

IZAZOVI SISTEMA BANKARSKIH REGULATIVA U USLOVIMA SVETSKE EKONOMSKE KRIZE

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Rezime

Krajem XX veka, bankarski sistemi razvijenih zemalja su pretrpeli brojne promene, gde su osnovne dimenzije tih promena bile integracija, deregulacija i globalizacija aktivnosti. Rezultantu delovanja ovih faktora predstavljalo je stvaranje visoko rizično bankarskog okruženja, koje je delovalo kao katalizator efekata svetske ekonomske krize. Ti efekti su u prvi plan istakli slabosti bankarskih sektora i sistema bankarske regulative i istakli potrebu za njihovim redefinisanjem. Stoga su u radu detaljno razrađeni konkretni modeli sistema bankarskih regulativa na prostoru Evropske unije i Sjedinjenih Američkih Država. Pored toga, ukazano je na pravce redefinisanja sistema regulisanja, kao i na relevantne razlike između regulisanja bankarskog poslovanja u Evropskoj uniji i Sjedinjenim Američkim Državama.

Ključne reči: bankarska regulativa, prudenciona supervizija, Vokerovo pravilo, makroprudenciona supervizija, bankarska unija, Bazelski komitet

JEL: G21, G28, F55

UDC 336.711.6 ; 005.332:338.124.4(100)

*original
scientific
paper*

CHALLENGES OF THE BANKING REGULATION SYSTEMS IN THE CLIMATE OF THE WORLD ECONOMIC CRISIS

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Summary

At the end of the 20th century, banking systems of the developed countries have undergone multiple changes, where the basic dimensions of those changes were integration, deregulation and globalisation of activities. The resultant of these factors' actions was the creation of highly risky banking environment, which acted as a catalyst of the world economic crisis effects. These effects brought to the forefront weaknesses of the banking sector and of the banking regulation system, while emphasizing the need for their redefining. Hence this work examines in detail concrete models of the banking regulation systems in the European Union area and in the United States of America. In addition, directions of redefining regulation system were highlighted, and also the relevant differences between banking business regulation in the European Union and in the United States of America.

Key words: banking regulation, prudential supervisions, Walker's Rule, macro-prudential supervision, banking union, Basel Committee

JEL: G21, G28, F55

Paper received: 17.01.2014

Approved for publishing: 10.02.2014

Uvod

Tokom poslednje tri decenije XX veka, bankarski sektori u Sjedinjenim Američkim Državama i Evropskoj uniji pretrpeli su brojne promene koje su uticale na izmene u strukturi bankarskih sistema i aktivnosti bankarskih institucija. Uporedo sa razvojem finansijskih inovacija i promenama u strukturi bankarske institucije su postale izložene brojnim rizicima imanentnim ovim aktivnostima, što je uslovalo promene u načinima regulisanja bankarskih institucija. Značajno mesto priprada i Bazelskom komitetu za bankarsku superviziju, čiji je dosadašnji rad rezultovao veoma važnim dokumentima u ovoj oblasti. Doprinos publikovanih dokumenata rešavanju aktuelnih problema je izuzetan. Međutim, potrebno je istaći da ovi dokumenti nisu vremenski univerzalni, budući da standardi predstavljaju odgovore na tada aktuelne probleme.

Svetska ekonomska kriza, koja je eskalirala na prostoru SAD i velikom brzinom prenela na ostale svetske ekonomije, uslovala je probleme u bankarskom poslovanju. U prvom redu, problemi su se manifestovali kroz nedovoljnu likvidnost i bankrotstvo bankarskih institucija. Stoga su mere nadležnih institucija bile usmerene ka obezbeđenju neophodnih sredstava i očuvanju stabilnosti bankarskih sektora. Takođe, značajan doprinos efekata svetske ekonomske krize ogleda se u isticanju slabosti bankarskih sektora u prvi plan. Na taj način, ukazano je na faktore koji bi u perspektivi negativno uticali na razvoj bankarskih institucija, pa su u takvom okruženju, izmene u sistemima bankarske regulative usmerene ka njihovom predupređivanju.

Imajući u vidu navedeno, predmet istraživanja biće usmeren na analizu koncepta bankarske regulative u uslovima svetske ekonomske krize. Odnosno, u fokusu istraživanja je analiza konkretnih regulatornih rešenja na prostorima Sjedinjenih Američkih Država i Evropske unije. Polazeći od uloge međunarodnih standarda u oblasti bankarskog poslovanja, poseban akcenat u radu biće stavljen na međunarodni aspekt bankarske regulative. Cilj istraživanja je da se izvrši sveobuhvatna analiza bankarskog regulisanja u EU i SAD u uslovima svetske ekonomske

krize. Ključna hipoteza od koje su polazi glasi: Pod uticajem svetske ekonomske krize razlike u načinu regulisanja bankarskih institucija u SAD i EU postaju zanemarljive. U istraživanju će, imajući u vidu složenost problema, biti korišćen odgovarajući skup metoda i tehnika koje će omogućiti utvrđivanje relevantnosti prikazane hipoteze.

Pored uvoda i zaključka, rad je strukturiran u 4 dela. Na osnovu iznetih predmeta i cilja istraživanja, kao i ključne hipoteze u radu će najpre biti predstavljen koncept bankarske regulative, uz isticanje osnovnih elemenata i razradu relevantnih pitanja. Budući da su se elementi bankarskog regulisanja u predkriznom periodu razlikovali između EU, s jedne strane i SAD, s druge strane, neophodno je ukazati na njihove specifičnosti. Nakon toga, u trećem delu rada, koncept bankarskog regulisanja biće analiziran u kontekstu međunarodnih standarda relevantnih za poslovanje bankarskih institucija. U četvrtom delu rada, predstavljeni su izazovi koji su se u uslovima svetske ekonomske krize nalazili pred regulatorima u SAD i EU. Na kraju rada biće dati zaključci o promenama u okviru koncepta bankarskog regulisanja u uslovima svetske ekonomske krize.

Koncept bankarske regulative

Banke su finansijske institucije koje imaju veliki značaj za funkcionisanje finansijskog sistema. S jedne strane, banke su zajmodavci velikom broju učesnika kojima su potrebna finansijska sredstva. S druge strane, banke su veoma značajni učesnici platnih sistema i na taj način doprinose efikasnom funkcionisanju celokupne privrede. Sama priroda bankarskih aktivnosti u uslovima neizvesnosti, povećane konkurencije i nestabilnosti finansijskih tržišta dovela je do povećanja rizika u njihovom poslovanju. Karakteristike bankarskih plasmana, u uslovima visokih tržišnih neizvesnosti, takođe mogu uzrokovati visoke gubitke bankarskih institucija. Zbog nepoverenja u poslovanje banaka i nedostatka informacija o kvalitetu plasmana banaka, deponenti mogu izazvati bankarsku paniku, koja zbog prirode bankarskog poslovanja, može dovesti do novih bankrotstava i stvaranja sistemske opasnosti. Stoga je postojanje

Introduction

During the last three decades of the 20th century, banking sectors in the United States and in the European Union have undergone multiple changes in the structure of the banking systems and activities of banking institutions. Together with the development of financial innovations and changes in the structure, banking institutions have become exposed to numerous risks immanent for these activities, which caused changes in the manner in which banking institutions are regulated. An important place here belongs to the Basel Committee for Banking Supervision, whose past work has resulted in very important documents in this field. Contribution of published documents to the solution of actual problems is an outstanding one. However, it is necessary to point out that these documents were not universal in time, as the standards offered answers to problems that were imminent and pertinent at the time of their publication.

The world economic crisis, which had escalated in the USA area and had very swiftly spilled over to the other world economies, caused problems in the banking business. Primarily, the problems were manifested through insufficient liquidity and bankruptcy of banking institutions. Hence the measures of competent institutions were aimed at providing necessary funds and preservation of stability of the banking sector. In addition, an important impact of the world economic crisis effects was reflected in pushing to the forefront weaknesses of the banking sectors. In this manner, factors were identified that could in the future have a negative effect on the development of banking institutions, and in such an environment, changes in the banking regulation systems were directed towards their prevention.

In view of the above stated, the subject of this research will be focused on the analysis of the banking regulation concept in the climate of the world economic crisis. In other words, the focus of research is the analysis of concrete regulatory solutions in the United States area and that of the European Union. Starting with the role of international standards in the field of banking operations, special accent in this work will be placed on the international aspects of the

banking regulatory framework. The objective of this research is to make a comprehensive analysis of the banking regulation in the EU and the US, in the climate of the world economic crisis. The crucial and the starting hypothesis read as follows: Under the impact of the world economic crisis the differences in the manner of regulating banking institutions in the US and the EU are becoming negligible. In this research, bearing in mind the complexity of the problem, what will be used is an adequate set of methods and techniques that will help determine the relevancy of the presented hypothesis.

In addition to the Introduction and Conclusions, the work is structured in four parts. On the basis of the above stated subject and objectives of this research, and the key hypothesis, the work firstly presents the concept of the banking regulation while highlighting the basic elements and elaborating the relevant issues. As the elements of the banking regulatory framework in the pre-crisis period have differed between the EU, on the one hand, and the USA on the other, it is necessary to point out at their specific features. Thereupon, in the third part of the work the concept of banking regulation will be analysed in the context of international standards relevant for the operation of banking institutions. In Part Four, challenges are presented that were, in the climate of the world economic crisis, facing regulators both in the USA and in the EU. The paper will end with the conclusions being given on the changes in the concept of the banking regulatory framework in the climate of the world economic crisis.

Banking regulation concept

Banks are financial institutions that have a great significance for the functioning of the financial system. Banks, on the one hand, are the lenders to a great number of stakeholders that are in need of financial resources. On the other hand, banks are very important participants in the payment systems and in this way are contributing to the efficient functioning of the entire economy. The nature itself of the banking activities, in the circumstances of uncertainty, growth of competition and instability of the financial markets, has brought about the rise of risks in their operations. Characteristics of

adekvatnog sistema regulisanja preduslov efikasnog funkcionisanja bankarskih sistema i čitave ekonomije. Uz to, kako ističu Casu i saradnici (2006) moguće je razlikovati sistemsku i prudencionu regulaciju. Sistemska regulacija se odnosi na očuvanje stabilnosti čitavog sistema putem odgovarajućih politika regulacije s ciljem eliminisanja bankarskih panika, dok prudencionu regulaciju uključuje monitoring i superviziju finansijskih institucija.

U istraživanju načina organizacije sistema bankarskih regulativa koje je obuhvatilo 180 zemalja u periodu 1999-2011. godine, Barth i saradnici (2013) ukazali su da između posmatranih zemalja postoji visoka heterogenost kada je pitanju način regulisanja bankarskog sektora. Međutim, između pojedinih zemalja postoje sličnosti, kao što je to slučaj u Japanu i Velikoj Britaniji, gde se model karakteriše postojanjem jedinstvene regulatorne institucije. S druge strane, regulatorni okvir banaka u SAD karakteriše se postojanjem više regulatornih institucija, čije se nadležnosti u određenoj meri preklapaju. Ipak, bez obzira na model regulisanja, ciljevi sistema bankarskih regulativa se ogledaju u: osiguranju bezbednosti banaka i finansijskih instrumenata; očuvanju konkurencije u finansijskom sistemu, očuvanju monetarne stabilnosti; zaštiti potrošača od zloupotreba i obezbeđenju funkcionalnosti sistema plaćanja (MacDonald i Koch, 2006).

U zavisnosti od konkretnog modela, za ostvarivanje ciljeva se mogu koristiti sledeći instrumenti (Mishkin, 2001; Kidwell i saradnici, 2008):

- Regulisanje broja banaka ograničavanjem novih licenci;
- Ograničavanje pojedinih aktivnosti banaka;
- Regulisanje vlasničke strukture banaka;
- Utvrđivanje minimalnih zahteva za kapitalom;
- Osiguranje depozita;
- Funkcija centralne banke kao kreditora poslednje instance (The lender of last resort);
- Zahtevi za transparentnim poslovanjem;
- Supervizija bankarskih institucija.

Smanjenje broja banaka uz ograničenje izdavanja novih licenci dovodi do smanjenja konkurencije između banaka. Pozitivni efekti se prvenstveno ogledaju u otklanjanju jednog od uzroka smanjenja profitnih marži, što može

doprineti stabilnosti sistema. S druge strane, negativne efekte osećaju klijenti ovih institucija, budući da odsustvo konkurencije utiče na povećanje cena bankarskih usluga. Drugi značajan element sistema regulacije bankarskih institucija jeste mogućnost ograničavanja aktivnosti banaka, čija opravdanost leži u postojanju rizika imanentnih bankarskim aktivnostima, a koji se mogu redukovati selektivnim kreditnim politikama. Pomenuto je u vezi sa pitanjem adekvatnosti kapitala, budući da je danas opšteprihvaćeno shvatanje po kojem banka mora imati propisani iznos kapitala, izračunat u odnosu na rizičnost njenog portfolija.

