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# PROMETNA BANKA A.D. U MODERNIZACIJSKIM PROCESIMA U SRBIJI U PRVOJ POLOVINI XX VEKA

*Rad je deo istraživanja koji se izvodi na projektima „Izazovi i perspektive strukturnih promena u Srbiji: strateški pravci ekonomskog razvoja i usklađivanja sa zahtevima Evropske Unije“ (OI 179015) i „Evropske integracije i društvenoekonomske promene privrede Srbije na putu ka EU“ (III 47009), koje finansira Ministarstvo prosvete i nauke Republike Srbije.*

## Rezime

Ovaj rad je posvećen poslovanju *Prometne banke a.d.* kao prve banke mešovitog tipa u Srbiji koja se pored bankarskih poslova bavila i osnivanjem i finansiranjem preduzeća u oblasti drvno-prerađivačke, rudarske i metalurške industrije. Bila je pokretač modernizacijskih procesa u srpskoj privredi od početka XX veka, pre svega zahvaljujući uspešnoj poslovnoj viziji prvog čoveka ove banke, Miloša Savčića. Njegovo angažovanje na političkoj i privrednoj sceni Srbije omogućilo je *Prometnoj banci* da se etablira kao bankarska institucija od autoriteta a posle Prvog svetskog rata da se nametne kao jedna od najjačih srpskih poslovnih banka u novoj Kraljevini SHS/Jugoslaviji.

**Ključne reči:** bankarstvo, trgovina, industrija, akcionarsko društvo, Samostalna radikalna stranka, Miloš Savčić

JEL: G21, N23, N24, L81

# PROMETNA BANKA A.D. IN THE MODERNISATION PROCESSES OF SERBIA IN THE FIRST HALF OF THE 20<sup>TH</sup> CENTURY

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## Summary

This paper is devoted to the business activities of *Prometna banka a.d.* (*Trading Bank*), the first bank of a mixed type of operation in Serbia that was engaged both in the banking business but also in founding and financing enterprises in the field of timber-processing, mining, and metallurgical industry. The Bank initiated modernisation processes in the Serbian economy of the early 20<sup>th</sup> century, primarily thanks to a foresighted successful business vision of the leading man of this Bank, Milos Savcic. His engagement on the political and economic scene of Serbia allowed *Prometna banka* to establish itself as a banking institution of authority, and after the First World War to impress itself as one of the strongest Serbian business banks in the new Kingdom of Serbs, Croats and Slovenes/Yugoslavia.

**Key words:** banking, trade, industry, shareholding company, Independent Radical Party, Milos Savcic

JEL: G21, N23, N24, L81

## Uvod

Od 80-ih godina XIX veka Srbija doživljava ubrzani modernizaciju. To je vreme kada se grade prve železnice, formira stajaća vojska, reformiše prosveta, pojavljuju prva industrijska preduzeća i kada se oblikuju institucije sistema. Ono što je u političkom smislu ispisalo istoriju Srbije poslednjih decenija XIX veka bile su upravo reforme naprednjaka ali i buna radikala (poznatija kao Timočka buna 1883), neuspešni rat sa Bugarskom 1885, borba oko donošenja ustava koja je iznestrila slobodoumni Ustav iz 1888, kao i politički sukobi i dinastičke svađe koje su kulminirale ubistvom monarha i promenom dinastije (1903). Uz opštu zapuštenost (u Srbiji je 1900. godine bilo samo 6% pismenog stanovništva) i manjak političke kulture, ipak je kod jednog dela srpske elite postojala svest da se srpsko društvo i njegove institucije neće približiti Evropi sve dok ne budu stvorenii kvalitetni ekonomski preduslovi čije je odsustvo zapravo kočilo svaki dalji ekonomski, kulturni i politički razvoj Srbije.

Kako se radilo o predominantno agrarnom društvu, izuzetno malobrojna srpska elita istovremeno je bila i politička i privredna. To je značilo da su se sve podele na političkom planu gotovo istovremeno oslikavale i na ekonomskom. Prva linija podela koju istoričari uočavaju bila je ona na radikale i neradikale, odnosno na one koji su na samom kraju XIX veka došli na vlast i one koji su tada vlast izgubili. Podela na radikale i samostalce, odnosno na vladajuću stranku i njene disidente koji su se iz stranke konačno izdvojili prvi godina XX veka, bila je druga linija podela. Poslednja je bila generacijska podela, koja je istovremeno podrazumevala i različit obrazovni nivo kao i različito socijalno poreklo stranačkih vođa. Te političke podele su u bitnim crtama određivale politički ali i ekonomski život u tadašnjoj Srbiji. „Bojile su svakodnevni život građana, stvarajući utisak da politikom dominiraju emocije, lične razmirice i strasti partijskih vođa, što je savremenicima stvaralo utisak da je čitav život sveden na politiku i da od nje sve zavisi“ [D. Stojanović, *Party elites in Serbia, 129-143*].

Ove političke podeljenosti su veoma rano počele da se ogledaju i kroz osnivanje prvih akcionarskih banaka u Srbiji. U *Beogradskom*

*kreditnom zavodu*, najstarijoj privatnoj banci u Srbiji, dominirali su članovi Srpske napredne stranke, dok su poslovnu politiku *Beogradske zadruge* već od 90-ih godina XIX veka vodili ugledni funkcioneri Radikalne stranke. Na prelasku vekova pojavljuju se još dve jake privatne finansijske institucije (*Izvozna* i *Prometna banka*) iz kojih se vremenom veoma jasno reflektovala ekonomsko-politička vizija novoosnovane Samostalne radikalne stranke. [V. Aleksić, Sprega države i akcionarskih banaka I, 109-122] U tom periodu je zapravo najupečatljivija bila upravo generacijska podela među radikalima i samostalcima. „Vođe samostalaca bile su rođene šezdesetih i čak sedamdesetih godina XIX veka, što je u godinama brzih promena doprinisalo produbljavanju sukoba sa radikalnim vođama rođenim pretežno četrdesetih godina. U svojim tridesetim ili četrdesetim godinama života samostalci su, prirodno, drukčije razumeli svoje vreme od radikala koji su bili u poznim pedesetim i šezdesetim godinama života“ [D. Stojanović, *Party elites in Serbia, 129-143*]. Mlađi naraštaji srpske elite donosili su u Srbiju one ideje koje su se formirale u okviru evropske moderne krajem XIX veka, dakle u vreme kad su se oni u Evropi školovali. Vođe njihovih stranaka bili su ne samo u proseku 20 do 30 godina stariji od njih nego su i pripadali starijim političkim školama, zastupali su drugačije, često konzervativne ideje i načine vođenja politike ali i ekonomije.

Kako je u vreme začetaka kapitalizma u Srbiji uloga države u privrednom razvoju bila veoma ograničena, mlađi samostalci su u privatnim akcionarskim bankama videli dobar instrument za finansiranje industrije u povoju. Međutim, u to vreme su akcionarski kapital uglavnom posedovali imućniji trgovci starije generacije koji nisu prepoznавали značaj banke mešovitog tipa, koja bi se pored klasičnih depozitnih poslova bavila i osnivanjem i finasiranjem sopstvenih preduzeća, što je u Evropi onog vremena bio prevladavajući trend. Ipak, u moru novoosnovanih malih akcionarskih banka u Beogradu krajem XIX veka, bilo je i onih koje nisu uspevale da se na tom politički turbulentnom prostoru održe bez značajnije stranače podrške, pa su lako postale meta mlađih i ambicioznih samostalaca, poput *Beogradske prometne banke*

## Introduction

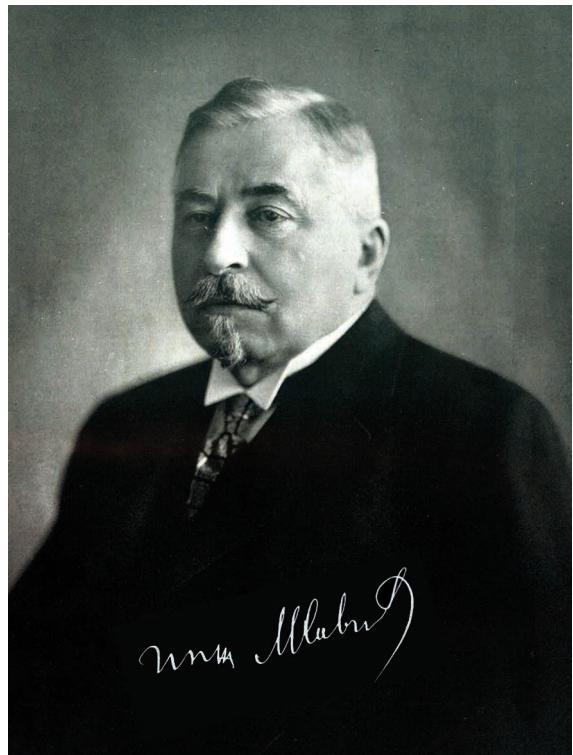
Starting in the 1880s, Serbia experienced an accelerated modernisation process. These were the times when the earliest railway lines were constructed, standing army of the country was formed, education reforms were undertaken, and the first industrial companies appeared, but when also the building-up of institutions of the system was seriously undertaken. What had politically marked the history of Serbia during the last decades of the 19<sup>th</sup> century were actually the reforms conducted by Progressives, but also the rebellion of the Radicals (also known as the Timok River Insurrection of the year 1883), and an unsuccessful war waged with Bulgaria in 1885, together with the struggle for the constitution that was to flourish in the free-minded Constitution, promulgated in the year 1888, all this accompanied by political confrontations and dynastic squabbles, which were to culminate in the assassination of the ruling monarch and the change of dynasty on the throne (1903). In spite of a general state of neglect (in 1900, there was only 6% of literate population in Serbia) and a lack of political culture, yet one part of the Serbian elite did gain awareness that Serbian society and its institutions will not be able to approach Europe for as long as the good quality economic prerequisites are not created, as their absence stood as an obstacle to any further economic, cultural, and political development of Serbia.

Serbia was at that time a predominantly agrarian society; hence its exceptionally small elite circle was both a politically and an economically minded one. This entailed all the divisions, present on the political scene, to

be almost concurrently reflected in the economic sphere. The first line of division, identified by the historians, was the division into radicals and non-radicals, i.e. those who had come into power at the very end of the 19<sup>th</sup> century, and those that had just lost that power. The division into Radicals and Independents, i.e. the ruling party and its dissidents who had finally distanced themselves from the party during the early years of the 20<sup>th</sup> century, was the second line of divide. The last line of separation was a generation gap, which reflected a different level of education as well, but also a different background and social provenance of the party leaders. Such political divisions were shaping in significant aspects political but also economic life in Serbia of that time. "They were setting the tone for everyday life of their citizens, creating an impression that politics was dominated by emotions, personal animosities and fervour of party leaders, which impressed on their contemporaries the feeling that the entire life was being brought down to sheer politics, and that everything depended on politics alone." [D. Stojanovic, *Party Elites in Serbia*, 129-143].

These political divisions were very soon to be reflected on the establishment of the earliest shareholding banks in Serbia. In the *Belgrade Crediting Institute*,

the oldest private bank in Serbia, predominant membership consisted of the Serbian Progressive Party supporters, while the business policy of the *Belgrade Cooperative*, that started its work as early as the 1890s, was conducted by the distinguished officials of the Radical Party. At the transition of the two centuries, what appeared were another two strong private financial institutions (*Izvozna banka* i *Prometna banka*



Miloš Savčić



Stara zgrada banke u Uskočkoj 6

Old building of the bank in Uskočka Street

50 godina rada inženjera Miloša Savčića 1889 - 1939, Beograd, 1939.

a.d. Ovu banku osnovala je 1895. godine grupa beogradskih trgovaca sa idejom da „prima na priplod i najmanje ušteđevine, i na taj način uloženim kapitalom olakša promet u novcu i u efektima, a naročito da radi na ojačanju trgovine, zanata i uopšte privrednog kapitala u Kraljevini Srbiji“ [M. Kostić, 89]. Osnivači kapital iznosio je skromnih 400 hiljada dinara. Međutim, od samog početka, rad ove banke pratili su organizacioni problemi zbog kojih su akcionari već 1899. godine zahtevali da se kompletna Uprva smeni i na njihova mesta dovedu novi, sposobniji i u nekom smislu politički aktivniji članovi. Na mesto predsednika postavljen je nekadašnji osnivač Narodno-liberalne stranke i direktor srpskih železnica Mihailo M. Popović, dok je čuveni trgovac i član Glavnog odbora Srpske napredne stranke Nikola Spasić bio potpredsednik. Članstvo su upotpunjavali i ljudi poput jednog od prvih srpskih industrijalca Vase U. Jovanovića kao i trgovca i takođe člana Srpske napredne stranke Svetozara Jankovića (oca ministra građevina Velizara Jankovića). U ovoj plejadi starih i iskusnih privrednika naprednjaka, čija se stranka ugasila 1898. godine, našlo se i dvoje izuzetno progresivnih mladih ljudi iz redova radikalaca - novoizabrani generalni direktori Mihailo Dragičević i novi član Nadzornog odbora Miloš Savčić. [Jugoslovenski Kompas, 333] Uskoro se pokazalo da su stari naprednjaci ostali dovoljno prijemčivi za nove ideje koje će *Beogradsku prometnu banku* uvrstiti u red najmoćnijih banaka u Srbiji.

## Uloga Miloša Savčića u razvoju *Prometne banke a.d.*

Miloš Savčić bio je jedan od najvećih srpskih privrednika prve polovine XX veka. Rođen je 1865. godine u Resavi kraj Svilajnca. Njegov otac bio je dobrostojeći trgovac koji je svog sina rano poslao na školovanje, prvo u Beograd a zatim i na Visoku tehničku školu u Minhen. Nakon završenih studija, 1889. godine, Savčić još pune dve godine ostaje u Nemačkoj gde radi kao inženjer na izgradnji bavarskih železnica. Godine 1891. vraća se u

Srbiju i nakon odsluženja vojnog roka stupa u službu Opštine grada Beograda. Međutim, posle samo godinu dana službovanja odlučuje da uz finansijsku pomoć oca i strica započne sopstveni posao otvaranjem „Inženjersko-arkitektonske kancelarije“ u Beogradu. Da je politička bliskost sa tada vladajućim radikalima bila od velike važnosti, govori i činjenica da je mladog Savčića za prvi posao angažovao upravo bogati trgovac i radikalni prvak Luka Ćelović. Veoma brzo usledili su i novi poslovi projektovanja i gradnje palata za bogate trgovce Jovana Jovanovića Šapčanina i Milana Pavlovića kao i kasacioniog sudske Markovića. [50 godina rada, 9-17]

Krajem XIX veka najveći problem u domaćoj privredi predstavljala je zategnutost u srpsko-austrijskim odnosima koja je rezultirala zatvaranjem ugarske granice za srpske svinje pod izgovorom da su zaražene. Samo tokom 1895. godine, granica je zatvarana tri puta a slična situacija se ponavljala i narednih godina. Ovako teške prilike primorale su vladu da i sama počne da deluje u pravcu oslobođenja od ekonomске zavisnosti od Austro-Ugarske. Prvo i najvažnije rešenje je bilo da se umesto živih svinja počnu da izvoze prerađevine, a za to je bilo potrebno izgraditi klanicu. U tom cilju je vrla već 1895. godine donela Zakon o državnoj pomoći klaničkim preduzećima dok je novoosnovano *Srpsko akcionarsko društvo za klanje i prerađuju stoke* u Beogradu odlučilo da angažuje upravo Miloša Savčića da prouči organizaciju klanica u Austriji i Nemačkoj. On 1896. godine podnosi predračun i već godinu dana kasnije dobija pravo na izgradnju ovog,

– Export Bank, and Trading Bank) from where, in time, very early reflections started to arrive regarding the economic and political vision of the newly established Independent Radical Party [V. Aleksic, Connection between state and shareholding banks I, 109-122]. During that period, the most outstanding feature actually was the generation gap between Radicals and Independents. "Leaders of the Independents were born in the 1860s and even 1870s, the fact which during the years of accelerated changes only deepened their conflicts with the Radical leaders, those personalities born mostly during the 1840s. The Independents, now in their age of thirties or forties, naturally perceived the time in which they lived very differently than the Radicals, who were mostly men already in their late fifties and sixties." [D. Stojanovic, Party Elites in Serbia, 129-143]. The younger generation of the Serbian elite were bringing into the country those ideas that were formed within the school of thought of an European Moderna that prevailed late in the 19<sup>th</sup> century, thus at the time when they were finishing their studies in Europe. Leaders of their parties were not only some 20 to 30 years their elders, but they also belonged to an earlier political school of thought, supporting different, often conservative ideas and manner in which politics should be conducted, but also how the economy should be managed.

At the time when capitalism was in its infancy in Serbia, the role of the state in economic development was very limited, and young Independents saw in private shareholding banks a good instrument for financing industry that was just starting to evolve. The shareholding capital at that time, however, was in the hands of wealthy merchants of an older generation who did not recognise the importance that the bank of a mixed type was to have, the one that would be providing for classic depositing services, but would also engage in setting up and financing of individually owned

enterprises, as was the trend that prevailed in Europe at that time. Nevertheless, in an ocean of newly established small-scale shareholding banks in Belgrade, by the end of the 19<sup>th</sup> century, there were those that could not keep their head up in an politically turbulent environment without substantial partisan support, so they were soon to become an easy target for the young and ambitious Independents, the likes of the *Belgrade Trading Bank a.d. (Beogradska prometna banka a.d.)*. This bank was established in 1895, by a group of Belgrade merchants, with the idea of having it "receive for breeding to fruition of even the smallest savings, and with so deposited capital facilitating trade in money and in securities, and especially having it work on supporting trade, artisan handicrafts, and economic capital in general, in the Kingdom of Serbia." [M. Kostic, 89]. The founding capital amounted to some modest 400 thousand dinars. From the very beginning, however, the work of this bank was to be burdened by organisational problems, and as early as 1899 the shareholders demanded that the complete Board be replaced and their posts filled with some new, more capable, and in a sense, politically more proactive members. The position of the Board chairman was given to the former founder of the National-Liberal Party and director of the Serbian railways, Mihailo M. Popovic, while the famous merchant and member of the Main Board of the Serbian Progressive Party, Nikola Spasic, was appointed Vice-chairmen. Membership of the Board was filled by such personalities as the likes of some of the top Serbian industrialists, Vasa U. Jovanovic, but also another merchant and member of the Serbian Progressive Party, Svetozar Jankovic (father of the Minister of Construction Works, Velizar Jankovic). In this pleiad of old and experienced Progressive businessmen, whose party was to be extinguished in 1898, there were also two extremely progressive young people from amongst the ranks of Radicals – the newly elected director general,



Mihailo Dragičević

za državu u tom trenutku najvažnijeg projekta [V. Aleksić, Sprega države i akcionarskih banaka I, 109-122]. Opozicija na čelu sa predsednikom Udruženja srpskih inženjera Tomom Seleskovićem, žestoko se suprostavila favorizovanju Miloša Savčića i njegove firme, smatrajući da u inostranstvo treba poslati još mlađih stručnjaka. Međutim, nakon završetka izgrajanje klanice 1898. godine, koja je prema projektu pored izgradnje glavne zgrade podrazumevala i izgradnju „zgrade za berzu, poštu, telegraf, kancelarije, radničke stanove, pušnicu, obore i šupe, kanalizaciju, vodovod, kaldrmisanje, hladnjaku, rampe, sapundžinice i sve ostalo“ [50 godina rada, 27], srpska javnost bila je jednodušna u oceni da je Miloš Savčić obavio povereni posao sa velikim uspehom.

On je kapital stečen radom na ovako velikom privrednom projektu, godinu dana kasnije većim delom uložio u akcije *Beogradske prometne banke a.d.* gde biva postavljen najpre za člana Nadzornog pa zatim i Upravnog odbora banke. Radeći na projektu klanice, Savčić je postao svestan ogromne ekonomske zavisnosti Srbije od inostranstva, naročito kada je u pitanju bio uvoz drvnog građevinskog materijala iz Austro-Ugarske. Kao i u slučaju klanice, i ovde je bila neophodna izgradnja strugare koja bi značajno smanjila cenu ovog materijala na domaćem tržištu. Njegov ulazak u Banku u vreme kada

se tamo postavljala nova uprava sastavljena od nekada reformski raspoloženih naprednjaka, bio je sa ciljem realizacije upravo ovog velikog i važnog projekta. Međutim, ideja da *Beogradska prometna banka* osnuje sopstveno preduće bila je toliko nova i revolucionarna da je odmah naišla na veliki otpor Uprave. Naime, sukobi unutar vodeće Radikalne stranke kao i nestalna unutrašnja i spoljna politika mladog kralja Aleksandra Obrenovića, samo su pojačavali atmosferu opšte neizvesnosti u Srbiji onog vremena i na taj način kočili svaku mogućnost ubrzanjeg ekonomskog razvoja. Savčić je, poput ostalih prvaka njegove generacije, koji su se prvih godina XX veka našli u novoosnovanoj Samostalnoj radikalnoj strnaci, dobro razumeo da unutarnji politički sukobi u Srbiji dobrim delom proizilaze, ne samo iz želje različitih aktera da se domognu vlasti, već i iz različitih pogleda na rešavanje nacionalnog pitanja koje je trebalo da omogući da država ekonomski i politički osnaži i osloboди se prevelike zavisnosti bilo od Austro-Ugarske ili od ruske carevine. „Velike nacionalne ambicije, frustracije zbog realnih odnosa snaga, česti ratovi, međunarodne krize, zategnutosti, pretrje, iznevarevanja od strane starih i nepoverenje novih saveznika činili su međunarodni okvir koji nije bio podsticajan za rešavanje pitanja društva i politike“ [D. Stojanović, Ulje na vodi, 136] a posebno nije



Mihailo Dragicevic, and the new member of the Supervisory Board, Milos Savcic [Jugoslovenski Kompas, 333]. It was soon to be revealed that the old Progressives remained sufficiently susceptible to the new ideas, which will lead the *Belgrade Trading Bank* soon to join the ranks of the most powerful banks in Serbia.

### **The role of Milos Savcic in the development of *Prometna banka a.d.* (*Trading Bank a.d.*)**

Milos Savcic was one of the leading Serbian businessmen in the first half of the 20<sup>th</sup> century. He was born in 1865, in Resava near Svilajnac. His father was an opulent merchant who had sent his son early on to do his studies, first in Belgrade, and then at the Superior Technical School in Munich. After completing his studies, in 1889, Savcic remained for another two years in Germany, where he worked as an engineer on the construction of Bavarian railways. In 1891, he returned to Serbia, and after serving his military conscription duties, he joined the administration department of the Municipality of Belgrade. However, after only one year of work, he decided with financial support of his father and uncle, to start his own independent business by setting up the company "Engineering-Architectural Offices" in Belgrade. That his political close ties with the then-ruling Radicals were of great importance, is best supported by the fact that young Savcic was given his first assignment actually by the wealthy merchant and one of the top Radical leaders, Luka Celovic. What was soon to follow were new jobs and tasks on design and construction of palatial buildings and mansions for the rich merchants Jovan Jovanovic Sapcanin, and Milan Pavlovic, but also for the Cassation Court Judge, Milutin Markovic [50 years of work, 9-17].

By the end of the 19<sup>th</sup> century, the major problem encountered by the domestic economy was the tension in the Serbian-Austrian relations which resulted in the closing of the Austro-Hungarian border for the Serbian hog exports under pretence that they were diseased. During 1895 alone, the border crossings were closed three times, and similar situation prevailed and continued over the following years. Such tedious

circumstances forced the government to start its own initiative aimed at liberation from economic dependence on Austro-Hungary. The first and foremost solution was, instead of live hog export, to start with exporting pork processed meat, and to that end it was necessary to build abattoirs. Hence the government, as early as 1895, passed the Law on state assistance to the abattoir companies, while the newly established *Serbian Shareholding Company for Slaughter and Processing of Livestock* in Belgrade, decided to engage actually Milos Savcic to study the ways in which abattoirs in Austria and Germany were organised. In 1896, he submitted his report and the cost estimate, and only one year later, he was granted the right to start with construction of this, for the government at that time, major venture and the project of the highest national priority [V. Aleksic, Connection between state and the shareholding banks I, 109-122]. Opposition, headed by the president of the Association of Serbian Engineers, Toma Selakovic, fiercely opposed favouring of Milos Savcic and his company, being of the view that some other young experts should also be sent abroad. Once the abattoir was completed, however, in 1898, which according to the project, in addition to the construction of the main building was also covering construction of "a building to house a stock exchange, a post office, telegraph, offices, housing accommodation for manpower, meat curing plant, pig sties, sheds and auxiliary storage buildings, sewage facilities, water supply, pavement of roads, a cold-storage room, entrance ramps, soap factory, and all the rest" [50 years of work, 27], Serbian public, in unison, judged Milos Savcic as a man who had carried out the entrusted task with great success.

One year later, he invested most of his capital gained through work on such a large-scale commercial project, in the shares of the *Belgrade Trading Bank a.d.*, where he was appointed firstly a member of the Supervisory Board, and then a member of the Board of Directors of the bank. While engaged in work on the abattoir, Savcic became aware of the enormous economic dependence of Serbia on the foreign partners, especially in case of import of timber for construction works from Austro-Hungary. Not unlike the case of the abattoir, what was needed here was the construction of

ulivao poverenje privrednicima kada su u pitanju bila velika finansijska ulaganja u potpuno nove poslovne poduhvate.

Stoga, može se samo prepostaviti koliko je snage, volje i samouverenosti trebalo da poseduje jedan tridesetpetogodišnji inženjer da bi ubedio veterane srpske privrede, poput Nikole Spasića, u važnost osamostaljivanja srpske privrede i izgradnju domaće industrije. Konačno, 1901. godine Uprava odobrava izgradnju bančine strugare uz uslov da svaki eventualni finansijski gubitak Banke, Savčić lično nadoknadi. Već dve godine kasnije na obalama Dunava svoj rad otpočela je prva veća parna strugara na teritoriji Kraljevine Srbije koja je svoje kapacitete neprestano proširivala sve do početka Prvog svetskog rata. [J. R. Lampe, 258-260]

### Pretvaranje *Prometne banke a.d.* u prvu poslovnu banku Kraljevine Srbije

Za potrebe snabdevanja *Strugare Prometne banke* oblom građom, Banka je još 1902. godine dobila od države pravo na eksploataciju državnih šuma na Tari, Crnom Vrhу i Zvezdi. Građa je odatle dovožena splavovima Drinom, Savom i Dunavom do kanala Strugare u Beogradu. Godine 1908. Banka je i lično došla u posed šuma na delu Tare u blizini Dervente. „Ta šuma koju je g. Savčić kupio za Prometnu banku ležala je na takvim vrletima i bespuću da ni vrana ne bi mogla iznetidrvce na Drinu“ [50 godina rada, 75]. Međutim, iskusni inženjer je za potrebe spuštanja građe do reke Drine a uz pomoć nemačkih kolega projektovao i izgradio

specijalnu žičaru u dužini od 6 kilometara, prvu takve vrste u Srbiji. Zahvaljujući tome, Strugara je mogla da podmiri najraznovrsnije potrebe domaćeg tržišta za čamovom i borovom građom svih kvaliteta i dimenzija. U proseku je zapošljavala između 120 i 280 radnika i bila je jedna od najuspešnijih preduzeća drvno-prerađivačke industrije u zemlji. [N. Vučo, 295-301]

Miloš Savčić je već 1903. godine postao potpredsednik Banke koja dve godine kasnije podiže akcionarski kapital na milion dinara i dobija ime *Prometna banka a.d.* Na veliko poverenje ulagača je pored uspešnih bančinih poslova naročito uticala činjenica da je upisom „lepog broja akcija“ jedan od akcionara banke postao i kralj Petar I Karađorđević. Iste 1905. godine Savčić postaje jedan od osnivača nove Samostalne radikalne stranke i narodni poslanik u Skupštini sve do 1911. godine. U međuvremenu, 1908. godine biva postavljen za ministra građevina gde je po mišljenju svojih partijskih kolega „preuređio Ministarstvo, dao impuls javnim radovima, starajući se, uvek kao inženjer i stručnjak, naročito o izgradnji saobraćaja u zemlji, podizanju novih drumova, mostova i veza“ [50 godina rada, 143]. Ovo preplitanje političkih i privrednih funkcija nije bila neuobičajena pojava u Srbiji onog vremena ali je ipak u slučaju Miloša Savčića, kao i njegovog partijskog kolege Milorada Draškovića, naročito izazivala podozrenje srpske javnosti. Velika prašina podigla se oko dodeljivanja koncesija *Prometnoj banci* za eksploataciju državnih šuma na planini Tari, naročito u vreme izbora 1905. godine kada

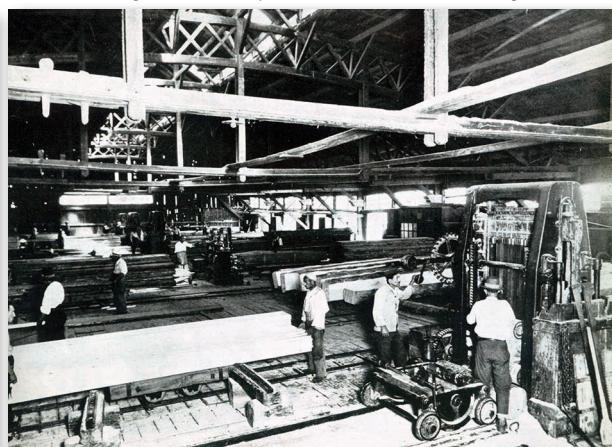
Klanica u Beogradu  
Slaughterhouse in Belgrade

50 godina rada inženjera Miloša Savčića 1889 - 1939, Beograd, 1939.



Parna strugara Prometne banke u Beogradu  
Steam sawmill of Prometna Banka in Belgrade

50 godina rada inženjera Miloša Savčića 1889 - 1939, Beograd, 1939.



a saw mill for timber, which would significantly lower the price of this material on the domestic market. His arrival at the Bank, at the time when the new top management was being appointed from the ranks of the former reform-oriented Progressives, was actually aimed at the realisation of this large-scale and important project. The idea, however, that the *Belgrade Trading Bank* should establish its own company, was such a novel and revolutionary concept that it immediately encountered great opposition by the Board. Namely, the conflicts within the leading Radical Party, and the ambiguous interior but also foreign policy of the young King Aleksandar Obrenovic, only further intensified an atmosphere of general uncertainty in Serbia of that time, and in this way slowed down any opportunity for an accelerated economic development. Savcic himself, not unlike the other leading personalities of his generation, who had found themselves during the initial years of the 20<sup>th</sup> century in the membership of the newly established Independent Radical Party, understood well that the internal conflicts in Serbia were in good part resulting not only from the wishes of different actors to grab power, but also from divergent views on how the national question should be solved, that would allow for the state to gain its economic and political strength and free itself from an excessive dependency either on Austro-Hungary, or on the Russian Empire. "Great national ambitions, frustration with the real balance of power, frequent wars, international crises, tensions, threats, disappointment in the old and mistrust of the new allies, all this was painting an international landscape, that did not much inspire solution to be found for the

issues burdening society itself and its politics" [D. Stojanovic, Oil poured on water, 136], and was especially disheartening for businessmen when large-scale financial investments to be made into completely new business ventures were planned.

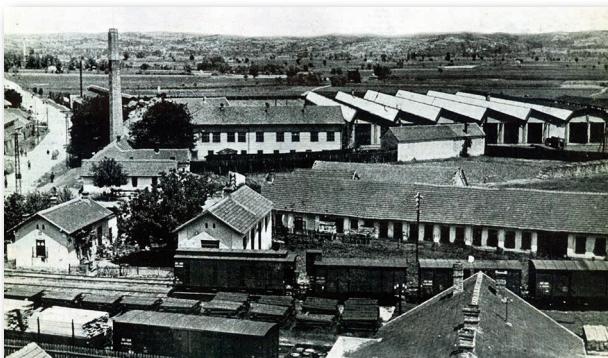
Hence, one can only imagine just how much strength, will-power and self-confidence was necessary for a thirty-five-year old engineer to have in order to convince veterans of the Serbian economic scene, the likes of Nikola Spasic, of the great importance that the positioning of the Serbian economy on independent grounds has, through the construction of an autochthonous domestic industry. Finally, in the year 1901, the Board approved construction of the Bank-owned timber saw mill, on condition that any eventual financial loss of the Bank would be covered by Savcic personally and solely. Already two years later, located on the banks of Danube River, the first steam generated timber saw-mill was put in operation in the territory of the Kingdom of Serbia, which was to continue expanding its capacities throughout the time until the eruption of the First World War [J.R. Lampe, 258-260].

### **Transformation of the *Trading Bank a.d.* into the first business bank in the Kingdom of Serbia**

In order to cater to the needs of the *Trading Bank Sawmill* by supplying it with round lumber logs, the Bank had, as early as 1902, obtained from the state the right to exploitation of the state-owned forests on Tara, Crni Vrh, and Zvezda Mountains. Timber from those locations was transported on board rafts down

Fabrika vagona Kruševac  
Railway Rolling Stock Factory in Kruševac

50 godina rada inženjera Miloša Savčića 1889 - 1939, Beograd, 1939.



Industrija lima u Zemunu  
Sheet Metal Rolling Mill in Zemun

50 godina rada inženjera Miloša Savčića 1889 - 1939, Beograd, 1939.



je u beogradskom listu *Štampa* objavljen čak i pamflet u kojem je između ostalog pisalo: „Telegram Tare Avali. Posestrimo, danas je pod tobom u Beogradu lom. Dični Beograđani biraju sebi za poslanika mog istrebitelja Savčića. Ogolela si od sekire znaš tog jada pa im bar ispričaj svoje muke...“ [Štampa, 13.12.1905.]

