Federal Reserve Bank in New York, Michael J. Fleming and Kenneth D. Garbade, some suggestions in the event that a similar tragedy happened again were given. These proposals include the establishment of a separate system within Department that will allow lending securities for which there is great demand. In addition, in order to avoid a default of payment, a specific penalty

odredi posebna kaznena provizija. Ovi propusti u plaćanju posebno su zabrinjavajući, jer postoji opasnost da učesnici na tržištu hartija od vrednosti pretrpe ozbiljan gubitak, pa čak i bankrotstvo (Todorović, Đuričin i Janošević, 1998, str. 127). To se posle nekoliko godina i dogodilo kada je došlo do velikih „neizmirenih plaćanja“ jer globalna finansijska kriza koja je otpočela krajem 2008. godine i početkom 2009. godine upravo pokazuje da postoji lančana nelikvidnost koja ugrožava ceo finansijski sektor. I ne samo finansijski već i proizvodni, prosto rečeno, ugrožava celu ekonomiju jedne zemlje.

Da bi se procenila povoljnost municipalnih menica, finansijske firme obračunavaju neto prihod posle poreza i/ili prinos ekvivalentan porezu da bi se omogućilo poređenje sa drugim alternativama investiranja. Neto prihod posle poreza bankarskih garantovanih municipalnih hartija od vrednosti obračunava se na sledeći način (Rose i Hudgins, 2005):

$$\begin{aligned} \text{Neto prihod posle oporezivanja po municipalnim HOV (u \%)} \\ \text{[Net income after taxes on municipal bonds (in \%)]} &= \left[\begin{array}{l} \text{Nominalni prihod po municipalnim HOV posle oporezivanja (u \%)} \\ \text{[Nominal income per municipal bonds after taxes (in \%)]} \end{array} \right. \\ &\quad - \left. \begin{array}{l} \text{Troškovi kamate nastali prilikom sticanja municipalnih HOV (u \%)} \\ \text{[Interest costs incurred in the acquisition of municipal bonds (in \%)]} \end{array} \right] \\ &\quad + \begin{array}{l} \text{Poreska povoljnost garantovane obaveze} \\ \text{[Tax advantages of guaranteed bonds]} \end{array} \end{aligned}$$

gde se poreske povoljnosti garantovane obveznice određuju na sledeći način (Ibidem):

$$\begin{aligned} \text{Poreska povoljnost garantovane obveznice} \\ \text{[Tax advantages of guaranteed bonds]} &= \begin{array}{l} \text{Poreska stopa marže na prihod banke (u \%)} \\ \text{[Marginal tax rate on bank income (in \%)]} \end{array} \times \begin{array}{l} \text{Procenat kamatnih troškova koji se može odbiti od poreza (ako postoji)} \\ \text{[The percentage of interest expenses that can be deducted from taxes (if exists)]} \end{array} \times \begin{array}{l} \text{Troškovi kamate nastali prilikom sticanja municipalnih HOV (u \%)} \\ \text{[Interest costs incurred in the acquisition of municipal bonds (in \%)]} \end{array} \end{aligned}$$

Ukoliko pretpostavimo da banka kupi bankarsku garantovanu obveznicu u jednom malom gradu, okrugu ili školskoj oblasti, maksimalno u iznosu od 10 miliona \$ godišnje u hartijama od vrednosti. Obveznica vuče nominalnu (objavljenu) bruto stopu prihoda od 7%. Takođe, može se

clause could be determined. These failures in payment are especially worrisome, because there is a risk that participants in the securities market suffer a serious loss, even bankruptcy (Todorović, Đuričin i Janošević, 1998, p. 127). It happened several years ago there was a large “outstanding payments”, due to the fact that the global financial crisis that began in late 2008 and early 2009 just shows that there is a chain insolvency, which threatens the entire financial sector. Not only the financial, but also the manufacturing sector; to put it simply, it threatens the entire economy of a country.