Funkcija kreditora poslednje instance doprinosi obezbeđenju kontinuiteta u bankarskom poslovanju i sprečavanju bankrotstava. Kako deponenti već na prve signale postojanja problema zahtevaju povraćaj svojih novčanih holdinga, centralna banka obezbeđujući likvidna sredstva sprečava prenošenje problema na ostale banke i stvaranje sistemskih problema. Iskustva Sistema Federalnih rezervi i Evropske centralne banke u uslovima krize ukazuju da su relaksirajuće politike likvidnosti, vođene od strane ovih institucija, doprinele sprečavanju nastanka većih problema u bankarskim sektorima u SAD, odnosno Evropskoj monetarnoj uniji (EMU). Preduslov efikasnog regulisanja bankarskih institucija jeste obezbeđenje transparentnosti njihovog poslovanja. Posedovanje adekvatnih informacija olakšava donošenje pravih odluka i smanjuje probleme imanentne bankarskoj regulativi.

Specifičnosti bankarske regulative kao relevantna izdvajaju sledeća pitanja:

- Na koji način asimetrične informacije ograničavaju efikasnost bankarskog regulisanja?
- Da li je funkcija centralne banke kao kreditora poslednje instance opravdana?
- Da li postoji univerzalno prihvatljiv model osiguranja bankarskih depozita?

Banke su finansijske institucije u kojima su vlasnička i funkcija upravljanja razdvojene. Funkcija upravljanja je poverena profesionalnom bankarskom menadžmentu, dok vlasnici imaju mogućnost kontrole menadžmenta. Pored vlasnika, kao kontrolori bankarskog menadžmenta javljaju se i

banking placements in the conditions of high market uncertainties can also cause high losses for banking institutions. Lack of confidence in the banking business and the shortage of information on the quality of bank placements may cause the depositors to develop bank runs which because of the very nature of the banking business may cause, in turn, new bankruptcies and the emergence of systemic hazard. Thus the presence of an adequate regulation system is a prerequisite for an efficient functioning of the banking system and of the entire economy itself. In addition, as argued by Casu and associates (2006), it is possible to distinguish between the systemic and the prudential regulation. Systemic regulation pertains to the preservation of stability of the entire system by means of adequate regulation policies with the aim of eliminating bank runs, while the prudential regulation includes monitoring and supervision of financial institutions.

In the research into the manner of organisation of the banking regulation systems, which has covered 180 countries in the period 1999-2011, Barth and associates (2013) pointed out that between the observed countries there is a high heterogeneity with respect to the manner of regulating the banking sector. However, there are also similarities between some of the countries, such as is the case of Japan and the United Kingdom, where the model is characteristic for the presence of a single regulatory institution. On the other hand, regulatory framework of the banks in the USA is characteristic for the presence of several regulatory institutions with some of their competencies overlapping. Nevertheless, regardless of the regulation model the objectives of the banking regulation frameworks are reflected in insuring security of banks and financial instruments; preservation of competition in the financial system, safeguarding of monetary stability; protection of consumers from misuses and providing for the functionality of the payment system (MacDonald and Koch. 2006).

Depending on the concrete model, the following instruments may be used for the achievement of the given targets (Mishkin, 2001; Kidwell and associates, 2008):

- Regulation of the number of banks by

limiting new licenses;

- Limiting certain banking activities;
- Regulating ownership structure of banks;
- Setting up minimum capital adequacy requirements;
- Deposit insurance;
- Functioning of the central bank as the lender of last resort;
- Requests for transparent business operations;
- Supervision of banking institutions.

Reducing the number of banks together with limiting issuance of new licenses brings about lowering of competition between banks. Positive effects are primarily reflected in the elimination of one of the causes of lowering profit margins, which may contribute to the stability of the system. On the other hand, negative effects are being felt by the clients of these institutions, as the absence of competition impacts the raise in prices of the banking services. The other significant element in the banking institutions regulating system is the option for limiting banking activities, where the justification is to be found in the presence of risks imminent in the banking operations, which may be reduced through selective crediting policies. There was a mention of the capital adequacy issue as there is today a generally recognised perception that the bank must have the prescribed amount of capital, calculated as the ratio of its portfolio risk.

The function of the lender of last resort contributes to the provision of continuity in the banking operations and prevention of bankruptcy. As the depositors start demanding, at the very first emergence of signals indicating that there are problems, the return of their monetary holdings, central bank is the one that secures liquid funds for purpose of preventing spilling over of the problem on to the other banks and the creation of systemic problems. The experience of the Federal Reserve system and that of the European Central Bank in the environment of crisis are showing that the relaxed liquidity policies led by these institutions have helped prevent the emergence of bigger problems in the banking sectors of the USA, as well as in the European Monetary Union (EMU). Prerequisite for an efficient regulation of the banking institutions is the provision of transparency of their operations.

regulatorne institucije. Međutim, priroda odnosa menadžmenta i deponenata ukazuje na postojanje problema asimetričnih informacija o poslovanju banaka. Menadžment poseduje detaljnije i potpunije informacije o poslovanju od deponenata (koji snose gubitke u slučaju loših poslovnih rezultata), pa menadžeri mogu ulaziti u rizičnije poslove. Sličan problem se javlja i na relaciji banka - regulatorna institucija, pa je u cilju sprečavanja nastanka velikih problema u bankarskom sektoru od velikog značaja monitoring bankarskih institucija. Međutim, troškovi uspostavljanja monitoringa nad aktivnostima banaka u početnim fazama umanjuje efikasnost sistema bankarske regulative (Epure i Lafuente, 2013).

Sistem osiguranja depozita ima zadatak da zaštiti male deponente od bankrotstva i spreči nastanak bankarske panike. Sistem garantuje da će u slučaju bankrotstva banke, ceo ili propisani deo iznosa depozita biti isplaćen deponentima. Od velikog značaja za efikasno funkcionisanje jeste način organizacije sistema osiguranja depozita, jer se u loše organizovanom sistemu, povećava verovatnoća nastanka kriza (Todorović, 2013). Stoga se mogu razlikovati sistemi u kojima je visina osiguranog iznosa regulisana zakonom i sistemi gde država ima diskreciono pravo da reguliše maksimalan iznos osiguranih depozita. Važna pitanja u vezi sa načinom organizacije sistema tiču se vrste i načina formiranja fondova, kao i institucija koje upravljaju formiranim sredstvima. Mogu se razlikovati državni sistemi, gde država upravlja fondovima i privatni sistemi, gde fondove osnivaju i njima upravljaju banke. U zavisnosti od načina kreiranja fondova, razlikuju se *ex-ante* sistemi, gde se fondovi formiraju unapred i *ex-post* sistemi koji podrazumevaju *ad hoc* formiranje fondova u zavisnosti od potreba. Danas se konkretna rešenja sistema osiguranja depozita uglavnom zasnivaju na *ex-ante* pristupu, pri čemu banke mogu plaćati jedinstvene ili diferencirane premije u zavisnosti od visine rizika. Jedan od problema sistema osiguranja depozita jeste pojava moralnog hazarda, odnosno situacije u kojoj se jedna strana upušta u aktivnosti na štetu druge strane. Kako je sistemom osiguranja depozita pokriven određeni procenat ukupnog iznosa depozita, deponenti potencijalno ne

snose visoke gubitke, što može navesti banke da ulaze u rizičnije poslove.

Značajno pitanje u vezi sa sistemom osiguranja depozita i postojanjem moralnog hazarda je postojanje institucija koje su „previše velike da bi propale“ (Hetzel, 1991; Kaufman, 2013). Bankrotstvo velike banke može biti uzrok velikog finansijskog potresa, pa regulatori često ne žele da dopuste propadanje velike banke i gubitke za veliki broj deponenata. Stoga se sistemom osiguranja garantuje isplata depozita do određenog iznosa, a zbog systemske važnosti pojedinih banaka mogu biti isplaćeni i veći iznosi. Ovakva politika podstiče banke da ulaze u visoke rizike znajući da su deponenti nisu zainteresovani za nadzor nad aktivnostima zbog postojanja programa osiguranja depozita. Međutim, Fisher (2013) kao rešenje problema predlaže eliminisanje institucija koje su previše velike da bi propale i eliminisanje krutih pravila, zarad šireg dometa tržišnih principa.

Problemi imanentni sistemima osiguranja depozita mogu biti rešeni na više načina. McCoy (2007) ističe tri elementa neophodna za smanjenje rizika u sistemu osiguranja depozita, i to: šeme koje moraju biti orijentisane na smanjenje rizika; aktivistički pristup deponenata i vlasnika banke u nadzoru nad poslovanjem i razvoj snažnih institucija. Pored toga, Demirgüç-Kunt i Detragiache (1999) posebno apostrofiraju značaj adekvatnog institucionalnog okruženja u rešavanju problema nastalih usled postojanja sistema osiguranja depozita.

Imajući u vidu probleme u vezi sa osiguranjem depozita, potrebno je razmatrati i alternativne načine obezbeđenja sigurnosti deponenata. Jedna od alternativa ogleda se u kreditiranju problemskih banaka od strane centralne banke (funkcija centralne banke kao kreditora poslednje instance), dok ostale alternative podrazumevaju direktno odobravanje sredstava od strane izvršne vlasti. Stavovi o opravdanosti uloge centralne banke kao kreditora poslednje instance su podeljeni. Polazeći od problema moralnog hazarda, Niskanen (2002) je zaključio da funkcija kreditora poslednje instance može dovesti do povećanja efikasnosti sistema regulacije u slučaju kada je cena likvidnosti srazmerna visini rizika kojima su banke izložene. Isti

The presence and availability of adequate information is facilitating proper decision-making and is reducing problems immanent in the banking regulatory framework.

Specific features of the banking regulation are highlighting as relevant the following questions:

- In what way is the asymmetric information policy limiting the efficacy of the banking regulation?
- Is the function of the central bank as the lender of last resort justified?
- Is there a universally acceptable model for the banking deposits insurance?

Banks are financial institutions in which the ownership and the managerial functions are separated. The management function is entrusted to the professional banking management, while the owners are having the option to control the management. In addition to the owners, what appear to be in control of the banking management are also the regulatory institutions. However, the nature of the relationship between the management and the depositors indicates that the problem is present of asymmetric information on the business operations of banks. Management is in possession of more detailed and comprehensive information on the business at hand than are the depositors (who are suffering losses in case of bad business results), so that the managers can engage in more risky business. Similar problem appears between bank and regulatory institution, and for purpose of preventing the emergence of major problems in the banking sector, monitoring of banking institutions is of great importance. However, the costs of setting up monitoring of the banking activities in the initial phases may reduce the efficiency of the banking regulation system (Epure and Lafuente, 2013).

The system of deposit insurance has a task to protect small depositors from bankruptcy and prevent the emergence of the bank run. The system guarantees that in case of bank bankruptcy the entire or the prescribed part of the deposit amount will be paid to the depositors. It is of great importance for an efficient functioning is the way in which deposit insurance system is organised, as in the poorly organised system the probability of crisis

emergence is augmented (Todorovic, 2013). Therefore it is possible to distinguish systems in which the amount of the insured deposit is regulated by law and those systems where the state has its discretionary right to regulate the maximum amount of insured deposits. Important questions with respect to the manner of organizing this system pertain to the type and manner of establishing funds, but also on institutions managing formed resources. It is possible to distinguish the government systems where the state is managing funds, and the private systems where funds are established and managed by banks. Depending on the manner of creation of funds, it is possible to distinguish the ex-ante systems where funds are formed in advance, and the ex-post systems which comprise an ad hoc formation of funds depending on the needs. Today, concrete solutions of the deposit insurance systems are mostly based on the ex-ante approach, where the banks may pay single or differentiated premiums depending on the amount of risk. One of the problems present in the deposit insurance system is the emergence of the moral hazard, i.e. a situation in which one side in engaging in activities detrimental to the other side. As the deposit insurance system covers a certain percentage of the total deposit amount, depositors potentially do not bear high losses, which may lead the banks to venture in even riskier business operations.