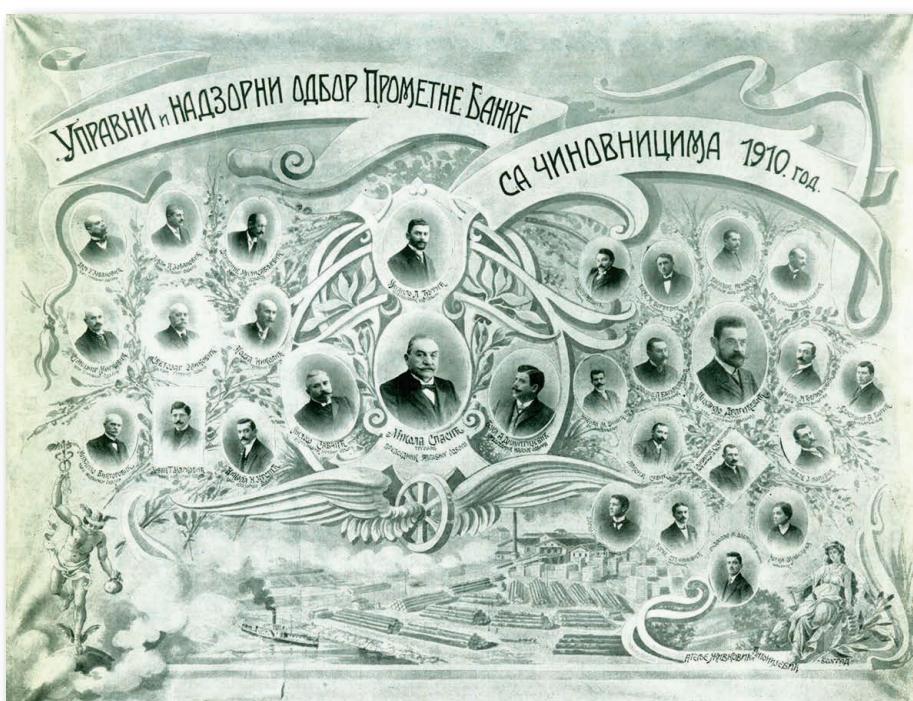
Sumnje u bančinu neumerenu eksploataciju četinarskih šuma na Tari kao i donošenje fiksnih cena drvne građe pod okriljem i zaštitom države, nastavile su se i narednih godina, čak i pred govoricom Narodne skupštine. Tamo su se za favorizovanje *Prometne banke* udrvno-prerađivačkoj industriji u nekoliko navrata direktno optuživali i aktuelni ministri naodne privrede Milorad Drašković i Kosta Glavinić. Posebno teška po bančin ugled bila je 1909. godina jer su napadi bili usmereni na njenog potpredsednika a tada aktuelnog ministra građevina Miloša Savčića. Zbog toga je bila obrazovana specijalna stručna komisija koja je pregledala bančine knjige i utvrdila da prilikom potpisivanja ugovora sa državom nije bilo nepravilnosti. „Nije bilo nikakve naklonosti prema Banci, a to što joj je data mogućnost i seče na Tari, nije nikakva privilegija nego samo obaveza da ona ulaže sve snage i sredstva i prvenstveno poseće svu sečivu masu u te dve šume. Za fiksnu cenu se opredelila da Banka ne bi zavisila od eventualne volje nekog ministra i da bi se izbegli mogući sudski sporovi. (...) užički

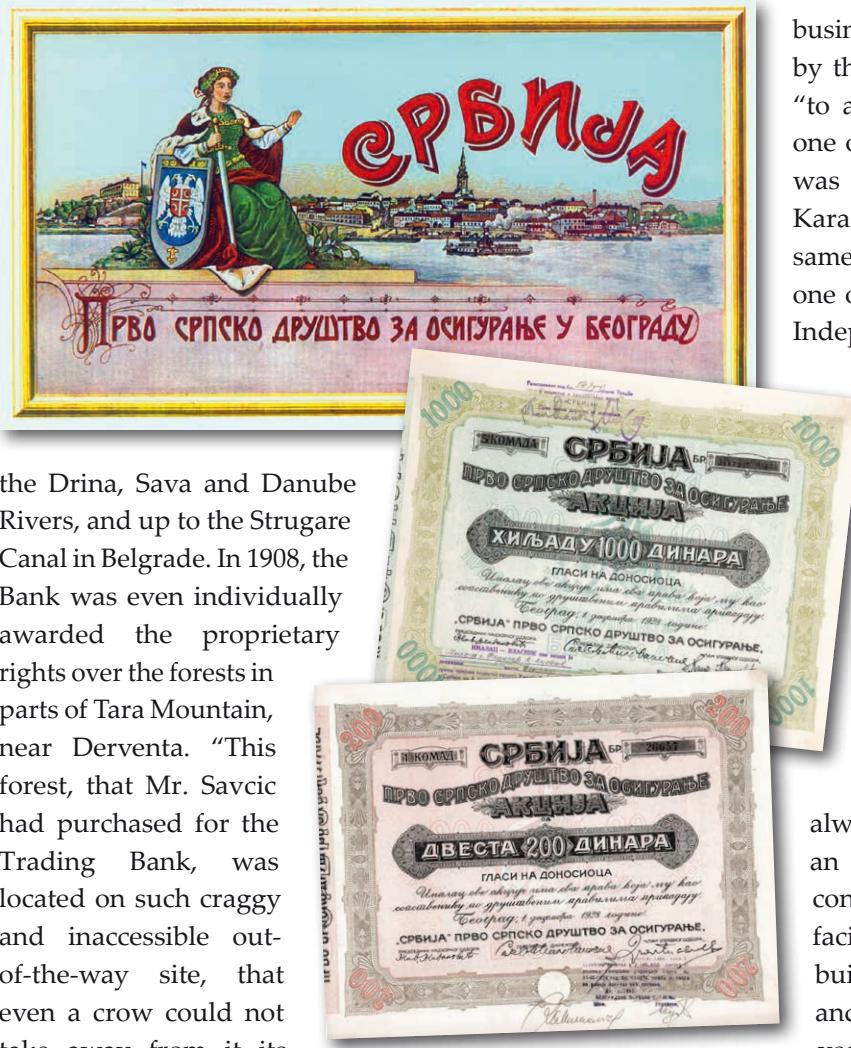
poslanici su prihvatili podatke da bez toliko uloženih sredstava u žičaru i ostale saobraćajne naprave ne bi bila moguća eksploatacija ove dve šume“ [S. Vladisavljević, 61-84]. Jaša Prodanović, tadašnji ministar narodne privrede, pred Skuštinom je isticao da je „okolno stanovništvo našlo rada i zarade, godišnje oko 300.000 dinara (...) prištedeli su svoje šume i zabrane jer su imali zarade više od rada nego od prodaje svog drveta“ [S. Vladisavljević, 61-84], dok je poslanik Milutin Lukić isticao da je *Prometna banka* preporodila ceo kraj oko Bajine Bašte, da je 300 ljudi zahvaljujući njoj dobilo posao i da ona nije eksploatisala ni šume ni seljake. U prilog tome je izneo podatak da su seljaci radeći na seči bančinih šuma dobijali 18 dinara nedeljno dok su lokalni „japijari“ plaćali svega 2 dinara nedeljno.

Koliko god da su dnevni politički događaji komplikovali poslovnu politiku *Prometne banke*, ona je već 1909. godine uz spretno Savčićevu rukovođenje proširila svoju delatnost sa drvno-prerađivačke industrije na brodarstvo i rečni prevoz peska i šljunka, tada veoma traženog u uznapredovaloj građevinskoj industriji Srbije. Iste godine osnovala je i *Fabriku stakla za prozore* u Kostolcu. U tom periodu je Miloš Savčić već uveliko bio i potpredsednik Upravnog odbora *Privilegovane izvozne banke* sa kojom *Prometna banka* 1911. godine osniva *Društvo za tehnička preduzeća*, koje na javnoj licitaciji dobija

izgradnju pruge Niš-Knjaževac.

Ova pruga je, iako u dužini od samo 60 kilometara, bila izuzetno zahtevna za gradnju jer je podrazumevala da na deonici od 20 kilometara bude izgrađeno 39 tunela i 20 mostova. Takođe, ona je imala veoma važan strateški značaj neposredno pred početak Balkanskih ratova. Ali, kako je izgradnja počela tek u junu 1911.





the Drina, Sava and Danube Rivers, and up to the Strugare Canal in Belgrade. In 1908, the Bank was even individually awarded the proprietary rights over the forests in parts of Tara Mountain, near Derventa. "This forest, that Mr. Savcic had purchased for the Trading Bank, was located on such craggy and inaccessible out-of-the-way site, that even a crow could not take away from it its smallest twig, and carry it all the way down to Drina River." [50 years of work, 75]. Being an experienced engineer, however, Savcic designed and constructed a lumber chute necessary for transporting timber down to Drina River, with the assistance of his German colleagues, in the form of a special type of a lumber cable car, in the length of 6 kilometres, the first of its kind in Serbia. Thanks to this invention, the Sawmill could now cater for the most diverse necessities of the domestic market in fir and pine-tree timber material, of all qualities and sizes required. Sawmill was employing, on an average, between 120 and 280 workers and was one of the most successful enterprises in the timber and wood-processing industry in the country [N. Vuco, 295-301].

Milos Savcic, already in 1903, became vice-president of the Bank, which was to raise its shareholding capital only two years later to one million dinars and change the name into *Trading Bank a.d.* Great depositors' confidence in the Bank, in addition to successful banking

business, was especially boosted by the fact that by subscribing "to a nice number of shares", one of the Bank's shareholders was to become King Petar I Karadjordjevic. During that same year, 1905, Savcic became one of the founders of the new Independent Radical Party,

and was to remain a national deputy to the Assembly until 1911. In the meantime, in 1908, he was appointed Minister of Construction Works, where in the opinion of his party colleagues, "he reorganised the Ministry and gave impulse to the public works, caring as always as an engineer and an expert, especially for the construction of transport facilities in the country, for building new roads, bridges and connection lines." [50 years of work, 143]. This

intertwined aspect of political and economic functions was not an infrequent phenomenon in Serbia of that time, yet in the case of Milos Savcic, and also his party colleague Milorad Draskovic, especially caused misgivings amongst the Serbian public. Great outcry emerged caused by concessions granted to the *Trading Bank* for exploitation of state-owned forests on Tara Mountain, especially at the election time in 1905, when the Belgrade newspaper *Stampa* published even a pamphlet stating, among other, the following: "Telegram sent from Tara Mountain to Avala Mount: Dear sister-mountain, today city of Belgrade, at your foothill, is in chaos. Pompous Belgrade citizens are to elect as their deputy my exterminator Savcic. You were rendered bare by the axe, so you know well this sorrow, but at least tell them of sufferings that you had endured..." [*Stampa*, 13.12.1905].

Misgivings about the Bank's unrestrained exploitation of evergreen forests on Tara Mountain, but also adoption of fixed prices of

godine do početka septembra 1912, odnosno do mobilizacije pred ovaj rat, završeno je samo 42% svih radova. Izgradnja je nastavljena i tokom Prvog svetskog rata, odnosno do evakuacije u oktobru 1915. godine, kada je bilo završeno 90% svih radova. Cilj je bio da se uspostavi veza od Niša do Dunava, s obzirom na to da je železnica od Knjaževca, preko Zaječara i Negotina, bila već gotova, čime bi i veza sa savezničkom Rusijom bila osigurana. Drugi primer zajedničke angažovanosti privatnog kapitala ove dve banke zabeležen je odmah po završetku Prvog svetskog rata, kada su u cilju proširivanja delokruga rada i uticaja na teritoriju Stare Srbije (Kosova i Metohije) i Makedonije, osnovali u Skoplju banku pod nazivom *Izvozna i Prometna banka a.d.* [V. Aleksić, Sprega države i akcionarskih banaka u Srbiji II, 112-130]

Posredno, *Prometna banka* je preko članova

Upravnog odbora još 1905. godine postala osnivač *Osigruavajućeg društva „Srbija“* u kojoj su paralelno radili i neki od bančinih činovnika. Ideju o osnivanju prvog osiguravajućeg društva u Srbiji (ako izuzmemmo odeljenje za osiguranje *Beogradske zadruge*) dao je kralj Petar I koji je „prvi upisao i uplatio 300 komada akcija od broja 1 - 300 na svoje ime“ [50 godina rada, 56]. Ovo je svakako doprinelo velikom odzivu građana i omogućilo da u veoma kratkom vremenskom periodu ovo društvo stekne veliki uspeh. Kruna bančine uspešne poslovne politike svakako je bila izgradnja nove palate na uglu Knez Mihajlove i Zmaj Jovine ulice, u koju se pred sam rat 1914. godine smeštaju bančine kancelarije zajedno sa kancelarijama *Osiguravajućeg društva „Srbija“*. Nakon početka Prvog svetskog rata Banka je uspela da sve svoje vrednosti i arhivu evakuiše iz Beograda u Niš, gde je predala Narodnoj banci koja je, zajedno sa svojom kao i imovinom *Izvozne banke* i *Beogradske zadruge*, prenela 1915. godine u Francusku. Iako ni *Prometna banka* nije radila tokom rata zabeležen je podatak da je u ovom periodu preko Crvenog krsta u Švajcarskoj sa uložnih knjižica i tekućih računa uspela da svojim poveriocima isplati iznos od dva miliona dinara.

### Zlatno doba *Prometne banke a.d.* 1920-1941

Nakon Prvog svetskog rata i smrti Mihaila Popovića i Nikole Spasića, predsednik Upravnog odbora *Prometne banke a.d.* postaje Miloš Savčić, koji uz svesrdnu pomoć generalnog direktora Mihaila Dragičevića od nje stvara jednu od najuspešnijih srpskih poslovnih banaka na teritoriji Kraljevine SHS/Jugoslavije. Iste godine osnivački kapital banke povećan je na 2,5 miliona dinara; naredne, 1921. godine, glavnica je duplirana na 5 miliona dinara i to delimično novom emisijom akcija a delimično iz rezervnih fondova Banke. Iste godine u prostorijama



Nova zgrada banke na uglu Knez Mihajlove 26 i Zmaj Jovine 12, sagrađena 1913. godine po projektu Danila Vladisavljevića

New building of the bank at the corner of 26 Knez Mihajlova Street and 12 Zmaj Jovine Street, built in 1913 according to the project of Danilo Vladisavljević

50 godina rada inženjera Miloša Savčića 1889 - 1939, Beograd, 1939.

timber under the auspices and protection of the state, continued over the following years, even to be argued at the rostrum of the National Assembly. It was there that favouring *Trading Bank* in the timber processing industry was, on several occasions, the opportunity to directly put the blame on the currently serving ministers of the national economy, Milorad Draskovic and Kosta Glavinic. Especially difficult for the Bank's reputation was in 1909, as the attacks were directed at one of its vice-presidents, at that time also current Minister of Construction Works, Milos Savcic. This gave rise to the establishment of a special expert commission which was tasked to examine Bank's books and determine whether contracting deals with the state involved any irregularities. "There was no sympathy for the Bank, and the fact that it was given the opportunity to cut timber at Tara Mountain was no privilege at all, but only an obligation for it to invest all its efforts and funds, and primarily cut all the timber mass in those two forests. The fixed price was the decision made by the Bank in order to avoid being dependent on eventual whims of some cabinet minister, and in order to avoid any eventual court dispute. (...) Uzice town deputies have accepted the fact that without such a large amount of invested funds into timber transporting cable car and other transport facilities it would not have been possible to collect lumber from those two forests." [S. Vladisavljevic, 61-84]. Jasa Prodanovic, at that time cabinet minister in the national economy, at the Assembly plenary session stated the following: "Population in the neighbouring area found work and source of earning, in an annual amount of some 300.000 dinars (...), they have saved their own forests and woods, because they had better gains from work than from sale of their own timber wood." [S. Vladisavljevic, 61-84]. Deputy Milutin Lukic pointed out that the *Trading Bank* had transformed the entire area of Bajina Basta, that 300 persons found work thanks to the Bank, and that it did not exploit either forests or farmers. In support of his argument, he stated the fact that peasants working on the timber logging of the Bank's woods were receiving 18 dinars per week, while the local "japijars" (timber carriers) were paying them only 2 dinars per week.

Regardless of how much the daily-political events complicated business policies of the *Trading Bank*, under the proficient leadership of Mr. Savcic, it had already in 1909 expanded its business from the timber-processing industry on to the shipping and the river transport of sand and gravel, at that time very highly in demand in a developing construction industry in Serbia. During that same year, *Window Glass Panes Factory* was established in the town of Kostolac. During that period, Milos Savcic was already for quite some time also a Vice President of the Board of Directors of the *Privileged Export Bank*, and in 1911, together with the *Trading Bank*, it established *Technical Enterprises Society*, which was awarded at the public bidding the construction of the railway line Nis – Knjazevac. This railway line, although in the length of only 60 kilometres, was an extremely demanding project for construction, as it had to design also, along one stretch of 20 kilometres, the construction of 39 tunnels and 20 bridges. In addition, it also had a very important strategic position immediately prior to the outbreak of the Balkan Wars. However, as the construction started only in June 1911, until early September 1912, i.e. until mobilisation on the eve of this war, only 42% of all works were completed. Construction works were continued during the First World War, i.e. until the evacuation in October 1915, by which time 90% of all works was completed. The aim was to establish a connection link between Nis and the Danube River, as the railway line to Knjazevac, via Zajecar and Negotin, was already finished, which would also secure the link with Russia as an ally. Another example of the joined venture of private capital of these two banks was recorded immediately after the First World War, when for purpose of expanding its scope of work and influence on to the territory of Old Serbia (Kosovo and Metohija), a new bank was established in Skopje under the name *Export and Trading Bank a.d.* [V. Aleksic, Connection between state and shareholding banks in Serbia II, 112-130].

Indirectly, *Trading Bank*, through its members on the Board of Directors, has as early as 1905 become the founder of the *Insurance Company "Serbia"* where some of the Bank's staff was also engaged in parallel employment. The idea of

*Prometne banke* osniva se *Udruženje banaka Beograd* na čije čelo dolazi upravo Mihailo Dragičević, koji je tada bio i član Privrednog saveta pri Ministarsvu trgovine i industrije. Jedan od ciljeva ovog udruženja bio je zajednički nastup srpskih banaka prilikom preuzimanja i nacionalizovanja *Beočinske fabrike cementa* i *Sartida* putem otkupa izesnog broja akcija, kao i finansijska pomoć prilikom osnivanja novih banaka na oslobođenim teritorijama. [Fond MTI-1131-2115]

Veliko interesovanje koje je u srpskoj javnosti vladalo za rad *Prometne banke*, omogućilo joj je da već 1923. godine poveća nominalnu vrednost akcije sa 250 na 500 dinara a osnivački kapital na 10 miliona dinara. Miloš Savčić je 1925. godine prepustio mesto potpredsednika Upravnog odbora *Izvozne banke* dr Vladi T. Markoviću i potpuno se posvetio unapređenju rada *Prometne banke*, čije novo polje interesovanja postaje rudarska industrija. Naime, još tokom radova na pruzi Niš-Knjaževac otkrivene su bogate naslage kamenog uglja u podnožju planine Tresibabe. Već 1915. godine Savčić od države dobija povlasticu za eksplataciju 150 rudnih polja na ovoj teritoriji ali je rad zbog rata i nedovršene železničke pruge morao biti odložen. Po povratka u zemlju, 1919. godine, Uprava Banke osniva *Društvo za eksplataciju goriva* koje već 1920. godine zahvaljujući završetku radova na pruzi, otpočinje eksplataciju ovih

rudnih polja. Godine 1930. Banka je od Đorđa Vajferta preuzeila povlasticu nad rudnikom kamenog uglja *Podvis* koji je obuhvatao prostor severno od reke Timoka i terena Tresibabe kao i povlastice nad obližnjim rudnikom *Blagovesti*. U ovim rudnicima radilo je oko 800 radnika i činovnika. Rudnici *Tresibabe* i *Podvis* posedovali su sopstvenu električnu centralu i veliku koloniju za stanovanje osoblja i radnika. U njoj je bilo smešteno više od 100 porodica i preko 300 radnika-samaca koji su dobijali "sem besplatnog stana, ogreva i električnog osvetljenja, izvesnu površinu ziratnog zemljišta za bašte, besplatno" [50 godina rada, 109]. U koloniji je postojao magacin sa životnim namerinicama, mesara i pekara kao i zajedničko kupatilo za rudare. "Uprava rudnika je uvek imala na umu da težak rad manuelnih radnika, posebno rudara, zahteva osveženje tela i duha da bi se sa što većom voljom, energijom i lakoćom mogao svakog dana nastavljati. Ono što se danas u Nemačkoj čini preko pokreta "Kraft durch Freude" upravno osoblje rudnika sprovodilo je u svom području još ranije, imajući pred očima sve elemente za uspešan i zadovoljan rad" [50 godina rada, 110]. Da se društvena odgovornost Uprave nije ovim završavala govori i podatak da je u okviru kolonije postojala državna osnovna škola čiju je zgradu sa svim inventarom finasiralo *Društvo za eksplataciju goriva* kao i Rudarski dom u kojem se pored fiskulturne dvorane nalazila i biblioteka sa



establishment of the first insurance company in Serbia (with the exception of the insurance department at the *Belgrade Cooperative*) was given by King Petar I "who was the first to subscribe to 300 pieces of shares, from number 1 to number 300, in his own name." [50 years of work, 56]. This had certainly contributed to the great and massive response of the citizens and allowed, over a very short period of time, for this company to attain great success. The crown of the Bank's successful business policy was certainly construction of its new office building, a palatial mansion situated at the corner of Knew Mihailova Street and Zmaj Jovina Street, where directly prior to the outbreak of the war, in 1914, the Bank's offices were relocated together with the offices of the *Insurance Company "Serbia"*. Upon the eruption of the First World War, the Bank succeeded in evacuating all of its valuables and archives from Belgrade to Nis, where they were handed over to the National Bank, which, in turn, together with its own valuables and assets of the *Export Bank* and *Belgrade Cooperative*, transferred them to France in 1915. Although the *Trading Bank* was not operative during the war, a recorded fact was found that during that period, and through the mediation of the Red Cross in Switzerland, it had succeeded in paying to its creditors an amount of two million dinars from the deposit bank books and from the current accounts.

### The Golden Age of the *Trading Bank a.d.* 1920-1941

After the First World War and the demise of Mihailo Popovic and Nikola Spasic, president of the Board of Directors of the *Trading Bank a.d.* became Milos Savcic, who had, with the wholehearted support of the director general, Mihailo Dragicevic, created from this Bank one of the most successful Serbian business banks in the territory of the Kingdom of Serbs, Croats and Slovenes/Yugoslavia. That same year, the founding capital of the Bank was increased to 2.5 million dinars; the following year, 1921, the principal was doubled to 5 million dinars, and this in part through a new issue of shares, and partly from the reserve funds of the Bank. That same year, in the offices of the *Trading Bank*, the first *Banking Association in Belgrade* was established, to be headed by Mihailo Dragicevic, who was at that time also a member of the Economic Council at the Ministry of Trade and Industry. One of the objectives of this Association was to engage, in joint action of all the Serbian banks, in the process of acquisition and nationalisation of the *Beocin Cement Factory*, and *Sartid*, through the repurchase of a certain number of shares, but also through offer of financial assistance during the establishment of new banks in the liberated territories [Fond MTI-1131-2115].

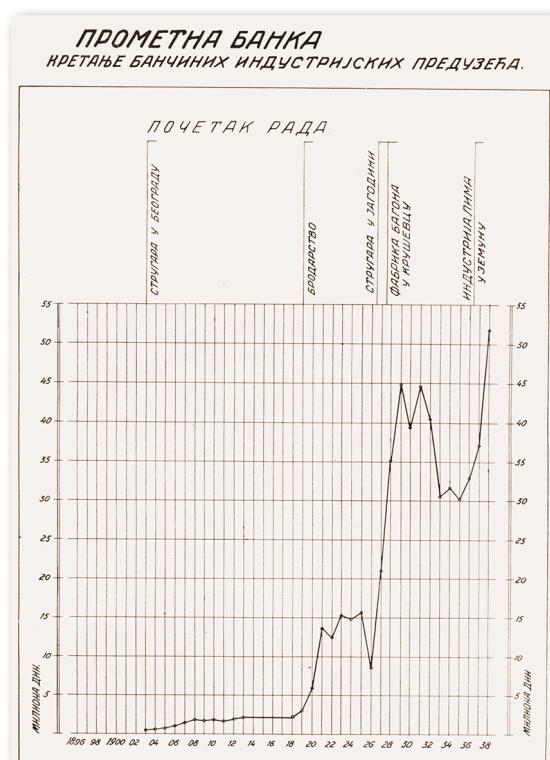
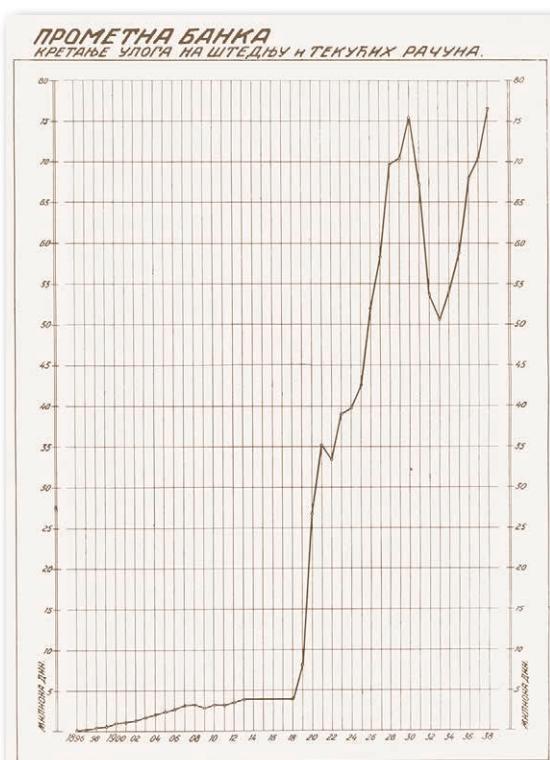


čitaonicom. Ugalj dobijen u ovim rudnicima (100 hiljada tona godišnje) bio je izuzetno pogodan za loženje parnih kotlova svih vrsta, te je plasiran najviše rečnoj plovodni i Državnoj železnici, čiji direktor je u period 1920-1921 bio upravo Miloš Savčić [M. Kostić, 91].

Kada je u pitanju rudnik lignita "Kosovo", raspoloživi istorijski izvori ukazuju da je nakon osnivanja *Rudarsko-industrijskog akcionarskog društva "Kosovo"* 1923. godine, ovaj rudnik postao vlasništvo *Prometne banke*. On posebno dobija na značaju od 1930. godine, kada je otvoren veliki rudnik "Trepča" čije su električne centrale koristile upravo lignit iz ovog rudnika. Za samo osam godina, u period od 1930. do 1938. godine, proizvodnja se zahvaljujući bančinim ulaganjima u ovaj rudnik učetvostručila. "Treba samo poželeti da se rudnik "Kosovo" i u buduće razvija istim tempom kao što je bilo za prvi petnaest godina (...) Po proračunu pok Dr. Svetolika Radovanovića, profesora univerziteta i našeg poznatog geologa, količina uglja na opisanom terenu "Kosova" iznosi okruglo devedeset miliona tona. Ako uzmemo da godišnja produkcija uglja na ovom rudniku iznosi sto hiljada tona onda bi uglja na ovom terenu i u ovom obimu rada bilo za devet vekova... eksploatacija rudnika "Kosovo"

nesumnjivo bi omogućila elektrifikaciju Južne Srbije, polet njene industrije, zaposlenje ogromnog broja radničkog sveta koji je danas često upućen u pečalbu van svog zavičaja pa i van otadžbine" [50 godina rada, 118].

Pored velikih finansijskih ulaganja u rudarsku industriju, *Prometna banka* je nastavila da ulaže u svoje *Brodarsko transportno preduzeće* u Beogradu i da širi učešće u drvno-prerađivačkoj industriji osnivanjem nove strugare u Bosanskoj Jagodini 1927. godine, koja se nalazila u neposrednoj blizini bančinih šuma iznad Višegrada. Za prvih deset godina nakon rata, Banka je u preduzeća ove industrijske grane uložila 19 miliona dinara. Godinu dana kasnije, na javnoj licitaciji je kupila *Fabriku vagona i gvozdenih konstrukcija* u Kruševcu, koja je neposredno pre toga pala pod stečaj. Kako je *Prometna banka* prethodno bila poverilac ovoj fabrići (u iznosu od 7,2 miliona dinara), po istoj ceni je i kupila. Nastojeći da razvije poslove izrade vagona i gvozdenih konstrukcija, ona je fabriku iz osnova rekonstruisala i modernizovala, uloživši za samo godinu dana u nju 21 milion dinara. Takođe, uspela je da joj obezbedi poslove za potrebe Državnih železnica, kako u proizvodnji novih vagona tako i u izgradnji gvozdenih železničkih mostova. [Narodno blagostanje,



Great interest that prevailed amongst the Serbian public for the work of the *Trading Bank* enabled the Bank, already in 1923, to increase the nominal value of its share from 250 to 500 dinars, and to raise its founding capital to 10 million dinars. In 1925, Milos Savcic ceded the position of the vice-president of the Board of Directors of the *Export Bank* to Dr. Vlada T. Markovic, and devoted himself completely to the promotion of work of the *Trading Bank*, whose new field of interest became the mining industry. Namely, even as early as the works on construction of the railway line Nis-Knjazevac, some rich deposits of hard coal at the foot of Tresibaba Mountain were discovered. Already by 1915, Savcic obtained a licence from the state for exploitation of 150 mining fields in this territory, but the works because of the war and incomplete construction of the railway line, had to be postponed. Upon its return to the country, in 1919, the Board of the Bank established the *Fuel Exploitation Society*, which already in 1920, thanks to the

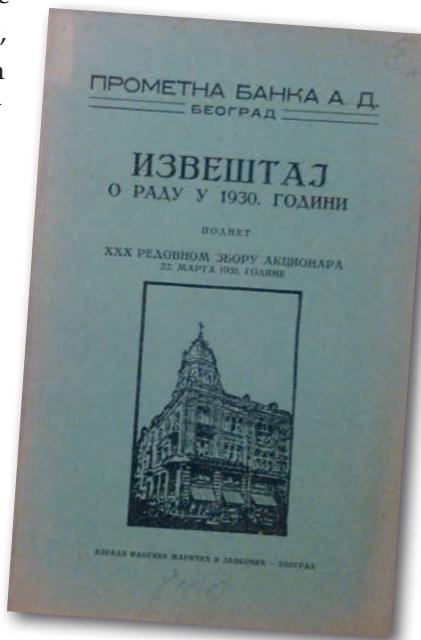
completion of works on the railway line, started exploitation works in these mining fields. In 1930, the Bank took over from Djordje Vajfert the privileged licence for the hard coal mine *Podvis*, which covered an area north of Timok River and the location of Tresibaba, as well as the exploitation privileges over the nearby mine *Blagovesti*. In these mines, there were some 800 workers and clerical staff employed. Mines *Tresibaba* and *Podvis* had their own electric power plant and a large colony for housing staff and workers. There were over 100 families accommodated there and more than 300 single labourers who were receiving "in addition to free of charge housing accommodation, also heating wood and electrical power, a certain plot of arable land for gardening, all of this free of charge." [50 years of work, 109]. In the colony there was a warehouse for food stuffs storage, a butcher's shop and a bakery, and also communal bathrooms for miners. "The mine directorate always had in mind that

the hard work carried out by manual labour, especially miners, demands freshening up of both body and soul, in order to function properly with renewed energy, every new day. What is being done in Germany today through, the movement "Kraft durch Freude", administrative staff of the mine was conducting in its own area much earlier, bearing in mind all the elements needed for successful and happy labour." [50 years of work, 110]. That the social

corporate responsibility of the Board did not end there is best illustrated by the fact that within the colony, there was also a governmental primary school in operation, whose construction, together with all the necessary facilities, was financed by the *Fuel Exploitation Society*, and there was also there a Miners' Home where, in addition to the gym sports hall, there was a library with reading rooms. The coal extracted from these mines (100 thousand tonnes per year) was extremely suitable for heating steam

boilers of all kinds, and was supplied mostly to the river shipping company and to the State Railways, whose director was actually Milos Savcic, in the period 1920-1921 [M. Kostic].

As regards the lignite coal mine "Kosovo", the available historical sources point out that after the establishment of the *Mining and Industrial Shareholding Company "Kosovo"*, in 1923, this mine became the property of the *Trading Bank*. It was to gain especially in importance starting from 1930, when the major large-scale mine "Trepca" was opened, with its electrical power plants using actually the lignite from this mine. During a period of only eight years, from 1930-1938, thanks to the Bank's investments into this mine, the production of the mine quadrupled. "It is only to be wished that the "Kosovo" mine will also in future continue to develop at this same pace as it has done during its first fifteen years (...). According to calculations of the late Dr. Svetolik Radovanovic, university professor and our distinguished geologist, the amount





66-68] Međutim, to nije bilo dovoljno da se povrati uloženi novac banke i ovo je bilo jedno od retkih bančnih preduzeća koje je sve do početka Drugog svetskog rata poslovalo sa gubicima.

Valorizacijom investicija i upotrebot rezervih fondova, osnivački kapital *Prometne banke* je 1928. godine povećana na 20 miliona dinara, dok je rezervni fond premašivao glavnicu i iznosio za ono vreme neverovatnih 22 miliona dinara. Već sledeće, 1929. godine, Banka beleži najveći poslovni rast u poređenju sa svim ostalim srpskim bankama onog vremena i petu godinu za redom deli dividenu akcionarima u ukupnom iznosu od dva miliona dinara (u proseku oko 15 hiljada dinara po akcionaru, s obzirom da prema tadašnjim zakonima akcionar nije mogao da ima više od 10 akcija u posedu; vrednost dividende je odgovarala iznosu šest prosečnih činovničkih plata). [Narodno blagostanje, 66-68] Zanimljivo da je još 1926. godine na Zboru akcionara traženo da se iznos dividende sa dva poveća na tri miliona dinara što je Uprava odbila uz obrazloženje da se „u rezervni fond ne sme dirati“ [Fond MTI, 1131-2115].

### Zaključak

Možemo samo da prepostavimo kakav bi uspeh postigla bančina preduzeća do Drugog

svetskog rata da ovaj veliki privredni polet nije zaustavljen izbijanjem Velike svetske ekonomске krize, koja je u Kraljevini Jugoslaviji počela 1931. godine. Tada su posebno bila pogodžena preduzeća u okviru drvene i metalurške industrije, što se odrazilo i na rad same Banke. Ona je bila prinuđena da svim svojim preduzećima poveća iznos kredita, a sama se poslužila lombardnim kreditom kod Narodne banke u iznosu od 940 hiljada dinara. Tako u njenom bilansu za 1932. godinu stoji da je plasmane u svoja preduzeća povećala (bilo kroz investicije, bilo kroz kredite, odnosno obrtni kapital) sa 5 miliona na 45 miliona dinara i da kao i većina drugih banaka nije isplatila dividenu svojim akcionarima. [Fond MTI, 1131-2115] Za razliku od većine srpskih banaka, *Prometna banka* se nije koristila ni jednom od zakonskih olakšica u pogledu plaćanja svojih obaveza „niti je ikad zapala u valove finansijske krize, koja je utopila veliki broj kreditnih ustanova i preduzeća. Isplivala je lako i dočekala bolje dane blagodareći jedino tome što je - po intencijama i direkcijama svog predsednika - blagovremeno stvorila posebne rezerve, koj je plasirala u sigurne investicije i državne hartije od vrednosti, te je mogla da se bori do kraja“ [50 godina rada, 118]. Nakon stišavanja krize, 1936. godine, *Prometna banka* prema projektu tada sedamdesetjednogodišnjeg Miloša Savčića osniva i svoje poslednje preduzeće u međuratnom periodu, *Valjaonicu lima* u Zemunu. Za nju se odmah nakon izgradnje 1938. godine pokazalo da je bio izuzetno unasan privredni poduhvat i kruna poslovnog uspeha ne samo *Prometne banke* nego i njenog predsednika.

U jednom izveštaju koji je pravljen za predstavnike stranog kapitala koji su u Kraljevini Jugoslaviji nameravali da osnuju afilaciju svoje banke, među imenima najuglednijih privrednika u zemlji posebno se isticalo ime Miloša Savčića. O njemu se pisalo kao o velikom akcionaru gotov svih značajnijih privrednih preduzeća u zemlji, članu Uprave *Narodne banke*, *Prometno izvozne banke* iz Skoplja, *Osiguravajućeg društva "Srbija"*, potpredsedniku i članu Uprave *Beočinske fabirke cementa* i *Društva Sartid* iz Smedereva kao i mogih drugih privrednih preduzeća. Bio je ocenjen kao veoma agilan i energičan privrednik, sa velikim

of coal present at the described "Kosovo" mine site, reaches a round figure of ninety million tonnes. If we are to take that the annual coal production in this mine amounts to one hundred thousand tonnes, then the coal present on this site and in this scope of work would be available for nine centuries... Exploitation of the "Kosovo" mine would, beyond any doubt, allow for electrification of the entire South Serbia, boost the upsurge of its industry, and offer employment to an enormous number of working population which is today often forced to seek work abroad, to leave its native land and work far from its motherland." [50 years of work, 118].

In addition to large financial investments into the mining industry, the *Trading Bank* continued to invest in its *Shipping Transport Company* in Belgrade and to expand its participation in the timber processing industry by establishing new saw mills in Bosanska Jagodina, in 1927, which was located in the immediate proximity of the Bank's forests on the hill slopes above Visegrad town. During the first ten years after the war, the Bank invested in enterprises of this industrial branch 19 million dinars. One year later, at the public auction, it purchased *Railway Rolling Stock and Iron Structures Factory* in Krusevac, which had just before the bidding gone into bankruptcy. Since the *Trading Bank* was previously the creditor of this factory (in the amount of 7.2 million dinars), it had purchased the factory at that same price. In its efforts to develop business of the railway rolling stock and iron structures manufacture, it restructured from the very basis this factory and modernised it, investing in one year alone into this factory 21 million dinars. In addition, it succeeded in securing deals for the factory to cater for the needs of the State Railways, both in production of the new rolling stock, but also in construction of iron-structured railroad bridges [Narodno blagostanje, 66-69]. However, that was not sufficient to return the invested money of the Bank, and it was to be one of the very few Bank companies

that were operating, up to the beginning of the Second World War, with losses.

Through valorisation of investments and the engagement of reserve funds, the founding capital of the *Trading Bank* in 1928, was increased to 20 million dinars, while the reserve fund surpassed the principal and amounted to, what was at that time an incredible amount, 22 million dinars. Already the following year, 1929, the Bank recorded its highest business growth in comparison with all the other Serbian banks of that time, and the fifth consecutive year paid the dividend to its shareholders in the total amount of two million dinars (in an average of some 15 thousand dinars per shareholder, as under the laws in force at that time, a shareholder could not hold more than 10 shares in his possession; the value of this dividend was equal to the amount of six average clerical monthly salaries) [Narodno blagostanje, 66-68]. It is interesting to note that even as early as 1926, at the Annual Shareholders Meeting, it was requested that the amount of dividend be increased from two to three million dinars, which was refused by the Board with the explanation that "the reserve fund must not be touched" [Fond MTI, 1131-2115].