In order to assess the affordability of municipal bills, financial companies account for net income after taxes and/or tax equivalent yield to facilitate a comparison with other investment alternatives. Net income, after taxes of bank guaranteed municipal bonds, is calculated as follows (Rose i Hudgins, 2005):

where tax advantages of guaranteed bonds are determined as follows (Ibidem):

Let us assume that the bank buys bank guaranteed bonds in a small town, district or school area, in the maximum amount of \$ 10 million annually in securities, and the bonds have a nominal (published) gross rate of return of 7%. Let us also assume that the bank

pretpostaviti da banka mora da pozajmi potrebna sredstva za obavljanje ove kupovine po kamatnoj stopi od 6,5%, a nalazi se na gornjoj granici poreza na prihod (35%). Pošto je poreklo ove obveznice mala lokalna vlada koja ima pravo na poseban poreski tretman po zakonu o reformi poreza iz 1986. godine, neto godišnji prihod banke po obveznici posle oporezivanja (posle svih troškova finansiranja i poreza) treba da bude kako sledi:

$$\begin{array}{l} \text{Neto prihod posle oporezivanja po garantovanoj} \\ \text{municipalnoj HOV} \\ \text{[Net income after taxing per guaranteed} \\ \text{municipal bond]} \end{array} = (7.0-6.50)+(0.35 \times 0.80 \times 6.50) = 0.50\% + 1.82\% = 2.32\%$$

Službenik za investicije može da uporedi ovu obračunatu neto stopu prihoda posle oporezivanja sa neto prihodom posle oporezivanja za druge hartije od vrednosti i zajmove, bilo da podležu ili su oslobođene poreza (Ibidem).

Međutim, treba imati u vidu da se, ako dotična municipalna obveznica dolazi iz veće države ili lokalne vlade koja nema pravo na specijalni tretman po zakonu o reformi poreza, nijedan deo troškova kamate neće odbijati od poreza, a poreska povoljnost će biti nula. U ovom slučaju, neto prihod banke posle oporezivanja po municipalnoj obveznici je:

$$\begin{array}{l} \text{Neto prihod po municipalnim HOV posle} \\ \text{oporezivanja} \\ \text{[Net income per municipal} \\ \text{bonds after taxing]} \end{array} = 7.00-6.50=0.50\% \text{ ili } 50 \text{ osnovnih poena [basic points]}$$

UPRAVLJANJE PRIHODOM OD OBVEZNICA

Kao što se iz primera vidi, često je korisno da se očekivani prihod od obveznice oslobođen poreza pretvori u prinos ekvivalentan porezu (TEY). Drugim rečima, želi se utvrditi prihod pre oporezivanja po obveznicama koje podležu oporezivanju (TEY) koji obezbeđuje investitoru isti prihod posle oporezivanja kao i određena investicija u hartije od vrednosti oslobođena poreza. Jednačina koja to izražava je sledeća (Ibidem):

has to borrow the necessary funds to carry out this purchase at an interest rate of 6.5%, and it is at the upper limit of income tax (35%). Since these bonds originate from a small local government, which is entitled to a special tax treatment under the law on tax reform of 1986, the net annual income of the bank per bond after taxing (upon deduction of all financing costs and taxes) should be as follows:

An investment officer can compare this calculated net rate of return after taxing with the net income after taxing for other securities and loans, whether they are taxed or are exempt from taxes.

However, we should bear in mind that, if the municipal bonds described above come from a larger state or local government that is not entitled to special treatment under the law on tax reform, no part of the interest costs will be deducted from taxes, and tax advantages will be zero. In this case, the bank's net income after taxes per municipal bond is:

DISPOSITION OF REVENUES FROM BONDS

As seen from the examples, it is often useful to convert the expected revenue from tax-exempt bonds into tax-equivalent yield (TEY). In other words, we want to determine income before taxes for bonds that are subject to taxation (TEY), which provides the investor with the same income after taxing as well as certain investments in securities exempt from taxes. The equation that expresses this is the following (Ibidem):

$$TEYx(1-\text{poreska staopa marže})=\text{Prihod po municipalnim HOV}$$

$$TEYx(1-\text{marginal tax rate})=\text{Income from municipal bonds}$$

$$TEYx(1-\text{poreska staopa marže})=\text{Nominalni prihod po municipalnim HOV}+\text{Poreska povoljnost garantovanih obveznica}$$

$$TEYx(1-\text{marginal tax rate})=\text{Nominal income per municipal bonds}+\text{Tax advantages of quaranteed bonds}$$

$$\frac{TEYx(1-\text{poreska staopa marže})}{[TEYx(1-\text{marginal tax rate})]} = \frac{\text{Nominalni prihod po municipalnim HOV}}{[\text{Nominal income per municipal bonds}]}$$

$$+ \left[\begin{array}{ccc} \text{Kreditna granica} & \text{Procenat kamate troškova} & \text{Troškovi kamate} \\ \text{poreza na prihod banke} & \text{koji se odbijaju} & \text{za sticanje HOV} \\ \text{[Credit limit of} & \text{[The interest percentage} & \text{[Interests costs} \\ \text{bank income tax]} & \text{of deductes cocts]} & \text{for acquiring bonds]} \end{array} \right]$$