An important question related to the deposit insurance system and the presence of the moral hazard is the presence of those institutions that are deemed "too big to fail" (Hetzel, 1991; Kaufman, 2013). Bankruptcy of a large major bank may cause large-scale financial distress, so the regulators often appear reluctant to allow a major large bank to fail and cause losses for a large number of depositors. Hence the insurance system is guaranteeing payment of deposits up to a certain amount, and because of the systemic importance of certain banks even higher amounts may be paid. Such a policy instigates the banks to venture into high risks knowing that the depositors are not interested in the supervision of their activities because of the presence of the deposit insurance programme. However, Fisher (2013) proposes, as the solution to this problem, the elimination of the institutions that are too big

autor ističe da ova uloga centralne banke treba biti posmatrana kao element šireg okvira bankarske regulacije. S druge strane, Freixas i saradnici (2004) zaključili su da opravdanost postojanja kreditora poslednje instance zavisi od efikasnosti sistema bankarske regulative, konkretno od efikasnosti procesa supervizije. Odnosno, u sistemima sa neefikasnim procesima supervizije, centralna banka treba da se ponaša kao kreditor poslednjeg utočišta, dok efikasna supervizija svodi potrebu za postojanjem kreditora na minimum.

Razmatranje relevantnih pitanja u vezi sa regulisanjem bankarskih institucija i iznošenjem stavova omogućava izvođenje sledećih zaključaka:

- Problem asimetričnih informacija prožima odnose između više učesnika u bankarskom sistemu. Kako jedna strana uvek poseduje detaljnije informacije, koje može iskoristiti radi sticanja sopstvenih koristi, potrebno je uspostaviti monitoring bankarskih institucija, što zbog troškova umanjuje efikasnost sistema.
- Ulogu centralne banke kao kreditora poslednje instance treba posmatrati kao dopunski mehanizam regulisanja bankarskog poslovanja, pri čemu efikasna supervizija eliminiše potrebu za postojanjem ove uloge. S druge strane ukoliko postoji potreba za kreditiranjem od strane centralne banke, predlaže se da cena kreditiranja bude srazmerna visini rizika kojima su banke izložene.
- Sistem osiguranja depozita može biti organizovan na više načina. Karakteristike sistema osiguranja depozita se prilagođavaju konkretnim situacijama pa se može zaključiti da ne postoji univerzalno prihvatljiv model osiguranja depozita.

Razvoj sistema bankarskih regulativa u predkriznom periodu

Razmatrajući koncept bankarske regulative u istorijskom kontekstu, potrebno je ukazati na osobenosti razvijenih sistema u SAD i EU. Takođe, neophodno je istaći razlike između pomenutih bankarskih sistema, koje se u prvom redu ogledaju u značaju banaka u finansijskom sistemu. Dok u SAD primarnu

ulogu u eksternom finansiranju kompanija imaju finansijska tržišta, u EU ta uloga pripada bankama. Na dosadašnjem stupnju razvoja, EU, pa čak i EMU se mogu posmatrati kao udruženje država sa zajedničim ciljevima, dok su SAD jedinstvena država. Stoga u SAD postoji jedinstven okvir regulisanja bankarskog poslovanja, dok u EU (EMU) postoje različiti sistemi regulative (na nivou svake države članice). Ipak, i pored razlika između posmatranih bankarskih sektora, sistemi bankarske regulative sadrže određene zajedničke elemente.

U finansijskim sistemima na prostoru Evrope, banke imaju izuzetan značaj. Kako su banke osnovne institucije eksternog finansiranja kompanija u EU, finansijski sistem je opisan kao bankocentričan (Allen i Carletti, 2008). Tokom poslednjih nekoliko decenija, bankarski sektor u EU se suočava sa velikim brojem promena u strukturi koje su prvenstveno posledica višeg stepena ekonomske integracije.

Tokom 1970-ih i 1980-ih godina, učinjen je značajan korak ka regulisanju bankarskog poslovanja u okviru tadašnje Evropske ekonomske zajednice, donošenjem dve bankarske direktive (First Banking Directive i Second Banking Directive). Prvom direktivom su istaknute obaveze država domaćina (*host country rule*), na osnovu kojih je bankama dozvoljeno poslovanje u stranim državama ukoliko imaju dozvolu nacionalnih regulatora države domaćina. Drugom bankarskom direktivom utvrđen je princip kontrole matične države (*home country rule*), prema kojoj odgovornost za nacionalnu banku, bez obzira u kojoj državi posluje, snosi nacionalna regulatorna institucija. U takvom okruženju, banke država EEZ mogle su nuditi svoje proizvode i usluge širom ove ekonomske grupacije, dok je pristup nacionalnih banaka nečlanica EEZ bio ograničen (Gruson i Nikowitz 1988). Značajno pitanje sistema bankarskih regulativa, osiguranje depozita, regulisano je direktivom EU (Directive 94/19/EC). U ovom domenu, direktivom su regulisani minimalni uslovi za harmonizaciju nacionalnih šema osiguranja depozita. Preporučeno je da osigurani iznos depozita iznosi 20.000 ekija (ECU - European Currency Unit), pri čemu su nacionalne vlasti imale diskreciono pravo da određuju visinu depozita koji su pokriveni osiguranjem.

to fail and elimination also of the strict rules for the sake of the broader scope that the market principles should cover.

Problems imminent in the deposit insurance systems may be resolved in several ways. McCoy (2007) highlights three elements necessary for the lowering of the deposit insurance system risk, and they are the following: schemes that must be focused on risk reduction; activating approach of the depositors and bank owners in the supervision of the banking business, and development of strong institutions. In addition, Demirguc-Kunt and Detragiache (1999) especially underline the importance of an adequate institutional climate in the solution of problems incurred due to the presence of the deposit insurance systems.

Bearing in mind problems related to the deposit insurance, it is necessary to examine also some alternative ways of providing security for depositors. One of alternatives is reflected in the crediting of problematic banks by the central bank (function of the central bank as the lender of last resort), while other alternatives comprise direct approval of funds by the executive authority. Views on the justification of the central bank's role as the lender of last resort are divided. Starting from the problem of moral hazard, Niskanen (2002) concluded that the function of the lender of last resort may bring about an increase in the regulation system efficacy in case when the liquidity price is proportional to the amount of risk to which the banks are exposed. The same author also argues that this role of the central bank should be regarded as an element within a broader scope of the banking regulation. On the other hand, Freixas and associates (2004) concluded that the justification for the presence of the lender of last resort depends on the efficiency of the banking regulation system, concretely on the efficacy of the supervision process. In other words, in the systems with inefficient supervision processes, the central bank should behave as the lender of last resort, while an efficient supervision brings the need for the presence of the lender of last resort down to a minimum.

Deliberations on the relevant issues related to the regulation of banking institutions and presentations of stands allow for the following conclusions to be made:

- The problem of asymmetric information is permeating relations between several participants in the banking system. As one of the sides is always in possession of more detailed information that it may use for acquiring its own gain, it is necessary to establish monitoring of banking institutions, which in view of costs involved therein is reducing the efficacy of the system.
- The role of the central bank as the lender of last resort should be perceived as a supplementary mechanism for regulation of the banking business, where the efficient supervision eliminates the need for the presence of this role. On the other hand, if there is the need for lending by the central bank, what is proposed is for the lending price to be proportionate to the amount of risk to which the banks are exposed.
- The deposit insurance system may be organised in several ways. Characteristics of the deposit insurance system are being adapted to concrete situations at hand and it may be concluded that there is no universally acceptable model for deposit insurance.

Development of the banking regulation systems in the pre-crisis period

Deliberation of the banking regulation concept in the historical context requires an indication of the particular features prevailing in the developed systems of the USA and of the EU. In addition, it is also necessary to point out at the differences between the said banking systems, which are primarily being reflected in the importance that the banks have in the financial system. While in the USA the primary role in the external financing of companies is held by the financial markets, in the EU this role is entrusted to the banks. At the present-day development level, EU and even the EMU may be deemed to be an association of the states with the common goals, while the USA stands as one and a single state. Therefore, in the USA there is a single framework for regulating banking business, while in the EU (EMU) there are different regulation systems on the level of each individual member state. Nevertheless, in spite of differences between the observed

Formiranjem Evropske monetarne unije (EMU), Evropska centralna banka (ECB) je postala centralna institucija, koja sprovodi jedinstvenu monetarnu politiku. Pored ECB, važnu ulogu u regulisanju bankarskih institucija imaju i nacionalne centralne banke država članica EMU koje imaju obavezu dostavljanja informacija ECB. Jedna od prepreka formiranju jedinstvenog okvira regulisanja bankarskih institucija je pridruživanje bivših socijalističkih država EMU. Iako su uslovi poslovanja u bankarskim sektorima zemalja u tranziciji, u velikoj meri unapređeni, postojale su značajne razlike u stepenu razvoja između bankarskih sektora ovih zemalja i zemalja članica EMU. Finansijski sistemi zemalja u tranziciji karakterisali su se višim stepenom bankocentričnosti nego što je to bio slučaj u zemljama članicama EMU. Pomenute razlike danas gotovo da ne postoje, što je prvenstveno posledica promena u strukturi bankarskog sektora u EMU.

Ekonomska integracija država Evrope nije dostigla očekivani nivo, pri čemu se kao razlozi mogu izdvojiti nedovoljna harmonizacija različitih regulatornih okvira; nedovoljna integracija finansijskih tržišta i nepotpuna fiskalna integracija. U tom kontekstu, veliki značaj u unapređenju regulative i neutralisanju efekata neharmonizovane implementacije direktiva i regulativa imali su Akcioni plan finansijskih usluga (Financial Service Action Plan - FSAP) i Lamfalussy procedura. FSAP je predstavljen 1999. godine, sa ciljem uspostavljanja dinamičnijeg i konkurentnijeg okruženja sa efikasnijom regulacijom. Inicijativa se odnosila na formiranje jedinstvenog tržišta u EU i sadržala je set mera usmerenih ka eliminisanju barijera i uspostavljanju okvira regulacije koji bi podržao integraciju finansijskih tržišta. Glavni ciljevi FSAP bili su:

- uspostavljanje jedinstvenog tržišta finansijskih usluga na veliko putem kojeg će provajderi usluga i trgovci izbeći barijere i imati pristup širim geografskim područjima.
- povećanje otvorenosti i sigurnosti maloprodajnih tržišta, što će korisnicima omogućiti pristup svim neophodnim informacijama. To podrazumeva kreiranje zakonskog okvira i uslova za neometano funkcionisanje platnih sistema.

- jačanje pravila prudenčne supervizije što povećava kredibilnost čitavog finansijskog sistema.

Problemi koji su se ogledali u nedovoljnoj povezanosti zemalja članica, kao i u razlikama u zakonskom i poreskom smislu otežavali su integraciju na prostoru EU. Lamfalussyjev komitet je 2001. godine predložio set mera u vidu pristupa sa četiri nivoa:

- Nivo 1 - kreiranje okvira za donošenje predloga direktiva i regulativa.
- Nivo 2 - priprema seta mera za implementaciju. U tom procesu Evropska komisija blisko saraduje sa sledeća četiri komiteta: Evropskim bankarskim komitetom (*European Banking Committee - EBC*), Evropskim komitetom za HoV (*European Securities Committee - ESC*), Evropskim komitetom za osiguranje i penzije (*European Insurance and Pensions Committee - EIOPC*), Komitet finansijskih konglomerata (*Financial Conglomerates Committee - FCC*).
- Nivo 3 - usaglašavanje nacionalnih okvira regulacije i supervizije između zemalja na nivou EU. To se ostvaruje kroz dodatne konsultacije sa ekspertskim komitetima kao što su: Komitet Evropskih bankarskih supervizora (*Committee of European Banking Supervisors - CEBS*), Komitet Evropskih regulatora HoV (*Committee Of European Securities Regulators - CESR*) i Komitet Evropskih supervizora za osiguranje i penzije (*Committee of European Insurance and Occupational Pensions Supervisors - CEIOPS*).
- Nivo 4 - implementiranje usaglašenih propisa i mera. Evropska komisija vodi računa o procesu implementacije pravila u državama članicama i ima mogućnost da ih sankcioniše u slučaju propusta.

U oblasti bankarstva, nivoi 2 i 3 Lamfalussy-eve procedure implementirani su od strane Evropskog bankarskog komiteta (*European Banking Committee - EBC*) i Komiteta Evropskih bankarskih supervizora (*Committee of European Banking Supervision - CEBS*). CEBS je oformljen 2003. godine pri čemu funkcioniše kao komitet u okviru nivoa 3, sa zadatkom da vrši koordinaciju bankarske supervizije na prostoru EU. Stoga je moguće kao zaključak izvesti da su predstavnici EU pokušavali da centralizuju bankarsku superviziju koliko god

banking sectors, banking regulation systems contain certain common elements.