## Conclusion

We can only imagine what a success all the Bank's enterprises could have achieved until the Second World War, had this great economic boom not been stopped by the outbreak of the World Economic Crisis, which impacted

Kingdom of Yugoslavia in 1931. Especially struck at that time were the companies in the timber and metal processing industries, which had its effect also on the work of the Bank itself. It was forced to increase its crediting facilities to all of its enterprises, and the Bank also availed itself of a Lombard credit with the National Bank, in the amount of 940 thousand dinars. Hence in its balance sheet for 1932 it is recorded that it increased its placements into its own companies (either through



ugledom i jakim ličnim vezama "naročito na Dvoru, koje ne trebe zanemariti". [V. Aleksić, Banka i moć, 40] Za njega se može reći da je bio čovek koji je radio do poslednjeg dana života. Gotovo simbolično, sa životne pozornice je otisao 11. marta 1941. godine, nepunih mesec

dana pred početak Drugog svetskog rata, koji je uništilo dobar deo onoga što je tokom života gradio, dok su nakon 1944. godine i dolaska novih socijalističkih vlasti, sva preostala preduzeća *Prometne banke* preneta u državno vlasništvo.

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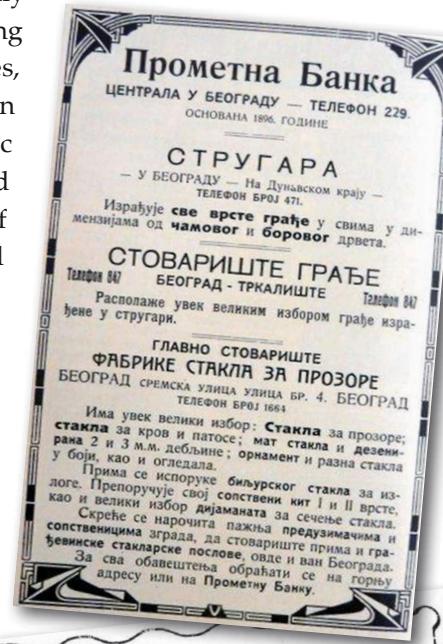
investments, or credits, i.e. working capital) from 5 million to 45 million dinars, and that it did not pay dividend to its shareholders, just like the majority of the other banks had done [Fond MTI, 1131-2115]. Contrary to the majority of other Serbian banks, the *Trading Bank* did not use any of the legally prescribed facilities regarding the payment of its liabilities, "and neither had it ever fallen into the waves of economic crisis, which had flooded and sunk a large number of crediting institutions and companies. It came out of this predicament easily and was to see much better days thanks solely to the fact that – at the intentions and directions of its president – it had very timely created special reserves, which it placed into safe investments and sovereign securities, and thus was able to fight successfully to the bitter end." [50 years of work, 118]. After the crisis subsided, by 1936, the *Trading Bank*, according to the project of the then-seventy one year old Milos Savcic, established its last company in the inter-war period, *Sheet Metal Rolling Mill* in Zemun. It was to be seen immediately upon its construction, in 1938, that it was an extremely profitable venture and the crown of business success of not only the *Trading Bank*, but also of its president.

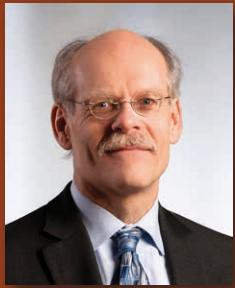
In one report made for the representatives of the foreign capital who were intending to establish an affiliation of their bank in the Kingdom of Yugoslavia, amongst the names of the most distinguished businessmen in the country, especially outstanding was the name of

Milos Savcic. He was described

as a great shareholder in almost all of the significant economic enterprises in the country, member of the Board of the *National Bank*, *Trading Export Bank* in Skopje, *Insurance Company "Serbia"*, vice-president and member of the Board of the *Beocin Cement Factory*, and *Sartid Company* in Smederevo, and a member on boards of many other economic companies. He was qualified as a very agile and energetic businessman, with great reputation and strong personal connections, "especially well received at the Royal Court, which is not a negligible fact" [V. Aleksic, *Bank and Power*, 40]. He may also be described as a man who worked until the very last day of his life. Almost symbolically, he left the

world stage on 11 March 1941, less than a month before the eruption of the Second World War, which destroyed a large part of what he was building throughout his life, while after 1944, with the advent of the new socialist authorities, all of the remaining companies of the *Trading Bank* were transferred into state ownership.





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# TRENUTNI PRIORITY BAZELSKOG KOMITETA: PODIZANJE LETVICE

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# CURRENT FOCUS OF THE BASEL COMMITTEE: RAISING THE BAR

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**V**eoma sam zadovoljan što sam ovde na godišnjem sastanku visokog nivoa, u organizaciji ASBA, Bazelskog komiteta i Instituta za finansijsku stabilnost. Na sastanku marta ove godine, Bazelski komitet je diskutovao o jednom broju strategija za jačanje svog odnosa i svojih komunikacija sa zemljama nečlanicama Bazelskog komiteta. Jedan od predloga koji su spremno podržali članovi Komiteta bio je da se uspostavi bliža kolaboracija sa FSI u pogledu njegovih sastanaka visokog nivoa. Mnogi od naših članova su upoznati sa tim dobro etabliranim godišnjim konferencijama, koje okupljuju visoke predstavnike centralnih banaka i zvaničnike supervizije iz raznih regiona u svetu. Pored prošlogodišnjeg događaja ASBA-FSI, učestvovao sam na nekoliko drugih sastanaka visokog nivoa ove godine. Povratne informacije koje smo moje kolege iz Bazelskog komiteta i ja dobili sa ovih događaja bile su instruktivne i detaljne.

Kada smo se sastali prošle godine u San Francisku, pozvao sam na akciju u pogledu dve stavke: prvo, čuvanje od supervizorskog samozadovoljstva i drugo, početak primene regulatornih reformi koje su razvijene da bi sa povećala otpornost banaka i bankarskih sistema na buduće šokove. Te dve teme - primena politika i uvažavanje supervizije kao bitne dopune regulative - nastavljaju da prožimaju rad Bazelskog komiteta. Ponoviću danas te teme, mada čineći to ne sugerišem da nismo uspeli u našim dosadašnjim naporima. Naprotiv, ostvarili smo dobar napredak u obe oblasti. Ali mora još da se uradi. Izložiću vam danas neke od napora Komiteta da unapredi ove ciljeve. Takođe će reći nekoliko reči o našem radu na politici jer i tu ima još da se radi da bi se u potpunosti odrazile lekcije naučene iz krize.

## Supervizija je važna

Počeću sa supervizijom. Bio sam vrlo glasan upozoravajući na to da Okvir Basel III nije dovoljan - sam po sebi - da postavi banke i bankarske sisteme na pravi put kako bi postale jače i otpornije. U praksi Okvir mora da bude uparen sa dobrom supervizijom. Dobra regulativa daje snagu čvrstoj superviziji, a čvrsta supervizija pojačava dobru regulativu. Jedna drugu pojačavaju i nerealno je misliti da

jedna može biti uspešna bez druge. Basel III pruža bolja pravila kojima se ocenjuje sigurnost i solidnost banaka, ali kriza nas je naučila da nam je isto tako potrebna bolja supervizija koja počinje osnovnim gradivnim blokovima, koje predstavljaju Osnovni principi efektivne bankarske supervizije.

## Osnovni principi efektivne bankarske supervizije

Svaka finansijska kriza je prilika da se pokaže ono što je krenulo naopako, ono što je funkcionalo dobro i kakva poboljšanja mogu da se urade. To važi za bankare i menadžere rizika, za donosioce politike i, naravno, za bankarske supervizore. Za Bazelski komitet, supervizijske lekcije naučene iz finansijske krize podstakle su našu reviziju Osnovnih principa. Mada je Basel III privukao veći deo naše pažnje, njegova efektivnost će se ostvariti samo ako počiva na čvrstom tlu supervizije i primene. Osnovni principi pružaju takav temelj.

Revidovani Osnovni principi objavljeni su u septembru 2012. godine i njih su usvojili supervizori i predstavnici centralnih banaka iz preko 100 zemalja koji su bili okupljeni u Istanbulu na 17. Međunarodnoj konferenciji bankarskih supervizora. Poslednja revizija sprovedena je sa Bazelskom konsultativnom grupom, koja obuhvata bankarske supervizore iz zemalja članica Bazelskog komiteta i zemalja nečlanica, kao i regionalne grupe bankarskih supervizora, MMF, Svetsku banku i Islamski bord za finansijske usluge. Revizija je uzela u obzir postkrizne lekcije i druge značajne supervizijske razvoje. U isto vreme, ostali smo svesni činjenice da se Osnovni principi primenjuju na globalnoj osnovi i da nam je potrebno da održimo kontinuitet i uporedivost. Nismo nastojali da ponovno otkrijemo točak: mnoge izmene su koncipirane da bi pojačale osnovne elemente bankarske supervizije naglašavanjem efektivne analize zasnovane na riziku, perspektive okrenute budućnosti i rane intervencije. S obzirom na značaj tih osnovnih principa kao osnove svakog režima supervizije, imperativ je da se primenjuju odlučno i rigorozno u celom svetu.

Kao što mnogi od vas već znaju, revidovani Principi su reorganizovani tako da izlažu razliku između onog što supervizori rade i onog što oni

I am very pleased to be here for this year's High-Level Meeting, organised by ASBA, the Basel Committee and the FSI. At its meeting in March of this year, the Basel Committee discussed a number of strategies for enhancing its relationship and communications with non-Basel Committee member countries. One proposal that was readily endorsed by Committee members was to establish even closer collaboration with the FSI with regard to its High-Level Meetings. Many of our members are familiar with these well-established annual conferences, which draw together senior central bankers and supervisory officials from various regions of the world. In addition to last year's ASBA-FSI event, I have participated in several other High-Level Meetings this year. The feedback that I and my Basel Committee colleagues have gained from these events has been both illuminating and insightful.

When we met last year in San Francisco, I called for action on two items: first, guarding against supervisory complacency, and second, putting into practice the regulatory reforms that were developed to raise the resilience of banks and banking systems to future shocks. These two themes - putting policies into practice, and recognising supervision as an essential complement to regulation - continue to pervade the Basel Committee's work. I am going to repeat these themes today, although in doing so I am not suggesting we have failed in our efforts in the past. On the contrary, we have made good progress in both areas. But more needs to be done. I will share with you today some of the Committee's efforts to further these objectives. I will also say a few words about our ongoing policy work since there is also more to be done to fully reflect lessons learnt from the crisis.

## Supervision matters

I will start with supervision. I have been quite vocal in warning that the Basel III Framework is not sufficient - by itself - to set banks and banking systems on a clear path to becoming stronger and more resilient. It must be matched in practice by good supervision. Good regulation empowers firm supervision,

and firm supervision enforces good regulation. They are mutually reinforcing, and it is unrealistic to think that one can be successful without the other. Basel III provides a better rulebook by which to judge the safety and soundness of banks, but the crisis taught us that we also need better supervision. And better supervision begins with the basic building blocks, which is the Core Principles for Effective Banking Supervision.

### Core Principles for Effective Banking Supervision

Every financial crisis is an opportunity to reflect on what went wrong, what worked well and what improvements can be made. This is true for bankers and risk managers, for policy makers, and, of course, for bank supervisors. For the Basel Committee, the supervisory lessons learnt from the financial crisis prompted our review of the Core Principles. While Basel III has attracted most of the attention, its effectiveness will only be realised if it rests on a solid bedrock of supervision and implementation. The Core Principles provide such a foundation.

The revised Core Principles were published in September, with the endorsement of supervisors and central bankers representing more than 100 countries that were gathered in Istanbul for the 17<sup>th</sup> International Conference of Banking Supervisors. The latest revision was conducted jointly with the Basel Consultative Group, which comprises banking supervisors from both member and non-member countries of the Basel Committee, as well as regional groups of banking supervisors, the IMF, the World Bank and the Islamic Financial Services Board. The review took account of post-crisis lessons and other significant supervisory developments. At the same time, we have remained mindful of the fact that the Core Principles are applied on a global basis and that we need to maintain continuity and comparability. We have not sought to reinvent the wheel: many of the revisions are designed to reinforce the fundamentals of banking supervision by emphasising effective risk-based analysis, a more forward-looking perspective and early intervention. Given the importance of these basic principles as the foundation for

očekuju da banke rade. Principi koji pokrivaju očekivanja supervizora od banaka naglašavaju značaj dobrog korporacionog upravljanja i upravljanja rizicima, kao i pridržavanje supervizijskih standarda. Pored toga, revizija je uzela u obzir nekoliko ključnih trendova i razvoja koji su se javili tokom poslednjih godina tržišnog meteža, naročito potrebu za većim intenzitetom i resursima da bi se efektivno bavilo sistemski važnim bankama.

Naša agenda za ovaj sastanak visokog nivoa uključuje detaljan pregled i diskusiju revidiranih Osnovnih principa, tako da neću sada zalaziti u detalje. Dozvolite mi da jednostavno ukažem na osnovnu poentu. U diskusiji o revizijama Osnovnih principa, Komitet je bio jasan u pogledu svog cilja: želeli smo da podignemo letvicu. Upravo onako kako smo morali da povećamo regulatorne zahteve koji su bili suviše niski, *status quo* za superviziju isto tako nije bio prihvatljiv. Neophodno je jačanje supervizijskih sposobnosti ako želimo da držimo korak sa sve kompleksnijim, diversifikovanijim i međupovezanim finansijskim sistemom. Ne možemo da stojimo u mestu. Još važnije, i kao što sam naglasio pre toga, ne možemo dozvoliti sebi da mislimo da samo zato što se ovaj put problemi u bankarskom sistemu nisu javili u našem dvorištu da to znači da se neće javiti u budućnosti.

### Sistemski važne banke

Finansijska kriza koja je počela 2007. godine nije nas samo podsetila na kritičnu ulogu intenzivne supervizije, već i na značaj sistemski važnih banaka. Tokom krize, stečaj ili gubitak vrednosti jednog broja velikih, globalnih finansijskih institucija slali su šokove kroz finansijski sistem koji su, sa svoje strane, nanosili štetu realnoj ekonomiji. Šokovi su bili pojačani kada je postalo očigledno da supervizori i druge relevantne vlasti imaju ograničene opcije da se bave ovim bankama i otuda sprečavaju da se problemi šire kroz finansijski sistem. Kao posledica, intervencija javnog sektora za obnavljanje finansijske stabilnosti tokom krize nije bila samo neophodna, već je morala da se sprovodi na masivnoj skali.

Kao odgovor, Komitet je usvojio seriju reformi koje će kada budu primenjene

podići otpornost banaka i bankarskih sistema. Te reforme će imati poseban uticaj na globalne sistemski važne banke (G-SIBs) jer su njihovi poslovni modeli generalno stavljali veći naglasak na aktivnosti vezane za trgovinu i tržišta kapitala, koje najviše pogađa povećano pokriće rizika kapitalnim okvirom. Basel III, međutim, predstavlja minimalni standard i nije dovoljan za rešavanje jedinstvenih rizika koje predstavljaju G-SIBs, moralni hazard povezan sa percepcijom da su te firme suviše velike da bi propale, niti za prekogranične reperkusije koje bi stvorili ti problemi u G-SIB. Da bi se ti problemi uklonili, Komitet je nastojao da podigne letvicu za te najveće banke. Razvili smo metodologiju ocenjivanja za utvrđivanje globalne systemske važnosti i propisali dodatne zahteve za apsorbovanje gubitaka za banke koje se smatraju sistemski značajnim.

Lideri G20, na samitu prošle godine, usvojili su ova pravila. U to vreme oni su zatražili od Bazelskog komiteta i Borda za finansijsku stabilnost da rade na širenju okvira za domaće sistemski važne banke (D-SIBs). Mnogo je banaka koje nisu značajne iz međunarodne perspektive, ali mogu da imaju znatan uticaj na njihov domaći finansijski sistem i ekonomiju u poređenju sa nesistemskim institucijama. Komitet je nedavno objavio okvir za bavljenje



any supervisory regime, it is imperative that they be implemented with determination and rigour around the globe.

As many of you would already know, the revised Principles have been reorganised to highlight the difference between what supervisors do and what they expect banks to do. The principles covering supervisory expectations of banks emphasise the importance of good corporate governance and risk management, as well as compliance with supervisory standards. In addition, the review took account of several key trends and developments that emerged during the last few years of market turmoil, in particular the need for greater intensity and resources to deal effectively with systemically important banks.

Our agenda for this High-Level Meeting includes an in-depth review and discussion of the revised Core Principles, so I will not go into any more detail now. Let me simply make one very important point. In discussing the revisions to the Core Principles, the Committee was clear in its objective: we wanted to raise the bar. Just as we needed to lift regulatory requirements that were too low, the *status quo* for supervision was not going to be acceptable either. An enhancement of supervisory capabilities is necessary if we want to keep pace with the increasingly complex, diverse and interconnected financial system. We cannot stand still. More importantly, and as I have stressed previously, we cannot allow ourselves to think that just because the problems in the banking system did not occur in our backyard this time will mean that they will not occur there in the future.

### Systemically important banks

The financial crisis that began in 2007 not only reminded us of the critical role of intensive supervision, it also reminded us of the importance of systemically important banks. During the crisis, the failure or impairment of a number of large, global financial institutions sent shocks through the financial system which, in turn, harmed the real economy. The shocks were exacerbated when it became apparent that supervisors and other relevant authorities had limited options to deal with these banks, and therefore to prevent the problems from

spreading through the financial system. As a consequence, public sector intervention to restore financial stability during the crisis was not only necessary, but had to be conducted on a massive scale.

In response, the Committee adopted a series of reforms that, once implemented, will raise the resilience of banks and banking systems. These reforms will have a particular impact on global systemically important banks (G-SIBs) since their business models have generally placed greater emphasis on trading and capital markets related activities, which are most affected by the enhanced risk coverage of the capital framework. But Basel III is a minimum standard, and is not enough to address the unique risks posed by G-SIBs, the moral hazard associated with the perception that these firms are too big to fail, nor the cross-border repercussions that problems in a G-SIB would create. To alleviate these problems, the Committee sought to raise the bar further for these largest banks. We developed an assessment methodology for determining global systemic importance, and prescribed additional loss absorbency requirements for banks deemed systemically important.

The G20 Leaders endorsed these rules at their summit last year. At that time, they asked the Basel Committee and the Financial Stability Board to work on extending the framework to domestic systemically important banks (D-SIBs). There are many banks that are not significant from an international perspective, but nevertheless could have an important impact on their domestic financial system and economy compared to non-systemic institutions. The Committee has recently published its framework for dealing with D-SIBs, which is a topic of discussion for this High-Level Meeting. Our goal was to develop a D-SIB regime which was complementary to the G-SIB regime, while at the same time recognising that different jurisdictions will wish to deal with domestic priorities in different ways. The D-SIB framework therefore identifies a set of common actions that all jurisdictions are expected to undertake, but leaves the detailed nature of those actions and the specific policy responses to national discretion. My main message for today is that

domaćim sistemski važnim bankama kao temu za diskusiju na ovom sastanku visokog nivoa. Naš cilj je bio da se razvije režim za D-SIB koji je komplementaran režimu G-SIB uz istovremeno uvažavanje da će različite jurisdikcije želeti da se domaćim prioritetima bave na različite načine. Okvir za D-SIB zato identificuje skup zajedničkih akcija uz očekivanje da ih preduzmu sve jurisdikcije, ali prepušta podrobniju prirodu tih akcija i specifične politike odgovorima nacionalne diskrecije. Moja glavna poruka danas jeste da bi za uspeh ovog pristupa i interakciju sa okvirom za G-SIB bila kritična potreba za snažnim kooperativnim dijalogom između matičnih supervizora i supervizora domaćina kada je banka iz jedne zemlje određena kao D-SIB u stranoj jurisdikciji.

## Primena

Za Bazelski komitet supervizija je vrhunski prioritet, a primena Bazela III je sledeći. Videli smo znake progresa u primeni kod nekih zemalja, ali potrebno je mnogo više. Pravila i regulativa moraju da se konzistentno formulišu i efektivno primenjuju. Proces primene je zbog toga kontinuiran. Na sastanku septembra 2011. godine, Bazelski komitet je dogovorio početak programa za pregled kod članica primene Bazelskog regulatornog okvira (koji uključuje Bazel II, Bazel 2.5 i Bazel III). To je obuhvatan program koji nastoji da podstakne punu primenu Bazelskih standarda unutar dogovorene dinamike - to je nešto što Komitet ranije nije radio.

Komitet ne sumnja u to da će pravilnom primenom, regulatorne reforme - koje su već najavljenе i one koje su još uvek u pripremi - pomoći da se bankarski sistem učini otpornim. Zato su lideri G20 zatražili od nas da budemo usmereni na pitanje primene i završimo posao. Nedavno su u Meksiku ministri finansija i guverneri centralnih banaka G20 naveli: „Ostajemo u obavezi za potpunu, blagovremenu i konzistentnu primenu agende finansijske regulative... Dogovorili smo se da preduzmemo mere potrebne za obezbeđenje potpune, blagovremene i efektivne primene Bazela II, 2.5 i III i njihove konzistentnosti sa međunarodno dogovorenim standardima.“

Tri osnovne linije ocenjivanja (Evropska

unija, Japan i Sjedinjene Države) koje pokrivaju 11 jurisdikcija članica Komiteta su završene i izveštaji su objavljeni. Pripredni rad koji se odnosi na narednu rundu ocenjivanja zemalja u toku je i uključuje Australiju, Brazil, Kanadu, Kinu, Singapur i Švajcarsku. Sistem praćenja ovih ocena koje su završene u postupku je koncipiranja i biće deo procesa redovne primene koja je u toku.

Sistematski pregled primene koju obavlja Bazelski komitet pomaže da se rano identifikuju regulatorne linije grešaka pružanjem detaljnog i trenutnog pregleda ostvarenog napretka i materijalnosti nedostataka članovima Komiteta. Kako je nameravano, ocenjivanja se razvijaju kao sredstvo za ostvarivanje cilja, a ne kao cilj za sebe. Očekuje se da će naša ocenjivanja pomoći da se ostvari pouzdano globalno regulatorno okruženje koje će isto tako pomoći jačanju supervizijske efikasnosti.

Ocenjivanja koja smo do sada sprovedeli pokazuju snažnu kooperativnu prirodu programa. Program uključuje eksperte visokog nivoa iz raznih jurisdikcija, tehničke partnere i odabrane učesnike iz industrije iz ocenjivanih jurisdikcija i Sekretarijat Komiteta. Ekspertska priroda ocenjivanja zemalja od ključnog je značaja za njihovu legitimnost. Pored ocenjivanja konzistentnosti regulative i materijalnosti praznina u regulativi, proces primene Bazela III prodire do nivoa portfolija pojedinačnih banaka i očekujem da će nam taj rad pomoći da identifikujemo ključne pokretače varijacija kod rizikom ponderisane aktive po bankama, po jurisdikcijama i kroz vreme. Kada drugi Bazelski standardi i politike budu završene - kao što su one vezane za likvidnost, G-SIBs i velike izloženosti - očekuje se podizanje pažnje prema primeni.

Rad na primeni pomaže da tekuće inicijative Komiteta imaju potrebne informacije. To je značajna povratna petlja za Bazelski komitet jer je naša premla da su oštija pravila za kapital i likvidnost po Okviru Bazela III u potpunosti primerena smanjenju verovatnoće stečaja sistemski značajnih banaka. Ocenjivanje primene i korišćenja Bazelskog okvira kod članova Komiteta postaje značajno za mnoge zemlje nečlanice u kojima banke iz BCBS jurisdikcija posluju i postaju sistemski relevantne. Moguće je da njihov stečaj ne

critical to the success of this approach and the interaction with the G-SIB framework is the need for strong and cooperative dialogue between home and host supervisors where a bank from one country is designated a D-SIB in foreign jurisdiction.

## Implementation

Supervision is a top priority for the Basel Committee, and implementation of Basel III is another. We have seen signs of progress on implementation in some countries, but much more is needed. Rules and regulations have to be consistently formulated and effectively applied. The implementation process is, therefore, a continuing one. At its September 2011 meeting, the Basel Committee agreed to initiate a programme to review members' implementation of the Basel regulatory framework (which includes Basel II, Basel 2.5 and Basel III). This is a comprehensive programme which seeks to spur full implementation of the Basel standards within the agreed timelines - this is something that the Committee has not previously done.

The Committee has no doubt that with proper implementation, the regulatory reforms - both those already announced and those still in the pipeline - will help make banking systems more resilient. That is why the G20 Leaders have also asked us to keep focus on implementation issues and finish the job. In Mexico recently, the G20 Finance Ministers and Central Bank Governors said "We remain committed to the full, timely and consistent implementation of the financial regulation agenda ... We agree to take the measures needed to ensure full, timely and effective implementation of Basel II, 2.5 and III and its consistency with the internationally agreed standards."

Three baseline assessments (the European Union, Japan and the United States) covering 11 Committee member jurisdictions have been completed and the reports have been published. Preparatory work relating to the next round of country assessments is under way and includes Australia, Brazil, Canada, China, Singapore and Switzerland. A system of follow-up for those assessments already completed is

being designed and will be part of the regular implementation process going forward.

The Basel Committee's systematic review of implementation is helping to identify the regulatory fault lines early on by providing Committee members a detailed and a point-of-time review of the progress made and the materiality of the shortcomings. As intended, the assessments are developing as a means to an end rather than an end in themselves. The expectation is that our assessments will help create a dependable global regulatory environment that will also help strengthen supervisory efficacy.

The assessments we have thus far conducted demonstrate the strong cooperative nature of the programme. It involves senior-level experts from different jurisdictions, technical counterparts and select industry participants from the assessed jurisdiction, and the Committee's Secretariat. The expert nature of the country assessments is central to its legitimacy. Apart from assessing the regulatory consistency and materiality of the gaps, the Basel III implementation process has drilled down to the level of individual bank portfolios, and I expect the work will help us to identify the key drivers of variations in risk-weighted assets across banks, across jurisdictions and across time. As other Basel standards and policies are completed - such as those relating to liquidity, G-SIBs and large exposures - the focus on implementation is expected to rise.

The implementation work is also helping inform the Committee's ongoing policy initiatives. This is an important feedback loop for the Basel Committee as our premise is that tougher capital and liquidity rules under the Basel III Framework are entirely appropriate for reducing the likelihood of failure for systemically important banks. Assessing implementation and the application of the Basel framework among Committee members also becomes important for many non-member countries where banks from BCBS jurisdictions operate and become systemically relevant. Their failure may not even be seen as a viable option since these banks play a critical economic role in credit intermediation and maturity and risk transformation.

bude shvaćen kao održiva opcija, jer te banke imaju kritičnu ekonomsku ulogu u kreditnom posredovanju i transformaciji ročnosti i rizika.

Valjana primena Bazela III omogućiće da međunarodno aktivne banke na tržištima u nastajanju i razvoju ostvaruju svoju ulogu na sigurniji, prudencijalan i ekonomski konstruktivan način. Kada globalno aktivne banke prudentno upravljaju svojim kapitalom i likvidnošću, one deluju kao izvor finansijske stabilnosti u relevantnoj jurisdikciji. Važan preduslov je da te banke postupaju po međunarodnim normama. Kolektivno, regulatorni zahtevi i supervizijski standardi treba da vode te banke stazom nameravane postkrizne agende tako da i tokom vremena stresa bankarski sistem funkcioniše bez materijalnih poremećaja u finansiranju ekonomskih aktivnosti.

## Potrebne su dalje regulatorne reforme

Reforme pravila za adekvatnost kapitala bile su znatne i napor Bazelskog komiteta da obezbedi da se one valjano i blagovremeno uvedu u praksu bili su veliki. Ali ne možemo reći da je naš rad na daljem unapređenju regulatornog okvira završen.



## Likvidnost

Pravila Bazela III za likvidnost najočigledniji su element regulatornog okviranačijoj finalizaciji radimo. Pripremanje sporazuma o pravilima minimalne likvidnosti za međunarodne banke bio je dugotrajan, ali neuhvatljiv cilj za supervizore i centralne bankare. Zaista, ser Džordž Blandel, prvi predsedavajući Bazelskog komiteta, otvorio je prvi sastanak Komiteta 1975. godine napominjući da je njegov mandat „da pomogne da se obezbedi solventnost i likvidnost banaka“. Mada je reputacija Komiteta zasnovana na prvom delu zadatka, bilo je potrebno 35 godina - sve dok Bazel III nije bio dogovoren 2010. godine - da se uspešno ostvari drugi deo zadatka. Likvidnost je izuzetno težak i komplikovan zadatak. Vrlo je širok krug gledišta o tome kako definisati likvidnost, kao i kako najbolje nadzirati, regulisati i upravljati njenim rizikom. Na primer, 1984. godine neka od pitanja koja su se odnosila na likvidnost diskutovana na Komitetu uključivala su:

- Šta konstituiše likvidnost međunarodne banke i kako se ona može meriti?
- Šta treba da bude uloga pojedinih klasa aktive unutar opšteg pristupa likvidnosti u međunarodnom kontekstu?
- Kako stepen preduzete transformacije ročnosti utiče na bančinu likvidnost?
- U kom stepenu kreditiranje na međubankarskom tržištu može predstavljati likvidnost? Da li sposobnost banke da povlači sredstva sa međunarodnog tržišta utiče na stepen u kome je njima potrebna likvidna aktiva?
- Šta su osnovni supervizijski pristupi likvidnosti koje primenjuju razne zemlje predstavljene u Komitetu? Koji odnos ti pristupi imaju sa monetarnim politikama koje primenjuju centralne banke?

Ova pitanja ostaju vrlo relevantna i iste su težine kao što su bila u to vreme, ali sam zadovoljan što mogu da kažem da se Komitet uhvatio u koštac sa njima. Šta se izmenilo? Mada se znalo da uporno rastuća globalizacija i međupovezanost naših finansijskih sistema stvaraju potencijalne ranjivosti, nije postojao konsenzus o tome kako se (ili sa koliko urgentnosti) baviti njom. Nažalost, bilo je potrebno da finansijska kriza pruži neophodan podsticaj

Proper implementation of Basel III will enable internationally active banks in emerging and developing markets to perform their role in a safer, prudent and economically constructive fashion. When globally active banks manage their capital and liquidity prudently, they act as a source of financial stability in the relevant jurisdiction. But an important precondition is that such banks must play by the international norms. Collectively, the regulatory requirements and the supervisory standards should push these banks along the path of the intended post-crisis reform agenda so that even during times of stress the banking system operates without material disruption to the financing of economic activities.

## Further regulatory reforms are needed

The reforms to the capital adequacy rules have been substantial, and the Basel Committee's efforts to ensure they are put into practice properly and in a timely way have been considerable. But we cannot say that our work to further improve the regulatory framework is complete.

### Liquidity

Basel III's liquidity rules are the most obvious element of the regulatory framework that we are working to finalise. Forging agreement on minimum liquidity rules for international banks has been a longstanding but elusive goal for supervisors and central bankers. Indeed, Sir George Blunden, the Basel Committee's first chairman, opened the Committee's very first meeting in 1975 by noting that its mandate was "to help ensure bank solvency and liquidity". While the Committee's reputation has been founded on the first part of the task, it has taken

35 years - until Basel III was agreed in 2010 - to find success on the second. Liquidity is an extraordinarily difficult and multifaceted topic. There are a wide range of views on how to define liquidity, as well as on how best to supervise, regulate and manage its risk. For example, in 1984 some of the questions relating to liquidity discussed by the Committee included:

- What constitutes liquidity for an international

bank, and how can it be measured?

- What should be the role of particular asset classes within an overall approach to liquidity in an international context?
- How does the degree of maturity transformation undertaken affect a bank's liquidity?
- To what extent can lending in the interbank market constitute liquidity? Does the ability of banks to draw funds from the interbank market affect the extent to which they need liquid assets?
- What are the basic supervisory approaches to liquidity used by the different countries represented on the Committee? What relationship do these approaches bear to the monetary policies applied by the central banks?

These questions remain highly relevant, and they are just as difficult as they were then, but I am pleased to say that the Committee has now come to grips with them. What has changed? While the persistently increasing globalisation and interconnectedness of our financial systems were known to be creating potential vulnerabilities, there was no consensus on how (or how urgently) to deal with it. Unfortunately, it took a global financial crisis to provide the necessary impetus for agreeing on the Basel III liquidity rules. So the storm clouds of the crisis at least had a silver lining in that respect.

As you know, the liquidity rules are comprised of a short-term Liquidity Coverage Ratio (LCR) and a longer-term, structural Net Stable Funding Ratio (NSFR). Since these represent the first time we have had global standards, the Committee agreed that we would review and, if necessary, refine them before they came into force. And the question everyone therefore wants to know is where do we currently stand with respect to finalising them, particularly the LCR which is due to come into force in 2015? The Committee is aiming to reach agreement by its December meeting on a few outstanding issues. As any bank supervisor, central banker or risk manager can attest, this is very difficult work given the wide range of issues we must consider. It has far-reaching implications, for example, for banking, financial markets and monetary policy, and for this reason our work has been

za dogovor o pravilima Bazela III za likvidnost. Tako su tamni olujni oblaci krize najzad imali srebrni obrub u tom pogledu.

Kao što vam je poznato, pravila likvidnosti obuhvataju kratkoročni Koeficijent pokrića likvidnosti (LCR) i dugoročni, strukturni Koeficijent neto stabilnog finansiranja (NSFR). Pošto oni čine da po prvi put imamo globalne standarde, Komitet se složio da treba da ih revidiramo i, ako to bude potrebno, doradimo pre nego što stupe na snagu. Pitanje na koje svi žele da znaju odgovor jeste: gde trenutno stojimo u pogledu njihovog finaliziranja, naročito u pogledu LCR koji treba da stupi na snagu 2015. godine? Komitet ima cilj da postigne sporazum na svom decembarskom sastanku o nekim otvorenim pitanjima. Kao što svaki bankarski supervizor, centralni bankar ili menadžer rizika mogu potvrditi, to je vrlo težak posao imajući u vidu širok raspon pitanja koja moramo uzimati u obzir. Taj rad ima dalekosežne implikacije, na primer, za bankarstvo, finansijska tržišta i monetarnu politiku i zato se naš rad obavlja sa znatnom pažnjom i obazrivošću.

Važno je napomenuti da je već nekoliko zemalja usvojilo okvir likvidnosti u svojim jurisdikcijama, uključujući Švedsku, i zadovoljan sam što mogu reći da je švedsko iskustvo sa regulisanjem likvidnosti vrlo pozitivno. Za nešto više od godine dana švedske banke su podnеле izveštaj o svojim koeficijentima pokrića likvidnosti Švedskoj Riksbanci i Švedskoj supervizijskoj vlasti, a velike bankarske grupe takođe obelodanjuju javno svoje LCR. Od januara 2013. godine minimalni standardi za LCR biće uvedeni za najveće bankarske grupe, na objedinjenoj osnovi i odvojeno u evrima i američkim dolarima. Rezultati su do sada ohrabrujući i nema znakova da je delovanje monetarne politike ili funkcionalisanje međubankarskog tržišta pogodjeno primenom LCR-a.

Imajući u vidu implikacije i potencijalne troškove - od kojih socijalni troškovi nisu najmanji - na podizanje letvice za zahteve za likvidnost i upravljanje rizikom likvidnosti u bankama, ne bismo ispunili svoje odgovornosti ako ne bismo, u bliskoj budućnosti, bili uporni u finalizovanju tih predloga.

## **Knjiga trgovanja i sekjuritizacija**

Dozvolite mi da se vratim na aktivnosti koje obavljamo u vezi sa nekim od pravila za kapital. Idući od izmena uvedenih u Bazelu 2.5 Komitet sada preduzima temeljniju reviziju knjige trgovanja i pravila o sekjuritizaciji. U pogledu prethodnog, želimo da postignemo regulatorni okvir koji u većoj meri unapređuje uporedive nivoe kapitala po bankama koje imaju slične portfolije knjige trgovanja. Isto tako želimo da pružimo veću transparentnost i ograničimo arbitražu između bankarske knjige i knjige trgovanja. Kada je reč o sekjuritizaciji, složenost proizvoda, nedostatak transparentnosti i slabi osnovni podsticaji odveli su u masivne gubitke. Cilj Komiteta je da reši ove slabosti tako što će učiniti da zahtevi za kapital kod sekjuritizacije budu jednostavniji, da bolje odražavaju rizik, manje zavise od kreditnih rejtinga i da su bez značajnijih efekata litice.