Poslednjih godina banke i druge depozitne institucije pokazuju tendenciju da prihvate veći rizik i složenije investicije u svom portfelju. Pojavili su se novi instrumenti čija je svrha više od jednostavnog obezbeđivanja likvidnosti i prihoda, a posebno u slučajevima slabe potražnje zajmova. Četiri najočitija primera za ovo su: opozive menice, životno osiguranje bankarskih službenika (BOLI), sertifikati o depozitima vezani za akcijski kapital i poverilačke prioritetne hartije od vrednosti.

Opozive menice su opozive hartije od vrednosti koje obično nude relativno visoke kamatne stope po kuponu, zavisno od kretanja na tržištu. Po ovim menicama se isplaćuje kamata pod uslovom da se ugovoreni tržišni indeks zadrži u određenom okviru. Ako tržišni indeks izađe van utvrđenog okvira, neće biti isplate. Na primer, po opozivu menice može da se plati kamata vlasniku na poziv samo ako se LIBOR kreće između 2% i 4%.

Banke i druge institucije su poslednjih godina često kupovale životno osiguranje za svoje službenike i direktore (BOLI), s tim što je firma koja obavlja kupovinu naznačena kao korisnik. Sve dok kupac neprekidno plaća godišnje premije, BOLI se evidentira kao kapital u njegovim knjigama. Ako službenik ili direktor umre tokom roka trajanja polise, institucija koja je obavila kupovinu i dobila sredstva ima nekoliko opcija, uključujući donaciju sredstva u humanitarne svrhe i odbitak poreza.

Sertifikati o depozitu, vezani za akcijski kapital, sadrže karakteristike duga i akcija.

In recent years banks and other deponent institutions have had a tendency to accept higher risks and more complex investments in their portfolio. There have appeared new instruments, whose purpose is more than just provision of liquidity and income, especially in cases of poor loan demand. Four most obvious examples of this include revocable trusts, bank owned life insurance (BOLI), equity-linked certificates of deposit, and trust-preferred securities.

Revocable trusts are revocable securities that generally offer relatively high interest rates per coupon, depending on the market trends. Interest is paid under these trusts on the condition that the contracted market index is maintained in a particular framework. If the market index goes out of the determined framework, there will be no payment. For example, upon revocation of the trust, interest can be paid to the owner at the invitation only if LIBOR is between 2 and 4%.

Banks and other institutions, in recent years, have often bought bank owned life insurance (BOLI), and the company that makes a purchase is named insured. As long as the buyer pays constant annual premium, BOLI is recorded as an asset in buyer's books. If an officer or director dies during the life of the policy, the institution that has conducted the purchase and obtained funds has several options, including donation of funds for charity and tax deduction.

Equity-linked certificates of deposit include the characteristics of debt and stocks. These

Ovim sertifikativima omogućava se prihod od kamate i obezbeđuje predviđena opcija, uz dodatni bonus na osnovu tržišnog indeksa (najčešći indeks akcija 500 Standard & Poor). Na primer, "BIK" CD i porast cena sa predviđenom kupovnom opcijom daje dodatni prihod ako tržišni indeks poraste iznad određene strajk cene. Alternativno "MEDVED" CD (sniženje cena) sadrži prodajnu opciju kojom se vrši isplata samo ako tržišni indeks padne ispod strajk cene.

Na kraju, poverilačke prioritetne hartije od vrednosti takođe imaju karakteristike akcija i duga. Ovi instrumenti uglavnom se kreiraju uz pomoć bankara za investicije koji će formirati organ za specijalne namene (SPV), čiji je zadatak da izdaje prioritetne akcije. Zauzvrat, finansijska institucija - učesnik izdaje dugoročne obligacije (obično sa dospećem od 30 ili više godina) kao podršku novim akcijama. Više mogućih isplata znači da se obligacije mogu smatrati kao nov kapital, isplaćena kamata se odbija od poreza i smanjuje se rizik nestabilnosti akcionara.