In the financial systems in Europe the banks are having an outstanding importance. The banks being the basic institutions of external company financing in the EU, the financial system may be described as bank-centric (Allen and Carletti, 2008). During the last several decades, the banking sector in the EU was faced with the large number of changes in the structure which were primarily the consequence of a higher degree of economic integration.

During the 1970s and 1980s, an important step was made towards regulating banking business within the borders of the then-European Economic Community, by passing two banking directives (The First Banking Directive, and The Second Banking Directive). The First Banking Directive underlined the host country rule on the basis of which banks were allowed to operate in foreign countries if they were licensed by the national regulators of the host country. The Second Banking Directive prescribed the principle of the home country rule, where the responsibility for the national bank, regardless of the country in which it operates, shall be borne by the national regulatory institution. In such an environment, the banks of the EEC were free to offer their products and services throughout this economic group, while the access to the national banks of the EEC non-member countries was limited (Gruson and Nikowitz, 1988). The important issue of the banking regulation systems and deposit insurance was regulated in the EU Directive 94/19/EC. In this domain, the Directive regulated minimum requirements for harmonisation of the national deposit insurance schemes. It was recommended that the insured deposit amount should be 20,000 ECU (ECU - European Currency Unit), where the national authorities had a discretionary right to determine the amount of deposit to be insurance covered.

With the formation of the European Monetary Union (EMU), European Central Bank (ECB) became the central institution in charge of implementing a single monetary policy. In addition to the ECB, an important role in regulating banking institutions was also in the hands of the national central banks of the EMU member countries which were bound to send information to the ECB. One of the obstacles to

the formation of the single banking institutions regulatory framework was the accession of the former socialist countries to the EMU. Although the conditions of operation in the banking sectors of the countries in transition have greatly improved, what still remained were significant differences in the level of development between the banking sectors of these countries and those of the EMU member states. Financial systems of the countries in transition were characteristic for a higher degree of bank-centricity than was the case in the EMU member countries. The above mentioned differences today have almost disappeared, which is primarily the result of changes in the structure of the EMU banking sector.

Economic integration of countries in Europe did not reach the anticipated level and the reasons were insufficient harmonisation of the different regulatory frameworks; insufficient integration of financial markets and an incomplete fiscal integration. In this context, great importance in the promotion of the regulation and neutralisation of effects of disharmonised implementation of directives and regulations had the Financial Services Action Plan - FSAP, and the Lamfalussy procedure. FSAP was presented in 1999 with the aim to establish a more dynamic and competitive environment with efficient regulation. The initiative pertained to the formation of the single EU market and contained measures aimed at elimination of barriers and establishment of the regulatory framework that would support integration of financial markets. The main objectives of the FSAP were the following:

- Establishment of the single market of the wholesale financial services through which the service providers and traders could avoid barriers and have access to a broader geographic area.
- Enhancing openness and security of the retail markets, which would allow users the have access to all the necessary information. This means the creation of a legal framework and conditions for smooth functioning of the payment systems.
- Strengthening of rules of prudential supervision which boosts credibility of the entire financial system.

The problems that were reflected in

je to bilo moguće imajući u vidu tada aktuelni zakonski okvir.

Posmatrajući razvoj sistema bankarske regulative na prostoru SAD, može se zaključiti da se u periodu pre Velike depresije bankarski sektor karakterisao odsustvom regulacije banaka. U takvom okruženju dominirao je koncept univerzalnog bankarstva, u kojem su komercijalne banke konkurisale investicionim u poslovima emisije hartija od vrednosti (HoV). Postojanje velikog broja banaka u pomenutom periodu bilo je posledica donetih zakona u domenu otvaranja filijala u različitim saveznm državama, kojima su regulisani odnosi između saveznih i federalnih banaka. Rajan i Ramcharan (2011) smatraju da je McFadden Act iz 1927. godine, uslovio stvaranje razgranate mreže filijala banaka širom teritorije SAD i povećanje konkurencije. Naime, banke nisu mogle otvarati filijale izvan granica savezne države u kojoj su registrovane, ali su mogle poslovati u više saveznih država kao multibankarske korporacije.

Tokom Velike depresije, nekoliko hiljada banaka pretrpelo je bankrotstvo, a veliki broj deponenata je izgubio svoju imovinu. Generalno shvatanje da su investicione aktivnosti komercijalnih banaka uzrok propadanja velikog broja banaka kasnije je osporeno od strane nekih autora (Benston, 1990; Kroszner i Rajan, 1994). Ipak, način regulisanja bankarskog poslovanja u SAD je unapređen 1933. godine, donošenjem Glass-Steagall Act, čije su osnovne karakteristike:

- Razdvajanje komercijalnog i investicionog bankarstva;
- Ograničenje i regulisanje kamatnih stopa na depozite;
- Osnivanje Federalne korporacije za osiguranje depozita (Federal Deposit Insurance Corporation).

Kako je Weiher (2001) istakao, pomenuto razdvajanje naišlo je na odobravanje od strane kako komercijalnih, tako i investicionih banaka. Investicione banke smatrale su da će prednosti komercijalnih banaka (u smislu šireg pristupa) nestati kao rezultat delovanja novih elemenata sistema bankarske regulative. S druge strane, komercijalne banke su podržale predlog budući da im je bilo omogućeno da prodaju nove emisije državnih HoV.

Tokom 20-ih godina XX veka, konkurencija

banaka u domenu privlačenja depozita karakterisala se rastom kamatnih stopa. Međutim, kako bi profitne marže ostale nepromenjene, ulazak u visokorizične aktivnosti uslovio je povećanje verovatnoće bankrotstva, što je Gilbert (1986) smatrao jednim od uzroka propadanja velikog broja banaka tokom Velike depresije. Stoga je bilo neophodno regulisanje visine kamatnih stopa na depozite, a neki predlozi su podrazumevali ukidanje kamatne stope na depozite po viđenju. Ipak, konačno rešenje se ogledalo u regulisanju i ograničenju visine kamatnih stopa od strane Sistema Federalnih rezervi. Kasnija istraživanja utvrdila su da između visine kamatnih stopa i bankrotstava banaka nije postojala veza i stoga u pitanje dovela opravdanost ovog elementa Glass Steagall akta (Cox, 1966).

Treći značajan element Glass Steagall akta predstavlja osnivanje FDIC, što je imalo za cilj minimiziranje gubitaka deponenata u slučaju bankrotstava banaka. Pored toga, uloga FDIC bila je i sprečavanje nastanka bankarskih panika, odnosno sprečavanje širenja problema pojedinačnih banaka na čitav sistem. Sistem osiguranja u SAD bazirao se na premiji osiguranja banaka članica FDIC, koje služe za kupovinu HoV u cilju obezbeđenja osiguranja depozita. Osnivanjem FDIC, obezbeđeno je federalno osiguranje depozita do 100.000\$ što je eliminisalo potrebu za povlačenjem sredstava usled zabrinutosti za poslovanje individualne banke. Od svih banaka članica Sistema Federalnih rezervi zahtevalo se pridruživanje FDIC, dok su banke nečlanice mogle biti pridružene ukoliko ispunjavaju postavljene kriterijume.

U periodu nakon II Svetskog rata, sve do sredine 70-ih godina XX veka, nije bilo velikih promena u načinu regulisanja bankarskog poslovanja na prostoru SAD. Međutim, tokom 70-ih godina, otpočeli su procesi postepenog uklanjanja ograničenja u oblasti bankarstva što je rezultovalo potpunim uklanjanjem barijera. Proces deregulacije bankarskog poslovanja je uslovio promene u bankarskom sektoru koje su se ogledale u prekograničnoj integraciji bankarskih aktivnosti, merdžerima i akvizicijama što je doprinelo povećanju kvaliteta usluga (Strahan 2003). Pored toga, procesi deregulacije i integracije u bankarskom sektoru SAD javili su se uporedo i mogu se

insufficient connectivity between the member countries, but also in the differences in the legal and fiscal aspects were aggravating integration in the EU region. Lamfalussy Committee proposed, in 2001, a set of measures in the form of an approach on four levels:

- Level 1 - creation of a framework for passing draft directives and regulations.
- Level 2 - preparation of a set of measures for implementation. In this process European Commission is closely cooperating with the following four committees: European Banking Committee - EBC, European Securities Committee - ESC, European Insurance and Pensions Committee - EIOPC, and Financial Conglomerates Committee - FCC.
- Level 3 - Harmonisation of national regulatory frameworks and supervision between countries on the EU level. This is achieved through additional consultations with the expert committees such as the Committee of European Banking Supervisors - CEBS, Committee of European Securities Regulators - CESR, and the Committee of European Insurance and Occupational Pensions Supervisors - CEIOPS.
- Level 4 - Implementation of harmonised regulations and measures. European Commission checks Member State compliance with EU legislation and has the option to impose sanctions in case of failure.

In the field of banking, Levels 2 and 3 of the Lamfalussy procedure are being implemented by the European Banking Committee - EBC, and the Committee of European Banking Supervisors - CEBS. CEBS was formed in 2003, and it functions as a committee within the framework of Level 3, with the task to implement coordination of banking supervision in the EU area. Hence it is possible to conclude that the EU representatives have made an attempt at centralising banking supervision as much as possible bearing in mind the then-current and actual framework.

When examining the development of the banking regulation system in the USA, it may be concluded that in the period prior to the Great Depression the banking sector was characteristic for the absence of regulation of banks. In such an environment, what was

formed was the concept of universal banking, where commercial banks were competing with the investment deals in the securities issuance. The presence of a large number of banks in the said period was the consequence of the laws passed in the domain of establishing branch offices in various federal states, which were regulating the relationship between the federal government centralised and the federal state banks. Rajan and Ramcharan (2011) argue that McFadden Act of 1927 caused the creation of a well branched network of banking branches throughout the territory of the USA and gave boost to competitiveness. Namely, banks were not allowed to open branches outside of their own federal state in which they were registered, but were free to operate in several federal states as multi-banking corporations.

During the Great Depression, several thousands of banks suffered bankruptcy, and a large number of depositors lost all their holdings. General understanding that investment activities of commercial banks were the cause for the failure of such a large number of banks was later on to be disputed by some of the authors (Benston, 1990; Kroszner and Rajan, 1994). Nevertheless, the manner of regulating banking business in the USA was upgraded in the 1933 by passing the Glass-Steagall Act, with the following basic characteristics:

- Separation of commercial and investment banking;
- Limitation and regulation of the deposit interest rates;
- Establishment of the Federal Deposit Insurance Corporation

As Weiher (2001) pointed out, the said separation met with approval both by the commercial and the investment banks. Investment banks were of the view that the advantages enjoyed by the commercial banks (in the sense of a larger-scale approach) will disappear as a result of the new elements of the banking regulation system. On the other hand, commercial banks supported the proposal as they were now allowed to sell the new emissions of the government securities.

During the 1920s, competition between banks in the domain of deposit attraction was characteristic for the growth in the interest rates. However, as the profit margins remained

posmatrati kao dve strane jednog novčića, pri čemu je potrebno razlikovati geografsku (povezivanje saveznih država) i operativnu integraciju (povezivanje različitih segmenata u bankarskom poslovanju).

Izmenjeni uslovi poslovanja proizveli su potrebu da više pažnje bude posvećeno nadzoru nad poslovanjem bankarskih institucija. S tim u vezi kreiran je CAMEL rejting sistem, koji u merenju efikasnosti poslovanja može biti primenjen na sve bankarske institucije. Prvobitno, sistem je obuhvatao 5 kategorija (adekvatnost kapitala; kvalitet aktive; menadžment; profit i likvidnost) i tokom 80-ih godina XX veka predstavljao adekvatno sredstvo za procenu stabilnosti bankarskog poslovanja. Međutim, razvoj finansijskih tržišta i novih bankarskih instrumenata usloveli su potrebu za unapređenjem ovog sistema. Stoga je 1996. godine, kao posebna kategorija uvedena osetljivost na tržišne rizike čime je stvoren CAMELS rejting sistema.