## **Standardizovani pristupi**

U agendi za 2013. godinu nalazi se unapređenje standardizovanih pristupa za kreditni i operativni rizik. Naš cilj je da se obezbedi da ti pristupi i dalje budu pogodni za ocenjivanje adekvatnosti kapitala međunarodno aktivnih banaka - kao i drugih banaka - koje ne koriste više pristupe merenju rizika. Bilo bi preuranjeno da se kaže kakvi će biti rezultati naših razmišljanja, jedno od pitanja koje će se razmatrati biće stepen u kome revidirani standardizovani pristupi mogu da služe i kao ograničenje ili reper za pristupe zasnovane na modeliranju (npr. kada objave svoju rizikom ponderisanu aktivu, od banaka se može zahtevati da se pozovu na svoja izračunavanja zasnovana na standardizovanim pristupima). Povezivanje standardizovanog pristupa sa pristupom zasnovanom na modelima već se razmatra u fundamentalnoj reviziji knjige trgovanja. Korišćenje standardizovanih pristupa kao granice ili repera može da pomogne povećanju uporedivosti izračunavanja rizikom ponderisane aktive po bankama i jurisdikcijama.

## **Velike izloženosti**

Još jedna značajna politika koju revidira Komitet je režim velikih izloženosti. Prvobitna smernica Komiteta - *Merenja i kontrolisanje velikih kreditnih izloženosti* - objavljena je januara 1991.

undertaken with considerable care and caution.

It is important to note that several countries have already adopted the liquidity framework in their jurisdictions, including Sweden, and I am pleased to say the Swedish experience with liquidity regulation has been very positive. For more than a year now Swedish banks have been reporting their liquidity coverage ratios to Sveriges Riksbank and the Swedish FSA, and the large banking groups also disclose their LCR publicly. Furthermore, from January 2013 minimum standards for the LCR will be introduced for the largest banking groups, both on an aggregated basis and separately in euro and US dollars. The results so far are reassuring and there are no signs that monetary policy operations or the functioning of the interbank market have been affected by the implementation of the LCR.

Given the implications and potential costs - not the least of which are the social costs - of not raising the bar for liquidity requirements and liquidity risk management in banks, we would be failing in our responsibilities if we did not push on to finalise these proposals in the near future.

### Trading book and securitisation

Let me now turn to the work we are doing with respect to some of the capital rules. Following on from the changes introduced in Basel 2.5, the Committee is now undertaking a more fundamental review of the trading book and the securitisation rules. With respect to the former, we want to achieve a regulatory framework that promotes more comparable levels of capital across banks with similar trading book portfolios. We also aim to provide more transparency, and limit arbitrage between the banking and trading books. Regarding securitisation, the complexity of the products, lack of transparency and poor underlying incentives led to massive losses. The Committee's objective is to address these weaknesses by making capital requirements for securitisation products simpler, better reflective of risk, less reliant on credit ratings and without significant cliff effects.

### Standardised approaches

Also on the agenda in 2013 is to improve

the standardised approaches for credit and operational risk. Our aim is to ensure these approaches continue to be suitable for assessing the capital adequacy of internationally-active banks - as well as other banks - that are not using the advanced approaches for risk measurement. While it would be premature to say what the result of our deliberations will be, one issue to be considered will be the extent to which the revised standardised approaches could also serve as a backstop or benchmark to the models-based approaches (eg banks, when publishing their risk-weighted assets, could be required to reference the calculations based on the standardised approaches). Linking the standardised approach with the models-based approach is already being considered in the fundamental review of the trading book. Using the standardised approaches as a backstop or benchmark could help increase the comparability of risk-weighted asset calculations among banks and jurisdictions.

### Large exposures

Another important regulatory policy that is under review by the Committee is the large exposures regime. The Committee's original guidance - *Measuring and controlling large credit exposures* - was published in January 1991. It was successful in promoting broad convergence in the supervision of large exposures, while recognising the scope for variation according to local conditions. However, it is fair to say that the regulation of large exposures has become increasingly inconsistent. While there is considerable apparent homogeneity in the general approaches being adopted, there are significant differences in the specifics.

Another lesson from the crisis has been that we did not pay sufficient attention to risk concentrations. This makes a strong case for a more consistent and effective framework for large exposures. Such an internationally consistent framework would ensure a level playing field, reinforce consistency in underlying capital requirements (since the capital framework does not directly capture concentrations) and avoid loopholes or exemptions where risks can build up undetected. The Committee is therefore examining the merits of a more consistent approach to large exposures, and

godine. Bila je uspešna u promovisanju široke konvergencije supervizije velikih izloženosti, uz uvažavanje širine varijacija prema lokalnim uslovima. Međutim, pošteno je reći da je regulisanje velikih izloženosti postalo sve više nekonzistentno. Mada postoji velika očigledna homogenost opštih pristupa koji se usvajaju, postoje značajne razlike u pojedinostima.

Dalja lekcija iz krize je da nismo posvetili dovoljnu pažnju koncentracijama rizika. To predstavlja jak argument za konzistentniji i efektivniji okvir za velike izloženosti. Takav međunarodno konzistentan okvir obezbedio bi ravno igralište, pojačao konzistentnost u osnovnim kapitalnim zahtevima (pošto kapitalni okvir ne obuhvata koncentracije neposredno) i izbegao praznine ili izuzetke gde se rizici mogu gomilati neopaženo. Komitet zato ispituje osnovanost konzistentnijeg pristupa velikim izloženostima i namerava da izloži svoje predloge za komentarisanje u toku 2013. godine.

## Druge oblasti za reviziju

Dozvolite mi da se kratko osvrnem na druge oblasti iz agende Komiteta: na jednu široku temu i drugu specifičnu inicijativu koja je po prirodi supervizijska.

### Jednostavnost i uporedivost

I sam priznajem da je jedan broj oblasti regulatornog okvira tokom godina postao sve kompleksniji. Kao posledica toga, Komitet je ove godine evaluirao načine na koje to može biti pojednostavljen, bez materijalnog menjanja njegovog osnovnog cilja ili snage. Postoji fina ravnoteža koja se mora ostvariti. Korišćenje regulatorne mere koja je suviše jednostavna i neposredna može da pruži snažne naopake stimulanse za banke. Međutim, postoji ograničenje koliko se poverenja može dati kompleksnosti i sofisticiranosti modela.

Specifičan primer tekućeg razmišljanja Komiteta je naša nedavna objava regulatornog tretmana prilagođavanja valorizacije duga (DVAs). To je kompleksno pitanje koje se odnosi na uticaj bančinog sopstvenog kreditnog rizika na valorizovanje derivatnih transakcija. Precizno meriti taj uticaj, koji smo želeli da uklonimo iz kapitalne baze, bilo bi izuzetno

kompleksno i teško. Neophodna matematika i analize bile bi iznad sposobnosti prosečnog bankarskog supervizora - a kamoli guvernera centralne banke! Komitet se zato odlučio za pojednostavljen, ali konzervantivan, tretman. To je bilo kritikovano zbog nedovoljne preciznosti i zato što potencijalno preveličava rizik. Komitet je zaključio da treba napraviti kompromis i da dodatno preciziranje u doradi pristupa nije vredno troškova koje izaziva. Poruka ovde nije da je Komitet odbacio prednosti ili poželjnost osetljivosti na rizik, već da je potrebno da se ona razmeni za druge ciljeve. U nekom trenutku neizbežno je da beskrajno nastojanje na većoj preciznosti kod merenja rizika više nije vredno napora - zaista, jer može da vodi opasnom lažnom osećanju preciznosti, koje treba izbegavati.

### Planiranje kapitala

S obzirom na to da smo povećali zahteve za minimumom kapitala, planiranje kapitala neizbežno će postati značajnije - za banke i za supervizore. Uvažavajući to, formirali smo radnu grupu da ispita tekuću praksu u industriji i razvije smernicu za procese dobrog planiranja kapitala. Taj rad se odnosi na pitanja kao što su:

- procesi za postavljanje ciljeva za nivo i strukturu kapitala;
- monitorisanje i odlučivanje u pogledu kapitala;
- veze sa strateškim planovima i drugim razmatranjima poslovnog planiranja;
- koordinacija sa ocenjivanjem profila rizika firme i apetita za rizikom.

Cilj tog rada nije nova politika koja će nametati specifične zahteve bankama tako da svaka banka svoje planiranje kapitala radi na isti način. Naprotiv, to će biti solidna smernica koju banke i supervizori mogu da koriste kao pomoć kod rasuđivanja da li pojedinačna banka ima robustan proces planiranja kapitala, imajući u vidu njenu veličinu, oblik i kompleksnost. To će biti naročito važno za svet Bazela III, sa jednim brojem kapitalnih ograničenja (CET 1, Tier 1 i ukupnim koeficijentima zasnovanim na riziku, kao i koeficijent likvidnosti) i amortizerima (konzervacija kapitala, kontraciclična i dodatna terećenja za SIB) kojima će banke morati da upravljaju.

will publish its proposals for comment during the course of 2013.

## Other areas for review

Let me quickly touch upon two other areas on the Committee's agenda: one a broad theme, and the other a specific initiative that is supervisory in nature.

### Simplicity and comparability

I am the first to acknowledge that a number of areas of the regulatory framework have become increasingly complex over the years. As a result, the Committee has this year been evaluating ways in which it can be simplified, without materially altering its underlying objective or strength. There is a fine balance that must be achieved. The use of a regulatory measure that is too simple and blunt can provide strong, perverse incentives for banks. On the other hand, there is a limit to how much faith we should put into the complexity and sophistication of models.

A specific example of the Committee's current thinking is our recent announcement on the regulatory treatment of debit valuation adjustments (DVAs). This is a complex issue relating to the impact of a bank's own credit risk on the valuation of derivative transactions. To precisely measure this impact, which we wished to remove from the capital base, would have been extremely complex and difficult. The maths and analysis necessary would be beyond the capabilities of the average bank

supervisor - let alone a central bank Governor! The Committee therefore decided on a more simplistic, but conservative, treatment. This was criticised for not being precise enough and therefore potentially overstating the risk. But the Committee decided that there was a trade-off to be made, and that the additional precision involved in refining the approach was not worth the cost involved. The message here is not that the Committee is dismissive of the benefits or desirability of risk sensitivity, but rather that it needs to be traded off against other objectives. At some point it is inevitable that the never-ending pursuit of greater precision in risk measurement is not worth the effort - indeed, it can lead to a dangerous false sense of precision, which is best avoided.

### Capital planning

Given that we have raised minimum capital requirements, capital planning will necessarily become more important - both for banks and their supervisors. Recognising this, we have established a task force to examine current industry practices and develop guidance on good capital planning processes. This work is looking at issues such as:

- processes for establishing targets for the level and composition of capital;
- monitoring and decision making with respect to capital;
- linkages to strategic plans and other business planning considerations; and
- coordination with the assessment of firms' risk profile and appetite.

The objective of this work is not a new policy that will impose specific requirements on banks such that every bank does its capital planning in the same way. Rather, it will be sound guidance that banks and supervisors can use to help judge whether an individual bank has a robust capital planning process, given its size, shape and complexity. This will be particularly important in a Basel III



## Zaključak

Želim da ove napomene privedem kraju naglašavanjem sa početka izlaganja da regulatorna reforma ima dva bitna dodatka: superviziju i primenu. Čak će i snažne međunarodne regulative biti bez efekta ako se ne primene u potpunosti ili ako je povezani režim supervizije slab. Otuda, Komitet podiže letvicu u sve tri oblasti. Prvo, očigledno je da smo radili na jačanju regulatornog okvira. To nije samo u formi Bazela III, već i rad koji smo

obavili u pogledu SIBs i rad koji je još u toku na knjizi trgovanja, sekjuritizaciji i velikim izloženostima. Drugo, bili smo znatno više proaktivni u obezbeđenju da se međunarodni dogovori primene u potpunosti, blagovremeno i na konzistentan način. I najzad, koristili smo revizije Osnovnih principa da isto tako podignemo letvicu za superviziju. Uraditi jednu ili dve stvari nije dovoljno. Moramo da podignemo letvicu u sve tri oblasti ako želimo da postignemo robustan i otporan finansijski sistem za budućnost.



world, with a number of capital constraints (CET1, Tier 1 and total risk-based ratios, and the leverage ratio) and buffers (capital conservation, countercyclical and SIB surcharges) to which banks will need to manage.

## Conclusion

I would like to bring my remarks to a close by emphasising as I did at the outset that regulatory reform has two essential complements: supervision and implementation. Even strong international regulations will be ineffective if they are not implemented fully or if the associated supervisory regime is weak. Hence, the Committee is raising the bar in all

three areas. First, it is obvious that we have been working to strengthen the regulatory framework. This is not just in the form of Basel III, but also the work we have completed on SIBs, and the work still in train on the trading book, securitisation and large exposures. Second, we have been much more proactive in making sure that the international agreements are implemented in full, on time and in a consistent manner. And, finally, we have used the revisions to the Core Principles to also raise the bar for supervision. Doing one is not enough; neither is doing two. We need to raise the bar in all three areas if we are to achieve a robust and resilient financial system for the future.

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# KREDITNI RIZIK I KREDITNI DERIVATI

## Rezime

Kreditni rizik je jedan od preovlađujućih rizika u finansijama i poslovanju, i izloženost kreditnom riziku je prisutna u skoro svim finansijskim transakcijama. Tokom proteklih nekoliko godina značajno se povećao obim i primena tehnika i instrumenata za transfer kreditnog rizika. Kreditni derivati predstavljaju novu kategoriju derivata i najnovije učesnike na finansijskom tržištu. Uvedeni su kako bi se otklonila neadekvatnost tradicionalnih mehanizama za transfer kreditnog rizika, i da bi se zaštitile banke i druge institucije od gubitaka koji nastaju usled neizvršenja obaveza. Svi kreditni derivati imaju određene zajedničke karakteristike. Kreditni derivati se javljaju u različitim oblicima, i postoji više načina na koji mogu da se grupišu u različite kategorije. Razvoj tržišta kreditnih derivata predstavlja odgovor na rastući značaj upravljanja kreditnim rizikom, i svaki od učesnika na ovom tržištu ima različite motive za primenu kreditnih derivata. S jedne strane, kreditni derivati donose prednosti, dok, s druge strane, nose skrivene opasnosti i rizike.

**Ključne reči:** kreditni rizik, transfer kreditnog rizika, kreditni derivati

**JEL:** G21, G32

# CREDIT RISK AND CREDIT DERIVATIVES

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## Summary

Credit risk is one of the predominant risks in finances and business, and the credit risk exposure is present in almost all financial transactions. During the last several years, the scope and application of the credit risk transfer techniques and instruments have substantially increased. Credit derivatives are a new category of derivatives and the latest participants on the financial market. They were introduced in order to eliminate inadequacy of traditional credit risk transfer mechanisms, with the aim of protecting banks and other institutions from losses incurred due to defaults. All credit derivatives have certain common characteristics. Credit derivatives appear in different shapes and forms, and there are several ways of classifying them in different categories. The development of the credit derivatives market is a response to the growing importance of the credit risk management and every participant in this market has a different motivation for applying credit derivatives. On the one hand, credit derivatives are bringing benefits, while on the other hand they carry concealed hazards and risks.

**Key words:** credit risk, credit risk transfer, credit derivatives

**JEL:** G21, G32

## Karakteristike kreditnog rizika

Kreditni rizik predstavlja rizik od neispunjena obaveze dužnika da u vremenski ugovorenim rokovima i u punom iznosu izmiri svoje obaveze prema poveriocima. To je rizik da u finansijskoj transakciji partner neće ispuniti svoju ugovorom preuzetu kreditnu obavezu zbog čega potraživanje neće biti realizovano na dan dospeća po njegovoj punoj knjigovodstvenoj vrednosti.

To je jedan od preovlađujućih rizika u finansijama i poslovanju. Prisutan je uvek kada se očekuje da drugo preduzeće izvrši plaćanje ili da ispuni ugovorene obaveze, i predstavlja verovatnoću nastanka gubitka usled neizvršenja obaveza ili stecaja drugog preduzeća. Na kreditni rizik treba obratiti pažnju ukoliko se preduzeću duguje novac ili ukoliko to preduzeće mora da se osloni na drugo preduzeće da izvrši plaćanja njemu ili u njegovo ime.

Kreditni rizik se često smatra jednosmernim rizikom, zato što nastaje kada druga ugovorna strana preduzeću duguje novac ili izvršenje obaveza. Nastaje uvek kada je kreditor izložen gubitku od strane korisnika kredita, druge ugovorne strane, ili dužnika koji ne ispunjava dugovne obaveze kako je ugovoren. Za kreditore koji obezbeđuju sredstva putem kredita, transakcija, ili tržišta kapitala, kreditni rizik je prisutan u svim njihovim poslovnim aktivnostima i sastavni je deo praktično svakog proizvoda i usluge koja se pruža.

Kreditni rizik nastaje usled aktivnosti pozajmljivanja, investiranja i davanja kredita i odnosi se na povraćaj pozajmljenog novca ili isplate od prodate robe. Upravljačka tela u bankama prilikom svakodnevnog poslovanja prave kompromise između visine rizika i visine stopa prinosa. Rizik gubitka nastaje usled mogućnosti da plasirana sredstva ne budu vraćena kroz amortizaciju kredita. Gubitak može biti kompletan, a može biti i delimičan ukoliko se deo sredstava ipak amortizuje.

Pored toga, kreditni rizik obuhvata smanjenje kreditnog rejtinga preduzeća, što podrazumeva pad pozicije preduzeća na rejting listi. Međutim, pad rejtinga ne podrazumeva i gubitak sredstava, mada implicira povećanje mogućnosti gubitka. Na primer, smanjenje

kreditnog kvaliteta emitenta hartija od vrednosti predstavlja izvor rizika jer dovodi do smanjena tržišne vrednosti hartija od vrednosti koje preduzeće poseduje. Takođe, pomeranje faktora rizika u pravcu njegovog rasta, povećava i očekivani tržišni prinos, što je bitan parametar kod sekjuritizacije kredita i kreditnih derivata. Kreditni gubitak može da nastane i usled nemogućnosti ispunjenja obaveza ili izvršenja plaćanja po ugovorima vezanim za kreditne derivate.

Kreditni rizik se povećava usled produženja roka isteka, roka saldiranja ili roka dospeća. Internacionali regulatorni organi skraćenjem roka saldiranja za određene hartije od vrednosti pokušavaju da smanje sistemski rizik. Takođe, kreditni rizik se povećava usled povećanja kamatnih stopa ili pogoršanja opštih ekonomskih uslova. Verovatnoća neizvršenja ugovorenih obaveza se povećava i u slučaju kada je preduzeće akumulisalo velike gubitke, kada duguje drugim ugovornim stranama, ili kada kreditori ili druge ugovorne strane u preduzeću imaju finansijske probleme ili su bankrotirali.

Kreditni rizik i metode koje se koriste za upravljanje kreditnim rizikom zavise od veličine i kompleksnosti izloženosti riziku. Finansijske institucije, kao što su banke, investicioni dileri, poverenička društva, osiguravajuće kompanije, i kreditne unije, imaju visoku stopu izloženosti kreditnom riziku usled činjenice da je njihova glavna uloga da obezbeđuju kredite i obavljaju transakcije.

Glavne karakteristike kreditnog rizika su sledeće:

- Kreditni rizik je sistemski rizik, odnosno na njega utiče opšta ekomska klima i zato je visoko cikličan. Kreditni rizik veoma zavisi od ekonomskih ciklusa: povećava se tokom recesije, a smanjuje se tokom ekspanzije.
- Kreditni rizik je specifičan rizik, u smislu da se menja u skladu sa specifičnim događajima koji utiču na korisnike kredita. Na kreditni rizik vezan za korisnika kredita ili drugu ugovornu stranu direktno utiču njegove karakteristike: veličina, korporativna strategija, događaji koji utiču na nju, promene u neposrednom ekonomskom okruženju, itd.
- Nasuprot drugim tržišnim rizicima, blisko

## Credit risk characteristics

Credit risk is a risk of an obligor defaulting in servicing liabilities on contracted terms and conditions, and a failure of settling in full his obligations to creditors. It is a risk of counterparty in a financial transaction failing to fulfil contractual credit liability where as a result the claim will not be settled on maturity date in its full book value.

This is one of the predominant risks in finance and business. It is present always when it is expected for the other company to effect payment or settle its contractual obligation, and represents a probability of loss due to default or bankruptcy of the other company. Credit risk should be especially monitored if the company has outstanding claims, or if that company must rely on the counterparty company to effect payment either to the company itself, or on its behalf.

Credit risk is often regarded as a one-way risk, as it emerges when the other contracting party owes the company money or execution of an obligation. It appears always when the creditor is exposed to loss from the credit beneficiary, the other contracting party, or an obligor defaulting on his liability to service debt as contractually agreed upon. For creditors securing funds through credits, transactions, or capital market, credit risk is present in all of their business activities and is a component part of practically every product and service that is offered.

Credit risk is present in borrowing, investing and credit lending activities and pertains to the repayment of the borrowed money, or payment for goods sold. Managing bodies in banks are inclined to compromise on daily basis in their operations, when deliberating risks versus returns. Risk from losses appears when there is a possibility that the funds invested may not be returned through credit amortisation. Loss may be in full, or it may be in part if some funds are amortised.

In addition, credit risk entails downgrading of the company credit rating, which in turn undermines company position on the rating list. The fall in rating, however, does not necessarily imply loss of funds, although it does involve higher loss possibility. Credit quality

downgrading of securities issuer, for example, is regarded as a source of risk as it causes fall in the market value of securities held by the given company. In addition, the shift in the risk factor in the direction of its growth increases the anticipated market yield, which is an important parameter in credit and credit derivatives securitisation. Credit loss may occur also due to inability to service liabilities, or make payments per credit derivatives-linked contracts.

Credit risk grows when the expiry date, settlement date, or maturity date is extended. International regulatory authorities are trying, by shortening settlement date for certain securities, to lower systemic risk. Concurrently, credit risk grows when interest rates are raised or general economic climate deteriorates. Probability of default in servicing contracted liabilities grows in case a company has accumulated large losses, or when it owes money to other contracting parties, but also in cases when creditors or other contracting parties are facing financial problems in the company, or have gone bankrupt.

Credit risk and methods used for the credit risk management depend of the size and complexity of risk exposure. Financial institutions, such as banks, investment dealers, trust institutions, insurance companies, and credit unions have a high rate of credit risk exposure due to the fact that their main role is to provide credit facilities and make transactions.

The main characteristics of the credit risk are the following:

- Credit risk is a systemic risk, i.e. it is a risk impacted by the global economic climate, and thus it is highly cyclic. Credit risk is highly dependent on the economic cycles: it grows during recession, and falls during expansion.
- Credit risk is a special type of risk in that it changes according to specific events which are impacting credit beneficiaries. Credit risk linked with credit beneficiaries or the other contracting party (counterparty) is directly impacted by its characteristics: size, corporate strategy, events impacting it, changes in the immediate economic environment, etc.
- Contrary to the other market risks, it is closely connected with the business

je vezan za uspeh u poslovanju i strukturu kapitala korisnika kredita, i ima asimetričnu distribuciju profitabilnosti ("teški" repovi). U osnovne vrste kreditnog rizika spadaju:

- Rizik neizvršenja obaveza - rizik da emitent obveznice ili korisnik kredita neće vratiti celokupan iznos neizmirenog duga. Ovaj rizik može biti ceo - ukoliko nijedan iznos kredita ili obveznice neće biti vraćen, ili delimičan - ukoliko će određeni deo početnog duga biti vraćen.

Prilikom merenja rizika neizvršenja obaveza, investitori koriste analize izvršene od strane rejting agencija koje obavljaju kreditnu analizu emitovanih hartija od vrednosti i emitenata i pružaju svoje zaključke u vidu kreditnog rejtinga.

- Rizik pogoršanja kreditnog rejtinga dužnika - predstavlja rizik da će rejting agencije (Standard & Poor's, Moody's Investors Services, ili Fitch Ratings) smanjiti kreditni rejting emitenta na osnovu izvršene procene tekuće sposobnosti emitenta da ostvaruje dobit u odnosu na njegovu sposobnost da otplati dugove u trenutku kada dospevaju. To je rizik da će kreditni rejting emitenta ili emitovane hartije od vrednosti biti umanjen, što će dovesti do povećanja kreditnog spreda.

Ponekad se sposobnost emitenta da izvrši plaćanja kamate i glavnice značajno i nepredviđeno izmeni usled nastupanja neočekivanih događaja. To podrazumeva veliki broj idiosinkratičnih događaja koji su specifični za korporaciju ili privredu, uključujući nesrećne slučajeve, promenu regulatornih tela, preuzimanje preduzeća ili korporativno restrukturiranje, kao i korporativnu proneveru i nezakonito ponašanje. Taj rizik se zove rizik od neizvršenja obaveze plaćanja zbog nastupanja nepredviđenog događaja, i dovodi do smanjenja kreditnog rejtinga emitenta od strane rejting agencija.

- Rizik promene kreditnog spreda - predstavlja ostvarenje gubitka ili goreg rezultata od očekivanog od strane emitovanih hartija od vrednosti zbog povećanja kreditnog spreda. To je rizik da će se spred iznad referentne kamatne stope povećati za neizmirenu dugovnu obavezu. Rizik promene kreditnog

spreda i rizik pogoršanja kreditnog rejtinga dužnika se razlikuju u tome što se rizik pogoršanja kreditnog rejtinga dužnika odnosi na specifičnu, zvaničnu kreditnu ocenu datu od strane nezavisne rejting agencije, dok se rizik promene kreditnog spreda odnosi na reakciju finansijskih tržišta na očekivano pogoršanje stanja kredita.

## Tradicionalni instrumenti i tehnike transfera kreditnog rizika

Različite tehnike transfera kreditnog rizika se već duže vreme upotrebljavaju na finansijskim tržištima. Tokom proteklih nekoliko godina značajno se povećao obim i primena instrumenata za transfer kreditnog rizika. U faktore koji su doprineli razvoju instrumenata i tehnika za transfer kreditnog rizika spadaju: veća pažnja banaka i drugih finansijskih institucija usmerena na proces upravljanja rizicima; oprezniji pristup investitora u dostizanju ciljane kombinacije između prinosa i rizika; pojačana težnja banaka i drugih velikih finansijskih institucija da što bolje upravljaju kreditnim rizikom na portfolio nivou; nastojanja tržišnih posrednika da maksimiziraju svoje prihode od provizija i naknada; generalno nizak nivo aktivnih kamatnih stopa, koji primorava finansijske učesnike da na tržištu traže alternativne izvore prihoda, razvijajući nove vrste finansijskih instrumenata; i povoljne okolnosti za arbitražu koje se javljaju usled različitih regulatornih zahteva u pogledu visine kapitala potrebnog za poslovanje različitih finansijskih preduzeća.

Tokom dužeg vremenskog perioda, banke su razvile različite tradicionalne instrumente i tehnike za transfer kreditnog rizika, od kojih u glavne spadaju sledeće:

- Osiguranje obveznica - tehnika koja podrazumeva da emitenti obveznice mogu da plate premiju trećem licu, koje će u slučaju neizvršenja od strane emitenta obezbediti isplatu kamate i glavnice, kao što je naznačeno u obveznici. Kao rezultat toga, rejting obveznice se povećava do nivoa rejtinga osiguravača; shodno tome, kreditni rejting osiguravača mora da bude blizu najvišeg rejtinga. Zahtevana premija za osiguranje obveznice je mera procenjenog

success and structure of capital of the credit beneficiary, and has an asymmetric profitability distribution ("fat tails").

The basic types of credit risk are the following:

- Risk of default - risk that the bond issuer or credit beneficiary will not repay the entire amount of outstanding debt. This risk may be total - if no credit amount or bond amount will be repaid, or partial - if a certain part of the initial debt is repaid.

In measuring defaulting risk, investors are using analyses made by the rating agencies that publish credit analysis of securities issued and of the issuers, and offer their findings regarding credit rating.

- Risk of obligor's credit rating downgrade - risk that the rating agencies (Standard & Poor's, Moody's, Investors Services, or Fitch Ratings) will lower credit rating of the issuer on the basis of forecasts for future capabilities of the issuer to make profit in respect to his ability to repay debts at their maturity. This is a risk that the credit rating of the issuer, or of the security issued, will be downgraded, thus causing growth in credit spread.

At times, the ability of the issuer to pay interest and principal may substantially and suddenly change when unexpected events occur. This implies a large number of idiosyncratic events which are specific for the given corporation or economy, including accidents, change in regulatory bodies, company take-over, or corporate restructuring, but also corporate fraud and unlawful conduct. This risk is called defaulting risk due to unforeseen events, and causes the rating agencies to downgrade issuer's credit rating.

- Risk of change in the credit spread - risk of incurring losses or poorer result than the expected one from the securities issued due to the growth in the credit spread. This is a risk that the spread will grow above the reference interest rate on outstanding debt liability. Risk of change in the credit spread and the risk of deterioration of the debtor's credit rating differ in the fact that the debtor's credit rating deterioration pertains to a specific, official credit rate given by the

independent rating agency, while the risk of change in the credit spread pertains to the reaction of financial markets on the expected deterioration of the credit status.

## Traditional credit risk transfer instruments and techniques

Different credit risk transfer techniques have been in use for some time now on the financial markets. During the last few years, there was a substantial growth in scope and application of the credit risk transfer instruments. Factors that have enhanced development of credit risk transfer instruments and techniques are the following: greater focus of banks and other financial institutions on the process of risk management; a more prudent approach of investors to reaching targeted return/risk combinations; enhanced strive of banks and other financial institutions to manage better credit risk at a portfolio level; attempts by market intermediaries to maximise their commissions and fees revenues; a generally low level of active interest rates forcing financial players to search on the market for alternative sources of revenues by developing new types of financial instruments; and favourable circumstances for arbitration which appear due to different regulatory requirements regarding the amount of regulatory capital prescribed for business operations of different financial companies.

Over a longer time period, banks have developed various traditional instruments and techniques for the credit risk transfer, the main among them being the following:

- Bond insurance - a technique which designates that bond issuer may pay premium to a third person, who in case of default by the issuer shall secure payment of interest and principal, as stated on the bond. As a result, the bond rating is upgraded up to the level of the insurance provider rating; consequently credit rating of the insurer must be close to the highest rating. The required premium for bond insurance is a measure of default risk assessed by the issuer.

Sovereign bonds are almost never insured. Issuers are buying insurance of municipal bonds in order to protect bond buyers.

rizika neizvršenja od strane emitenta.

Državne obveznice skoro nikada nisu osigurane. Emitenti kupuju osiguranje municipalnih obveznica da bi zaštitali kupce obveznica. Otprilike je jedna trećina svih novih municipalnih obveznica osigurana, najčešće upotrebljom procedure koja podrazumeva plaćanje premije prilikom kupovine obveznice.

- Garancije su instrument za ublažavanje izloženosti kreditnom riziku. Garancija od strane trećeg lica, koje ima bolji kreditni rejting od druge ugovorne strane, smanjuje izloženost kreditnom riziku prilikom obavljanja transakcija.

Garancija je bilateralni ugovor prema kom je lice koje preuzima rizik (garant) dužno da izvršava obaveze u korist lica koje transferiše rizik (poverilac). Izvršenje obaveze se javlja u slučaju kada treća strana (dužnik) u ugovoru sklopljenom između dužnika i poverioca ne izvršava obaveze. Garant je dužan da izvrši dužnikove obaveze ukoliko dužnik nije u mogućnosti da ih izvrši, dok su iznosi koji dospevaju za plaćanje ograničeni na gubitke koji su vezani za izloženost riziku. Garancije blisko prate prirodu i sadržaj ugovora sklopljenog između poverioca i dužnika. Garancije su fleksibilni instrumenti za transfer kreditnog rizika jer mogu da budu dizajnirani tako da pokrivaju specifične transakcije ili izloženosti riziku.

- Kolateral - kolateralizacija je najstariji oblik zaštite kreditora od mogućih gubitaka. Kolateral se već duže vreme koristi u cilju zaštite prilikom sklapanja kreditnih ugovora i predstavlja jednu od najčešće korišćenih tehnika za transfer rizika. Kolateral služi kao zaštita kreditoru od rizika neizvršenja obaveza od strane korisnika kredita, do kog dolazi ukoliko korisnik kredita ne izvrši plaćanje kamate i glavnice kako je predviđeno kreditnim ugovorom. Ukoliko korisnik kredita ne izvrši ugovorene obaveze, dužan je da preda imovinu koja je založena kao kolateral, i u tom slučaju kreditor postaje vlasnik kolateralata. Gotovina i državne hartije od vrednosti predstavljaju osnovni oblik kolateralata, a takođe se koriste i korporativne obveznice i obične akcije.

Visina ostvarenih gubitaka banke ili nekog

drugog preuzeća u slučaju neizvršenja najčešće zavisi od stepena likvidnosti i vrednosti kolateralata koji je u funkciji zaštite kredita; vrednost kolateralata može biti vrlo promenljiva, i na nekim tržištima se smanjuje sa povećanjem verovatnoće nastanka neizvršenja obaveza.

- Rani raskid - odnosi se na situacije u kojima kreditori i korisnici kredita uspevaju da postignu međusobni dogovor da u slučaju nastanka predviđenog događaja (koji je najčešće preciziran u klauzuli ugovora), kao što je na primer smanjenje kreditnog rejtinga, prekinu obavljanje transakcija korišćenjem srednjih tržišnih kotacija.
- Prenos prava i obaveza - odnosi se na mogućnost prenosa pozicije druge ugovorne strane na treće lice, u slučaju smanjenja kreditnog rejtinga. Prenosom postojeće pozicije, preuzeće koje inicira tu aktivnost pokušava da smanji celokupnu izloženost kreditnom riziku druge ugovorne strane. U nekim slučajevima prenos prava i obaveza se primenjuje kada preuzeće ima sumnje vezano za mogućnost nastavka poslovanja druge ugovorne strane, dok se u drugim slučajevima koristi da bi se oslobostile kreditne linije ili izvršila diversifikacija portfolija sa ciljem da se omogući dodatno poslovanje sa istom ugovornom stranom.
- Neting - predstavlja standardnu klauzulu u vanberzanskim derivatnim ugovorima. Prilikom upotrebe netinga, iznosi koji treba da budu razmenjeni između dve ugovorne strane se prebijaju, i na taj način se znatno smanjuje izloženost riziku i jedne i druge ugovorne strane. Ukoliko se pravilno koristi, neting može znatno da umanji kreditni rizik finansijske institucije, i zbog toga predstavlja jedan od najvažnijih instrumenata za transfer kreditnog rizika.

Bilateralne neting ugovore, koji predstavljaju dogovor dve ugovorne strane da saldiraju svoje bilateralne obaveze, uglavnom između dve finansijske institucije, koriste mnogi učesnici na deviznim tržištima. Umesto da se vrše pojedinačna saldiranja između ugovornih strana, sva plaćanja za određeni dan i valutni par se sabiraju i samo se isplaćuje neto iznos.

Pojedinačni neting ugovori ne mogu u potpunosti da štite učesnike na tržištu ukoliko plaćanja treba da budu izvršena u različitim

Approximately one third of all the new municipal bonds are insured, most often by applying the procedure which implies payment of premium during purchase of a bond.

- Guarantees are instruments for the credit risk exposure mitigation. Guarantees by a third party that is having better credit rating than the counterparty are lowering credit risk exposure during execution of transactions.

Guarantee is a bilateral contract where a person taking over the risk (guarantor) undertakes to comply with obligations in favour of the person transferring the risk (creditor - guarantee). Execution of the obligation appears in case the third party (obligor) in the contract concluded between the obligor and the creditor fails to comply with his obligations. Guarantor must fulfil obligor's obligations if the obligor is unable to service them himself, while the amount due for payment is limited to losses linked with the risk exposure. Guarantees are following closely the nature and substance of the contract drawn between the creditor and obligor. Guarantees are flexible instruments for the credit risk transfer as they may be so designed as to cover specific transactions or risk exposure.