Regulatorna tela (npr. FDIC i Finansijski kontrolor valute) izrazile su ozbiljnu zabrinutost da će mnoge takve investicije nositi priličan kreditni rizik i rizik likvidnosti (često je tržište ponovne prodaje slabo), sa subnominalnim prinosom. Zakonodavci danas insistiraju da institucije koje obavljaju kupovinu izvrše detaljnu analizu pre kupovine ovih investicija i da koriste testiranje na udare da bi se utvrdio mogući rizik pod raznim tržišnim okolnostima.

Koristeći primer obveznica koje su izdali mali gradovi i drugi mali lokalni organi vlade, zaključujemo da je TEY po municipalnoj obveznici od 7%, o kojoj je prethodno bilo reči, kako sledi (Rose i Hudgins, 2005):

$$TEY = \frac{7.00 + 1.82}{(1 - 0.35)} = \frac{8.82}{0.65} = 13.57\%$$

Ukoliko su drugi faktori konstantni, hartija od vrednosti koja podleže oporezivanju kao što je korporacijska obveznica ili obveznica vlade SAD, trebalo

certificates allow the income from interest and provide the anticipated option, along with an additional bonus based on a market index (the most common stockindex of 500 Standard & Poor). For example, "BULL" CD and price increase with the anticipated call option give additional income if the market index rises above a certain strike price. Alternatively "BEAR" CD (price decrease) contains a put option, which is payable only if the market index falls below the strike price.

Finally, trust-preferred securities also have the characteristics of shares and debt. These instruments are generally created with the help of an investment banker, who will form the body of the special purpose vehicle (SPV), whose task is to issue preference shares. In turn, the financial institution-participant issues long-term debentures (usually with maturities of 30 years or more) to support new actions. More potential payouts mean that debentures can be considered as new capital; interest paid is tax-deductible and reduces the risk of shareholders' instability.

Regulatory bodies (e.g. FDIC and the Office of the Comptroller of the Currency) have expressed serious concerns that many such investments carry considerable credit risk and liquidity risk (often the resale market is weak), with subnominal yield. Today, lawmakers insist that the institutions performing the purchase conduct detailed analysis before purchasing these investments and use shock testing, to determine the potential risk under various market conditions.

Using the example of bonds issued by small towns and other small local government authorities, we conclude that TEY per local government bond of 7%, which has previously been discussed, is as follows (Rose & Hudgins, 2005):

If other factors are constant, the securities subject to taxation, such as corporate bonds or Treasury bonds, should have the yield of

bi da vuče prinos od najmanje 13,57 % da bi prihod posle oporezivanja za banku bio isti kao za gore opisanu municipalnu obveznicu oslobođenu poreza.

Instrument za svopovanje poreza, obim prihoda po zajmovima neke banke ili drugog zajmodavca, u bilo kojoj datoj godini, takođe igra ključnu ulogu u poslovanju sa njenim investicionim hartijama od vrednosti. U godinama kada je prihod po zajmovima visok, često je korisno angažovati se u svopovanju poreza. U poreskom svopu banka ili druga institucija-zajmodavac obično prodaje hartije od vrednosti sa nižim prinosom, često sa gubitkom, da bi smanjila svoj tekući prihod koji podleže porezu. U isto vreme kupuje nove hartije od vrednosti sa visokim prinosom da bi proširila budućí očekivani prihod po njenom portfelju investicija.

Razmatranje poreza prilikom izbora hartija od vrednosti koje se prodaju ili kupuju je mnogo značajnije za veće institucije-zajmodavce nego za male. Obično su veće institucije-zajmodavci na gornjoj granici poreza na prihod i najviše dobiju trgovinom hartijama od vrednosti i tako smanjuju svoju izloženost porezu. Menadžeri portfelja hartija od vrednosti procenjuju predviđeni neto prihod institucije koji podleže porezu u okviru alternativnih izbora portfelja.

Ovo obuhvata, između ostalog, procenu koliki deo prihoda oslobođenog od poreza može da koristi institucija-zajmoprimalac koja je oporezovana. Nijedna banka niti druga institucija-zajmodavac ne može da koristi neograničene iznose prihoda oslobođenog od poreza. Bar jedan deo opozivog prihoda će biti potreban bankama i štedionicama za prebijanje dozvoljenog godišnjeg odbitka za moguće gubitke po zajmu. Međutim, čim se ispune ovi uslovi osnovna odluka između kupovine hartija oslobođenih poreza i kupovine hartija od vrednosti koje podležu porezu i zajmova svodi se na odgovarajući prihod posle oporezivanja jedne od ove dve vrste hartija od vrednosti.