Pomenute promene uslovile su da sistem osiguranja depozita, koji je dobro funkcionisao sve do početka 90-tih godina XX veka, postane neodrživ. Stoga je 1991. godine Kongres usvojio Federal Deposit Insurance Corporation Improvement Act (FDICIA) s ciljem reformisanja sistema osiguranja depozita. Na osnovu pomenutog akta, FDIC je imao mogućnost da naplaćuje više premije osiguranja u slučaju da je nivo rezervi u Fondu za osiguranje depozita niži od 1,25% ukupnih osiguranih depozita. Doprinosi su se ogledali u kategorizaciji banaka na osnovu visine kapitala i primeni pragmatičnog pristupa rešavanju problema u nedovoljno kapitalizovanim bankama. Prilikom sanacije banaka potrebno je voditi računa da ona bude izvršena uz minimalne troškove.

Konačne promene u strukturi sistema bankarske regulative u SAD dogodile su se tokom poslednje decenije XX veka. Usvajanje Riegle-Neal Interstate Banking and Branching Efficiency akta 1994. godine označilo je konačno uklanjanje prepreka međusaveznom bankarstvu. Pored toga, Gramm Leach Bliley aktom iz 1999. godine su ukinute barijere između komercijalnog i investicionog bankarstva, čime je komercijalnim bankama omogućeno da obavljaju visokorizične poslove iz domena investicionog bankarstva.

Danas je bankarski sektor u SAD dualnog karaktera, s obzirom da licence mogu biti izdate na saveznom ili federalnom nivou. U takvom okruženju, nadležnosti različitih regulatornih institucija se u određenoj meri preklapaju. Početkom XXI veka, ulogu regulatora bankarskog sektora u SAD imale su sledeće institucije:

- Služba za valutnu kontrolu (Office of the Comptroller of the Currency - OCC);
- Odbor guvernera Sistema Federalnih rezervi;
- Federalna korporacija za osiguranje depozita (FDIC).

U takvom okruženju federalne banke podležu kontroli Službe za valutnu kontrolu. Kada su u pitanju savezne banke, potrebno je napraviti razliku između banaka članica Sistema Federalnih rezervi (poslovanje reguliše Odbor guvernera) i nečlanica, čije poslovanje reguliše Federalna korporacija za osiguranje depozita. Pored pomenutih institucija, postoje još dve institucije koje regulišu poslovanje štedionica i kreditnih unija, i to: Komitet za superviziju štedionica (Office of Thrift Supervision - OTS) i Nacionalna uprava kreditnih unija (National Credit Union Administration - NCUA).

Međunarodni aspekt bankarske regulative

Značajno mesto u analizi razvoja bankarske regulative sa istorijskog aspekta zauzima analiza međunarodne konvergencije uslova poslovanja bankarskih institucija. U prvom redu, značajan je rad Bazelskog komiteta za bankarsku superviziju koji je osnovan 1974. godine od strane guvernera centralnih banaka visoko razvijenih zemalja grupe G-10. Komitet obezbeđuje uslove za kooperaciju banaka članica u vezi sa pitanjima bankarske supervizije. U početku je potencirana međunarodna saradnja u oblasti supervizije da bi kasnije napor bio usmeren ka boljem razumevanju supervizije i povećanju njenog kvaliteta, što je podrazumevalo: razmenu informacija o nacionalnim programima supervizije; povećanje efikasnosti tehnika supervizije međunarodnog bankarskog poslovanja i postavljanje minimalnih standarda supervizije (BCBS, 2009).

Posebna pažnja Bazelskog komiteta

unchanged, the venture into high risk activities caused the rise in the probability of bankruptcy, which Gilbert (1986) considered to be one of the causes for the failure of a large number of banks during the Great Depression. Hence it was necessary to regulate the level of deposits' interest rates, and some of the proposals envisaged suspension of interest rates for the demand. Nevertheless, final solution was reflected in regulation and limitation of the interest rates levels by the Federal Reserve System. Research conducted at a later date determined that between the interest rates and the banks bankruptcy there was no connection at all and thus brought under a question mark the justification of this element of the Glass Steagall Act (Cox, 1966).

The third important element of the Glass Steagall Act was the establishment of the FDIC, which was aimed at minimizing losses of depositors in case of bank bankruptcy. In addition, the role of the FDIC was to prevent the emergence of bank runs, i.e. prevention of spilling over of the problem of individual banks on to the entire system. The insurance system in the USA was based on the insurance premium of the banks members of the FDIC, which serve for buying of securities with the aim to secure deposits insurance. With the establishment of the FGIC, what was secured was the federal deposit insurance of up to 100,000 \$ which eliminated the need for withdrawing funds because of concerns over the business operations of any individual bank. From all of the banks, that were members of the Federal Reserve System, it was required joining in the FDIC, while the non-member banks could be associated members if they complied with the prescribed criteria.

In the period after the Second World War, and all through to the 1970s, there were no major changes introduced in the manner of regulation of the banking business in the USA. However, during the 1970s, processes started of a gradual elimination of limits in the field of banking which resulted in a total and overall removal of barriers. The process of deregulation of the banking business caused changes to be made in the banking sector which were reflected in the cross-border integration of the banking activities, mergers and acquisitions that have

enhanced the quality of the banking services (Strahan, 2003). In addition, both the processes of deregulation and integration in the banking sector of the USA appeared simultaneously and may be observed as two sides of the same coin, where it is necessary to differentiate geographic (linking between the federal states) and the operative integration (linking between different segments in the banking business).

The changed business conditions caused the need for more attention to be paid to an enhanced supervision of the banking institutions business operations. To that end, the CAMEL rating system was set up, which in measuring business efficacy may be applied to all the banking institutions. Initially, the system comprised 5 categories (capital adequacy; assets quality; management; profit; and liquidity) and during the 1980s was an adequate tool for the rating of stability of the banking business. However, the development of financial markets and the new banking instruments have caused the need to upgrade this system. Hence, in 1996, what was introduced as a special category was the market risk sensitivity which served to create the CAMELS rating system.

The above mentioned changes caused the deposit insurance system, which was functioning well up to the start of the 1990s, to become unsustainable. Hence, in 1991, the Congress adopted the Federal Deposit Insurance Corporation Improvement Act (FDICIA) with the aim to reform the deposit insurance system. Pursuant to stipulations of the said Act, FDIC had the option to collect higher insurance premium in case the level of reserves in the Deposit Insurance Fund would fall below 1.25% of the total insured deposits. Contributions were reflected in the categorisation of banks on the basis of the amount of capital and the application of pragmatic approach to the solution of problems in inadequately capitalised banks. In case of rehabilitation of banks it was necessary to take into account that it would be implemented with the minimum costs.

Final changes in the structure of the banking regulation system in the USA took place during the last decade of the 20th century. The adoption of the Riegle-Neal Interstate Banking and Branching Efficiency Act, of 1994, marked

usmerena je na pitanja u vezi sa adekvatnošću kapitala i zahtevima za regulativom u međunarodnom okruženju. Propisi doneti od strane Komiteta nisu pravno obavezujući za bankarske institucije sve dok se u vidu zakona ne usvoje u skupštinama zemalja. Ipak, smatra se da bankarstvo neke zemlje nema kredibilnost ukoliko u zakonodavstvo nisu inkorporirani standardi Bazelskog komiteta. Na prostoru EU, standardi Bazelskog komiteta u vezi sa kapitalom predstavljeni su u vidu direktiva ili regulativa.

Do danas je Bazelski komitet za bankarsku superviziju verifikovao tri značajna dokumenta koji se tiču bankarskog regulisanja. Prvi bazelski dokument imao je za cilj uspostavljanje jedinstvenih zahteva u pogledu visine kapitala koje su banke u obavezi da drže. Pored toga, ciljevi ovog dokumenta bili su: sprečavanje nastanka bankarskih kriza, predstavljanje domaćih banaka kao stabilnih i solventnih i eliminisanje problema proisteklih iz neusaglašenosti regulativa.

Standardi Bazela I odnosili su se na minimalnu visinu kapitala, pri čemu se od banaka zahtevalo držanje kapitala u visini od najmanje 8% riziko ponderisane aktive. Kapital je razdvojen na dva nivoa, uz uvođenje III nivoa, gde su elementi kapitala:

- Osnovni kapital (sloj 1), koji je obuhvatao rezerve iz dobiti, akcijski kapital, inovativne instrumente i rezerve;
- Dopunski kapital (sloj 2) koji se sastojao iz opštih rezervi za procenjene gubitke, revalorizacionih rezervi, hibridnih instrumenata dužničkog kapitala i subordiniranih obveznica (dugoročnih
- Sloj 3 kapitala - sačinjen od kratkoročnih subordiniranih obveznica.

Osnovnom tekstu Bazelskog sporazuma o kapitalu pripisano je nekoliko značajnih nedostataka, što je rezultovalo usvajanjem novog sporazuma. Osnovni nedostaci kao što su uzimanje u obzir samo kreditnog rizika; neadekvatna diferencijacija rizika u smislu pondera rizika; zanemarivanje mogućnosti diversifikacije portfolija usloveli su potrebu za revizijom dokumenta. To je učinjeno 1996. godine, kada je kao kategorija uveden tržišni rizik, čije je pokriće predstavljao već pomenuti treći sloj kapitala. Takođe, finansijski snažne

banke, koje su ispunjavale odgovarajuće kriterijume, imale su mogućnost korišćenja internih rejting sistema. Međutim, kako internim rejting sistemima nije pridavan dovoljan značaj, banke su bile u obavezi da izračunavaju dve različite mere rizika, po internom i standardizovanom pristupu. I pored amandmana, standardi Bazela I nisu predstavljali adekvatno rešenje u izmenjenim uslovima poslovanja banaka pa je Bazelski komitet 2004. godine objavio dokument pod naslovom *Međunarodna merenja kapitala i standardi o kapitalu*, poznatiji kao Bazel II. Potrebe za povećanjem sigurnosti i stabilnosti bankarskih sektora širom sveta uslovile su donošenje ovog dokumenta, koji je predstavljao pokušaj eliminisanja egzistirajućih problema. U odnosu na Bazel I, ovaj sporazum se karakteriše novom strukturom koja se bazira na interakciji tri osnovna stuba:

- minimalna adekvatnost kapitala;
- supervizija od strane nadležnih institucija;
- tržišna disciplina.

U fokusu supervizora nalazila su se sva tri stuba. Međutim, kada su u pitanje banke, poseban akcenat je bio na prvom stubu, odnosno izračunavanju visine kapitala u skladu sa visinom rizika. Standardima Bazela II su, u okviru kvantitativnih modela izračunavanja visine kapitala, bili obuhvaćeni kreditni, tržišni i operacioni rizici. Takođe, prilikom izračunavanja visine kapitala banke mogu, ukoliko su razvijeni, koristiti interne rejting modele (Internal Rating Based approach - IRB).

Prilikom izračunavanja iznosa kapitala neophodnog za pokriće kreditnih rizika, banke mogu koristiti pondere rizika propisane od strane eksternih kreditnih agencija (External Credit Rating Agency - ECAI). Ponderi rizika su se kretali u rasponu od 20% do 150% u zavisnosti od kategorije aktive i ocene kreditnog rejtinga dužnika. Pored standardizovanog pristupa, banke mogu koristiti sopstvene modele za procenu kreditnog rizika, pri čemu je potrebno ukazati na dva pristupa: osnovni pristup koji bankama dozvoljava izračunavanje pojedinih komponenti kreditnog rizika i viši pristup na osnovu kojeg banke mogu izračunavati sve komponente kreditnog rizika.

Kada je reč o tržišnom riziku, prema bazelskim standardima je potrebno razdvojiti

the final elimination of the barriers to an interstate banking. In addition, Gramm Leach Bliley Act of 1999 abolished the barriers between the commercial and the investment banking, which allowed the commercial banks to engage in highly risky deals in the domain of investment banking.

The banking sector in the USA today is of a dual character, in view of the fact that licenses may be issued both at the federal state level and at the federal central level. In such an environment, competencies of the different regulatory institutions are, up to a measure, overlapping. Early in the 21st century, the role of the banking sector regulator in the USA was in the hand of the following institutions:

- Office of the Comptroller of the Currency - OCC;
- Board of Governors of the Federal Reserve System;
- Federal Deposit Insurance Corporation - FDIC.

In such an environment, federal banks are subject to control by the Office of the Comptroller of Currency. Regarding the federal banks it is necessary to distinguish between the banks that are members of the Federal Reserve System (business regulated by the Board of Governors), and the non-members whose business is regulated by the Federal Deposit Insurance Corporation. In addition to the above mentioned institutions, there are yet another two institutions which are regulating business of savings banks and credit unions, and they are: Office of Thrift Supervision - OTS, and the National Credit Union Administration - NCUA.