- Collateral - collateralisation is the oldest form of creditor protection from possible losses. Collateral has been in use for some time now for purpose of protection in contracting credit deals and is one of the most frequently used risk transfer techniques. Collateral serves as protection for creditor from the risk of default by the credit beneficiary that occurs when the credit beneficiary defaults on payment of interest and principal as stipulated in the credit agreement. If the credit beneficiary should default on contractual obligation, he must surrender his property pledged as collateral, and in that case creditor becomes the owner of such collateral. Cash and sovereign securities are the basic form of collateral, but corporate bonds and common stocks may also be used.

The amount of incurred losses of a bank or some other company in case of default most

often depends on the degree of liquidity and value of collateral which is in the function of credit protection; value of collateral may be very volatile, and in some markets it falls with the growth of probability of default.

- Early termination - pertains to situations when creditors and credit beneficiaries succeed in reaching mutual agreement designating that in case of occurrence of an unforeseen event (which is most often specified in the contract clause) such as, for instance, fall in the credit rating, the contracting parties shall terminate further transactions using middle market quotations.
- Transfer of rights and obligations - pertains to the option to transfer position of the counterparty on to a third person in case of downgrade in credit rating. Transfer of the current position is the way in which company initiating this activity is trying to lower its total credit risk exposure to the counterparty. In some cases, transfer of rights and obligations is applied when a company has doubts in the capability of the counterparty to continue with its business, while in other cases it is used to free credit lines or make diversification of portfolio with the objective of allowing additional business with that same counterparty.
- Netting - is a standard clause in the over-the-counter derivatives contracts. When netting is applied, the amounts to be exchanged between the two contracting parties are netted, and in this way risk exposure is substantially lowered both for the one and for the other contracting party. If netting is correctly used, it may substantially reduce credit risk of the financial institution and thus it is one of the most important instruments for the credit risk transfer.

Bilateral netting contracts, which are an agreement between the two contracting parties to settle their bilateral liabilities, mainly between the two financial institutions, are applied by many players on the foreign currency markets. Instead of making individual settling between the contracting parties, all payments due on a certain day and the currency (exchange) par are summed up and only the net amount is paid.

Individual netting contracts can not fully

valutama, zbog toga što obe ugovorne strane mogu da vrše plaćanja. Međutim, plaćanja će biti manja nego što bi inače bila bez netinga, i samim tim se značajno smanjuje izloženost riziku.

- Poravnanje sa tržištem. Ugovorne strane se u nekim prilikama dogovore da tržišnu vrednost transakcije učine transparentnom, a zatim da izvrše transfer bilo koje izmene u vrednosti sa strane koja ostvaruje gubitke na stranu koja ostvaruje dobitke tokom transakcije. Poravnanje sa tržištem predstavlja jednu od najefikasnijih tehnika transfera kreditnog rizika, i, u većini slučajeva, može praktično da eliminiše kreditni rizik. Međutim, ona zahteva usavršene sisteme monitoringa i internet kontrole.
- Put opcije. Veliki broj put opcija koje se nalaze u okviru korporativnih dužničkih hartija od vrednosti pružaju investitorima zaštitu od rizika neizvršenja, na taj način što investitor ima pravo otkupa pre datuma dospeća po unapred ugovorenoj ceni (npr. po nominalnoj ceni).
- Sindicirani krediti - predstavljaju privremene aranžmane između banaka, i odnose se na situaciju u kojoj u grupi od nekoliko banaka svaka pozajmljuje određenu sumu korisniku kredita u istom trenutku i u iste svrhe. Primenom ove tehnike banke dele kreditni rizik velikih kredita koje obezbeđuju korisnicima kredita. Banke koje učestvuju u sindiciranim kreditima međusobno sarađuju čak iako su inače konkurenti. Banke učesnice u sindiciranim kreditima najčešće daju velike kredite koje pojedinačne banke ne bi bile u stanju da samostalno obezbede. Glavne banke u sindiciranim kreditima snose najveći deo rizika a takođe dobijaju i najveći deo provizija.
- Racioniranje kredita - staro je koliko i bankarsko poslovanje, ali nije isključivo vezano za bankarstvo. Osnovni princip racioniranja kredita je da se kredit odobrava u situacijama kada je omogućena najpoželjnija razmena rizika i prinosa. To podrazumeva dodelu viših kamatnih stopa rizičnijim transakcijama u cilju nadoknade zbog preuzimanja dodatnog rizika. Takođe, podrazumeva se i racioniranje konačnog iznosa odobrenog kredita između korisnika kredita sa različitim iznosima kreditnog rizika.
- Diversifikacija - predstavlja tehniku upravljanja rizikom, koja je vezana za hedging, i koja kombinuje različite vrste investicija u okviru portfolija. Odnosi se na preraspodelu rizika na veći broj investicija radi umanjenja rizika. Diversifikacija izloženosti riziku, koja se odnosi na transakcije između ugovornih strana kao i na transakcije u različitim privrednim granama i zemljama, je jedan od najosnovnijih načina smanjenja rizika u kreditnom portfoliju. Krajnji rezultat dobro izvršene diversifikacije je izbalansiraniji rizični profil koji nije zgusnut, i koji samim tim nije sklon veoma velikim gubicima prilikom neizvršenja obaveza druge ugovorne strane.
- Kreditni limiti - pomažu prilikom upravljanja izloženosti ukupnom riziku druge strane koji nastaje usled finansijskih i poslovnih aktivnosti. Upotreba limita podržava principe diversifikacije. Limiti se koriste u upravljanju kreditnim rizikom kao i prilikom upravljanja aktivom. Finansijske institucije koje obavljaju transakcije koriste limit-pozicije da bi ograničile veličinu dozvoljenih otvorenih pozicija u transakcijama i visinu potencijalnog gubitka. Limiti za učesnike u transakcijama se uglavnom određuju na osnovu iskustva, performanse, merenja i modeliranja rizika, kao i prema dozvoljenom stepenu rizika određene institucije. Najviše se upotrebljavaju dnevni limiti tokom radnog dana i kratkoročni limiti za otvorene pozicije i transakcije na inostranim tržištima.
- Posredovanje - javlja se u situacijama kada institucija konstruiše poseban derivat za krajnjeg korisnika, ali ne obavlja transakciju direktno sa krajnjim korisnikom, već umesto toga izvršava transakciju preko treće strane - posrednika. Velike finansijske institucije obično imaju funkciju posrednika. Prilikom obavljanja transakcija koje uključuju posrednika, institucija koja inicira transakciju gubi određen iznos svog profita, koji se prosleđuje posredniku. Do posredovanja dolazi ukoliko institucija

protect players on the market if payments are to be made in different currencies, as both of the contracting parties may effect payments. Payments will be lower, however, than would be in the case without netting, and hence this substantially reduces risk exposure.

- Market settlement. Contracting parties in some circumstances may agree to make the market value of a transaction transparent, and then to make a transfer of any change in value by the side incurring losses on to the side acquiring profit during that transaction. Market settling is one of the most efficient techniques for the credit risk transfer, and in most cases it may practically eliminate credit risk. It requires, however, sophisticated monitoring and internet control systems.
- Put option - A large number of put options which are to be found in the corporate debt securities are offering investors protection from default risk, in the way that the investor has the right to redeem them prior to the maturity date, at an in advance contracted price (for example, at nominal price).
- Syndicated loans - are temporary arrangements between banks and pertain to the situation where in a group of several banks, every one of them, is lending a certain sum to a credit beneficiary at the same time and for the same purpose. Application of this technique allows the banks to share credit risk of large loans which they provide for their credit beneficiaries. Banks participating in the syndicated loans are mutually cooperating even though they may be otherwise competitors. Banks participants in syndicated loans most often are granting large loans, which as individual banks they would not be able to provide themselves alone. The main banks in the syndicated loans are bearing the major part of risk, but are also receiving the major part of commissions.
- Credit rationing - is as old as the banking business itself, but is not characteristic for banking alone. The basic principle of credit rationing is for the credit to be approved in a situation when the most favourable exchange of risk for yield is possible. This means allocation of higher interest rates to risky transactions as a compensation for

additional risk undertaken. Concurrently, this means rationing of the final amount of credit approved between credits beneficiaries with different amounts of credit risk.

- Diversification - is a risk management technique linked with hedging, which combines different types of investments within any given portfolio. It pertains to the redistribution of risk on to a higher number of investments for purpose of reducing risk. Diversification of risk exposure, which pertains to the transaction between the contracting parties, and also to transactions in different industrial branches and countries, is one of the basic forms of reducing risk in a credit portfolio. The ultimate result of a well conducted diversification is a well-balanced risk profile which is not dense, and in this way is not prone to very high losses in case of default of the counterparty.
- Credit limits - are helping in managing total risk exposure of the counterparty, which occurs from financial and business activities. The use of limits acts in support of the diversification principles. Limits are used in credit risk management and also in assets management.  
Financial institutions engaged in transactions are using limit positions in order to limit the size of allowed open positions in transactions and the amount of potential loss. Limits for participants in transactions are mainly set on the basis of experience, performances, measurements and risk modelling, and also according to the allowed degree of risk for any given transaction. Most frequently used are daily limits during a working day and short-term limits for open positions and transactions on foreign markets.
- Intermediation - appears in situations when an institution designs a particular derivative for the final beneficiary, yet it is not conducting transactions directly with that final beneficiary, but is instead conducting transaction through a third party - intermediary. Large financial institutions usually hold the function of an intermediary. In conducting transactions which engage an intermediary, institution which has initiated given transaction is losing certain amount of its profit, which is forwarded to the

koja je inicijator ne želi direktno da stupa u kontakt sa krajnjim korisnikom ili ako više ne poseduje dovoljni kreditni kapacitet da bi poslovala sa krajnjim korisnikom (ukoliko su kreditni limiti institucije dostigli maksimum). Takođe, do posredovanja može da dođe i zbog regulatornih i poreskih potreba. Posredovanje može unapred da se ugovori (pre početka transakcije) ili tokom trajanja transakcije.

## Novi instrumenti i tehnike upravljanja kreditnim rizikom

Tehnike transfera kreditnog rizika kao što su prodaja kredita, sekjuritizacija i kreditni derivati predstavljaju finansijsku inovaciju koja je imala veliki uticaj na bankarsko poslovanje, kao i na celokupni finansijski sektor. Ti instrumenti su omogućili transfer i hedžing kreditnog rizika, i na taj način su uticali na to da banke smanje izloženost kreditnom riziku, smanje zahteve u pogledu visine kapitala potrebnog za poslovanje, prihvate nove metode davanja kredita, i povećaju likvidnost.

U nove instrumente i tehnike upravljanja kreditnim rizikom spadaju sledeće:

- Prodaja kredita - predstavlja bankarsku inovaciju koja omogućava transfer kreditnog rizika kroz prodaju osnovnog kredita. Kod prodaje kredita, banka obezbeđuje kredit, i zatim trećoj strani prodaje novčane tokove vezane za kredit, bez eksplicitne ugovorne obaveze, garancije, osiguranja, ili drugog vida povećanja kreditnog boniteta hartija od vrednosti, i na taj način uklanja kredit iz bilansa stanja banke.

Postoje tri osnovne vrste prodaje kredita: učešća, ustupanje potraživanja, i novacije, koje se razlikuju u stepenu transfera prava i obaveza. Učešća daju pravo kupcu da primi (u celosti ili delimično) buduća plaćanja koja će biti ostvarena na osnovu ugovora, ali ne transferišu prava i obaveze koji su vezani za originalni ugovor, i na taj način omogućavaju da se očuva odnos sa korisnikom kredita. Ustupanje potraživanja premešta direktni odnos dužnika i poverioca sa banke na kupca kredita zajedno sa pravima prodavca; u nekim slučajevima, u skladu sa ugovorom, korisnik kredita

mora da se složi sa prodajom. Novacija u potpunosti transferiše sva prava i obaveze i podrazumeva nov ugovor koji se sklapa između kupca i korisnika kredita; u praksi, putem novacije prodavac se u potpunosti gubi i na njegovo mesto dolazi novi učesnik. Trenutno, zbog visokih troškova monitoringa i rizika vezanih za učešća, i pravnih troškova vezanih za novacije, najveći broj prodaja kredita se javlja u obliku ustupanja potraživanja.

- Sekjuritizacija - tehnika pretvaranja bankarskih kredita u hartije od vrednosti. Pod sekjuritizacijom kredita podrazumeva se konkretna operacija transformacije bankarskih kredita u obveznice emitovane na bazi tih kredita. U tradicionalnom bankarstvu, krediti ostaju u aktivi banke sve do konačne likvidacije i u tom smislu oni predstavljaju oblik nelikvidne aktive banaka, a pogotovo onda kada su krediti dati s dužim rokovima. Iz tog razloga se javila potreba da banke transformišu jedan deo svojih kredita u vrednosne papire, odnosno obveznice. Na bazi određene količine kvalitetnih kredita banaka formiraju se pulovi sredstava na osnovu kojih se vrši emisija visoko kvalitetnih obveznica. Nakon transformacije kredita u obveznice može se izvršiti poboljšanje kvaliteta novih finansijskih instrumenata, uključivanjem banaka i drugih finansijskih institucija kao garanta po osnovu emitovanih hartija od vrednosti. To je hibridna finansijska forma koja kombinuje klasičan bankarski kredit s karakteristikama korporativnih obveznica. Prednost navedenog je u tome što su obveznice likvidne na tržištu kapitala, podležu proceni rejting agencija i imaju poboljšanu i diversifikovanu strukturu rizika, dok su bankarski krediti nelikvidni do roka dospeća, ne podležu vrednovanju rejting agencija i banke same snose rizik. Sekjuritizacija kredita je počela u SAD-u sa hipotekarnim kreditima za stanove koje su odobravale državne finansijske institucije. Na bazi pulova tih hipoteka kreirane su obveznice koje su imale državnu garanciju. Time se stvorio sistem u kome su hipotekarni krediti preko emitovanih obveznica mogli da budu prodati raznim investitorima.

intermediary. Intermediation takes place when the institution which is the initiator does not wish to make contact directly with the final beneficiary or when it no longer holds sufficient loan capital in order to do business with the final beneficiary directly (if the credit limits of the institution have reached their maximum level). Concurrently, intermediation may also take place for regulatory and tax purposes. Intermediation may be contracted in advance (prior to the start of transaction), or during the execution of the transaction.

## New credit risk management instruments and techniques

Credit risk transfer techniques, such as credit default swaps, securitisation and credit derivatives, are financial innovations that have had great influence on the banking business, and even on the entire financial sector. These are the instruments that have allowed for the credit risk transfer and hedging, having thus impacted the banks to reduce their credit risk exposure, lower requirements for capital required for business operations, accept new methods for credit approval, and boost liquidity.

The new credit risk management instruments and techniques are the following:

- Credit default swap - is a banking innovation allowing for the credit risk transfer to be made through sale of the underlying credit. In credit default swaps bank is providing credit facility, and thereupon sells cash flows connected with the credit facility to a third party, without any explicit contractual obligation, guarantee, or any other form of enhancing credit rating of securities, being able in this way to remove credit from its balance sheet.

There are three basic types of credit default swaps: participation, assignment of claim (receivables), and novations, which differ in the degree of transfer of rights and obligations. Participation grants a buyer the right to receive (in full or in part) future payments to be effected on the basis of a contract, but does not transfer the rights and obligations pertaining to the original contract, and in this way allow preservation

of the relationship with the credit beneficiary. Assignment of claim transfers the direct creditor/debtor relationship from the bank to the credit buyer together with rights and obligations of the seller; in some cases, if so contracted, credit beneficiary must give his consent for the swap. Novation is a full transfer of all the rights and obligations and implies a new contract to be drawn between the buyer and the credit beneficiary; in practice, through novation, the seller completely disappears and in his stead a new participant emerges. At present, due to high costs of monitoring and risks linked with participation, but also legal costs with respect to novations, the largest number of credit swaps appears in the form of claims assignment.

- Securitisation - is a technique of transforming banking credits into securities. Credit securitisation implies a concrete operation of transforming banking credits into bonds issued on the basis of underlying credits. In traditional banking, credits remain present within bank assets up to the final liquidation, and in that sense they stand as a form of non-liquid bank assets, especially when credits are granted long-term. For this reason the need was felt for the banks to transform one part of their credits into securities, i.e. bonds. On the basis of a certain quantity of high-quality credits, banks may engage in forming a pool of funds to serve for the issuance of high-quality bonds. After transformation of credits into bonds an enhancement of quality of the new credit instruments may be done, by engagement of banks and other financial institutions in the role of guarantors on the grounds of the securities issued. This is a hybrid financial form which combines a classic banking credit with characteristics of corporate bonds. The advantage of this venture is that bonds acquire higher liquidity on the capital market, that they are subject to the assessment by the rating agencies, and that they have an enhanced and diversified risk structure, while the banking credits remain non-liquid until their maturity, they are not subject of assessment by rating agencies, and the banks alone bear all the risks.

U kasnijem periodu došlo je i do emisije obveznica na bazi kredita građanima za kupovinu automobila, kredita na osnovu kreditnih kartica, trgovinskih i industrijskih korporacija.

Prednost sekjuritizacije kredita je povećanje likvidnosti banaka - bilansi banaka postaju likvidniji i banke imaju veće mogućnosti prilagođavanja svojih portfolija. Sekjuritizacija kredita deluje i u pravcu povećanja profitabilnosti banaka, prvenstveno putem smanjivanja zahtevane stope kapitala u odnosu na ukupne kreditne plasmane. Prodajom kredita uz posredovanje obveznica smanjuje se rizik kamatne stope za banke, jer banke transferišu rizik fiksnih kamatnih stopa na krajnje investitore koji preuzimaju rizik. Jedna od prednosti je i smanjenje kreditnog rizika, jer putem tržišnih procesa dolazi do poboljšanja kvaliteta kredita.

- Osiguranje od kreditnog rizika - vrsta osiguranja vezana za hartije od vrednosti i obveznice koja pokriva iznose kamate i glavnice u slučaju neizvršenja od strane emitenta. To je u stvari vrsta polise osiguranja koja pruža zaštitu od rizika neplaćanja (do određene sume) od strane dužnika.

Monolinijske osiguravajuće kompanije garantuju blagovremenu otplatu glavnice i kamate u slučaju neizvršenja od strane emitenta. Osiguranje od kreditnog rizika predstavlja tehniku transfera kreditnog rizika, kojom se rizik neizvršenja prenosi sa vlasnika obveznice na osiguravajuće kompanije. Vlasnici obveznica ostaju izloženi samo nesistemskom riziku da će doći do neizvršenja i od strane monolinijskih osiguravajućih kompanija. Te osiguravajuće kompanije se zovu monolinijske jer pružaju usluge samo jednoj industriji.

Većini monolinijskih osiguravajućih kompanija je dodeljen AAA rejting, a rejting agencije naplaćuju kapitalne troškove u skoro svakoj transakciji. S obzirom na to da su ti troškovi vezani za rejting dužnika, monolinijske osiguravajuće kompanije ne obezbeđuju kreditno osiguranje za obveznice koje nemaju visok investicioni rejting ili koje imaju visoku izloženost riziku, u cilju izbegavanja rizika neizvršenja obaveze

plaćanja zbog nastupanja nepredviđenog događaja. U strukturnom finansiranju, one najčešće prodaju zaštitu upotrebom finansijskih garancija ili portfolio kreditnih derivata kod najstarijih tranši sa AAA rejtingom.

- Kreditni derivati - predstavljaju najnoviju grupu instrumenata za upravljanje (smanjenje ili eliminisanje) izloženosti kreditnom riziku. To su finansijski instrumenti čija je glavna uloga transfer kreditnog rizika između dve ugovorne strane. Nastali su kao posledica tražnje finansijskih institucija za instrumentom hedžinga i diversifikacije kreditnog rizika. Oni omogućavaju korisnicima da prilikom obavljanja transakcija odvoje kreditni rizik od tržišnog rizika, i da izvrše njegov transfer. Kreditni derivati su vanberzanski finansijski instrumenti čija je isplata vezana za određeni kreditni događaj.

## Karakteristike kreditnih derivata

Kreditni derivati su uvedeni da bi se otklonila neadekvatnost tradicionalnih tehnika i instrumenata transfera kreditnog rizika, i da bi se zaštitele banke i druge institucije od gubitaka koji nastaju usled neizvršenja obaveza. Nastali su kao odgovor na zahteve finansijskih institucija, uglavnom banaka, za pronalaženjem instrumenta za hedžing i diversifikaciju kreditnog rizika, sličnom onima koja se već primenjuju kod kamatnih i valutnih rizika.

Od kada su kreditni derivati uvedeni na finansijsko tržište 1993. godine, banke, druge finansijske institucije i korporacije su mogle efikasnije da upravljaju kreditnim rizikom. Kreditni derivati izoluju i odvajaju kreditni rizik od drugih vrsta rizika kao što su tržišni i operativni rizik. S obzirom na to da su omogućili efikasan, fleksibilan i jednostavan način transfera kreditnog rizika, smatra se da su kreditni derivati veoma moćni instrumenti.

Svi kreditni derivati imaju sledeće karakteristike, bez obzira na to o kojem tačno instrumentu je reč:

- Referentni subjekat - predstavlja jednog emitenta (ili više emitenata) čija neizvršenja dovode do nastupanja kreditnog događaja. Referentni subjekat može biti korporativni,

Credit securitisation started in the USA with the housing mortgage loans granted by the government financial institutions. Based on pools of such mortgage loans, bonds were created backed by the state guarantee. Consequently, a system was created where mortgage loans, through the issued bonds, could be sold to different investors. In the latter period what followed was the issuance of bonds based on retail loans granted for purchase of cars, credit card based loans, consumer loans, and industrial corporate loans.

Credit securitisation benefit is enhanced bank liquidity - banks' balance sheet becomes more liquid and banks gain broader options for adjustment of their portfolios. Credit securitisation acts in the direction of growth of banks profitability, primarily through lowering of the required capital adequacy rate in respect to the total credit placements. Credit sale through bonds intermediation reduces interest rate risk for banks, as the banks are able to transfer fixed interest rate risk on to the final investors who are taking over the risk. One of the advantages is also lowering of the credit risk, as through the market processes an enhancement of the credit quality occurs.

- Credit risk insurance - is a type of insurance linked with securities and bonds, which covers interest sums and principal amounts in case of default by the issuer. Actually, this is a form of an insurance policy offering protection from the risk of default (up to a certain amount) by the obligor.

Mono-line insurance companies can guarantee timely repayment of principal and interest in case of default by the issuer. Credit risk insurance is a technique of credit risk transfer where the risk of default is transferred from the bond holder to the insurance company. Bond holders remain exposed only to a non-systemic risk of a default by the mono-line insurance companies themselves. Such insurance companies are called mono-line ones as they offer their services to one single industry alone.

Most of the mono-line insurance companies are granted an AAA rating, and the rating

agencies are charging capital costs on almost every transaction. Mindful of the fact that those costs are linked with the obligor's rating, mono-line insurance companies do not provide credit insurance for bonds that do not have a prime investment rating, or those that have high risk exposure, in order to avoid default risk for unforeseen event occurring. In structured finance they most often sell protection through the use of financial guarantees, or a credit derivatives portfolio for the oldest tranches with the AAA rating.

- Credit derivatives - are the latest group of instruments to be used for credit risk exposure management (mitigation or elimination). They are financial instruments with the main role to exchange credit risk transfer between two contracting parties. They were designed as a result of demand by financial institutions for a credit risk hedging and diversification instrument. They allow the users during execution of transactions to separate credit risk from the market risk, are to execute its transfer. Credit derivatives are the over-the-counter financial instruments, and their payment is linked with a given credit event.

## Credit derivatives characteristics

Credit derivatives were introduced in order to eliminate inadequacy of the traditional credit risk transfer techniques and instruments, and to protect banks and other financial institutions from losses incurred due to default. They were designed as a response to the demand by financial institutions, mainly banks, to have instruments for the credit risk hedging and diversification, similar to the ones already applied on interest rate and currency risks.

Ever since the credit derivatives were introduced on the financial market in 1993, financial institutions and corporations could manage credit risk more efficiently. Credit derivatives are isolating and separating credit risk from other forms of risks, such as the market and operational risks. As they allow for an efficient, flexible and simple way of transferring credit risk, it is believed that credit derivatives are very powerful instruments.

državni ili bilo koja druga forma pravnog subjekta koji se zadužio.

- Referentne obaveze ili referentna aktiva. Referentne obaveze se odnose na aktivu emitovanu od strane referentnog subjekta. Koriste se prilikom određivanja kreditnog događaja i kalkulacije stope nadoknade (koja se koristi kod izračunavanja isplate u slučaju neizvršenja). Mogu da podrazumevaju bilo koje finansijske obaveze referentnog subjekta, kao i da se odnose na poseban spisak određenih obveznica izdatih od strane referentnog subjekta. Najčešće se primenjuju krediti i obveznice.
- Kupac zaštite - subjekat koji traži zaštitu od rizika neizvršenja referentne obaveze. Alternativno se naziva prodavac rizika. U kupce zaštite obično spadaju banke ili finansijski posrednici koji su izloženi riziku kreditne aktive. U tom slučaju glavni cilj kupca zaštite je hedžing kreditnih rizika koji su prisutni u kreditnoj aktivi.  
Kupovina zaštite pruža mogućnost sintetičkog transfera kredita, i na taj način se izbegavaju problemi vezani za stvarnu prodaju kredita, jer referentna aktiva ostaje kod kupca zaštite. Prema tome, motivacija kupca zaštite je da transferiše rizik držanja izloženosti, bez transferisanja aktive.
- Prodavac zaštite - alternativno se naziva kupac rizika. Motivisan je povećanjem prinosa, ili načinom da ostvari zaradu od sintetičkih izloženosti riziku gde direktno stvaranje portfolija ili nije moguće ili nije podesno. Nije neophodno da stvarno poseduje referentnu aktivu. U transakcijama na vanberzanskom tržištu, u prodavce zaštite spadaju osiguravajuće kompanije, banke, hedž fondovi, investicione kompanije, itd.
- Teorijska vrednost. S obzirom na to da nije neophodno da prodavac zaštite stvarno poseduje referentnu aktivu i da kupac zaštite ne mora da drži referentnu aktivu iste vrednosti na koju je ugovor zaključen, kreditni derivati se zaključuju po teorijskoj vrednosti. Kreditni derivati koriste teorijsku vrednost kao referentnu vrednost prilikom izračunavanja premije za zaštitu koju plaća kupac zaštite i isplata u slučaju neizvršenja koje vrši prodavac zaštite.
- Kreditni događaj - precizno definisan

događaj nastupanja neizvršenja, koji je uglavnom definisan u odnosu na referentnog subjekta i referentne obaveze. Ukazuje na to da je referentni subjekat trenutno (ili će uskoro biti) izložen finansijskim problemima, i dovodi do okončanja kreditnog derivatnog ugovora i transfera isplate u slučaju neizvršenja od prodavca zaštite ka kupcu zaštite.

Kreditni događaji su definisani od strane Međunarodnog udruženja za svopove i derivate (International Swaps and Derivatives Association - ISDA). Kod standardnih kreditnih derivata, postoji šest osnovnih kreditnih događaja:

1. Stečaj. Do stečaja referentnog subjekta dolazi ukoliko postane nesolventan ili je u nemogućnosti da otplati dug.  
Odnosi se na bilo koji administrativni dokument, izjavu, postupak, ili odluku koja potvrđuje da referentni subjekat više nije u stanju da ispuni svoje obaveze.
  2. Neplaćanje. Do neplaćanja dolazi kada referentni subjekat ne izvrši plaćanje po jednoj od svojih obaveza, kao što su obveznica ili kredit.
  3. Ubrzanje obaveze. Do ubrzanja obaveze dolazi kada se brzina obaveze referentnog subjekta poveća zbog događaja neizvršenja. Predstavlja rizik da će obaveza referentnog subjekta biti ubrzana, odnosno da će obveznica biti proglašena za odmah dospelu i plativu posle neizvršenja.
  4. Neizvršenje obaveze - odnosi se na rizik da referentni subjekat neće izvršiti bilo koju od svojih obaveza.
  5. Repudijacija/moratorijum. Repudijacija se odnosi na rizik da referentni subjekat ili država objave moratorijum nad obavezom refrentnog subjekta.
  6. Restruktuiranje - odnosi se na rizik da će referentni subjekat ugovoriti da neki od njegovih dugova, ili svi njegovi dugovi, budu restrukturirani, što dovodi do negativne promene u njegovom kreditnom bonitetu.
- U praksi, stečaj, neplaćanje i restrukturiranje su najčešći kreditni događaji. Ugovorne strane u kreditnom derivatu mogu da izaberu jedan ili više kreditnih događaja. Ukoliko koriste dokumentaciju koja nije u skladu sa

All credit derivatives are having the following characteristics, regardless of which particular instrument is in question:

- Reference entity (party) - is identifying one issuer (or several issuers) whose default causes credit event to occur. Reference entity may be corporate, sovereign, or any other form of legal entity that has engaged in borrowing.
- Reference obligations or reference assets. Reference obligations pertain to the assets issued by the reference entity. They are used in determining credit event and in calculating compensation rate (which is used in calculating payment in case of default). They may comprise any financial obligations of the reference entity, but also refer to a special list of certain bonds issued by the reference entity. Most often they apply to credits and bonds.
- Protection purchaser - entity purchasing protection from defaulting on reference obligation. Alternatively it is called risk seller. Protection purchasers usually are the banks or financial intermediaries who are exposed to the credit assets risks. In this case the main objective of protection purchaser is hedging of credit risks that are embedded in the credit assets.

Protection purchase offers the option of synthetic credit transfer, thus avoiding problems linked with real sale of credit, as the reference assets remain in possession of the protection buyer. Consequently, motivation of protection purchaser is to transfer exposure risk, without transferring assets.

- Protection seller (provider) - alternatively called risk purchaser, is motivated by higher return, or ways to make profit from synthetic risk exposure, where direct portfolio creation is either impossible or not suitable. It is not necessary for him to really own the reference assets. In transactions on the over-the-counter market, protection sellers are insurance companies, banks, hedge funds, investments companies, etc.
- Theoretical value. Mindful of the fact that it is not necessary for the protection seller to own reference assets, and the protection purchaser not having to hold the reference

assets of the same value as contracted, credit derivatives are contracted at a theoretical value. Credit derivatives are using theoretical value as a reference value when calculating protection premium which is paid by the protection purchaser, and the payment in case of default which is made by the protection seller.

- Credit event - is a precisely defined event of default, which is mainly defined in respect to the reference entity and the reference obligation. It refers to the fact that the reference entity is currently (or is soon to be) exposed to financial distress, and causes termination of the credit derivative contract and transfer of payment, in case of default, from protection seller to protection buyer.

Credit events are defined by the International Swaps and Derivatives Association - ISDA. In standard credit derivatives there are six basic credit events defined:

1. Bankruptcy. Bankruptcy of the reference entity occurs in case of its insolvency or inability to repay its debts. It refers to any administrative document, declaration, action, or decision, which ascertain that the reference entity is no longer able to serve its obligations.
2. Default. Failure to pay the amounts due which occurs when the reference entity defaults on payment of an underlying obligation, such as on bonds or credit.
3. Accelerated obligations. Acceleration of obligations occurs when the dynamics of obligation of the reference entity accelerates due to the default event. It is a risk that the obligation of the reference entity will be accelerated, i.e. that the bond will be proclaimed promptly due for payment and payable on default.
4. Obligation default - risk that the reference entity will fail to settle any of its obligations.
5. Repudiation/Moratorium. Repudiation refers to the risk that the reference entity or the government will declare a moratorium on the obligation of the reference entity.
6. Restructuring - refers to the risk of the reference entity to contract restructuring of a part or all of its debt, thus causing negative changes in its credit rating.

In practice, bankruptcy, default, and

definicijama ISDA, mogu sami da definišu kreditne događaje.

- Obaveštenje o nastupanju kreditnog događaja - neopozivo obaveštenje da je nastupio kreditni događaj, koje jedna ugovorna strana kod kreditnog derivata daje drugoj ugovornoj strani.
- Obaveštenje o javno dostupnim informacijama - obaveštenje koje potvrđuje da je kreditni događaj nastupio. U tom obaveštenju mora da bude naveden izvor „javno dostupnih informacija“, koji može da se odnosi na bilo koje internacionalno priznate, objavljene ili elektronski prikazane izvore vesti (na primer: Wall Street Journal, Reuters, ili Bloomberg).
- Ročnost - period u kome je derivatni ugovor na snazi. Rok prestaje istekom određenog vremena ili nastupanjem kreditnog događaja, zavisno od toga šta nastupi ranije. Ročnost kreditnog derivata ne mora da se podudara sa ročnosti osnovne aktive.
- Premija - naknada za kupovinu zaštite koju kupac zaštite plaća prodavcu zaštite tokom ročnosti kreditnog derivata.

Ako ne nastupi kreditni događaj, tokom ročnosti ugovora, kupac zaštite plaća premiju a istekom određenog vremena ugovor je završen. Ako nastupi kreditni događaj, prodavac zaštite plaća kupcu zaštite, i ugovor prestaje bez čekanja na istek ročnosti ugovora.

- Isplata u slučaju neizvršenja ili plaćanje zaštite. Isplate u slučaju neizvršenja predstavljaju iznose koje prodavac zaštite mora da plati kupcu zaštite ukoliko je nastupio kreditni događaj. Plaćanje zaštite je paritetna vrednost plus narasla kamata (koja se izračunava na teorijsku vrednost) referentne aktive (kod fizičkog saldiranja) ili razlika između takve paritetne vrednosti plus narasla kamata i tržišna vrednost referentne aktive posle kreditnog događaja (kod novčanog saldiranja). Prema tome, plaćanja zaštite nisu povezana sa stvarnim gubicima koje snosi kupac zaštite.
- Saldiranje - nastaje kada nastupi kreditni događaj. Postoje tri mehanizma saldiranja:
  1. Fizičko saldiranje. Kod fizičkog saldiranja kupac zaštite dostavlja portfolio referentnih obaveza (najčešće obveznice

ili kredita) prodavcu zaštite, a za uzvrat prodavac zaštite plaća kupcu iznos koji je jednak teorijskoj vrednosti transakcije. U ugovoru mogu biti definisane i alternativne emisije referentnog subjekta koje kupac može dostaviti prodavcu, a koje se nazivaju isporučive obveznice. Ukoliko je navedeno više isporučivih obveznica, kupac zaštite će dostaviti najjeftiniju od ponuđenih. Isporuka se obavlja u roku od 30 dana od datuma nastupanja kreditnog događaja. Datum saldiranja će biti ili onaj oko kog su se dogovorile ugovorne strane ili najduži uobičajen period na tržištu.

Ovaj metod saldiranja podrazumeva da kupac zaštite prodaje diskontovane dužničke instrumente (zbog nastupanja kreditnog događaja) po paritetnoj vrednosti. Zbog toga je neophodno da se na početku sklapanja ugovora definiše koje će instrumente (isporučive obveznice) kupac zaštite moći da dostavi prodavcu zaštite u slučaju nastupanja kreditnog događaja.

Prilikom izbegavanja problema vezanih za određivanje tržišne vrednosti referentne obaveze, fizičko saldiranje je pogodnije, jer prodavcu zaštite pruža bolje uslove u ugovoru, s obzirom na to da mu omogućava da direktno pregovara sa administratorima referentnog subjekta. Pored toga, prodavac zaštite može da ima koristi i ukoliko postoji mogućnost da se izvrši naplata potraživanja vezana za neizvršenja osnovne aktive.

Fizičko saldiranje je najčešći metod saldiranja između strana u bilateralnim poslovima, mada je tržište počelo postepeno da preferira novčano saldiranje ili trgovinu sa fiksnom naknadom.

2. Novčano saldiranje. Kod novčanog saldiranja prodavac zaštite kompenzuje kupca zaštite za gubitke koje snosi zbog kreditnog događaja, a nema transfera referentne aktive već ona ostaje kod kupca zaštite. U ovom slučaju, u trenutku saldiranja, prodavac zaštite plaća kupcu zaštite iznos koji je jednak paritetnoj vrednosti (100%) umanjenoj

restructuring are the most frequent credit events. Contracting parties in a credit derivative may select one or more credit events. If they are using documents which are not compliant with the ISDA definitions, they may themselves define credit events.