Banke i druge institucije-zajmodavci se bave velikim delom zamenom portfelja svojih investicionih hartija od vrednosti kao pogodnim instrumentom, imajući u vidu kako poreze tako i veće prihode. Banke, na primer, često prodaju selektivne hartije od vrednosti uz gubitak da bi se prebili veliki iznosi prihoda po zajmu, čime se smanjuje njihova poreska obaveza. One takođe mogu jed-

at least 13.57% in order for the bank income after taxation to be the same as municipal tax-exempt bonds described above.

An instrument for tax swapping, revenue volume of loans of a bank or other lender, in any given year, also plays a key role in dealing with its investment securities. In the years when revenue on loans is high, it is often useful to engage in tax swapping. In tax swapping, the bank or other institution-lender usually sells securities with a lower yield, at a loss, to reduce its current taxable income, while at the same time buys new securities with high yields to increase the expected future revenue per its investment portfolio.

Consideration of taxes in the selection of securities that are sold or bought is much more significant for larger institutions-lenders than for small ones. Usually, larger institutions-lenders are at the upper limit of income tax, and they get the most from securities trade, thus reducing their exposure to taxation. Portfolio managers assess projected net income of the institution that is subject to taxes under the alternative portfolio choices.

This includes, among other things, an assessment of how much of the income exempt from taxes can be used by the institution-borrower that is taxed. There is no bank or any other institution-lender that can use unlimited amounts of revenues exempt from taxes. Banks and savings banks will need at least one part of revocable income for compensation for allowable annual allowance for possible loan losses. However, as soon as these conditions are met, the basic decision between the purchase of tax-exempt securities and the purchase of securities that are subject to taxation and loans is reduced to the corresponding income after taxation of one of these two types of securities.

The instrument for replacement of the bank portfolio and other institutions-lenders, in large part, swap their portfolio of investment securities, bearing in mind taxes and higher revenues. Banks, for example, often sell selective securities at a loss in order to break large amounts of income on the loan, thus reducing their tax liability. They can also easi-

nostavno da zamene svoj portfelj da bi nove hartije od vrednosti sa visokim prinom zamenile za stare hartije od vrednosti čiji je prinom prilično ispod tekućeg tržišnog nivoa. Rezultat zamene je preuzimanje znatnih kratkoročnih gubitaka u zamenu za predviđene veće dugoročne profite.

Na primer, službenik za investicije u First National Bank mogao bi da razmatra sledeće zamene u svom portfelju municipalnih obveznica.

Naći kupca za obveznice New York City od 9,5 miliona \$ kupona od 7% koje banka poseduje.

[Find a buyer for New York City bonds of a million \$ coupon of 7% that the bank owns]

Posle toga nabaviti obveznice Orange County (City of Los Angeles) od \$ 10 miliona na 10 godina sa kuponom po stopi od 9% koje će se dodati investicionom portfelju banke.

[Afterwards, acquire Orange County (City of Los Angeles) bonds of \$ 10 million on 10 years with coupon with a rate of 9%, which will be added to the bank's investment portfolio]

Iz prethodnog izlaganja može se zaključiti da ova banka prihvata odmah gubitak od 500.000 \$ pre oporezivanja (10 miliona \$ - 9,5 miliona \$) prodajom obveznica New York City-a sa stopom od 7%. Ali, ako se First National nalazi na granici poreza od 35%, njen gubitak odmah posle oporezivanja postaje samo 500.000 \$ X (1-0,35), ili 325.000 \$. Naime, ona je svopovala ovaj gubitak za dodatnih 200.000 \$ godišnje u prihod oslobođen od poreza za period od 10 godina. Ova zamena portfelja je vredna trenutnog gubitka koji banka mora da pokrije iz svoje tekuće čiste dobiti. Pored ovoga, ako banka ima visok prihod za oporezivanje po svojim zajmovima, ovaj kratkoročni gubitak može se iskoristiti za smanjenje tekućeg oporezivog prihoda i, možda, da poveća profite posle oporezivanja za ovu godinu.

ly swap their portfolio, so that new securities with high yield would replace old securities, whose yield was far below the current market level. The result of substitute is taking over significant short-term losses instead of anticipated higher long-term profits.

For example, an investment officer at First National Bank could consider the following swaps in his portfolio of municipal bonds.