International aspect of the banking regulation framework

An important place in the analysis of the banking regulation development from the historical aspect is occupied by the analysis of the international convergence of conditions for the banking institutions business operations. Primarily, what is an outstanding achievement is the work of the Basel Committee for Banking Supervision, which was established in 1974 by the governors of central banks of the highly developed countries of the Group-10. The Committee prescribes terms and conditions for cooperation

between the member countries regarding the matters of banking supervision. In the beginning, international cooperation was brought to the forefront in the field of supervision, to have the efforts later on focused rather on a better understanding of supervision and enhancing of its quality, which required: exchange of information on the national supervision programmes; an upgraded efficiency of the supervision techniques for the international banking business; and setting up of the minimum supervision standards (BCBS, 2009).

Basel Committee focused special attention on the matters pertaining to the capital adequacy and requirements for the regulatory framework within an international environment. Regulations passed by the Committee were not legally binding for the banking institutions for as long as they are not, in the form of laws, adopted in the parliaments of the member countries. Nevertheless, it is deemed that the banking of a given country will not have credibility unless its legislature does comprise incorporated standards of the Basel Committee. In the EU area, Basel Committee standards regarding capital adequacy are presented in the form of directives or regulations.

Up to date, the Basel Committee for Banking Supervision has verified three significant documents which are impacting banking regulation. The first Basel document had the aim to establish single requirements regarding capital adequacy that the banks are bound to hold. In addition, the objectives of this document were the following: prevention of the banking crisis eruption, promotion of domestic banks as stable and solvent, and elimination of problems arising from disharmonised regulatory frameworks.

Basel I standards pertained to the minimum amount of capital where the banks were required to hold capital in the amount of not less than 8% of the risk weighted assets. Capital was divided into two levels, with the introduction of the 3rd level where the capital elements were the following:

- Basic capital (Tier 1) which covered reserves from gains, equity capital, innovative instruments and reserves;
- Additional capital (Tier 2) which consisted of general reserves for estimated losses,

standardizovani pristup izračunavanju kapitala od internih modela. BCBS (2001) ističe da je prilikom izračunavanja potrebnog iznosa kapitala banke prvo potrebno utvrditi visinu potrebnog kapitala za pokriće kreditnih i operativnih rizika. Nakon toga se izračunava kapital potreban za pokriće tržišnih rizika, ali tek pošto se utvrdi u kojoj su meri sloj 1 i sloj 2 kapitala slobodni za pokriće tržišnih rizika.

Drugi stub ovog sporazma odnosi se na proces supervizije banaka od strane nadležnih institucija. Pored zadataka koji se odnose na minimalne zahteve za kapitalom, supervizori imaju mogućnost razvoja internih metodologija pomoću kojih će upravljati rizicima. Odnos između supervizora i banaka ključan je za adekvatno sprovođenje procesa upravljanja rizicima, pa se prudenciona supervizija se bazira na 4 principa:

- Zahtevi za minimalnim kapitalom - banka treba da uspostavi proceduru za procenu adekvatnog iznosa kapitala u zavisnosti od rizika, kao i strategiju za održavanje nivoa kapitala.
- Princip evaluacije - supervizori treba da više evaluaciju procesa, strategija i tehnika sve dok je banka u stanju da obezbedi ispunjenost minimalnih uslova kapitala.
- Princip odgovornosti - supervizori da očekuju od banaka da raspolažu iznosom kapitala koji prevazilazi minimalni zahtevani iznos kapitala.
- Princip ranih intervencija - supervizori treba da podrže intervenciju u ranim fazama kako kapital ne bi pao ispod propisanog minimuma.

Kao dopunu prva dva stuba, standardi Bazela II ističe tržišnu disciplinu u smislu obaveza pružanja informacija o ključnim pokazateljima poslovanja banaka. Međutim, kako banke ne bi bile opterećene obimnim procedurama, a tržište preplavljeno mnoštvom neupotrebljivih informacija, Bazel II je definisao sledeće informacije kao važne: informacije o visini kapitala i aktive banaka; računovodstvenu praksu; distribuciju kreditne izloženosti u okviru različitih grupa RD; način merenja rizika i sistem kontrole koji je na snazi (Resti i Sironi, 2007).

Procena efektivnosti standarda Bazelskog komiteta u kontekstu svetske ekonomske krize ukazuje da su dokumentima imanentni

određeni propusti. Kao značajan propust, može se izdvojiti neprimerenost odnosa monetarne i prudencione politike realnim dešavanjima. Odsustvo odgovornosti monetarnih vlasti za sprovedene akcije i supervizora za nadzor nad relevantnim aktivnostima doprineli su intenziviranju efekata svetske ekonomske krize.

Bazel III predstavlja odgovor Komiteta na svetsku finansijsku krizu koja je eskalirala 2008. godine. U prvom redu, dokument je rezultat napora da se regulatorni okvir bankarskog poslovanja učini stabilnijim, pritom ističući značaj adekvatnog načina upravljanja rizicima. Osnovni cilj Bazela III je obezbeđenje uslova u kojima su banke u stanju da apsorbuju šokove koji nastaju bilo na finansijskom tržištu ili u sektoru privrede. Dokument je dogovoren 2010. godine, sa klauzulom da implementacija započne od 2013. godine.

Standardi Bazela III kombinuju dva komplementarna pristupa supervizije, mikropristup, na nivou pojedinačne banke s jedne strane i makropristup, s druge strane. Mikroprudenciona supervizija se odnosi na povećanje otpora banaka u periodima tržišnih neizvesnosti putem uslovljavanja višeg kvaliteta kapitala banaka, primerenijeg obuhvatanja rizika i adekvatne supervizije. S druge strane, makroprudenciona supervizija u prvi plan ističe tri elementa i to:

- kapitalne amortizere;
- standarde likvidnosti;
- racio leveridža.

U kontekstu novog sporazuma, može se govoriti o promenama samog koncepta kapitala. Minimalni zahtevi za kapitalom i dalje iznose 8% riziko ponederisane aktive, dok minimalan iznos za sloj 1 kapitala iznosi 6%. U odnosu na Bazel II, promene se ogledaju u eliminisanju trećeg sloja kapitala, prekompoziciji u strukturi slojeva 1 i 2 i uvođenju novi kategorija kao što su zaštitni i kontraktilni amortizeri. Opravdanost uključivanja zaštitnog kapitalnog amortizera jeste stvaranje zaliha u fazi ekspanzije koje bi bile korišćene u slučaju gubitka a da to nema posledice po minimalnu zahtevanu stopu kapitala. Amortizer kapitala je uključen u sloj 1, tačnije u zajednički akcijski kapital, ali se utvrđuje u visini od 2,5% iznad minimalnog zahtevanog kapitala. Na taj način, minimalni zahtevi su uvećani i

revaluated reserves, hybrid debt capital instruments, and subordinated (long-term) bonds;

- Tier 3 capital - consisting of short-term subordinated bonds.

The basic text of the Basel capital adequacy accord was criticised for several significant shortcomings, which resulted in the adoption of a new accord. The basic shortcomings such as taking into account of the credit risk alone; inadequate risk differentiation in the sense of risk weight; neglect of the option for portfolio diversification, have caused the need for the document to be revised. This was done in 1996, when market risk was introduced as a new category that required coverage from the above mentioned Tier 3 capital. In addition, financially solid banks that were complying with the required criteria had the option of using internal rating systems. However, as the internal rating systems were not allotted sufficient importance, banks were obliged to calculate two different risk measures, one according to the internal and another according to the standardised approach. In spite of the amendments made, Basel I standards did not present an adequate solution in the changed circumstances of banking operations, so that the Basel Committee, in 2004, published the document entitled International Capital Measurements and Capital Standards, better known as Basel II. The need to enhance security and stability of the banking sectors throughout the world caused this document to be published, which was an attempt at eliminating the existing problems. In respect to Basel I, this accord was characteristic for the new structure that is based on the interaction of the three basic pillars:

- Minimum capital adequacy;
- Supervision by competent institutions;
- Market discipline.

All of the three pillars were in the focus of the supervisors. However, when speaking of banks, special accent was placed on Pillar One, i.e. on calculating the amount of capital in accordance with the amount of risk exposure. Basel II standards, within the framework of quantitative capital adequacy calculation models, covered credit risk, market risk and operational risk. In addition, during calculation of the capital adequacy, banks have the option,

in case they are well developed ones, to use Internal Rating Based approach - IRB.

When calculating capital required for covering credit risks, banks can use risk weights prescribed by the External Credit Rating Agencies - ECAI. Risk weights were ranging from 20% to 150% depending on the category of assets and the credit rating of the obligor. In addition to the standardised approach, banks can use their own credit risk rating models, where it is necessary to point out at two approaches: the basic approach which allows the banks to calculate individual credit risk components, and the advanced approach on the basis of which banks can calculate all the credit risk components.

When speaking of the market risk, according to the Basel standards, it is necessary to differentiate standardised capital calculation approach from the internal models. BCBS (2001) points out that during capital adequacy calculation for a bank it is primarily necessary to determine the amount of capital for covering credit and operational risks. Thereupon calculation is made of the capital necessary for covering market risks, but only after it is determined to what extent the Tier 1 and the Tier 2 capital is free for covering market risks.

Pillar II of this accord pertains to the process of banking supervision by the competent institutions. In addition to the tasks with respect to the minimum capital adequacy, supervisors have the option to develop internal methodologies that they will apply in managing risks. The relationship between supervisors and banks is of crucial importance for an adequate implementation of the risk management process, hence prudential supervision is based on the following four principles:

- Capital adequacy requirements - bank should set up the procedure for assessment of the capital adequacy depending on the risks, but also the strategy for maintaining level of capital.
- Evaluation principle - supervisors should make evaluation of processes, strategies and techniques for as long as the bank is able to provide compliance with the minimum capital adequacy requirements.
- Responsibility principle - supervisors should expect the banks to have available

iznose 8,5%, kada je u pitanju sloj 1 kapitala, odnosno 10,5% za ukupni kapital. Bankama nije direktno nametnuta obaveza formiranja kontracikličnog amortizera, već nacionalni regulatori u zavisnosti od pretnji sistemske prirode mogu zahtevati ovu formu kapitala. Suština kontracikličnog amortizera ogleda se u činjenici da se pri velikom kreditnom rastu povećava sistemski rizik, pri čemu se njegova visina nalazi se u okviru raspona 0-2,5% riziko ponderisane aktive.

Opravdanost drugog stuba Bazela III ogleda se u činjenici da su problemi nastajali zbog nedovoljno likvidnih sredstava i pored adekvatnosti kapitala. Jedan od standarda vezanih za drugi stub ovog dokumenta zahteva obavezu držanja visoko likvidne aktive u iznosu većem od očekivanih neto gotovinskih odliva u narednih 30 dana. Kao treći stub, ratio leveridža doprinosi uspostavljanju limita ukupne izloženosti banaka i eliminisanju mogućnosti prezaduženosti banke.

Rokovi planirane implementacije razlikuju se u zavisnosti od elementa Sporazuma. Kada su u pitanju minimalni zahtevi za kapitalom, planirano je da se implementacija završi do 1. januara 2015. godine. Takođe, planirano je da implementacija standarda koji se tiču zaštitnog i kontracikličnog amortizera počne 1. januara 2016. godine, kako bi se do 1. januara 2019. godine dostigli zahtevani nivoi. Kada su u pitanju standardi likvidnosti, bitno je napomenuti da je faza posmatranja počela 2011. godine i da je planirano da 2015. godine ratio pokriva likvidnosti bude u operativnoj upotrebi. Implementiranje odredbi u vezi sa raciom leveridža je započelo 2011. godine, a planirano je odvijanje u dve faze, faze monitoringa (do 1. januara 2013. godine) i faze paralelne primene.

Reprezentativni postkrizni modeli bankarske regulative

Model bankarske regulative u Evropskoj uniji

Na prostoru EU, standardi Bazela III implementirani su u vidu Direktive o kapitalnim zahtevima (Capital Requirements Directive IV - CRD IV). U pogledu implementacije, CRD IV se razlikuje od originalnog teksta Sporazuma. Tako, i pored toga što je Bazelski sporazum

o kapitalu (Bazel I) predstavljao okvir za banke okrenute međunarodnom poslovanju, EU zakonodavstvo nije pravilo razliku zbog potencijalnih velikih distorzija na finansijskim tržištima. Stoga se standardi Bazela III u EU baziraju na principu „jedna mera za sve“ (one size fits all). Kada je reč o CRD IV, Schmidt i saradnici (2011) ističu sledeće razlike u odnosu na originalni tekst Bazela III:

- CRD IV više pažnje poklanja aranžmanima korporativnog upravljanja pri čemu izvršni odbor ima značajniju ulogu u procesu upravljanja rizicima.
- Supervizori država članica sankcionišu banke ukoliko su prekršene odredbe CRD IV i pravila prihvaćena od strane Evropska bankarska uprava (European Banking Authority - EBA).
- Banke su dužne da obezbede supervizorima godišnje preglede aktivnosti.
- Institucionalni okvir omogućava zaokret u korišćenim rejting sistemima, pri čemu se od banaka se zahteva razvoj internih rejting sistema.