- Credit event notification - an irrevocable notification that a credit event has occurred, notification forwarded by one contracting party in the credit derivative deal to the other contracting party.
- Notification of publicly available information - notification confirming that a credit event had occurred. This notification must state the source "of publicly available information", which may refer to any international, recognised, published, or in an electronic form presented, news sources (for example: Wall Street Journal, Reuters, or Bloomberg).
- Tenor - is a period when a derivatives contract is in force. Tenor ceases when a certain period of time has elapsed, or when a credit event has occurred, whichever comes earlier. Credit derivative tenor does not have to match tenor of underlying asset.
- Premium - is a fee for protection purchase which the protection buyer must pay to the protection seller during the credit derivative tenor. If a credit event should fail to occur during contract tenor, protection buyer will pay premium, and after a certain time has elapsed, contract shall be terminated. If a credit event has occurred, protection seller shall effect payment to the protection buyer, and the contract shall be terminated forthwith, without awaiting the contract to expire.
- Payment in case of default or protection payment. Payment in case of default designate amounts that the protection seller must pay to the protection buyer in case credit event has occurred. Protection payment is at a par value plus interest accrued (calculated on theoretical value) on the reference asset (in physical settlement), or the difference between such parity value plus accrued interest and market value of the reference asset after the credit event has occurred (in money settlement). Therefore, protection payments are not linked to real

losses suffered by the protection buyer.

• Settlement - takes place when the credit event occurs. There are three settlement mechanisms:

1. Physical settlement/ In physical settlement the protection purchaser is submitting portfolio of reference obligations (most often bonds or credits) to the protection seller, and the protection seller, in turn, pays protection buyer an amount equal to the theoretical value of transaction. Contract may define also alternative issues of the reference entity that the buyer may submit to the seller, and which are designated as deliverable bonds. If several deliverable bonds are quoted, protection purchaser will submit the cheapest one among those offered. Delivery must be made within 30 days from the date of the credit event occurrence. Settlement date will be either the date agreed upon by the contracting parties, or the longest customary period prevailing on the market.

This settlement method designates that the protection purchaser is selling discounted debt instruments (due to the credit event occurrence) at par value. Hence it is necessary, early in the contractual phase, to define which of the instruments (deliverable bonds) protection buyer will be able to submit to the protection seller in case credit event is to occur.

In the attempt to avoid problems linked with determining market value of the reference obligation, physical settlement is more appropriate, as it offers protection seller better contract terms, allowing protection seller to directly negotiate with the administrators of the reference entity. In addition, protection seller may have benefits if there is an option for the collection of receivables to be made, linked with the default in underlying assets.

Physical settlement is the most frequent method for settlement between parties in bilateral deals, although the market has gradually started to prefer money settling, or trade in fixed fees.

za vrednost referentne obaveze nakon neizvršenja. Ova vrednost se određuje korišćenjem kotacija za referentnu obavezu sa sekundarnog tržišta. Lice koje je odgovorno za određivanje tržišne cene se naziva agent kalkulacije. Ukoliko je izabrano, saldiranje se vrši u roku od 5 radnih dana od datuma nastupanja kreditnog događaja.

Proces utvrđivanja cena je ponekad komplikovan, a ova vrsta saldiranja nije jednaka fizičkom saldiranju jer ne postoji najjeftinija isporučiva obveznica, pa samim tim ima manje prednosti za kupca zaštite. Međutim, mnogi investitori ne žele (ili iz regulatornih razloga ne mogu) da primenjuju fizičko saldiranje. U skorije vreme je polako usvojeno rešenje koje podrazumeva primenu procedure novčanog saldiranja na portfoliju obveznica koja kopira karakteristike fizičkog saldiranja.

Postoji nekoliko prednosti primene novčanog saldiranja. Kao prvo, manje administracije je vezano za novčano saldiranje. Takođe, novčano saldiranje ne izlaze kupca zaštite bilo kojim rizicima ukoliko ne bude isporučivih obveznica na tržištu. To može biti od velikog značaja ukoliko dođe do manjka likvidnosti na tržištu, i smanji se vrednost isplate u slučaju saldiranja.

3. Trgovina sa fiksnom naknadom. U ovoj vrsti saldiranja, iznos koji prodavac plaća u slučaju nastupanja kreditnog događaja je unapred određen (50% paritetne vrednosti). S obzirom na to ova vrsta saldiranje se obavlja vrlo brzo.

## Vrste kreditnih derivata

Kreditni derivati se javljaju u različitim oblicima, i postoji više načina na koji mogu da se grupišu u različite kategorije.

Tri osnovna načina njihovog grupisanja su sledeća:

- Kreditni derivati koji glase na jedno ime i kreditni derivati koji glase na više imena. Kreditni derivati koji glase na jedno ime podrazumevaju zaštitu od neizvršenja od strane jednog referentnog subjekta. Oni predstavljaju najrasprostranjeniju vrstu kreditnih derivata i uključeni su u najveći broj transakcija na tržištu. Najpoznatiji kreditni derivati koji glase na jedno ime su: svopovi kreditnih neizvršenja, svopovi ukupnog prinosa i opcije na kreditni spred. Kreditni derivati koji glase na više imena podrazumevaju zaštitu od neizvršenja od strane više referentnih subjekata, kao što je to na primer slučaj kod portfolio bankarskih kredita. Umesto toga da svaka hartija od vrednosti u portfoliju mora da se razmatra zasebno, oni omogućavaju investorima i emitentima da transferišu deo kreditnog rizika ili ukupan kreditni rizik vezan za portfolio hartija od vrednosti kod kojih može da nastupi neizvršenje obaveza. Najpoznatiji kreditni derivati koji glase na više imena su: korpa svopova sa najvećom verovatnoćom neizvršenja i sintetizovane kolateralizovane dužničke obaveze.

- Kreditni derivati pisani za korporativne referentne subjekte i kreditni derivati pisani za državne referentne subjekte. Kod kreditnih derivata referentni subjekat može biti korporativni ili državni. Najveća razlika između kreditnih derivata pisanih za korporativne referentne subjekte i kreditnih derivata pisanih za državne referentne subjekte se ogleda u osnovnim karakteristikama tržišta na kojima obavljuju transakcije. Kreditni derivati pisani za refrentne subjekte koji nisu državni, posebno oni pisani za korporativne subjekte koji imaju visoki investicioni rejting, se ugoveraju na tržištu koje je znatno veće od tržišta za državne referentne subjekte. Jedan od ograničavajućih faktora tržišta za kreditne deriveate pisane za državne referentne subjekte jeste taj što je baza investitora za nedržavni dug bitno veća nego za državni dug. Takođe, modeliranje i kvantifikovanje kreditnog rizika vezanog za državne dužnike može biti komplikovanije nego za korporativne korisnike kredita. Na primer, državni subjekti, posebno u zemljama u razvoju, su podložniji rizicima vezanim za političku nestabilnost nego što je većina korporacija u razvijenim zemljama.
- Kreditni derivati koji zahtevaju finansiranje i kreditni derivati koji ne zahtevaju

2. Cash settlement. In case of cash settlement, protection seller compensates the protection buyer for losses incurred due to the credit event, and there is no transfer of reference asset as it remains with the protection buyer. In this case, at the time of settlement, protection seller pays protection buyer the amount equal to the par value (100%), decreased for the value of the reference obligation after default. This value is determined by using quotation for the reference obligation from the secondary market. Person responsible for determining the market value is called calculation agent. If selected, settling is done within 5 working days from the date credit event has occurred.

The process of pricing is at times complicated, and this form of settlement is not an equivalent to the physical settlement as there is no cheapest bond to be delivered, and thus there are fewer advantages for protection buyer. Many investors, however, do not wish (or are not able for regulatory reasons) to apply physical settlement. Recently, there was a gradual adoption of the solution which implies application of the cash settlement procedure on the bonds portfolio, which is a copy of the physical settling features. There are several advantages in the implementation of cash settlement. Firstly, less administration is involved in cash settlement. In addition, cash settlement does not expose protection buyer to any risks if there should be a shortage of bonds for delivery on the market. This may be of great importance if there should be a shortage of liquidity on the market, and the value of payment to be effected in case of settling should fall.

3. Fixed fee trade. In this type of settlement, the amount that the seller is paying in case of credit event occurrence is determined in advance (50% of the par value). In this light, this type of settlement can be completed promptly.

## Types of credit derivatives

Credit derivatives appear in different shapes and forms and there are several ways of classifying them in different categories. There are three basic ways of classification as follows:

- Credit derivatives registered in one name, and credit derivatives registered in several names. Credit derivatives registered in one name designate protection from default by one reference entity. They are the most broadly present type of credit derivatives and include the largest number of transactions on the market. The best known credit derivatives registered in one name are the following: credit default swaps, total return swaps, and credit spread options. Credit derivatives registered in several names designate protection from default by several reference entities, such as is the case, for example, with banking credits portfolio. Instead of examining separately every security kept in a portfolio, they allow investors and issuers to transfer one part of the credit risk or the entire credit risk linked with the securities portfolio where there is the possibility of default. The best known credit derivatives registered in several names are the following: basket of the highest probability of default swaps, and synthesised collateralised debt obligations.
- Credit derivatives drawn for corporate reference entities and credit derivatives written for sovereign reference entities. In case of credit derivatives, reference entity may be corporate or sovereign. The major difference between credit derivatives written for corporate reference entities and credit derivatives written for sovereign reference entities is reflected in the embedded market characteristics where transactions are taking place. Credit derivatives written for reference entities which are not the sovereign ones, especially those written for corporate entities which are having a higher investment rating, are contracted on the market which is substantially larger than the market for sovereign reference entities. One of the limiting factors of the market for credit derivatives written for the sovereign reference entities is the fact that the investor

finansiranje. Kod kreditnih derivata koji zahtevaju finansiranje, čiji su glavni predstavnici kreditne note, investitor vezan za notu je prodavac kreditne zaštite i unapred vrši plaćanje kupcu zaštite prilikom kupovine note, koje se koristi za saldiranje prilikom nastupanja potencijalnih kreditnih događaja. Kod ove vrste derivata se na početku transakcije kupcu isplaćuje zaštita koja služi kao osiguranje; ukoliko ne nastupi kreditni događaj, isplata se vraća prodavcu zaštite. Samim tim, prodavac zaštite mora da obezbedi sredstva (gotovinu) na početku transakcije da bi mogao da izvrši plaćanje unapred.

Kod kreditnih derivata koji ne zahtevaju finansiranje, čiji su glavni predstavnici svopovi kreditnih nezvršenja, prodavac zaštite ne vrši plaćanje unapred kupcu zaštite. Plaćanje zaštite se vrši po završetku transakcije prilikom nastupanja kreditnog događaja (ukoliko postoji kreditni događaj). U suprotnom se plaćanje uopšte ne vrši. Kupac zaštite je izložen većem riziku da druga ugovorna strana neće ispuniti obavezu, odnosno riziku da prodavac zaštite neće biti u mogućnosti da izvrši predstojeće plaćanje. U najvažnije kreditne derive koji ne zahtevaju finansiranje takođe spadaju: svopovi ukupnog prinosa i opcije na kreditni spred.

Dugi način klasifikovanja kreditnih derivata je u tri osnovne kategorije, u zavisnosti od njihovih mehanizama rada i primene:

- Derivati koji u osnovi imaju mogućnost neizvršenja - predstavljaju veoma značajnu inovaciju na tržištu, s obzirom na to da omogućavaju primenu strategija za obavljanje transakcija i hedžing koje nisu postojale na finansijskim tržištima pre njihovog nastanka. Oni pružaju zaštitu svojim korisnicima od nastupanja kreditnog događaja (ili nastupanja više kreditnih događaja), koji je obično definisan u ugovoru kao neplaćanje od strane referentnog subjekta. Glavni predstavnici ovih derivata su: svopovi kreditnih nezvršenja i kreditne note.
- Derivati koji u osnovi imaju kreditni spred - omogućavaju investitorima da zauzmu poziciju na budućem nivou kreditnog

spreda između dve dužničke hartije od vrednosti (uglavnom rizične i nerizične hartije od vrednosti), nezavisno od absolutne vrednosti kamatnih stopa. Vrednost ovih proizvoda zavisi od razvoja kreditnog spreda vezanog za referentne hartije od vrednosti, ali, za razliku od derivata koji u osnovi imaju mogućnost neizvršenja, nije izričito vezana za nastupanje unapred definisanih kreditnih događaja. Glavni predstavnici ove vrste derivata su opcije na kreditni spred.

- Proizvodi koji omogućavaju sintetičku replikaciju performansi bazne aktive - dozvoljavaju investitorima da sintetički replikuju ekonomsku performansu izloženosti kreditnom riziku, bez obaveze da kupe refrentni instrument. Za uzvrat, ugovorna strana koja sintetički prodaje svoju izloženost hedžuje kreditni rizik bazne aktive. Glavni predstavnici ove vrste derivata su svopovi ukupnog prinosa.

## Razvoj tržišta kreditnih derivata

Razvoj tržišta kreditnih derivata predstavlja odgovor na rastući značaj upravljanja kreditnim rizikom. Tržište kreditnih derivata je izuzetno poraslo, u prilično kratkom vremenskom periodu, i razvilo se od malog ogranka kreditnog tržišta u jedno od najznačajnijih na svetskom nivou.

Prvobitno su identifikovane tri glavne faze razvoja tržišta kreditnih derivata:

- Zaštitni proizvod  
Prva fază je trajala od kraja 1980-ih do početka 1990-ih godina, a za nju su karakteristični pokušaji banaka da delimično eliminišu izloženost kreditnom riziku. Kreditni derivati su nastali i razvili se početkom 1990-ih godina, usled činjenice da su se brokeri na tržištu suočili sa eksponencijalnim rastom vanberzanskih transakcija. Investicione banke koje su imale ulogu posrednika nisu bile zadovoljne tradicionalnim metodama upravljanja kreditnim rizikom. Takođe, sputavalo ih je umereno kapitalisanje i potreba da se svakodnevno vrši poravnanje njihovih portfolija sa tržištem. Prema tome, bili su im potrebni novi instrumenti za upravljanje kreditnim rizikom.

base for non-sovereign debt is significantly larger than the one for the sovereign debt. In addition, modelling and quantification of credit risk linked with the sovereign obligors may be more complicated than for the corporate credit beneficiaries. For example, sovereign entities, especially in the developing countries, are more susceptible to political instability risks than are the majority of corporations in developed countries.

- Credit derivatives requiring funding and credit derivatives not requiring financing. In case of credit derivatives requiring funding, having as their main representatives credit notes, investor linked to a note is the credit protection seller, and is effecting payment in advance to the protection buyer during purchase of the note, which is used for settling in case credit event is to occur. In this type of derivatives, at the start of transaction, buyer is paid protection which serves as insurance; in case credit event should fail to occur, payment is returned to the protection seller. Hence protection seller must secure funds (cash) at the start of transaction in order to be able to make advance payment.

In case of credit derivatives which do not require funding, their main representatives being credit default swaps, protection seller will not make advance payment to the protection buyer. Protection payment is effected at the end of transaction, during credit event occurrence (if credit even is to occur). In the case of contrary, no payment will be made. Protection buyer is exposed to a higher risk of the counterparty defaulting on its obligation, i.e. exposed to the risk that the protection seller will not be able to make the forthcoming payment. Amongst the most important credit derivatives not requiring funding are also the following: total return swaps, and credit spread options.

Another way to classify credit derivatives is to group them into three main categories, depending on their work mechanism and application:

- Derivatives having an underlying option of default - are a very important innovation on the market in view of the fact that they

allow strategies to be applied for making transactions and hedging that were not previously present on the financial markets before they were introduced. They offer protection to their users from credit event occurrence (or occurrence of several credit events), which is usually defined in the contract as a default by the reference entity. The main representatives of these derivatives are the following: credit default swaps, and credit notes.

- Derivatives having an underlying credit spread - allow investors to take up position on the future level of the credit spread between two debt securities (mostly between a risky security and a risk-free one), irrespective of the absolute value of the interest rates. The value of these products depends on the development of the credit spread linked with the reference security, but contrary to the derivatives with underlying option of default, this value is not explicitly linked with the occurrence of in advance defined credit events. The main representatives of this type of derivatives are the credit spread options.
- Products allowing for synthetic replication of the underlying asset performance - allow investors to synthetically replicate economic performance of the credit risk exposure, without obligatory purchase of the reference instrument. In return, contracting party which is synthetically selling its exposure, is hedging credit risk of the underlying asset. The main representatives of this type of derivatives are the total return swaps.

## Credit derivatives market development

Credit derivatives market development is a response to a growing importance of the credit risk management. Credit derivatives market has extremely grown over a rather short period of time, and has developed from a small branch of the credit market into one of the most important ones on the world level.

There were three main phases of the credit derivatives market development initially identified:

- Protection product

Iz tog razloga su banke konstruisale svopove kreditnog rizika koji omogućavaju hedžing potencijalnih neizvršenja njihovih klijenata, a s obzirom na to da oni donose više prinose, bile su u mogućnosti da lakše pronađu zainteresovanu drugu ugovornu stranu.

- Bilateralno tržište

Druga faza je počela oko 1991. godine i trajala je približno do kraja 1990-ih godina. Tokom ove faze pojавilo se posredničko tržište, na kojem su dileri primenjivali tehnologiju derivata prilikom transfera kreditnog rizika, dok su investitori ulazili na tržišta u cilju pronalaženja i preuzimanja izloženosti kreditnom riziku. U periodu od 1994. do 1995. godine, tržište kreditnih derivata je postalo bilateralno, i na njemu su banke koje su konstruisale te proizvode počele da stupaju u kontakt sa potencijalnim investitorima, i da grupišu proizvode prilagođene njihovim zahtevima vezano za profil rizika i prinosa.

Još jedna inovacija u ovoj fazi je bila pojava sintetičke sekjuritizacije, koja je omogućila širu primenu kreditnih derivata, u okviru strukturnog finansiranja, odnosno kombinovanje derivata sa gotovinskim instrumentima ili sa drugim derivatima u cilju postizanja zahtevanog stepena izloženosti riziku.

- Tržišni bum

U periodu od 1996. do 1997. godine, tržište kreditnih derivata se „demokratizovalo“. Treća faza podrazumeva razvoj kreditnih derivata, koji su od nove vrste proizvoda vremenom postali proizvodi sa karakteristikama koje su slične drugim vrstama derivata.

Svopovi kreditnih neizvršenja su se u ovom periodu pojavili i postali najzastupljeniji predstavnici kreditnih derivata, dok je u oblasti strukturnog finansiranja došlo do kombinovanja kreditnih derivata i formiranja arbitražnih kolateralizovanih dužničkih obaveza, konstruisanih u skladu sa zahtevima investitora. ISDA je 1999. godine objavila standardne definicije vezane za kreditne derive koji su se primenjivale zajedno sa Glavnim ugovorom. Takođe, trgovci su počeli da upravljaju rizikom kroz upotrebu diversifikacije portofilia kreditnih

derivata. Treća lica (regulatorni organi, rejting agencije) su ozbiljnije počela da prate dešavanja na tržištu.

U međuvremenu, identifikovana je još jedna faza razvoja tržišta kreditnih derivata, pa se samim tim može smatrati četvrtom fazom:

- Afirmisano derivativno tržište

Ova faza se može posmatrati i kao faza razvoja likvidnog tržišta. Od 1999. -2000. godine, tržište kreditnih derivata je pretpelo znatne strukturne promene, koje su kasnije prouzrokovale sledeća dešavanja:

- Uvođenje evra na tržište kapitala krajem 1999. godine i nastanak pravog kreditnog tržišta na evropskom nivou.
- Uvođenje proizvoda druge generacije (egzotičnih derivata i strukturisanih proizvoda), i povećanje likvidnosti na standardnim tržištima.
- Obavljanje bankarskih transakcija vezanih za arbitražu propisanog kapitala.

Promet i vrste kreditnih derivata su se znatno uvećali, uz istovremeno povećanje broja i raznovrsnosti učesnika u koje su spadale komercijalne banke, osiguravajuće kompanije, i drugi institucionalni investitori (penzioni fondovi, menadžeri aktive, hedž fondovi, itd). Kao rezultat toga, tržište kreditnih derivata je postalo referentno tržište za procenu kreditnog rizika, kako za postojeće emitente tako i za buduće korisnike kredita.

Određeni nedostaci ranije spomenutih definicija ISDA, su doveli do toga da 2003. godine ISDA objavi nove, odnosno dopunjene, standardne definicije vezane za kreditne derive. Takođe, 2004. godine je započeta trgovina indeksima, koja je nakon toga znatno rasla iz godine u godinu.

U ovoj poslednjoj fazi, uveden je veliki broj hedž fondova, kako na strani kupaca tako i na strani prodavaca. Hedž fondovi koriste kreditne derive u razne svrhe, koje utiču na povećanje efikasnosti tržišta i utvrđivanja cena, kao i na povećanje likvidnosti.

## Učesnici na tržištu kreditnih derivata

Na tržištu kreditnih derivata postoje tri grupe učesnika:

- Krajnji kupci zaštite. To su entiteti koji traže način da hedžuju kreditni rizik kojem su

Phase one lasted until the end of the 1980s and the beginning of 1990s, and it was characteristic for the attempt by banks to partially eliminate credit risk exposure. Credit derivatives emerged and started to develop early in the 1990s due to the fact that brokers on the market were faced with an exponential growth of over-the-counter transactions. Investment banks, which had the role of intermediaries, were not satisfied with the traditional credit risk management methods. In addition, they were constrained by a moderate capitalisation and the need for daily settling of their portfolios with the market. Hence what they needed were some new instrument for the credit risk management.

For this reason, banks constructed credit risk swaps which allowed for hedging of potential defaults by their clients, and mindful of the fact that they were bringing higher returns, they were able to easily find interested contractual counterparties.

- **Bilateral market**

Phase two started by 1991 and it lasted up to the end of 1990s. During this phase what emerged was the intermediaries market where dealers were applying derivative technology on the credit risk transfer, while investors were entering the market with the aim to find and take over credit risk exposures. In the period from 1994 to 1995, credit derivatives market became a bilateral one, where the banks that have constituted those products ventured into establishing contacts with potential investors, and into grouping products adjusted to their requirements regarding risk profile and return.

Another novelty in this phase was the emergence of synthetic securitisation which allowed for a broader application of credit derivatives within the structured funding, i.e. a combination of derivatives with the cash instruments or with other derivatives, for purpose of obtaining the required degree of risk exposure.

- **Market boom**

In the period from 1996 to 1997, credit derivatives market became "democratised". Phase three saw the development of credit

derivatives which have, from a new type of product, in time, become products with characteristics similar to those of other types of derivatives.

Credit default swaps have emerged in this period and were to become the broadest present representatives of credit derivatives, while in the field of structured funding what occurred was a combination of credit derivatives and formation of arbitrage collateralised debt obligations, constructed in accordance with the investor requirements. ISDA 1999 published standard definitions for credit derivatives which were applied together with the Main Contract. In addition, traders started to manage risk by using credit derivatives portfolio diversification. The third persons (regulatory authorities, rating agencies) gradually and more seriously engaged in monitoring market developments.

In the meantime, another phase of the credit derivatives market development was identified, and thus it may be deemed to be phase four:

- **An affirmed derivatives market**

This phase may be observed also as a development phase of the liquid market. From 1999-2000, credit derivatives market suffered substantial structural changes which have later caused the following developments to take place:

- Introduction of euro on the capital market in late 1999 and the emergence of a real credit market at a European level.
- Introduction of second generation products (exotic derivatives and structured products) and a boost in liquidity on standard markets.
- Execution of banking transactions linked with arbitrage of regulatory capital.

Turnover and types of credit derivatives have substantially grown, with the simultaneous growth in number and diversity of participants including commercial banks, insurance companies, and other institutional investors (pension funds, assets managers, hedge funds, etc.). As a result, credit derivatives market became a reference market for the assessment of credit risk, both for the current issuers but also for the future credit beneficiaries.

izloženi u drugim oblastima poslovanja. U njih spadaju: komercijalne banke, osiguravajući, penzioni i uzajamni fondovi.

- Krajnji prodavci zaštite. Oni predstavljaju entitete koji traže način da diversifikuju tekući portfolio, i to mogu da učine efikasnije sa kreditnim derivatima. Entitet koji pruža zaštitu traži izloženost određenom kreditnom riziku ili grupi kreditnih rizika.
- Posrednici. U njih spadaju ogranci komercijalnih banaka koji obavljaju poslove investicionog bankarstva i brokerske i dilerske firme koje se bave trgovinom hartijama od vrednosti. Njihova glavna uloga na tržištu kreditnih derivata je da krajnjim korisnicima obezbede likvidnost. Oni obavljaju transakcije za sopstveni račun u potrazi za arbitražnim i drugim prilikama. U najbitnije učesnike na tržištu kreditnih derivata spadaju: banke, osiguravajuće kompanije, penzioni fondovi, menadžeri aktive i hedž fondovi. Svaki od navedenih učesnika ima različite motive za primenu kreditnih derivata, koji su sumirani u sledećoj tabeli.

## Prednosti kreditnih derivata

Kreditni derivati imaju veoma važnu i kontroverznu ulogu na finansijskim tržištima. S jedne strane, kreditni derivati donose prednosti, dok, s druge strane, nose skrivene opasnosti i rizike. Kao glavne prednosti kreditnih derivata se mogu izdvojiti sledeće:

- Razdvajanje tržišnog i kreditnog rizika. Kreditni derivati su omogućili razdvajanje kreditnog rizika od tržišnog rizika, kao i prenos kreditnog rizika na druge učesnike na tržištu. Izdvajanje kreditnog rizika je obično moguće, bez obzira na vrstu aktive u osnovi. Prema tome, kreditni derivati omogućavaju upravljanje i hedžing kreditnim rizikom zasebno od drugih vrsta rizika vezanih za aktivu u osnovi. Kao rezultat toga, ovi derivati omogućavaju investitorima da bolje usklade stvarnu i očekivanu izloženost riziku.
- Trgovina kreditnim rizikom. Druga prednost kreditnih derivata, koja je direktno povezana sa prvom, je činjenica da

Tabela 1. Motivi različitih učesnika za primenu kreditnih derivata

Učesnici na tržištu kreditnih derivata	Razlozi za kupovinu zaštite	Razlozi za prodaju zaštite
Bankе	<ul style="list-style-type: none"> <li>- Upravljanje kreditnim rizikom</li> <li>- Olakšice u pogledu zahteva za kapitalom</li> <li>- Upravljanje bilansom stanja</li> <li>- Nedostatak likvidnosti (motiv finansiranja)</li> </ul>	<ul style="list-style-type: none"> <li>- Geografska / privredna diversifikacija kreditnog portfolija</li> <li>- Eliminisanje troškova hedžinga ostalih kredita</li> <li>- Uvećanje prinosa</li> </ul>
Osiguravajuće kompanije	<ul style="list-style-type: none"> <li>- Smanjenje ili diversifikacija koncentracije finansijskih obaveza u portfoliju osiguranja, bez potrebe za prodajom obveznica</li> </ul>	<ul style="list-style-type: none"> <li>- Diversifikacija</li> <li>- Uvećanje prinosa</li> <li>- Usaglašavanje rokova dospeća finansijskih obaveza</li> </ul>
Dileri hartijama od vrednosti	<ul style="list-style-type: none"> <li>- Posredovanje na tržištu</li> <li>- Upravljanje kreditnim rizikom</li> <li>- Olakšice u pogledu zahteva za kapitalom</li> </ul>	<ul style="list-style-type: none"> <li>- Posredovanje na tržištu</li> <li>- Geografska / privredna diversifikacija kreditnog portfolija</li> <li>- Eliminisanje troškova hedžinga ostalih kredita</li> </ul>
Menadžeri aktive	<ul style="list-style-type: none"> <li>- Konstruisanje strateške trgovine</li> <li>- Eksploracija negativnih ocena razvoja kreditnog boniteta</li> </ul>	<ul style="list-style-type: none"> <li>- Eksploracija pozitivnih ocena kreditnog boniteta (uvećanje prinosa i diversifikacija)</li> </ul>
Hedž fondovi	<ul style="list-style-type: none"> <li>- Eksploracija negativnih ocena kreditnog kvaliteta</li> <li>- Kombinovanje sa obveznicama ili konvertibilnim obveznicama zbog baznih transakcija</li> </ul>	<ul style="list-style-type: none"> <li>- Eksploracija pozitivnih ocena kredita</li> </ul>

Izvor: Ayadi, Rym, Behr, Patrick. "On the Necessity to Regulate Credit Derivatives Markets", Journal of Banking Regulation 10 (2009) 186.

Certain drawbacks in the already mentioned ISDA definitions encouraged ISDA, in the year 2003, to publish new, i.e. supplemented standard definitions referring to credit derivatives. In addition, in the year 2004, index trading started which was to record substantial year-to-year growth.

In this last phase, a large number of hedge funds were introduced, both on the side of buyers and on the side of sellers. Hedge funds are using credit derivatives for different purposes, which are impacting growth of efficacy of the market and the pricing itself, as well as giving boost to liquidity.

## Credit derivatives market participants

On the credit derivatives market there are three groups of participants:

- End-buyers of protection. They are the entities searching for ways to hedge credit risk to which they are exposed in other business fields. They are: commercial banks,

insurance companies, pension and mutual funds.

- End-sellers of protection. They are the entities looking for ways to diversify current portfolio which is possible to be done more efficiently with credit derivatives. The entity providing protection is looking for exposure to a certain credit risk, or a group of credit risks.
- Intermediaries. They are commercial banks affiliations dealing in investment banking, and brokerage and dealer firms engaged in securities trading. Their main role on the credit derivatives market is to secure liquidity to the end users. They conduct transactions for their own account in search for arbitrage and other opportunities.

The most important participants on the credit derivatives market are the following: banks, insurance companies, pension funds, assets managers, and hedge funds. Each one of these participants has a different motivation for the application of credit derivatives, which are summed up in the following table.

Table 1 Motivation of different participants for application of credit derivatives

Credit derivatives market participants	Reasons for protection purchase	Reasons for protection sale
Banks	- Credit risk management - Capital requirement benefits - Balance sheet management - Liquidity shortage (motive for financing)	- Geographic/economic credit portfolio diversification - Elimination of other credit hedging costs - Growth of return
Insurance companies	- Reduction or diversification of financial liabilities concentration in insurance portfolio, without the need to sell bonds	- Diversification - Growth of return - Matching maturity of financial liabilities
Securities dealers	- Market intermediation - Credit risk management - Capital requirement benefits	- Market intermediation - Geographic/economic credit portfolio diversification - Eliminating the costs of other loans' hedging
Assets managers	- Strategic trading constitution - Exploitation of negative assessment of credit rating development	- Exploitation of positive assessment of credit rating (growth of return and diversification)
Hedge funds	- Exploitation of negative credit quality rating - Combination with bonds or convertible bonds for purpose of basic transactions	- Exploitation of positive credit rating

Source: Ayadi, Rym, Behr, Patrick. "On the Necessity to Regulate Credit Derivatives Markets", Journal of Banking Regulation 10 (2009) 186.

mogu da izdvoje kreditni rizik dužničkog finansijskog instrumenta i transferišu ga trećoj strani. Kreditni derivati omogućavaju transfer kreditnog rizika uz istovremeno zadržavanje vlasništva nad aktivom. Oni bankama omogućavaju da razdvoje kreditni rizik od rizika finansiranja. Prema tome, kreditni derivati uvode mehanizam koji omogućava transfer neželjenog rizika između zainteresovanih strana, od preduzeća koja imaju previše kreditnog rizika, ili pogrešnu vrstu kreditnog rizika, ka preduzećima koja su spremna da preuzmu taj rizik. Takođe, transferom kreditnog rizika sa jednog učesnika na tržištu na drugog, kreditni derivati omogućavaju efikasnije vrednovanje i distribuciju kreditnog rizika između učesnika na tržištu.

- Hedžing kreditnog rizika. Najbolji način hedžinga kreditnog rizika je upotreba instrumenata koji su direktno povezani sa korisnikom kredita, u koje spadaju kreditni derivati. Oni su veoma efikasni instrumenti hedžinga i upravljanja kreditnim rizikom u cilju poboljšanja portfolio diversifikacije. Finansijska institucija čiji je kreditni portfolio previše rizičan može da zaključi ugovor kojim se transferiše deo tog kreditnog rizika na drugo preduzeće, dok se institucija fokusira na unapređenje svog portfolija.

Druge povezane prednosti kreditnih derivata su sledeće:

- Povećana likvidnost kreditnog tržišta. Kreditni derivati pružaju učesnicima na tržištu mogućnost trgovine rizicima kojima ranije skoro uopšte nije moglo da se trguje zbog niskog stepena likvidnosti. Prema tome, oni povećavaju likvidnost tržišta na kojima se trguje dužničkim instrumentima. Određena preduzeća ne emituju javni dug već pozajmljuju novac od banaka. Zahvaljujući kreditnim derivatima, investitorima je omogućen pristup drugim ugovornim stranama ili tržištima koja ranije nisu bila javno dostupna.
- Potencijalno niži transakcioni troškovi - jedna transakcija vezana za kreditne derivate obično može da zameni dve ili više transakcija na promptnoj berzi.

- Rešavanje problema neefikasnosti vezanih za regulatorne barijere. Ovo je od posebnog značaja za banke. Banke odavno koriste kreditne derivate u cilju usklađivanja zahtevane stope kapitala potrebne za poslovanje sa svojim ekonomskim kapitalom, koji služi za pokrivanje neočekivanih gubitaka koji su rezultat kreditnog rizika.
- Povećana transparentnost kreditnog tržišta. Kreditni derivati utiču na poboljšanje transparentnosti prilikom vrednovanja kreditnog rizika. Pre uvođenja kreditnih derivata, utvrđivanje vrednosti kreditnog rizika je bilo komplikovano. Kreditni derivati su vremenom postali likvidniji i obuhvataju širi spektar entiteta, pa će samim tim kreditori i investitori biti u mogućnosti da porede određivanje cena instrumenata kao što su obveznice i krediti sa kreditnim derivatima. Učesnicima na finansijskom tržištu može da koristi bolje razumevanje vrednosti kredita čak iako ne učestvuju u transakcijama sa kreditnim derivatima.

Neke od glavnih prednosti za kupce i prodavce kreditnih derivata su navedene u sledećoj tabeli.

Tabela 2: Prednosti za kupce i prodavce kreditnih derivata

Prednosti za kupce kreditnih derivata	Prednosti za prodavce kreditnih derivata
Veća likvidnost tržišta	Upravljanje rizikom i/ili hedžing investicija
Leveridž investicija	Povećana efikasnost odvajanja kreditnog rizika i vremenski određenog upravljanja rizikom putem duracije
Mogućnost zarade provizija	Diversifikacija proizvoda osiguranja
Diversifikacija proizvoda osiguranja	Portfolio diversifikacija
Povećena efikasnost kroz razdvajanje hartija od vrednosti u osnovi i/ili robe	Povećani novčani tokovi kapitala

Prednosti kreditnih derivata se mogu razdvojiti na mikroekonomske i makroekonomske, kao što je prikazano u sledećoj tabeli.

## Credit derivatives advantages

Credit derivatives play a very important yet controversial role on financial markets. Credit derivatives, on the one hand, bring advantages, but on the other hand they embody hidden risks and hazards. Credit derivatives main advantages are the following:

- Separation between market and credit risk. Credit derivatives allow for a separation to be made between credit risk and market risk, and also credit risk transfer on to the other market participants. Singling out of the credit risk is usually possible regardless of the underlying type of asset. Therefore, credit derivatives are allowing for credit risk management and hedging separately from other forms of underlying asset-linked risks. As a result, these derivatives allow investors to better match real and anticipated risk exposure.
- Credit risk trading. Another credit derivatives advantage, directly linked with the previous one, is the fact that credit risk can be singled out from the debt financial instrument and transferred on to a third party. Credit derivatives allow for the credit risk transfer to be made, while at the same time ownership of the assets remains intact. They allow the banks to separate credit risk from the funding risk. Therefore, credit derivatives are introducing a mechanism which enables transfer of undesirable risk between the interested parties, from a company having an excess of credit risk, or a wrong type of credit risk, to a company ready to take over such a risk. In addition, through the credit risk transfer from one market participant to the other, credit derivatives allow for more efficient valuation and distribution of the credit risk between market participants.
- Credit risk hedging. The best way to hedge credit risk is through the use of instruments that are directly linked with the credit beneficiary, and they are credit derivatives. They are very efficient hedging and credit risk management instruments for purpose of enhancing portfolio diversification. Financial institution holding credit portfolio which is too risky may conclude a contract

transferring one part of that credit risk on to another company, while the institution in question is focusing on upgrading its portfolio.