Važeća tržišna cena [The current market price]	= \$9.5 mil.
Vrednost prikazana u bilansu banke [The value displayed in the bank's balance sheet]	= \$10 mil.
Godišnji prihod od kamate [Yearly interest income]	= \$0.7 mil.
Važeća tržišna cena [The current market price]	= \$10 mil.

From the foregoing discussion it can be concluded that the bank accepts immediately a loss of \$ 500,000 pre-tax (\$ 10 million - \$9.5 million) bond sale New York City, with a rate of 7%. But if the First National is located on the border of the tax of 35%, its loss becomes only 500,000 \$ X (1-0,35), or \$ 325,000 immediately after the tax payment. In fact, it is covered this loss by an additional \$ 200,000 income per year which is exempted from taxes for a period of 10 years. The replacement of the current portfolio is worth the loss that the bank has to cover from its current net profit. In addition, if the bank has a high income for the taxation on their loans, this short-term loss may be used to reduce current taxable income and, perhaps, to increase profits after tax for this year.

ZAKLJUČAK

Na osnovu izvedene analize, može se zaključiti da banke upravljaju prihodom od obveznica kao načinom regulisanja novčanih tokova. U tom kontekstu, banke imaju važnu ulogu u funkcionisanju tržišta hartija od vrednosti, iz čega proističe i potreba prihvatanja većeg rizika i složenijih investicija u njihovom portfelju. Takav pristup je posebno došao do izražaja pojavom globalne finansijske krize koja je započela 2008. godine, čime se pokazalo da postoji lančana nelikvidnost koja ugrožava novčane, ali i ukupne privredne tokove. Zbog značaja efikasnog regulisanja finansijskih tokova, sve više dolazi do izražaja potreba državnih intervencija u ovoj oblasti.

Tržište investicionih hartija od vrednosti postalo je jedno od najvećih i najefikasnijih tržišta. U procesu upravljanja novčanim tokovima, sertifikati o depozitu vezani za akcijski kapital omogućuju sticanje prihoda od kamate. Banke i druge institucije-zajmodavci se bave zamenom portfelja svojih investicionih hartija od vrednosti kao pogodnim instrumentom upravljanja novčanim tokovima.

Menadžeri portfelja hartija od vrednosti treba da procenjuju predviđeni prihod institucije, koji podleže porezu u okviru alternativnog izbora portfelja.

LITERATURA

- Ćirović, M. (2006). *Bankarstvo*. Beograd: Ekonomski fakultet.
- Ivanišević, M. (2013). *Poslovne finansije*. Beograd: Colege R&B.
- Rose, P. S., i Hudgins, S. C. (2005). *Bankarski menadžment i finansijske usluge*. Beograd: Datastatus.
- Schall, L. D. & Haley, C. W. (2003). *Introduction to Financial Management*. New York: McGraw Hill.
- Todorović, J., Đuričin, D. i Janošević S. (1998). *Strategijski menadžment*. Institut za tržišna istraživanja Beograd.

CONCLUSION

Based on the showed analysis, it can be concluded that banks manage the income from the bonds as a way of regulating cash flows. In that context, banks play an important role in the functioning of securities markets, and the consequences is accepting of higher risk and complex investments in their portfolio. Such an approach took the place in time of the global financial crisis that began in 2008, showing that there is non liquidity chain which endangers the cash, but the all economic trends. Due to the importance of effective regulation of financial flows, is increasingly coming of government intervention in this area.

Market of securities became one of the largest and most efficient market. Certificates of deposit which are in relation to equity, allows the acquisition of the interest income in the process of managing cash flows. Banks and other institutions-lenders, deal with the replacement of its portfolio of investment securities as asuit able instrument managing cash flows.

Managers of securities should estimate institution's revenue which is subject of tax under alternativnog portfolio choice.

LITERATURE

- Ćirović, M. (2006). *Banking*. Beograd: Ekonomski fakultet.
- Ivanišević, M. (2013). *Business Financy*. Beograd: Colege R&B.
- Rose, P. S., & Hudgins, S. C. (2005). *Bankarski menadžment i finansijske usluge*. Beograd: Datastatus.
- Schall, L. D. & Haley, C. W. (2003). *Introduction to Financial Management*. New York: McGraw Hill.
- Todorović, J., Đuričin, D. & Janošević S. (1998). *Strategic Managment*. Institut za tržišna istraživanja Beograd.