Svetska finansijska kriza uzdrmala je čitavu EU i otkrila slabosti postojećeg regulatornog okvira. S ciljem da se otklone uočene i preduprede potencijalne slabosti, Evropska komisija je formirala radnu grupu čiji je zadatak bio je da ukaže na neophodne promene u regulatornom okviru u EU. Osnovne slabosti bile su: odsustvo makroprudencione supervizije, neefikasan mehanizam ranog upozoravanja i nedovoljna efikasnost komiteta koji su funkcionisali u okviru trećeg nivoa Lamfalussy-eve procedure. Imajući u vidu sve slabosti, predloženi okvir supervizije u EU bazira se na dva međusobno povezana stuba:

- I stub - Makroprudenciona supervizija. Formiran je Evropski odbor za sistemski rizik (European Systemic Risk Board - ESRB), čiji su osnovni zadaci sprečavanje i ublažavanje rizika koji prete da umanje stabilnost finansijskog sistema EU, s jedne strane i obezbeđenje uslova za neometano funkcionisanje EU tržišta, s druge strane.
- II stub - Mikroprudenciona supervizija. Osnovan je Evropski sistem finansijskih supervizora (European System of Financial Supervision - ESFS) koji uključuje nacionalne supervizerske organe i Evropski odbor za

the amount of capital that exceeds the minimum required capital adequacy.

- Early intervention principle - supervisors should support intervention in the early phases in order to prevent capital to fall below the prescribed minimum.

As an addition to the first two pillars, Basel II standards underline market discipline in the sense of an obligation to offer information on the key indicators of the banking business. However, in order to avoid burdening the banks with massive procedures, while the market is flooded with a multitude of useless information, Basel II defined the following information as important ones: information on the amount of capital and bank assets; accounting practices; distribution of credit exposure within different groups of RD; manner of risk measurement and control system that is in force (Resti and Sironi, 2007).

The assessment of effectiveness of the Basel Committee standards in the context of the world economic crisis points out that the documents have certain immanent shortcomings. As an important shortfall what can be distinguished is a disproportionate relationship between monetary and prudential policies, on the one hand and the events actually taking place in reality. The absence of accountability of the monetary authorities for actions conducted and supervisors for supervision implemented over the relevant activities have contributed to intensifying the effects of the world economic crisis.

Basel III is the response of the Basel Committee to the world financial crisis which had escalated in 2008. Primarily, this document is the result of efforts to make banking business regulatory framework more stable, while emphasizing the importance of an adequate manner of risk management. The basic target of Basel III is providing conditions in which banks will be able to absorb shocks emerging either in financial markets or in the sector of economy. The document was agreed upon in 2010, with the implementation clause starting as of 2013.

Basel III standards are combining two complementary approaches to supervision: micro approach, on the level of an individual bank, on the one hand, and macro approach, on the other. Micro-prudential supervision pertains to an enhanced resistance of banks in the periods of market uncertainties by requiring

higher quality of the bank capital, more appropriate risk assessment, and adequate supervision. On the other hand, macro-prudential supervision places at the forefront the following three elements:

- Capital buffers;
- Liquidity standards;
- Leverage ratio.

In the context of the new accord, the changes in the capital concept itself may be argued. Minimum capital adequacy requirements still amount to 8% of the risk weighted assets, while the minimum amount for Tier 1 capital is 6%. With respect to Basel II Accord, changes are reflected in the elimination of the Tier 3 capital, re-composition in the structure of the Tier 1 and 2 capital, and introduction of the new categories such as the protection and counter-cyclic buffers. Justification for the inclusion of the protective capital buffer is the creation of reserves in the phase of expansion which are to be used in case of losses, without having any consequences on the minimum required capital rate. Capital buffer is included in Tier 1 capital, or more precisely, in the joint equity capital but it is set at the amount of 2.5% above the minimum required capital. In this manner, minimum capital requirements are increased and amount to 8.5% when speaking of the Tier 1 capital, i.e. 10.5% for the total capital. Banks are not directly imposed the obligation of forming the counter-cyclic buffer, but the national regulators, depending on the threats of systemic nature, may require this form of capital. The core of counter-cyclic buffer is reflected in the fact that in case of high credit growth what also grows is the systemic risk, where its amount is to be found within the scope of 0-2.5% of the risk weighted assets.

Justification of the Basel III Pillar 2 is reflected in the fact that the problems were emerging because of insufficiently liquid funds in spite of the capital adequacy. One of the standards pertaining to the Pillar 2 of this document requires a mandatory holding of highly liquid assets in an amount higher than the expected net cash flows over the period of the forthcoming 30 days. As Pillar 3, leverage ratio contributes to the establishment of the limits to the total exposure of banks and elimination of the options for over-indebtedness of banks.

sistemske rizik. Jedna od značajnih novina jeste uspostavljanje Evropskih nadzornih vlasti (European Supervision Authority) u oblasti bankarstva, HoV i osiguranja i penzionih fondova i formiranje Zajedničkog komiteta. Ovi organi su zamenili komitete CEBS, CESR i CEIOPS koji su funkcionisali u okviru trećeg nivoa Lamfalussy-eve procedure.

ESRB funkcioniše kao mehanizam ranog upozorenja na povećane rizike uz opciju da ukoliko je neophodno predloži akcije za kontrolu rizika. Upozorenja mogu biti opšteg ili specifičnog tipa, kada se odnose na određene zemlje članice. Međutim, ESRB nema pravno obavezujuća ovlašćenja, već su svi predlozi prvenstveno dati u formi preporuka što može uticati na efikasnost samog sistema. U takvim uslovima nacionalni supervizori mogu činiti šta smatraju da je potrebno, a ne ono na šta ESRB ukazuje.

S druge strane, pod pokroviteljstvom ESFS funkcionišu nacionalni finansijski supervizori i tri supervizorske institucije: Evropska bankarska uprava (European Banking Authority - EBA), Evropska uprava za osiguranje i penzione fondove (European Insurance and Occupational Pension Authority - EIOPA) i Evropska uprava za tržište HoV (European Securities and Market Authority - ESMA). Evropska komisija je odabrala model regulacije koji podrazumeva razdvajanje sektora bankarstva, osiguranja i tržišta HoV. Međutim, model omogućava i međusektorske operacije radi uspostavljanja integralnih regulatornih principa.

Pomenute tri supervizorske institucije zamenile su komitete koji su imali savetodavnu ulogu u okviru trećeg nivoa Lamfalussy-eve procedure. Promene se ogledaju u dodeljivanju višeg stepena autonomije instituciji ESMA, budući da ima mogućnost razvoja regulatornih standarda koji moraju biti podržani od strane Evropske komisije.

Kao potencijalni problem istaknut je model osiguranja depozita, pa je 2010. godine Evropska Komisija predložila reviziju Direktive iz 1994. godine. Bilo je potrebno osavremeniti model osiguranja i prilagoditi ga aktuelnom stanju u bankarskom sektoru. Kao osnovni ciljevi istaknuti su ostvarivanje transparentnosti u funkcionisanju sistema osiguranja depozita, rast poverenja deponenata u bankarski

sektor i sprečavanje nastanka bankarskih panika. Efikasan sistem osiguranja depozita u velikoj meri doprinosi manjem stepenu korišćenja novca poreskih obveznika u slučaju nastupanja bankrotstava pojedinačnih banaka. Ipak, ukoliko nastupi bankrotstvo banke, deponentima se isplaćuje iznos od maksimalno 100.000 evra.

Tokom poslednje dve decenije, između konkretnih rešenja sistema osiguranja depozita u zemaljama EU postojale su razlike u pogledu organizacione strukture i modelima formiranja finansijskog potencijala u slučaju bankrotstva. Zbog toga je bilo potrebno razviti jedinstven model. Novi model ističe četiri potencijalna izvora za formiranje finansijskog potencijala neophodnog za izvršavanje obaveza prema deponentima:

- Svaka banka je u obavezi da izdvoji 1,5% od iznosa prikupljenih depozita. Prilikom određivanja ovog iznosa potrebno je u obzir uzeti i informacije o rizicima sa kojima se banka suočava.
- Ukoliko sredstva prikupljena na ovaj način nisu dovoljna za izvršavanje plaćanja u slučaju bankrotstva banke, od učesnika se zahteva izdvajanje dodatnih 0,5% od iznosa prikupljenih depozita.
- U slučaju potrebe za dodatnim zaduženjem, pomoć će biti pružena od strane specijalne institucije. Iznos koji se može obezbediti na ovaj način iznosi maksimalno 0,5% prikupljenih depozita.
- Postoji mogućnost ugovaranja finansijskih aranžmana sa drugim institucijama.

U osnovi predloženog modela leži zahtev za transparentnošću tako što se banke obavezuju da objavljuju specifične informacije koje se tiču bankarskog poslovanja. Kako bi transparentnost bila postignuta u punom obimu, neophodno je obezbediti uslove za informacionu kooperaciju deponenata, s jedne strane i banaka i kreditnih institucija, s druge strane (Mülbert i Wilhelm, 2012).

Bankarska kriza na Kipru pokrenula je diskusije u vezi sa efikasnošću šeme osiguranja depozita i eventualnog uvođenja poreza na depozite. Depoziti bankarskog sektora na Kipru dostigli su nivo kada država više nije mogla da garantuje njihovu sigurnost bez spoljne pomoći. Plan predložen od strane država EU,

Timeline for the implementation differ depending on the elements of the Accord. When speaking of the minimum capital requirements it is planned for the implementation to be completed by 1 January 2015. In addition, it is planned for the implementation of standards pertaining to the protection and counter-cyclic buffers to start on 1 January 2016, in order to reach, by 1 January 2019, the required level. When speaking of the liquidity standards it is important to mention that the observation phase had started in 2011 and that it is planned by 2015 to have the ratio of liquidity coverage to be in operative use. Implementation of the provisions pertaining to the leverage ratio started in 2011, and the implementation is planned in two phases, the phase of monitoring (up to 1 January 2013), and the phase of parallel implementation.

Representative post-crisis banking regulation models

Banking regulation models in the European Union

In the European Union, Basel III standards are being implemented in the form of Capital Requirement Directive IV - CRD IV. Regarding implementation, CRD IV differs from the original text of the Accord. Hence, in spite of the fact that the Basel Capital Adequacy Accord (Basel I) represented the framework for banks focused on the international operations, EU legislature did not make any differentiation because of great distortions on the financial markets. Therefore, Basel III standards in the EU are based on the principle "one size fits all". When speaking of the CRD IV, Schmidt and associates (2011) underline the following differences in respect to the original Basel III Accord text:

- CRD IV is paying more attention to the arrangements of corporate governance where the executive board has a more important role in the risk management process.
- Supervisors of the member countries are sanctioning the banks in case of breach of the CRD IV provisions and rules adopted by the European Banking Authority - EBA.
- Banks are bound to submit to their

supervisor annual survey of activities.

- Institutional framework allows for a turn around in the rating systems that are in use, where the banks are required to develop their own internal rating systems.

The world financial crisis has shaken the entire EU and revealed weakness of the existing regulatory framework. With the aim to eliminate the identified and prevent the potential weaknesses, European Commission established a work group tasked with identifying necessary changes in the EU regulatory framework. The basic weaknesses were the following: absence of macro-prudential supervision, an inefficient early warning mechanism, and insufficient efficacy of the committees that were acting within the framework of the third level of the Lamfalussy procedure. Bearing in mind all of these weaknesses, the proposed supervision framework in the EU is based on the two mutually related pillars:

- Pillar I - Macro-prudential supervision. The European Systemic Risk Board - ESRB was formed with the main tasks to prevent and mitigate risks threatening to undermine stability of the EU financial system, on the one hand, and to provide conditions for the smooth functioning of the EU market, on the other hand.
- Pillar II - Micro-prudential supervision. European System of Financial Supervision - ESFS was formed which includes national supervising authorities and the European Systemic Risk Board. One of the important novelties is the establishment of the European Supervision Authority in the field of banking, securities and insurance, and pension funds, and setting up of the Joint Committee. These authorities have come to replace the CEBS, CESR, and CEIOPS committees, which have been functioning within the third level of the Lamfalussy procedure.