Other related advantages of credit derivatives are the following:

- Enhanced credit market liquidity. Credit derivatives are offering market participants the opportunity to trade in risks which were previously almost totally inaccessible for trading because of the low level of liquidity. Concurrently, they enhance market liquidity where there is trading in debt instruments. Some companies are not issuing public debt but are borrowing money from banks. Thanks to the credit derivatives, investors are now able to have access to the other counterparties or markets which were previously publicly inaccessible.
- Potentially lower transaction costs - one transaction dealing with credit derivatives usually can replace two or more transactions on a prompt stock exchange.
- Solving problems of inefficiency connected with regulatory barriers. This is especially important for banks. Banks have been using, for a long time now, credit derivatives for purpose of harmonising required capital adequacy rates for business operations with their economic capital, which serves as provisioning for unexpected losses incurred from credit risk.
- Higher credit risk transparency. Credit derivatives are impacting an improved transparency in the credit risk valuation. Prior to the introduction of credit derivatives, determining credit risk value was a complicated job. Credit derivatives have, in time, become more liquid and comprise a broader spectrum of entities, and thus creditors and investors will be in the position to compare pricing of instruments, such as bonds and credits, with credit derivatives. Participants on the financial market may find it useful to have better understanding of the credit value, even if they do not participate in credit derivatives transactions.

Some of the main advantages for buyer and sellers of credit derivatives are presented in the following table.

Tabela 3: Mikroekonomске i makroekonomске prednosti kreditnih derivata

Mikroekonomске prednosti kreditnih derivata	Makroekonomске prednosti kreditnih derivata
Omogućavaju kreditorima i investitorima bolji odabir rizika koje žele da preuzmu, kao i mogućnost transfera rizika koje ne žele.	Mogu da prenesu kreditni rizik na više tržišta i da smanje koncentraciju rizika, na taj način što ga prosleđuju stranama koje žele i koje su bolje pripremljene da preuzmu navedeni rizik.
Dovode do preciznijeg vrednovanja rizika, razdvajanjem kreditnog rizika od drugih rizika.	Upotrebljavaju se u cilju ublažavanja finansijskih šokova u privredi, i samim tim utiču na to da finansijska infrastruktura postane otpornija nego ranije.
Poboljšavaju proces posredovanja kroz povećanje likvidnosti i efikasnosti tržišta.	

## Rizici kreditnih derivata

Iako kreditni derivati imaju mnoge prednosti, primena ovih instrumenata podrazumeva različite propratne rizike, koji su uglavnom vezani za činjenicu da je tržište kreditnih derivata novo i nedovoljno istraženo. Kao glavni rizici kreditnih derivata se mogu izdvojiti sledeći:

- Operativni rizik - odnosi se na rizik da će trgovci ili menadžeri koji upravljaju aktivom nerazumno primenjivati kreditne derivate. Do operativnog rizika može doći usled grešaka u procedurama ili ukoliko učesnik na tržištu započinje veliki broj transakcija. Može da se dogodi da trgovac započne transakcije bez zvaničnog ovlašćenja. Takođe, zbog velikog broja transakcija i ljudske greške može doći do zakašnjenja u dokumentovanju transakcija nakon što su ugovorene. S obzirom na to da su kreditni derivati ugovori koji se ne prikazuju na bilansu stanja, može da dođe do prekomerne izloženosti kreditnom riziku, a da to ne bude prikazano na bilansu stanja.
- Rizik da druga strana neće ispuniti obavezu - to je rizik da druga strana u kreditnom derivativnom ugovoru neće izvršiti svoje obaveze. Kupac kreditne zaštite može kupovinom kreditnog derivata da uvede nov oblik kreditnog rizika u portfolio - rizik da druga strana neće ispuniti obavezu. Da bi

kupac kreditne zaštite ostvario gubitak, dve stvari moraju da se dogode: da nastane kreditni događaj vezan za kreditnu aktivu u osnovi, i da prodavac kreditne zaštite ne izvrši svoje obaveze prema kupcu kreditne zaštite.

Rizik da druga strana neće ispuniti obavezu je prisutan u većini finansijskih ugovora, pa je posebno važno da se tom riziku posveti pažnja. U skladu sa rastućom ulogom hedž fondova na tržištu kreditnih derivata, i činjenicom da hedž fondovi za trgovce predstavljaju rizičnu drugu ugovornu stranu, rizik da druga strana neće ispuniti obavezu sve više dobija na značaju.

- Rizik likvidnosti. Kreditni derivati predstavljaju ugovore između dve strane kojima se trguje vanberzanski, i samim tim su nelikvidni.

Oni ne odgovaraju svim učesnicima na finansijskom tržištu, i može da se dogodi da prilikom pokušaja prodaje svoje pozicije ugovorna strana u kreditnom derivatu ne bude u mogućnosti da ostvari pravu tržišnu vrednost.

Iako broj trgovaca i količina transakcija stalno rastu, i dalje su relativno mali. Kao posledica toga, pronalaženje druge strane za okončanje ili saldiranje postojeće transakcije može biti komplikovano, posebno ukoliko postoje nepovoljne prilike na tržištu ili ako ugovor sadrži neobične klauzule.

- Rizik modela i rizik određivanja cena. Što je tržište kreditnih derivata postajalo razvijenije, to su matematički modeli koji se primenjuju za određivanje cena kreditnih derivata postajali složeniji. Kompleksni kreditni derivati podrazumevaju primenu kompleksnih modela za vrednovanje i hedžing. Rizik nastanka gubitka usled primene lošeg modela se zove rizik modela. Spomenuti modeli su zasnovani na složenim pretpostavkama vezanim za ekonomski parametre koji se nalaze u osnovi. Prema tome, cene kreditnih derivata su vezane za pretpostavke modela koji se primenjuje. Veoma je važno da cene kreditnih derivata budu tačno određene da bi odražavale rizik koji se nalazi u osnovi.

Primena kreditnih derivata podrazumeva i

Table 2 Advantages for buyers and sellers of credit derivatives

Advantages for buyers of credit derivatives	Advantages for sellers of credit derivatives
Higher market liquidity	Risk management and/or investments hedging
Investment leverage	Boosted efficiency in separating credit risk and time-limited risk management by duration
Opportunity to earn commission	
Diversification of insurance products	Portfolio diversification
Enhanced efficiency through separation of embedded securities and/or goods	Enhanced capital cash flows

Advantages of credit derivatives can be divided into microeconomic and macroeconomic ones, as presented in the following table.

Table 3 Microeconomic and macroeconomic credit rating advantages

Microeconomic credit derivatives advantages	Macroeconomic credit derivatives advantages
Creditors and investors are allowed to have a better selection of risks that they wish to take on, and also the option to transfer risk that they do not wish to hold.	They can transfer credit risk on several markets and reduce risk concentration by transferring it on to those parties willing to take it on and are better prepared to manage the risk in question.
They cause more precise risk valuation by separating credit risk from other risks.	They are used for mitigation of financial shocks and thus impact financial infrastructure to become more resilient than previously.
They improve intermediation process by increasing liquidity and market efficiency.	

## Credit derivatives risks

Although credit derivatives hold many advantages, application of these instruments implies various accompanying risks, which are mainly connected with the fact that the credit derivatives market is a new and not sufficiently explored market. The main credit derivatives risks are the following:

- Operational risk - refers to the risk that traders or managers managing assets will unreasonably apply credit derivatives. Operational risk may occur due to errors in procedures or if a market participant engages in a large number of transactions. It may happen that the trader would start a transaction without official authorisation. In addition, due to a large number of transactions and human error, there may be delays in documenting transactions after they have been contracted. In view of the fact that credit derivatives are contracts which are not on balance sheet, what may happen are excessive credit risk exposures, not stated in the balance sheet.

- The risk of the counterparty defaulting - is the risk that the counterparty in the credit derivative contract will not service its obligations. Credit protection buyer may introduce, through purchase of a credit derivative, a new form of credit risk in the portfolio - a risk of the counterparty defaulting. For the buyer of credit protection to incur losses, two events have to occur: credit event linked with the underlying credit asset, and the credit protection seller defaulting on his obligation to the credit protection buyer. The risk of counterparty defaulting is present in the majority of financial contracts, and it is especially important for this risk to be paid due consideration. In accordance with the growing role of hedge funds on the credit derivatives market, and the fact that hedge funds are for traders a risky contractual counterparty, the risk of the counterparty defaulting is gaining in importance.

- Liquidity risk. Credit derivatives are contracts between two parties used for over-the-counter trading and hence they are not liquid. They are not suitable for all the financial market participants and it may happen that in an attempt to sell its positions, the contracting party in a credit derivative deal would be unable to achieve real market value. Although the number of traders and the amount of transactions are constantly

sledeće rizike:

- Tržišni rizik. Ukoliko je banka uključena u trgovinu kreditnim derivatima tržišni rizik postaje značajan, s obzirom na činjenicu da je određivanje cene instrumenata funkcija kamatnih stopa, oblika krive prinosa, i kreditnog spreda. Prema tome, tržišni rizik ima veliki uticaj na cenu kreditne zaštite. Tršni rizik zavisi i od specifičnog kreditnog derivata koji se primenjuje.
- Rizik rejting agencije. Rejting agencije imaju značajnu ulogu na tržištu kreditnih derivata. S obzirom na kompleksnu prirodu kreditnih derivata, mnogi investitori se oslanjaju na rejting agencije da izvrše procenu kreditnog rizika u određenoj transakciji. Jednodimenzionalna priroda tradicionalnih kreditnih rejtinga može da ih učini nedovoljnim za poređenje rizika korporativnog duga i kreditnih derivata, i da primena iste rejting lestvice za oba rizika bude neadekvatna.
- Rizik saldiranja. Kada dođe do neizvršenja obaveza od strane emitenta, mora da se izvrši saldiranje kreditnih derivata vezanih za dug emitenta. Iako je u interesu svih učesnika na tržištu kreditnih derivata da tržište dobro funkcioniše, njihovi interesi se razilaze u situacijama kada treba da se izvrši saldiranje a neki od njih su kupci zaštite, neki prodavci zaštite, neki bi više voleli da dođe do fizičkog saldiranja, a neki do novčanog saldiranja. Problemi mogu nastati i ukoliko treba da se izvrši istovremeno saldiranje velikog broja ugovora.
- Zakonski rizik. Još od samog nastanka tržišta kreditnih derivata, učesnicima je bilo jasno da, ukoliko tržište želi da ostvari uspeh, među prvim pitanjima mora da se reši zakonski rizik. Učesnici na tržištu su zajedno radili na stvaranju i primeni standardizovane dokumentacije vezane za kreditne derive, sa ciljem da se minimizira uloga zakonskog rizika prilikom određivanja



growing, they still remain relatively small in size. As a consequence, finding the counterparty for completing or netting the existing transaction may be complicated, especially if there are adverse circumstances on the market, or if the contract contains some unusual clauses.

- Modelling risk and pricing risk. As the credit derivatives market developed, so have mathematical models applied on pricing of credit derivatives become increasingly complex. Complex credit derivatives entail application of complex models for valuation and hedging. The risk of losses incurred due to the application of a wrong model is called the modelling risk.

The above mentioned models are based on complex assumptions related to the underlying economic parameters. Concurrently, credit derivatives pricing is related to the model assumptions that are applied. It is very important for the credit

derivative prices to be precisely determined in order to reflect embedded risks.

Application of credit derivatives also implies the presence of the following risks:

- Market risk. If a bank is engaged in credit derivatives trading, market risk becomes significant, in view of the fact that determining the price of instruments is the function of interest rates, yield curve characteristics, and the credit spread. Therefore, market risk has a great impact on the price of credit protection. Market risk depends also on a specific credit derivative which is being applied.
- Rating agencies risk. Rating agencies play an important role on the credit derivatives market. In view of the complex nature of credit derivatives, many investors are relying on the rating agencies to perform assessment of the credit risk in the given transaction. One-dimensional nature of traditional credit rating makes the comparison between a corporate debt risk and a credit derivative risk inadequate, rendering application of the same rating ladder on both of these risks inadequate.
- Settlement risk. In case of defaulting by the issuer, settling of credit derivatives must be made with respect to the issuer's debt. Although it is in the best interest of all the credit derivatives market participants for the market to function properly, their interests diverge in situations when settling is to be done, where some of them are protection buyers, some are protection sellers, and some would rather like to see physical settlement, yet another prefer cash settlement. The problems may arise also if settlement is done simultaneously for a large number of contracts.
- Legal risk. From the very emergence of the credit derivatives market, it was clear to all the participants that if the market was to succeed, among the first questions to be resolved would be the legal risk. Market participants have worked together on the creation and implementation of standardised documentation pertaining to the credit derivatives, with the aim to minimise the role of legal risk in pricing of the contracts.

cena ovih ugovora.

Razvoj tržišta derivata obično prethodi uvođenju zakonske i poreske infrastrukture, a ni kreditni derivati nisu bili izuzetak. Zakonski sistemi se razlikuju u različitim državama, pa samim tim zakon koji je na snazi u jednoj državi ne mora da bude propisan u nekoj drugoj.

U cilju pojašnjenja zakonskih pojmoveva i omogućavanja standardizacije i daljeg razvoja tržišta kreditnih derivata, potrebno je uvođenje standardizovane dokumentacije, što predstavlja glavni fokus ISDA.

- Informativni rizik - nastaje usled asimetričnosti informacija koje mogu biti prisutne na tržištu kreditnih derivata, gde veliki broj investitora predstavlja neke od

najvažnijih učesnika u svetskoj privredi. Do problema može doći ukoliko korisnik kredita pruži kreditoru privilegovanu informaciju o ceni, koja nije javno dostupna. U skladu sa tom informacijom, kreditor može da izvrši hedžing svoje pozicije.

- Sistemski rizik - rizik da će se, u slučaju neizvršenja od strane jedne finansijske institucije, stvoriti domino efekat koji će dovesti do neizvršenja od strane ostalih finansijskih institucija, i samim tim ugroziti stabilnost finansijskog sistema. Postoje mišljenja da kreditni derivati, preraspoređuju kreditni rizik ali ga zapravo ne umanjuju, i na taj način dovode do povećanja sistemskog rizika.

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Derivatives market development usually precedes the introduction of the legal and taxation infrastructure, and neither was the credit derivatives market an exception. Legal systems differ from state to state hence legal framework in force in one country does not necessarily have to be in place in some other.

For purpose of clarifying legal terms and allowing for standardisation and further development of the credit derivatives market, it was necessary to introduce standardised documentation, which was the main focus of the ISDA.

- Information risk - occurs due to asymmetric information that may be present on the credit derivatives market where a large

number of investors represents some of the most significant players in the world economy. Problems may be encountered if a credit beneficiary offers a creditor some privileged information on the pricing, which is not publicly accessible. Based on such information received, creditor may engage in hedging his position.

- Systemic risk - is a risk that in case of default by one of the financial institutions, a domino effect may be created which would lead to defaulting by the other financial institutions, and thus endanger the financial system itself. There are views that credit derivatives are rearranging credit risk, yet that they are not really reducing it, thus causing an increase in the systemic risk.

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# NESTANDARDNE MERE MONETARNE POLITIKE



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## Rezime

U radu se analiziraju novi mehanizmi vođenja monetarne politike koje centralne banke primenjuju u uslovima globalne finansijske i ekonomske krize. Objasnjavaju se kvantitativne olakšice i ostali slični mehanizmi koji su u upotrebi kod najvažnijih centralnih banaka sveta. Takođe, u radu se objašnjava razlika između klasičnih i nekonvencionalnih mera koje one imaju na raspolaganju. Kroz komparativnu analizu, dolazi se do zaključka da centralne banke primenjuju nestandardne mere kako bi uticale na ekspanzivnost monetarne politike i stimulisanje ekonomskog rasta.

**Ključne reči:** monetarna politika, centralna banka, kvantitativne olakšice, finansijska aktiva

JEL: E52, E58, E60

# NON-STANDARD MEASURES OF MONETARY POLICY

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## Summary

The paper analyzes new mechanisms of carrying out a monetary policy, which the central banks have been implementing in times of the global financial and economic crisis. The paper elaborates on quantitative easing and other similar mechanisms used by the most important central banks in the world. In addition, the paper explains the difference between the classic and unconventional measures at their disposal. By means of a comparative analysis, the paper reaches a conclusion that central banks have been implementing non-standard measures in order to facilitate the expansionary monetary policy and stimulate the economic growth.

**Key words:** monetary policy, central bank, quantitative easing, financial assets

**JEL:** E52, E58, E60

## Uvod

Nakon pojavljivanja prvih naznaka globalne finansijske krize 2007. godine i njenog intenziviranja godinu dana kasnije (propast jedne od najvećih investicionih banaka - *Lehman Brothers*), stvaraju se nove okolnosti koje prepostavljaju uvođenje nestandardnih i nekonvencionalnih mera monetarne politike najznačajnijih centralnih banaka sveta. Rešavanje pitanja nedovoljne međunarodne likvidnosti i podsticanje slabe agregatne tražnje podrazumevalo je uspostavljanje novih mehanizama koje bi centralne banke imale na raspolaganju u okviru svojih instrumenata. Nakon septembra 2008. godine i pomenutog bankrotstva, dolazi do značajnog povećanja nesigurnosti i panike na finansijskim tržištima, naročito na tržištima novca. Spredovi kamatnih stopa na evropskom, američkom i britanskom tržištu dostigli su nezabeležene razmere dok je, s druge strane, obim transakcija drastično opao (posebno poslovi sa terminskim transakcijama). Efektivnost transmisionih mehanizama monetarne politike dovedena je u pitanje s obzirom da su akteri na finansijskim tržištima dovedeni u poziciju „zamke likvidnosti“ (*liquidity trap*)<sup>1</sup>.

Navedene okolnosti zahtevale su brzu i odlučnu reakciju monetarnih vlasti. Pored vođenja ekspanzivne monetarne politike tradicionalnim instrumentima (kao što je npr. smanjivanje referentnih kamatnih stopa), centralne banke su predstavile set tzv. nestandardnih mera kako bi se adekvatno prilagodile aktuelnim dešavanjima. Mehanizam i forme ovih mera se donekle razlikuju među centralnim bankama ali, uprkos tome, sve teže istovetnim ciljevima - podršci finansijskim tržištima i sprečavanju urušavanja finansijskog sistema koji bi srednjoročno zapretio makroekonomskoj i cenovnoj stabilnosti. Različitost u „dizajnu“ mera centralnih banaka, koje su prvenstveno bile aktuelne krajem 2008. i početkom 2009. godine zavisila je od nekoliko faktora: same strukture dotadašnjih

standardnih mera monetarne politike, veličine bilansa centralnih banaka i strukture finansijskog sistema regiona u kojem se nalazi određena zemlja.

Odvodenost standardnih od nestandardnih mera monetarne politike eksplisitno je prikazana kroz njihovo delovanje na finansijskim tržištima, naročito ukoliko se uporedo prate dešavanja pre i za vreme globalne finansijske tj. ekonomске krize. Mehanizam standardnih mera operacija na otvorenom tržištu prilično je poznat i brojna naučna literatura analizira njihov uticaj na realnu ekonomiju i nivo cena. Kada je reč o nestandardnim mera, situacija je malo drugačija. One se, po svojoj prirodi, nalaze izvan regularnog opusa monetarnih delovanja i kao takve nameću potrebu njihovog daljeg analiziranja i potrebne naučne zasnovanosti. Mnoge od nestandardnih mera koje su primenjene 2007. i 2008. godine predstavljaju modifikaciju postojećih instrumenata i procedura korišćenih u monetarnoj politici. Te modifikacije su implicirale promene u ulozi samih centralnih banaka: od posrednika na međubankarskom tržištu novca preko držalaca i portfolio menadžera pa sve do zajmodavca u krajnjoj instanci.

## Kvantitativne olakšice

Najzastupljenije i najčešće korišćene nestandardne mere monetarne politike svakako predstavljaju tzv. kvantitativne olakšice (*quantitative easing*). U situacijama kada tradicionalni instrumenti nemaju više uticaja na makroekonomski agregati jer je referentna kamatna stopa dospila najniži mogući nivo a istovremeno nema daljeg ekonomskog stimulansa, centralne banke preuzimaju drugačije mere. Naime, one kupuju različite oblike finansijske aktive od komercijalnih banaka i drugih (ne)finansijskih institucija kreiranjem dodatne novčane mase kako bi ubrzgale „svež“ novac u finansijske tokove. Ovakva mera se razlikuje od uobičajne kupoprodaje državnih hartija od vrednosti kako

<sup>1</sup> „Zamka likvidnosti“ je situacija opisana u Kejnzijskoj ekonomiji koja se javlja u slučaju kada ekspanzivna monetarna politika (povećanje novčane mase u bankarskom sektoru) nema efekata na smanjenje kamatnih stopa i konsekventno na stimulisanje ekonomskog rasta. Njena karakteristika su veoma niske kamatne stope (blizu nule) i fluktuacije u monetarnoj bazi koje se ne „preslikavaju“ na opšti nivo cena.

## Introduction

After the first indications of the global financial crisis in 2007 and its intensification one year later (the bankruptcy of one of the largest investment banks - *Lehman Brothers*), new circumstances were generated, which called for the implementation of non-standard and unconventional measures of monetary policy by the most significant central banks in the world. Addressing the issue of insufficient international liquidity and boosting the weak aggregate demand implied the establishment of new mechanisms that would be at the central banks' disposal within the scope of their instruments. After September 2008, in the aftermath of the mentioned bankruptcy, the financial market, in particular, money markets have been hit by a considerable increase in insecurity and panic. Interest rate spreads at the European, US and UK markets reached the unprecedented levels, whereas, on the other hand, the volume of transactions drastically fell (especially when it comes to forward transactions). Effectiveness of transmission mechanisms of monetary policy was brought into question given that the financial market players ended up in the position of a "liquidity trap"<sup>1</sup>.

Such circumstances called for a swift and decisive reaction of monetary authorities. In addition to carrying out expansionary monetary policy by means of traditional instruments (including, for instance, reduction of reference interest rates), the central banks presented a set of the so-called non-standard measures in order to adequately adjust to the current developments. The mechanism and forms of these measures somewhat differ among the central banks involved, but, despite this, they all strive towards the same objectives - support to the financial markets and prevention of the financial system's disruption, which would in the mid term threaten the macroeconomic and price-related stability. The differences in the "design" of the central banks' measures,

which were mostly topical in late 2008 and early 2009, depended on several factors: structure itself of the present standard monetary policy measures, balance sheet size of the concerned central banks, and structure of the financial system of the region in which a certain country was located.

The separateness of standard and non-standard measures of monetary policy has been explicitly demonstrated through their effects on the financial markets, especially if one follows in parallel the development before and during the global financial, i.e. economic crisis. The mechanism of standard measures of open market operations is rather familiar and many scientific reference books analyze their impact on real economy and the price level. When it comes to non-standard measures, however, the situation is somewhat different. By their nature, they are located outside the regular scope of monetary actions and, as such, impose the need for their further analysis and required scientific justifiability. Many non-standard measures implemented in 2007 and 2008 represent a modification of the existing instruments and procedures used in monetary policy. These modifications implied the changes in the role of the central banks themselves: ranging from mediators at the interbank money market through holders and portfolio managers to lenders of the last resort.

## Quantitative Easing

The most widespread and most frequently used non-standard measure of monetary policy is by all means the so-called *quantitative easing*. In situations when traditional instruments no longer have impact on macroeconomic aggregates because the reference interest rate reached its lowest possible level, and at the same time there is no other economic stimulus, central banks undertake a different set of measures. Namely, they purchase various forms of financial assets from commercial banks and other (non)financial institutions,

<sup>1</sup> "Liquidity trap" is a situation described in Keynesian economics, occurring when expansionary monetary policy (increase in money supply in the banking sector) has no effect on the reduction of interest rates and, consequently, on the stimulation of economic growth. Its characteristics are extremely low interest rates (approaching zero) and fluctuations in the monetary base which are not "mirrored" in the general level of prices.

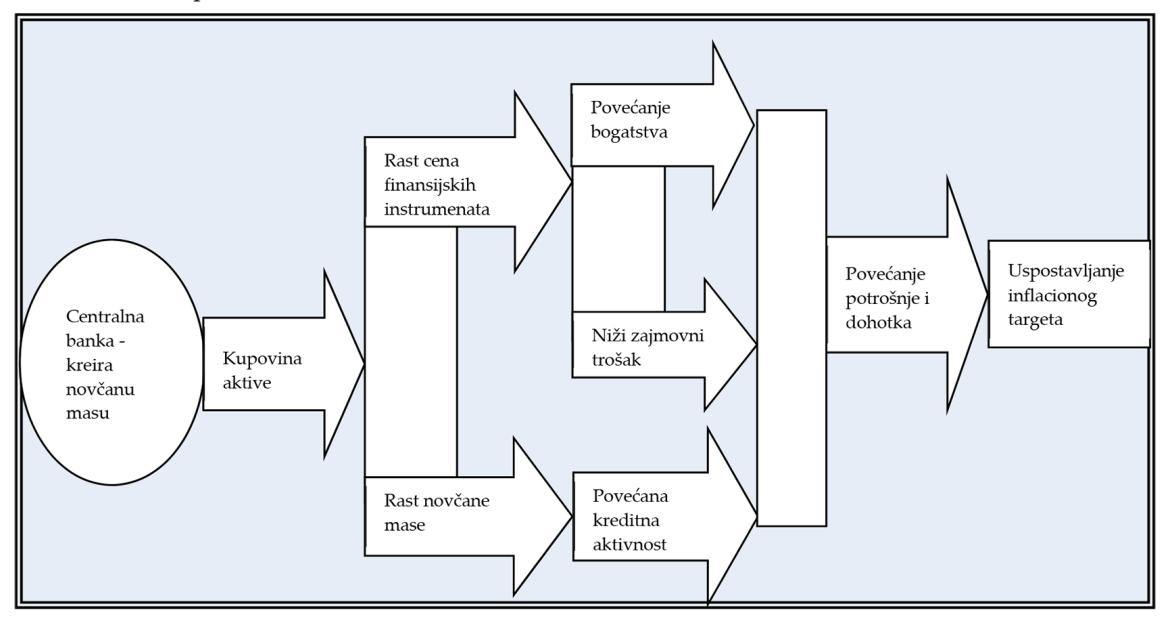
bi se uticalo na visinu referentne kamatne stope. Kvantitativne olakšice povećavaju višak rezervi banaka i utiču na povećanje cena finansijske aktive, smanjujući istovremeno njihov prinos (Elliot, 2009).

Za razliku od operacija na otvorenom tržištu gde se akcenat stavlja na kratkoročne državne zapise, centralne banke prilikom primene kvantitativnih olakšica kupuju dugoročnije državne obveznice kako bi uticale dalje na obaranje dugoročnih kamatnih stopa na prinosnoj krivi (u pomenutim situacijama kada su kratkoročne kamatne stope blizu nule ili na nuli, klasična monetarna politika ne može ih dalje obarati na duži rok). Na koji način funkcioniše proces primene kvantitativnih olakšica?

Direktno ubrizgavanje novca od strane centralne banke u finansijski sistem, kupujući prvenstveno državne hartije, može imati različite efekte (Šema 1). Prodavci finansijske aktive dolaze do viška novčanih sredstava koje, sledstveno, mogu trošiti i time pokretati dalju ekonomsku aktivnost. Alternativno, oni mogu kupovati drugu finansijsku aktivan, kao što su

akcije ili korporativne hartije. Na taj način utiče se na povećanje cena finansijskih instrumenata i njihovi vlasnici postaju bogatiji. Vlasništvo može biti direktno ili posredno, preko udela u određenim intermedijarnim finansijskim institucijama kao što su npr. privatni penzioni i investicioni fondovi. Povećanje cene finansijskih instrumenata istovremeno znači i manji prinos što utiče na niži zajmovni trošak za privredu i stanovništvo. Time se daje dalji podstrek povećanju potrošnje. S druge strane, banke se nalaze u poziciji viška rezervi koje u većoj meri mogu plasirati svojim komitentima i na taj način povećati svoju kreditnu aktivnost. Međutim, postavlja se pitanje da li će poslovne banke adekvatno reagovati ili će nerado davati kreditne zajmove i time zadržavati višak novca u svojim rezervama. Upravo iz tih razloga, centralne banke mogu obavljati proces kvantitativnih olakšica i sa drugim finansijskim institucijama u koji uključuje kupovinu različitih korporativnih hartija, o čemu će biti reči u sledećim poglavljima.

Šema 1: Proces primene kvantitativnih olakšica



Izvor: Rad autora

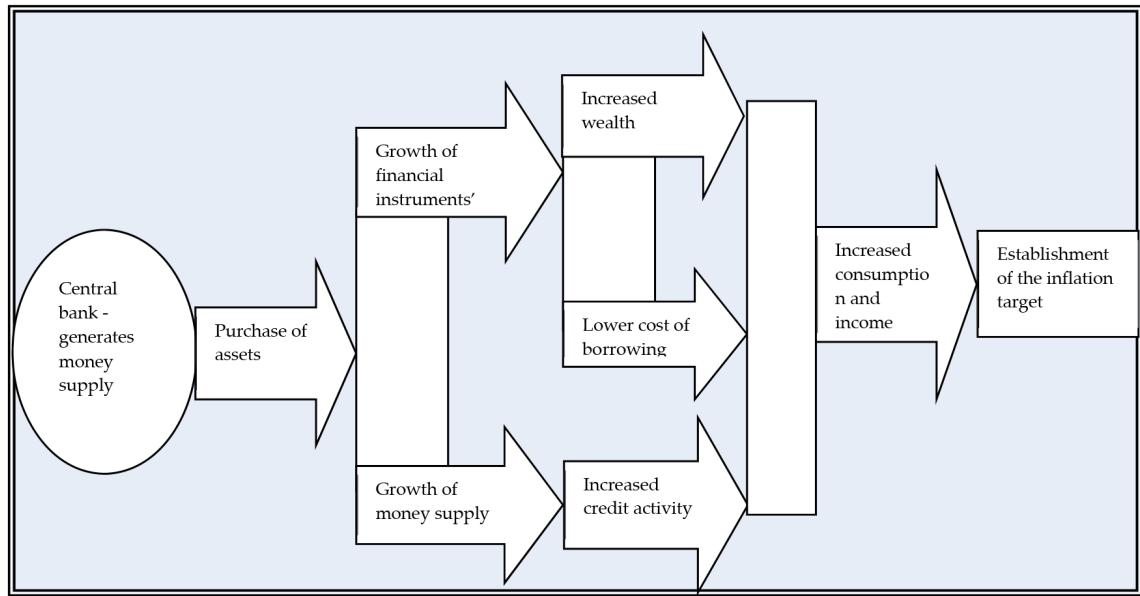
thus generating additional money supply in order to inject "fresh" capital into the financial flows. This measure differs from the typical buying and selling of government securities with a view to impacting the reference interest rate. Quantitative easing increases the surplus of banks' reserves and causes an increase in financial assets prices, at the same time reducing their returns (Elliot, 2009).

As opposed to open market operations where the focus is on short-term T-bills, when implementing quantitative easing central banks purchase long-term government bonds in order to impact additional reduction of long-term interest rates on the revenue curve (in the mentioned situations when short-term interest rates are close to zero or zero, the classic monetary policy can no longer reduce them in the long run). How does the process of quantitative easing implementation actually work?

Direct injection of capital into the financial system by the central bank, through purchasing mostly government securities, may have various effects (Diagram 1). The sellers of financial assets acquire a surplus of cash which, consequently, they may spend, thus triggering further

economic activity. Alternatively, they may purchase other financial assets, such as shares or corporate securities. This results in a growth of prices of financial instruments, increasing the wealth of their owners. Ownership may be direct or indirect, through a share in certain intermediary financial institutions, such as, for instance, private pension and investment funds. Growth of financial instruments' prices also implies lower revenues, which in turn leads to the lower borrowing costs for the corporate and retail sectors. This additionally boosts the consumption. On the other hand, the banks are in the position to hold a surplus of reserves, which to a large extent they can extend to their clients, thus enhancing their lending activity. However, the question is whether commercial banks would react adequately or whether they would be unwilling to extend loans, thus keeping the surplus of money as part of their reserves. This is exactly why central banks may conduct the process of quantitative easing with other financial institutions as well, which would then involve the purchase of various corporate securities. More details on this can be found in the following chapters.

Diagram 1: Quantitative easing implementation process



Source: Author

## Oblici i terminologija nestandardnih mera

Kada se govori o nestandardnim mera, javlja se problem u različitoj nomenklaturi i nekonzistentnoj terminologiji s obzirom da je reč o višestrukim modalitetima njihove primene. Nedoumice prvenstveno postoje između pojmove „kvantitativnih olakšica“ i „kreditnih olakšica“. Međutim, ne postoji opšte prihvaćena definicija ova dva pojma. U prilog tome стоји činjenica da se upravo ti različiti modaliteti ne mogu svesti na samo dva pojma.

Centralna banka Japana (*Bank of Japan - BoJ*) je između 2001. i 2006. godine koristila različite nestandardne mere naslovljene kao kvantitativne olakšice<sup>2</sup>. Ključna osobenost ovog pristupa bila je u stvaranju viška rezervi komercijalnih banaka, kupujući prvenstveno državne obveznice. S druge strane, predsednik Federalnih Rezervi (*Federal Reserve System - FED*) Ben Bernanke je okarakterisao program koji treba da odgovori na aktuelnu finansijsku krizu 2008-2009. godine kao paket mera kreditnih olakšica. Po njemu, i jedna i druga mera imaju zajedničku karakteristiku povećanja bilansa banaka. Ono što ih razlikuje jeste stanovište da se kod kvantitativnih olakšica fokus stavlja na veličinu rezervi banaka, koje predstavljaju pasivu za centralnu banku dok je, s druge strane, struktura zajmova i hartija na strani aktive nebitna. Primenujući politiku kreditnih olakšica, struktura aktive FED-a dalje utiče na kreditne uslove za stanovništvo i privredni sektor (Bernanke, 2009). Vremenom se ustalilo stanovište po kojem se ova dva oblika nestandardnih mera međusobno razlikuju u

zavisnosti od tipa finansijske aktive koja se koristi u samom procesu. Tako kreditne olakšice ne podrazumevaju povećanje novčane mase po osnovu kupovine državnih obveznica, već se odnose na aktivu privatnog sektora, kao što su korporativne obveznice i različite hipotekarne hartije od vrednosti. To je naročito došlo do izražaja u jeku finansijske krize i to prvenstveno delujući na hipotekarna tržišta. Tako je FED 2010. godine otkupio 1,5 hiljada milijardi dolara vredne hipotekarne založnice (*MBS - mortgage-backed securities*), čime je povećao novčanu masu na sličan način kao sa državnim obveznicama (Thornton, 2010). Evropska centralna banka (*European Central Bank - ECB*) izbegava upotrebu ova dva pojma, već se koristi tzv. pojačanom kreditnom podrškom (*enhanced credit support*) koja objašnjava povećanje njenog bilansa i viška rezervi u bankarskom sektoru evrozone.

Pored kvantitativnih i kreditnih olakšica, vremenom su se uspostavile i kvalitativne olakšice. Kod kvantitativnih olakšica, akcenat se stavlja na znatno uvećanje bilansa centralnih banaka prvenstveno kroz povećanje viška rezervi komercijalnih banaka, gde je struktura portfolija sa stanovišta rizika i likvidnosti nepromenjena. Centralne banke raspolažu konvencionalnom aktivom u koju uglavnom spadaju državne obveznice različitih rokova dospeća. Kod kvalitativnih olakšica ne dolazi do promene u veličini bilansa, ali se njegova struktura menja u pravcu manje likvidnih i rizičnijih finansijskih instrumenata (Slika 1). U pitanju su različiti oblici finansijske aktive privatnog sektora koji utiču na pojavu kreditnog rizika sa kojim se suočavaju centralne banke.

<sup>2</sup> Treba imati u vidu da se u početku takve mera nigde nisu zvanično predstavljale kao kvantitativne olakšice, već su ih uglavnom koristili kritičari Centralne banke Japana i njene monetarne politike

## Forms and Terminology of Non-standard Measures

When discussing the non-standard measures, the problem occurs concerning the different nomenclature and inconsistent terminology, given that there are multiple modalities of their usage. The dilemmas are particularly present when it comes to the terms "quantitative easing" and "lending facilities". However, there have been no generally accepted definitions of these two terms. In favour of this is the fact that these different modalities cannot be reduced to just two terms.

Between 2001 and 2006, the Bank of Japan (BoJ) used various non-standard measures under the heading of quantitative easing facilities<sup>2</sup>. The key feature of this approach was the generation of excess reserves of commercial banks, by means of government bonds purchase. On the other hand, Ben Bernanke, Chairman of the Federal Reserves (FED), referred to the program which should respond to the current 2008-2009 financial crisis as the package of lending facilities measures. According to him, both measures share a common characteristic of increasing the banks' balance sheet. What sets them apart is the position that quantitative easing focuses on the size of the banks' reserves, representing the liabilities for the central bank, whereas, on the other hand, the structure of loans and securities on the asset side remains irrelevant. Through the implementation of lending facilities policy, the structure of the FED's assets further influences the terms and conditions for extending loans to the retail and corporate sectors (Bernanke, 2009). Over time the position was established according

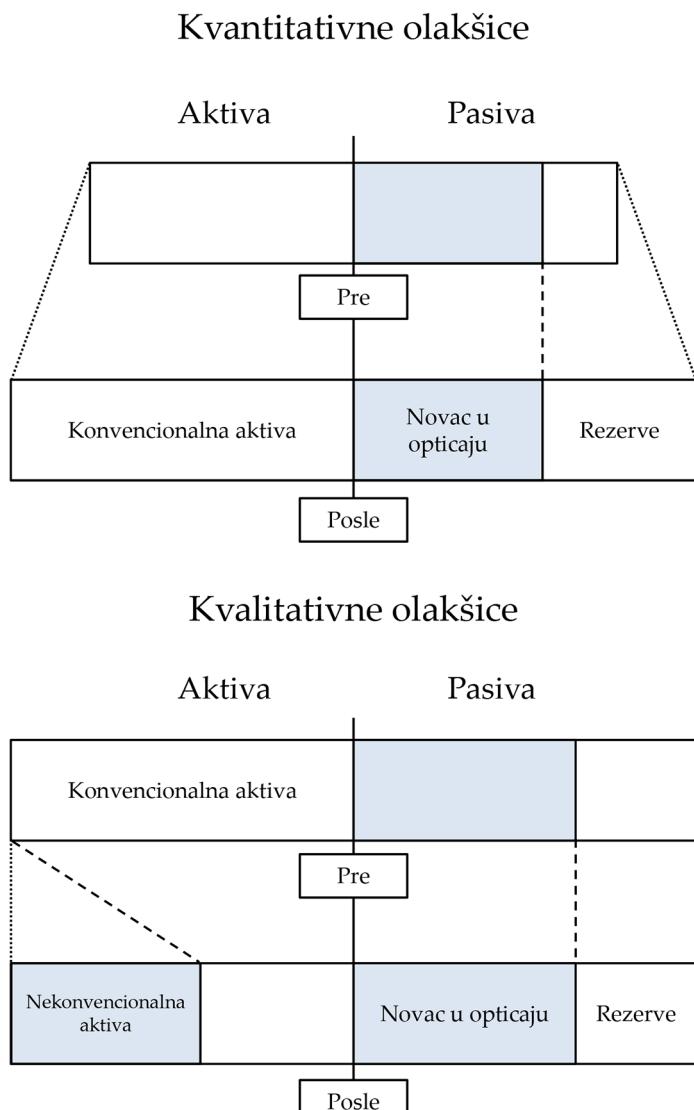
to which these two forms of non-standard measures mutually differ depending on the type of the underlying financial assets used in the process itself. Thus, lending facilities do not imply the increase of money supply based on the purchase of government bonds, but instead relate to the assets of the private sector, such as corporate bonds and various mortgage-backed securities. This was especially prominent in the heat of the financial crisis, with particular effect on mortgage markets. Thus in 2010 the FED purchased mortgage-backed securities worth USD 1.5 thousand billion, whereby it increased the money supply in the similar fashion as with government bonds (Thornton, 2010). The European Central Bank (ECB) avoids using these two terms, and instead uses the so-called *enhanced credit support*, which explains the increase of its balance sheet and the surplus of reserves of the banking sector in the Euro area.

In addition to quantitative easing and lending facilities, qualitative easing has also been introduced over time. In quantitative easing, the focus is put on considerable enlargement of the central banks' balance sheets, mostly through the increase of excess reserves of commercial banks, with the structure of portfolio remaining unchanged in terms of risk and liquidity. Central banks hold conventional assets which predominantly include government bonds with various maturities. In qualitative easing, there are no changes in the balance sheet size, but its structure gets altered towards less liquid and more risky financial instruments (Figure 1). This refers to various forms of financial assets of the private sector, which trigger the occurrence of credit risk the central banks have to face.

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<sup>2</sup> One should bear in mind that at the beginning these measures were nowhere officially presented as quantitative easing, but were mostly used by the critics of the Bank of Japan and its monetary policy.

Slika 1: Struktura bilansa kod kvantitativnih i kvalitativnih olakšica



Izvor: Lenza, Pill and Reichlin (2010), str. 10.

### Inicijalna primena nestandardnih mera

Prvobitnu implementaciju nestandardnih mera monetarne politike nalazimo u Japanu krajem '90-ih i početkom 21. veka. Naime, upotreba originalnog japanskog termina za kvantitativne olakšice (*ryoteki kinyu kanwa*) pojavljuje se u publikacijama Centralne banke Japana (BOJ - *Bank of Japan*) 19. marta 2001. godine gde se ukazuje na novu monetarnu politiku (Shirakwa, 2002). Iskustvo Japana između 1999. i 2006. godine predstavlja pravi primer upotrebe nestandardnih mera.

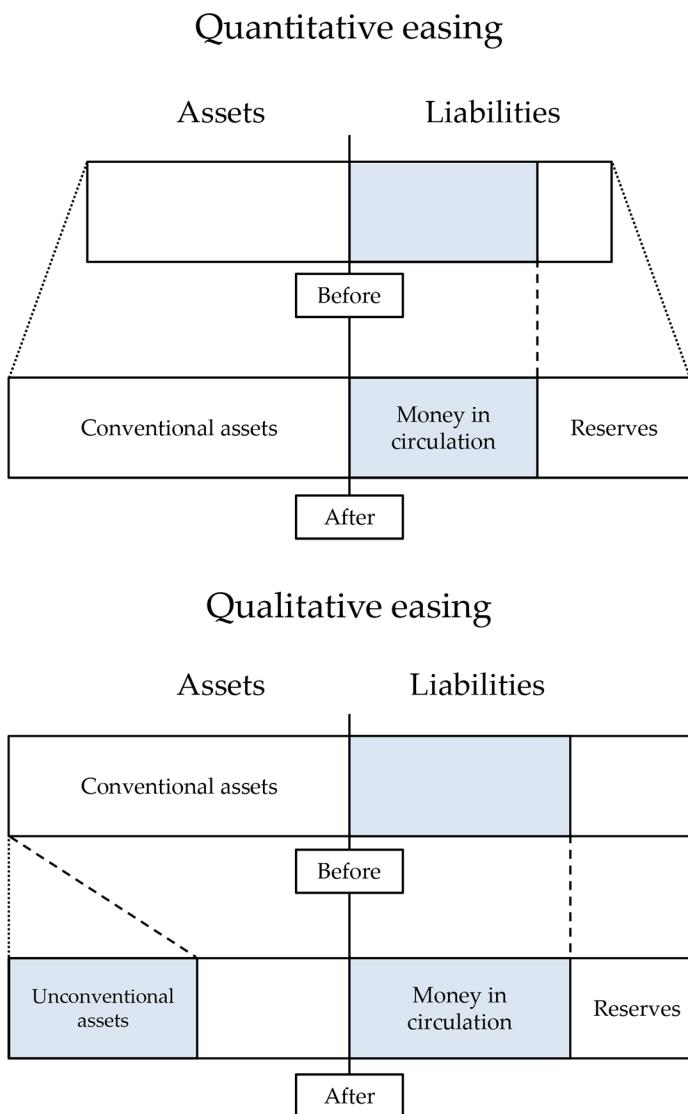
Uzimajući u obzir deflatorne pritiske, BOJ je na početku 1999. godine predstavila politiku „nulte kamatne stope“, obavezujući se da će međubankarsku prekonoćnu kamatnu stopu držati na nuli sve dok postoji zabrinutost oko deflatornog delovanja. Nakon kratkog oporavka ekonomije koji se manifestovao u porastu opštег nivoa cena iznad nule (u trajanju od samo mesec dana), BOJ je u avgustu 2000. godine prestala sa primenom ovakve politike.

Usled usporavanja svetske ekonomije i velikih berzanskih špekulacija i krahova (kao što je bio "Dotcom" mehur sa IT kompanijama), javila se opasnost od globalne recesije. Kako je prekonoćna kamatna stopa i dalje bila blizu nule, uprkos odustajanju od takve politike, BOJ je morala da preduzme nekonvencionalne mere. Na pomenuti datum (19.3.2001.) Banka je predstavila politiku kvantitativnih olakšica, obavezujući se istovremeno da će kamatnu stopu držati na nuli sve dok se nivo cena ne stabilizuje ili ne zabeleži određeni porast. Na početku primene utvrđen je iznos od 5 triliona jena koji će kao višak rezervi biti ubaćen u

finansijski sistem. Pored toga, BOJ je objavila da će povećati kupovinu dugoročnih državnih obveznica. Do samog završetka primene kvantitativnih olakšica 2006. godine, iznos je povećan na 30-35 triliona jena gde se pored finansijskog sektora pomoglo i korporativnom sektoru kako bi se olakšala i njegova kreditna aktivnost (Klyuev, De Imus, Srinivasan, 2009).

Kod stručne javnosti ne postoji jedinstven stav o ispravnosti nestandardnih mera monetarne politike i njihovog uticaja na poboljšanje ekonomskih performansi u Japanu. U prilog tome je činjenica nedovoljne adekvatnosti kapitala u bankarskom sektorу,

Figure 1: Balance Sheet Structure of Quantitative and Qualitative Easing



Source: Lenza, Pill and Reichlin (2010), p. 10.

## Initial Implementation of Non-standard Measures

The initial implementation of non-standard measures of monetary policy occurred in Japan in late 1990s and in early 2000s. Namely, the original Japanese term for quantitative easing (*ryoteki kinyu kanwa*) first appeared in the publications of the Bank of Japan (BoJ) on March 19<sup>th</sup> 2001, when the new monetary policy was introduced (Shirakwa, 2002). The Japanese experience in the period between 1999 and 2006 serves as the true example of non-standard measures implementation. Taking into account

deflationary pressures, in early 1999 BoJ presented its policy of "zero interest rate", obliging to keep the interbank overnight interest rate at zero as long as there is any concern regarding deflationary trends. After a brief recovery of the economy, manifested through the general increase of prices to the level above zero (lasting only for a month), in August 2000 BoJ stopped the implementation of such policy.

Due to the slowing down of the world economy and huge stock exchange speculations and failures (like the "Dotcom" bubble of IT companies), the world was facing a threat of global recession. Given that the overnight interest rate was still close to zero, despite the fact that BoJ gave up this policy, it had to undertake some unconventional measures. On the above mentioned date (19. 3. 2001), BoJ presented its policy of quantitative easing, at the same time obliging to keep the interest rate at zero as long as the price level gets stabilized or records a certain growth. At the beginning of implementation, the amount of 5 trillion yen was determined as a surplus of reserves to be injected into the

financial system. Moreover, BoJ announced that it would increase the purchase of long-term government bonds. Until the very end of quantitative easing implementation in 2006, the amount was increased to 30-35 trillion yen, which, in addition to the financial sector, also helped the corporate sector intensify its credit activity (Klyuev, De Imus, Srinivasan, 2009).

There is no uniform position in the professional circles concerning the justifiability of non-standard measures of monetary policy and their impact on the improvement of economic performance in Japan. This is supported by the fact that there was an insufficient capital

čime je onemogućen pravi efekat mera monetarne politike u pravcu stimulisanja ekonomskog rasta, s obzirom da poslovne banke nisu značajnije povećavale svoju kreditnu aktivnost. S druge strane, nestandardne mere su uticale na povoljnija očekivanja budućih kamatnih stopa i smanjene prinosne krive. Japansko iskustvo je značajno i sa stanovišta izlaska iz primene nestandardnih mera. Nakon zvaničnog okončanja, BOJ je jako brzo mogla da smanji veličinu svog bilansa i viška rezervi ali ne do nivoa koji je bio krajem '90-ih godina. Došlo je do postepenog smanjenja aktive u pogledu državnih obveznica i korporativnih hartija od vrednosti, ali je taj proces prekinut pojavom globalne finansijske krize. Referentna kamatna stopa je neznatno povećana, za 0,5% u godini nakon završetka primene kvantitativnih olakšica.

## Nestandardne mere i globalna finansijska kriza

Od samog početka globalne finansijske krize, najznačajnije centralne banke<sup>3</sup> preuzele su odlučne korake u poboljšanju likvidnosti finansijskog sistema. Njihova prvobitna reakcija bila je da značajno povećaju veličinu monetarnih operacija. Kako bi uticale na rešavanje problema u pojedinim segmentima tržišta, pored intenziviranja u primeni postojećih instrumenata, morale su da primene i nove instrumente. Priroda njihovih aktivnosti može se podeliti u dva značajna vremenska perioda koje razdvaja propadanje investicionih banaka *Lehman Brothers* septembra 2008. godine. Do tog događaja, nestandardne mere odnosile su

se na kvalitativne olakšice, koje prepostavljaju promenu strukture, ali ne i veličine bilansa centralnih banaka. Nakon bankrota *Lehman Brothers*-a došlo je do naglog povećanja bilansa, uz istovremenu promenu njihovih struktura, čime je došlo do kombinacije kvantitativnih i kvalitativnih olakšica (Slika 2).

Može se reći da se mehanizam primene nestandardnih mera razlikovao među najznačajnijim centralnim bankama, iako je cilj za koji su se zalagale bio istovetan. Čini se da je u pravcu stepena ekspanzivnosti najdalje otišao FED koji je primenjivao (i dalje primenjuje) raznovrsne mere velikog obima. On je kupovao državne obveznice i hipotekarne hartije od vrednosti raznih državnih agencija kako bi smanjio prinos i podstakao investitore na poslovanje sa rizičnjom aktivom. Krajnji cilj je bio da se smanji dugoročno zaduživanje, naročito po osnovu hipotekarnih zajmova, kao i da se povećaju bankarske likvidnosne rezerve. FED je takođe uspostavio programe otkupa komercijalnih zapisa direktno od emitentata ili preko investicionih fondova na tržištu novca. U cilju olakšavanja procesa sekjuritizacije, kreiran je TALF program (*Term Asset Backed Securities Lending Facility*) u vrednosti 200 milijardi dolara kako bi se vlasnici hartija od vrednosti sa zalogom aktive<sup>4</sup> podstakli na intenzivniju sekundarnu trgovinu i poboljšanje likvidnosti tog segmenta tržišta (Klyuev et al, 2009). Kroz svoje različite mehanizme, FED nije samo obezbeđivao značajne rezerve likvidnosti za banke, već ih je u određenim slučajevima zaobilazio i na taj način se direktno obraćao zajmotražiocima i investitorima.

<sup>3</sup> Ovde se, pre svega, misli na Federalne rezerve, Evropsku centralnu banku i Centralnu banku Engleske.

<sup>4</sup> ABS (*asset-backed securities*) su sekjuritizovane hartije od vrednosti čija je emisija direktno povezana sa različitim oblicima potraživanja koja se nalaze u njihovo „podlozi“. To mogu biti potraživanja po osnovu kreditnih kartica, studentskih kredita, auto zajmova itd.

adequacy in the banking sector, which made it impossible for the true effect of monetary policy measures to spread, stimulating economic growth, given that commercial banks did not considerably intensified their credit activity. On the other hand, non-standard measures caused some more favourable expectations in terms of future interest rates, and the reduction in the revenue curve. The Japanese experience is also important from the perspective of exiting the implementation of non-standard measures. Upon the official ending, BoJ was very soon able to reduce the size of its balance sheet and the surplus of its reserves, but not to the level from the late 1990s. There was a gradual reduction of assets in terms of government bonds and corporate securities, but this process was terminated due to the outbreak of the global financial crisis. The reference interest rate was slightly increased, by 0.5% in the year after the quantitative easing implementation ended.

## Non-standard Measures and Global Financial Crisis

From the very beginning of the global financial crisis, the most significant central banks<sup>3</sup> undertook some decisive steps in order to boost the liquidity of the financial system. Their initial reaction was to considerably increase the volume of monetary operations. In order to address the problems in certain market segments, apart from intensifying the implementation of the existing instruments, they had to implement some new instruments as well. The nature of their activities may be divided into two significant periods, separated by the bankruptcy of the investment bank *Lehman Brothers* in September 2008. Until

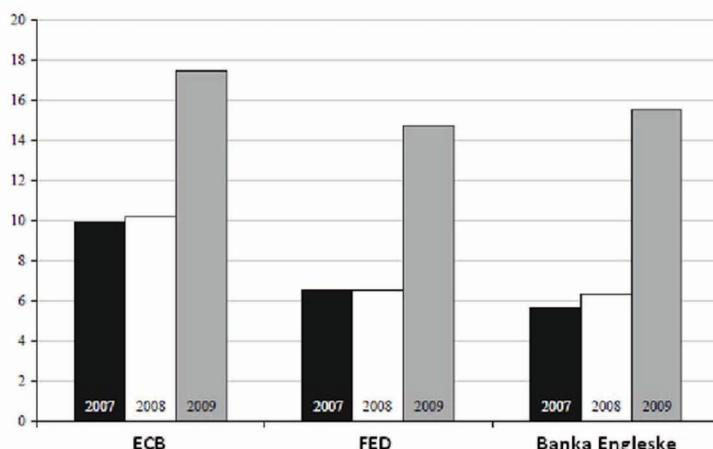
this event non-standard measures referred to qualitative easing, which entailed a change in the structure, but not in the size of the central banks' balance sheets. After *Lehman Brothers* went bankrupt, there was a sudden increase in balance sheets, accompanied by the changes in their structure, which led to a combination of quantitative and qualitative easing (Figure 2).

One may say that the mechanism of non-standard measures implementation differed among the most significant central banks, although the objective they strove towards was the same. It seems that, when it comes to the level of expansibility, the FED went the furthest way, which implemented (and still implements) various measures of a large scope. It purchased government bonds and mortgage-backed securities from different state agencies in order to reduce the revenues and encourage the investors to handle more risky assets. The ultimate goal was to decrease long-term borrowing, especially in respect of mortgage loans, and to increase banks' liquidity reserves. The FED also established the programmes for purchasing commercial papers directly from the issuers or through investment funds at the money market. With a view to facilitating the securitization process, the Term Asset-Backed Securities Lending Facility (TALF) programme was launched, worth 200 billion dollars, in order to encourage the holders of asset-backed securities<sup>4</sup> to conduct the more intensive secondary trading, and to boost the liquidity of this market segment (Klyuev et al, 2009). Through its various mechanisms, the FED not only provided considerable liquidity reserves for the banks, but also in certain cases bypassed them, thus directly approaching borrowers and investors.

<sup>3</sup> This, first and foremost, refers to the Federal Reserves, the European Central Bank and the Bank of England.

<sup>4</sup> *Asset-backed securities (ABS)* are securitized securities whose issuance is directly related to various forms of underlying liabilities to be found in their "base". Those can be liabilities in respect of credit cards, student loans, car loans, etc.

Slika 2: Bilansi centralnih banaka u odnosu na BDP (u %)



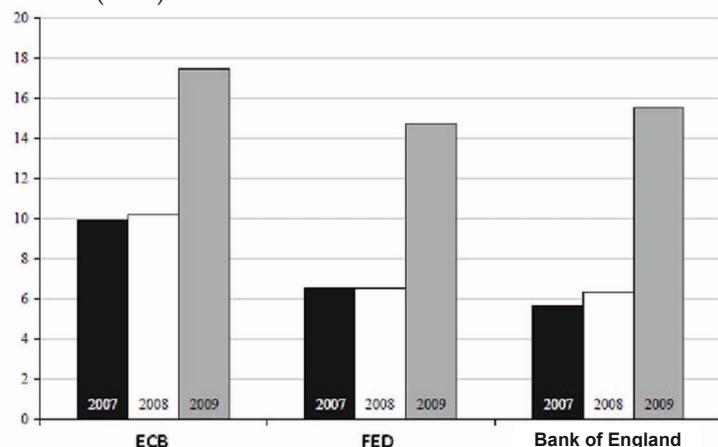
Izvor: Lenza, Pill and Reichlin (2010), str. 19.

Pre nastupanja recesije, FED je u svom bilansu držao trezorske zapise u visini od 800 milijardi dolara. Krajem novembra 2008. godine, počeo je da otkupljuje 600 milijardi dolara hipotekarnih hartija. Do marta 2009, u svom bilansu je posedovao aktivu vrednu 1,75 hiljada milijardi dolara, sačinjenu uglavnom od bankarskih dugova, hipotekarnih založnica i trezorskih zapisa. U junu 2010, proces kvantitativnih olakšica dostigao je svoj vrhunac s obzirom da je aktiva iznosila impozantnih 2,1 hiljade milijardi dolara, što je oko 15% BDP-a SAD-a. Nakon rezultata o oporavku ekonomije, dalja kupovina je zaustavljena ali se ubrzno, u avgustu, nastavila kada se ispostavilo da prognoze nisu obećavajuće. Kako bi se ostvarili postavljeni ciljevi, ustanovljen je iznos aktive u visini od dve hiljade milijardi dolara koji će se održavati u bilansu FED-a. U tom kontekstu, FED je mesečno kupovao 30 milijardi dolara trezorskih zapisa roka dospeća dve do deset godina. U novembru 2010, FED je objavio drugu rundu kvantitativnih olakšica (QE2) u kojoj je sukcesivno, do kraja prve polovine 2011. godine, kupovao 600 milijardi dolara vredne trezorske hartije od vrednosti (Annalyn, 2010). U septembru 2012. godine, FED je doneo odluku

o pokretanju tzv. treće runde kvantitativnih olakšica (QE3) koja će se fokusirati prvenstveno na hipotekarna tržišta. Prema izveštaju FED-a, u cilju podrške jačem privrednom oživljavanju i postizanja optimalnog nivoa inflacije, mesečno će se kupovati 40 milijardi dolara hipotekarnih založnica. FED je saopštio, takođe, da produžava važenje svog obećanja da će držati sadašnje, veoma niske kamatne stope (0%-0,25%), na nivou blizu nule, bar do kraja prve polovine 2015. godine (prvobitno je bilo obećano do kraja 2014).

BoE je primenjivala sličan koncept povećanja svog bilansa kao što je FED radio. Međutim, sam pristup i struktura bilansa su se znatno razlikovali. Najveći deo proširenja kako bi se stimulisala ekonomska aktivnost odnosio se na kupovinu državnih obveznica. Manji procenat kupovine odnosio se na korporativne hartije od vrednosti od privatnog sektora, čime se pravi značajna razlika u odnosu na američki način vođenja monetarne politike (Slika 3). Stimulisanje ekonomske aktivnosti eksplicitno je manifestovano u cilju centralne banke koji targetira inflaciju do 2%. Nakon nekoliko proširenja, BoE je do oktobra 2010. godine kupila 175 milijardi funti vrednu aktivu. U novembru 2010. Monetarni odbor BoE doneo je odluku da se iznos aktive poveća na 200 milijardi funti. U narednom periodu sukcesivno se kupovala dodatna količina hartija od vrednosti da bi, zaključno sa julom 2012. taj iznos porastao na 375 milijardi funti. BoE je objavila da će kupovati maksimalno 70% emisije državnih hartija od vrednosti što znači da će ostalih 30% državnog duga morati da otkupe druge (ne)finansijske institucije.

Figure 2: Balance Sheets of Central Banks in Respect to BDP (in %)



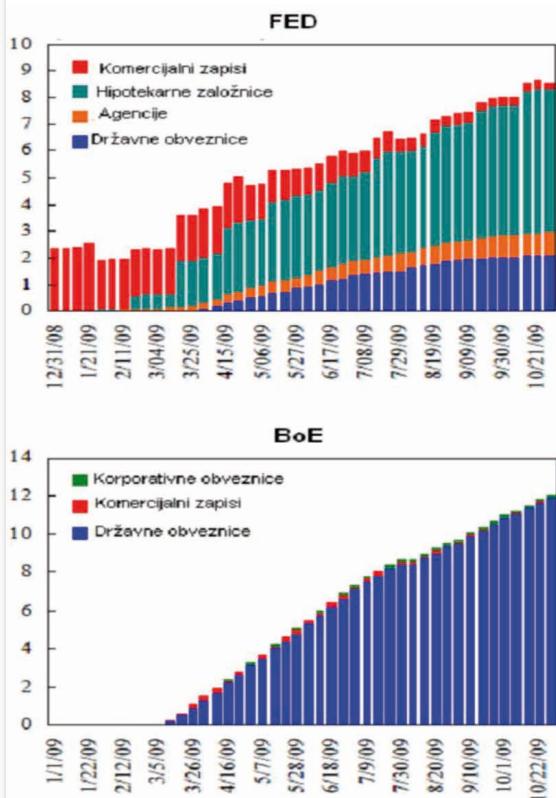
Source: Lenza, Pill and Reichlin (2010), p. 19.

Before the recession, the FED held T-bills in the amount of 800 billion dollars in its balance sheet. Towards the end of November 2008, it started to purchase mortgage-related securities, worth 600 billion dollars in total. By March 2009, in its balance sheet the FED owned the assets worth 1.75 thousand billion dollars, mostly composed of bank debts, mortgage-backed securities and T-bills. In June 2010, the process of quantitative easing reached its peak, given that the assets amounted to the remarkable 2.1 thousand billion dollars, which is about 15% of the USA GDP. Following the indications about the economy's recovery, further purchase was stopped, but soon enough, in August, it was continued when it turned out that the forecasts were not that promising. In order to achieve the set goals, the amount of two thousand billion dollars of assets was established, to be reflected in the FED's balance sheet. In this context, each month the FED purchased T-bills in the amount of 30 billion dollars, whose maturities ranged from two to ten years. In November 2010, the FED announced the second round of quantitative easing (QE2), within which, successively, by the end of the first half of 2011, it purchased 600 billion dollars worth T-bills (Annaly, 2010). In September 2012, the FED passed the decision on launching the so-called third round

of quantitative easing (QE3), which would primarily focus on mortgage markets. According to the FED's report, in order to support the stronger economic revival and achievement of the optimal inflation level, each month it would purchase 40 billion dollars worth mortgage-backed securities. The FED also announced that it had extended the deadline for its promise to keep the present, extremely low interest rates (0%-0.25%) close to zero, at least by the end of the first half of 2015 (initially it was promised by the end of 2014).

The Bank of England (BoE) applied the concept of increasing its balance sheet, similar to the one implemented by the FED. However, the approach itself and the balance sheet structure considerably differed. The largest part of this increase, aimed at stimulating economic activity, concerned the purchase of government bonds. A smaller percentage of the purchase related to corporate securities from the private sector, which made the significant difference in comparison to the American way of conducting monetary policy (Figure 3). Stimulating economic activity was explicitly manifested in the central bank's objective, which targeted 2% inflation. After several expansions, by October 2010 BoE purchased the assets in the amount of 175 billion pounds. In November 2010, the BoE Monetary Board passed the decision for the overall amount of assets to be increased to 200 billion pounds. In the forthcoming period BoE successively purchased additional volumes of securities, only for the overall amount, as of July 2012, to reach 375 billion pounds. BoE announced that it would purchase maximum 70% of the issued government securities, meaning that the remaining 30% of the public debt would have to be bought out by other (non)financial institutions.

Slika 3: Struktura hartija od vrednosti Federalnih rezervi i Centralne banke Engleske (u % u odnosu na BDP)



Izvor: Klyuev, De Imus, Srinivasan (2009), str. 15.

ECB je, kao što je već rečeno, primenjivala koncept pojačane kreditne podrške. Za razliku od FED-a i Centralne banke Engleske, ona je pažljivo povećavala svoj bilans i nije se u potpunosti obavezivala na kupovinu državnih hartija. Do nedavno, ECB nije direktno ubrizgavala „svež“ novac u finansijski sektor, već je olakšavala emisije hartija od vrednosti privatnog sektora. U cilju efektuiranja ekspanzivne monetarne politike, ECB je otišla najdalje kada su u pitanju hartije od vrednosti koje mogu služiti kao zalog u operacijama na otvorenom tržištu. Juna 2009. godine ECB je pozajmila poslovnim bankama 442 milijarde evra na period od godinu dana po kamatnoj stopi od 1% da bi nešto kasnije (u septembru) pozajmila dodatnih 75 milijardi evra. Kako bi pomogla tržištu nekretnina, ECB je otkupila 60 milijardi evra vredne obveznice sa zalogom. Najnoviji podaci govore o sledećoj rundi kvantitativnih olakšica u kojoj je ECB, u cilju pomoći posrnutim ekonomijama evrozone, spremna da pozajmi hiljadu milijardi evra

po kamatnoj stopi od 1%, ali na period od tri godine.

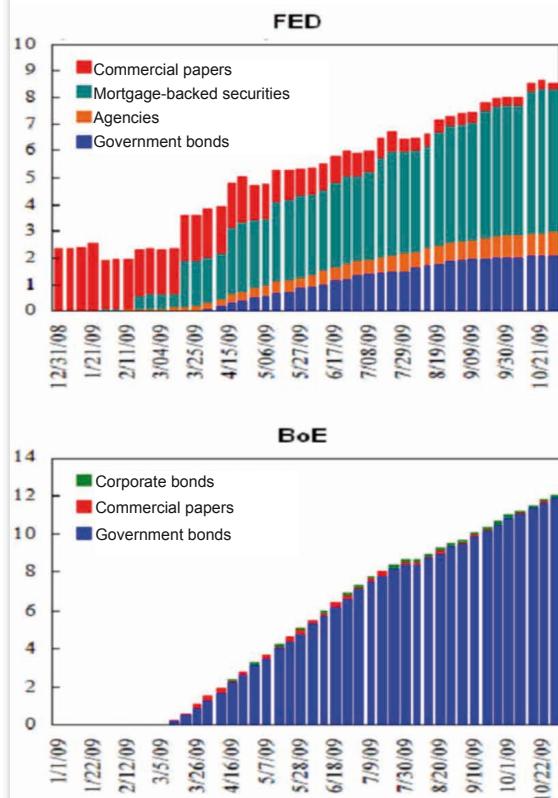
## Zaključak

Aktuelna finansijska kriza, koja ulazi u svoju petu godinu trajanja, uspostavila je nove mehanizme koji treba da odgovore na različite ekonomski probleme. Kombinovano delovanje deflatornih šokova i turbulentacija na finansijskom tržištu uticalo je na centralne banke da se intenzivnije uključe u rešavanje problema, pre svega preko implementacije nestandardnih, nekonvencionalnih mera monetarne politike. Globalna recesija primorala je monetarne regulatore da se striktno pridržavaju politike riskih kamatnih stopa. Pored referentne kamatne stope, koja treba da bude ključni parametar u transmisionom mehanizmu, karakteristike ovih mera su, takođe, i ogromne likvidnosne rezerve usmerene prema bankarskom sektoru, kupovina dugoročnih hartija od vrednosti i direktnе intervencije na određenim segmentima finansijskog tržišta.

Vanredne okolnosti zahtevaju i vanredne mere. Centralne banke najrazvijenijih država proširile su opus svog delovanja i direktnije se uključile u saniranje posledica globalne krize kako bi, zajedno sa merama fiskalne politike, vratile svoje privrede na put ekonomskog rasta i razvoja. Dijapazon nestandardnih mera bitno se razlikuje među najznačajnijim centralnim bankama. Većina njih se oslanjala na svoje likvidnosne operacije, u kojima je ECB prednjačila po pitanju veličine, roka dospeća i kvaliteta kolateralata. Masovna kupovina finansijske aktive najviše je povećala bilanse centralnih banaka u SAD-u i Velikoj Britaniji. Dok se kupovina kod Centralne banke Engleske (*Bank of England - BoE*) pretežno odnosila na državne obveznice, FED je kupovao različite oblike finansijske aktive. Tu se, pre svega, misli na raznovrsne hipotekarne hartije od vrednosti, s obzirom na posledice koje su pretrpela hipotekarna tržišta u SAD-u.

Čini se da su nestandardne mere monetarne politike dale izvesne pozitivne rezultate po pitanju stabilizacije finansijskog sistema na određeno vreme. Međutim, treba biti obazriv kada su u pitanju stvarni efekti s obzirom da je njihovo delovanje najviše pogodovalo

Figure 3: Structure of Securities of the Federal Reserves and Central Bank of England (in respect to BDP, in %)



Source: Klyuev, De Imus, Srinivasan (2009), p. 15.

As already said, the ECB applied the concept of enhanced credit support. As opposed to the FED and the Bank of England, the ECB has been cautiously increasing its balance sheet, without fully obliging to the purchase of government securities. Until recently, the ECB have not directly injected "fresh" capital into the financial sector, but instead facilitated the issuance of securities in the private sector. In order to effectuate the expansionary monetary policy, the ECB has gone the furthest way when it comes to securities that may be used as collateral in open market operations. In June 2009 the ECB lent 442 billion Euros to commercial banks, with one year maturity, at 1% interest rate, and somewhat later (in September), it lent them the additional 75 billion Euros. With a view to helping the real estate market, the ECB bought out 60 billion Euros worth bonds with a pledge. The latest data announce the next round of quantitative easing, within which, in order to assist the fragile economies in the Euro area, the ECB is ready to lend one thousand billion

Euros, at 1% interest rate, but this time with three-year maturity.

## Conclusion

The current financial crisis, which has entered its fifth year of existence, has triggered some new mechanisms that should respond to the various economic problems. The combination of deflationary shocks and financial market turbulences has led the central banks to get more actively involved in addressing the problems, primarily by implementing non-standard, unconventional measures of monetary policy. The global recession forced monetary regulators to strictly abide by the policy of low interest rates. In addition to the reference interest rate, which should serve as the key parameter in the transmission mechanism, what also characterizes these measures are huge liquidity reserves channelled into the banking sector, purchase of long-term securities, and direct interventions in certain segments of the financial market.

Desperate times call for desperate measures. Central banks of the most developed countries have expanded the scope of their activities and got more directly involved in solving the consequences of the global crisis, so that they could, together with fiscal policy measures, bring their economies back to the path of economic growth and development. The array of non-standard measures considerably differs among the most significant central banks. Most of them relied on their liquidity operations, in which the ECB leads the way in terms of the size, maturity and quality of collateral. Mass purchases of financial assets have to the greatest extent increased the balance sheets of central banks in the USA and Great Britain. While the purchases of the Bank of England mostly related to government bonds, the FED purchased various forms of financial assets. This, first and foremost, refers to different mortgage-related securities, given the consequences that the mortgage markets in the USA have suffered.

It seems that non-standard measures of monetary policy have yielded some positive results when it comes to stabilizing the financial system for a certain period of time. However, one should be cautious when it comes to the real

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bankarskoj industriji. Kako bi se izbeglo njihovo propadanje, likvidnosna ubrizgavanja svežeg novca u banke privremeno su smanjila tenzije i očekivani rizik na finansijskim tržištima. Monetarna ekspanzivnost pretpostavila je poboljšanje ekonomskih performansi svih učesnika na finansijskim tržištima ali se, s druge strane, implicitno pomoglo samo finansijskim konglomeratima, dok se kreditna aktivnost prema privredi i stanovništvu zadržala na istom, ili neznatno manjem trošku zajmovnog kapitala. Bez obzira na efektivnost monetarne ekspanzije, već sada se postavlja pitanje kreiranja određenih izlaznih strategija. S obzirom na trenutne globalne ekonomske pokazatelje i postojeću upotrebu nestandardnih mera, akcenat se i dalje stavlja na saniranje posledica i obezbeđivanje preduslova za budući nesmetan ekonomski oporavak.



effects, bearing in mind that their activities have predominantly suited the banking industry. In order to avoid their failure, liquidity injections of fresh capital into banks temporarily alleviated the tensions and expected risks in the financial markets. Monetary expansion assumed the improvement of economic performance of all financial markets participants, but, on the other hand, only financial conglomerates have been implicitly helped, whereas credit activity towards the corporate and retail sectors has remained at the same, or slightly lower cost of borrowed capital. Regardless of the effectiveness

of monetary expansion, the question has already been raised as to the formation of certain exit strategies. Given the current global economic indicators and the existing implementation of non-standard measures, the focus is still being put on resolving the consequences and providing preconditions for the future unhindered economic recovery.