The ESRB is functioning as an early warning mechanism identifying increased risks with the option to propose, if necessary, actions for the risk control. Warnings may be of a general or a specific type, when pertaining to certain member countries. The ESRB, however, does not have legally binding authorisation, but all the proposals are primarily given in the form of recommendations, which may have an impact

koji je podržan od strane MMF-a i ECB imao je za cilj uvođenje diferencirane stope poreza na depozite (9,9% na iznos preko 100.000 € i 6,75% na iznos do 100.000 €). To je izazvalo paniku među deponentima i rezultovalo zatvaranjem banaka. Međutim, kako Kiparski političari nisu bili spremni na ovako radikalne poteze, usvojeno je prelazno rešenje po kojem obavezi plaćanja poreza na depozite podležu vlasnici depozita iznosa preko 100.000 €.

Efekte svetske ekonomske krize, usloveli su da se pojedine države Evropske unije suoče sa problemom rastućih javnih dugova. Ovi problemi su uticali na čitav bankarski sistem u EU, a posebno na one banke koje su u svojoj aktivnosti imale HoV država sa problemima u javnom sektoru (Grčka, Italija, Portugal, Španija i Irska). Razlog preliivanja efekata krize je visok stepen povezanosti bankarskog sistema s jedne strane i realnog sektora država članica, s druge strane što je potvrđeno u uslovima privredne recesije i rasta javnih dugova, kada su se banke suočile sa smanjenjem poverenja građana u bankarski sistem.

Postojeća infrastruktura sistema bankarske regulative bazira se na superviziji, regulaciji i zaštiti na nacionalnom nivou. U takvim uslovima, dolazi do stimulisanja nacionalnih bankarskih sistema što rezultira povećanjem troškova saniranja banaka. S druge strane, jedinstveni regulatorni okvir pružio bi pomoć bankarskom sektoru u slučaju visokih sistemskih rizika, eliminisao slabosti i obezbedio sigurnost sistema. Sistemski pristup superviziji doprineo bi unapređenju identifikaciji i eliminisanju rizika, dok bi konzistentna primena regulatornih pravila širom EU dovela do smanjenja nacionalnih disproporcija u pogledu načina organizovanja sistema i regulative. Stoga bi formiranje bankarske unije na prostoru Evrope eliminisalo nedostatke u funkcionisanju monetarne unije, povećalo poverenje između učesnika i stvorilo uslove za rast kreditne aktivnosti u bankarskom sektoru.

Imajući u vidu probleme u EMU i iskazane slabosti bankarskih sistema, bankarska unija je neophodna. Pritom, potrebno je da ona obuhvati sve tipove banaka, a ne samo sistemske ili ugrožene, kako je glasilo jedan od predloga. Na taj način bi se u velikoj meri doprinelo ujednačavanju uslova poslovanja i eliminisanju mogućnosti za regulatornu arbitražu.

Predlog Evropske komisije iz septembra 2012. godine odnosio se na kreiranje jedinstvenog mehanizma supervizije (Single Supervision Mechanism - SSM) i preciznije određene uloge Evropske bankarske vlasti (EBA). Uloga supervizora dodeljena je ECB koja bi sa obavljanjem svoje funkcije trebalo da počne 2014. godine. U fokusu supervizorske institucije nalaziće se banke koje su već zatražile spoljnu pomoć i banke koje se nalaze u procesu dokapitalizacije. Iako se ECB nalazi u centru sistema, kao glavna supervizorska institucija, nacionalne centralne banke ostaju nadležne za superviziju banaka u svojim državama. Stoga je, u cilju efikasnog funkcionisanja sistema, potrebno omogućiti koordinaciju akcija ECB i nacionalnih centralnih banaka.

Objedinjavanje funkcija supervizije banaka i vođenja monetarne politike u okviru ECB može dovesti do sukoba interesa (Goyal i saradnici 2013), pa je stoga potrebno radvojiti funkcije ECB i obezbediti maksimalnu transparentnost u njenom poslovanju. Pored toga, za ostvarivanje adekvatnog funkcionisanja sistema supervizije, neophodno je razdvojiti odgovornosti i ovlašćenja koja imaju nacionalne centralne banke od odgovornosti i ovlašćenja ECB. Zbog bolje interoperabilnosti ECB potrebno je uspostaviti organe na nivou čitave Evrope, na čijem čelu će biti ECB eksperti.

Formiranje bankarske unije, pored koristi, sa sobom nosi određene troškove, koji se između ostalog ogledaju i u iznalaženju adekvatnih kadrovskih rešenja. Kako nova infrastruktura zahteva kvalitetne i obučene kadrove, postavlja se pitanje šta će se desiti sa postojećom infrastrukturom i kadrovima. Ioannidou (2012) smatra da se rešenje ogleda u davanju višeg stepena ovlašćenja nacionalnim supervizorima kada su u pitanju male institucije, koje zbog posebnih karakteristika mogu imati veliki značaj. S druge strane, za ostvarivanje maksimalnih koristi evropski supervizori moraju obezbediti harmonizovan okvir funkcionisanja na nivou EMU. Za efikasnost supervizije potrebno je poštovanje sledeća dva pristupa:

- Pristup zasnovan na primeni Bazelskih standarda, koji je usmeren ka uspostavljanju adekvatne strukture supervizije.
- Pragmatični pristup koji omogućava brzo

on the efficacy of the system itself. In such circumstances, national supervisors may react as they see fit, and not necessarily as the ESRB is indicating.

Under the auspices of the ESFS, on the other hand, what are functioning are the national supervisors and three supervision institutions: European Banking Authority - EBA, European Insurance and Occupational Pension Authority - EIOPS, and the European Securities and Market Authority - ESMA. European Commission selected the regulation model which provides for the separation between the sectors of banking, insurance, and the securities market. However, the model allows for cross-sectoral operations to establish integrated regulatory principles.

The above mentioned three supervisory institutions have replaced the committees that were having an advisory role within the third level of the Lamfalussy procedure. The changes are reflected in allocating a higher degree of autonomy to the ESMA institution, as it has the options for the development of the regulatory standards that must be supported by the European Commission.

One of potential problems that were highlighted was the deposit insurance model, and in 2010, European Commission proposed a revision of the Directive from 1994. It was necessary to upgrade the insurance model and adapt it to the actual state of affairs in the banking sector. The basic targets that were underlined were the achievement of transparency in the functioning of the deposit insurance system, boost to depositors' confidence in the banking sector, and prevention of emergence of bank run situations. An efficient deposit insurance system contributes greatly to a lower level of use of the tax-payers money in cases of bankruptcy of individual banks. Nevertheless, if a bank is to go bankrupt, depositors would be paid the amount of a maximum of 100,000 euro.

During the last two decades, there were some differences between concrete solutions in the deposit insurance system in the EU countries, regarding the organisational structure and the models of formation of the financial potential in case of bankruptcy. Therefore, it was necessary to develop a single model. The new model is focused on four potential sources for the formation of the financial potential necessary

for servicing liabilities towards the depositors:

- Every bank is liable to allocate 1.5% of the amount of received deposits. In determining this amount it is necessary to take into consideration also the information on the risks to which the bank is exposed.
- If the funds collected in this manner should prove not to be sufficient for payments to be made in the case of bank bankruptcy, it is required from the participants to allocate additional 0.5% from the amount of deposits made.
- In case there should be a need for additional borrowing, the assistance would be rendered by a special institution. The amount that can be secured in this manner will amount to a maximum of 0.5% of the collected deposits.
- There is an option of contracting financial arrangements with other institutions.

Basically, what this model implies is the request for transparency so that the banks are undertaking to disclose specific information pertaining to the banking business. In order for the transparency to be fully achieved, it is necessary to provide basis for the information cooperation between the depositors, on the one hand, and the banks and crediting institutions of the other (Mulbert and Wilhelm, 2012). Banking crisis in Cyprus initiated discussions regarding the efficacy of the deposit insurance scheme and possible introduction of the deposits tax. Deposits in the banking system of Cyprus had reached such a level that the state could no longer guarantee their insurance without an outside assistance. The plan proposed by the EU member state governments, which was supported by the IMF and the ECB, had the aim to introduce differential tax rates on deposits (9.9% on the amount above 100,000 euro and 6.75% on the amount up to 100,000 euro). This had caused panic amongst the depositors and resulted in the closing of banks. However, as the Cypriot politicians were not ready for such radical moves, what was adopted was a transitional solution prescribing the obligation of deposit taxation for those depositors holding deposits above the amount of 100,000 euro.

The effects of the world economic crisis caused some of the European Union countries to face the problem of growing public debt. These problems impacted the entire EU banking

reagovanje u slučaju potrebe. Uz to, pristup omogućava rešavanje problema slabih banaka i utvrđivanje seta instrumenata neophodnih za superviziju ovih banaka od strane ECB.

U pogledu implementacije sporazuma o bankarskoj uniji na prostoru EMU, planirani rok je bio polovina 2013. godine. Evropski predstavnici su pružili podršku ideji formiranja bankarske unije, ali samo ukoliko okvir odgovara aktuelnim potrebama bankarskog sistema EMU.

Promene sistema bankarske regulative u SAD

Standardi Bazela III na prostoru SAD predstavljeni su sa zakašnjenjem u odnosu na originalni tekst Bazelskog komiteta. Dokument kojim su standardi uvedeni u okvir regulisanja bankarskog poslovanja predstavljen je u julu 2013. godine (The US Basel III Final Rule). Regulatorni pristup na prostoru SAD zasniva se na principu „različita mera za sve“ (different size fits all), gde su banke klasifikovane prema visini bankarske aktive. Pored osnovnih principa Bazela III, postojanja zahteva za adekvatnošću kapitala, postoje i dopunski zahtevi na nivou individualne banke koji zavise od visine bankarske aktive i njenog značaja za bankarski sistem. Na osnovu visine aktive banke se mogu podeliti u sledećih 5 grupa:

- male banke - aktiva niža od 500 miliona \$;
- zajedničke banke - aktiva između 500 miliona i 15 milijardi \$;
- srednje banke - aktiva između 15 i 250 milijardi \$;
- velike banke - aktiva između 250 i 700 milijardi \$;
- globalne banke - aktiva iznad 700 milijardi \$.

Svetska ekonomska kriza je, kao što je to bio slučaj u EU, otkrila glavne nedostatke bankarskog sektora u SAD. Uočene slabosti koje su se ogledale u povećanim rizicima i nestabilnosti kako pojedinačnih institucija, tako i čitavog sistema uslovile su potrebu promene načina njegovog regulisanja. U odsustvu elemenata regulisanja, čitav finansijski sistem u SAD doživeo je krah. Značajan trenutak za unapređenje bankarske regulative na prostoru SAD predstavlja usvajanje Dodd-Frank akta, kojim je došlo do zaokreta u načinu regulisanja finansijskog sistema. Dodd-Frank akt, kao

pokušaj sveobuhvatne reforme finansijskog sistema u SAD, podrazumeva sledeće reforme:

- Obezbeđenje zaštite potrošača;
- Isticanje i regulisanje sistemskog rizika;
- Prekompozicija odgovornosti postojećih i kreiranje novih regulatornih institucija;
- Regulisanje bankarskih aktivnosti;
- Utvrđivanje likvidacionog postupka bankarskih institucija;
- Isticanje zahteva za transparentnošću poslovanja.

Efekti svetske ekonomske krize pokrenuli su pitanje regulisanja sistemskog rizika, budući da na prostoru SAD nije postojala regulatorna institucija odgovorna za njegov nadzor. Dodd-Frank aktom oformljen je Savet za nadzor finansijske stabilnosti (Financial Stability Oversight Council - FSOC), čije su osnovne uloge identifikacija, nadzor i regulisanje rizika koji imaju izuzetan značaj za funkcionisanje finansijskog sistema. Formiranje nove regulatorne institucije, dovelo je do prekompozicije odgovornosti postojećih regulatornih institucija. Stoga je, u skladu sa Dodd-Frank zakonom, ukinut Komitet za superviziju štedionica (OTS) pri čemu su nadležnosti raspodeljene između Sistema Federalnih rezervi, FDIC i OCC. Iako je formiran FSOC, ulogu regulatora ima Sistem Federalnih rezervi koji predstavlja najvažniju regulatornu instituciju. FED vrši nadzor nad plaćanjem, kliringom i saldiranjem koje FSOC okarakteriše kao sistemski značajne i ima pravo da definiše standarde upravljanja rizicima i učestvuje u aktivnostima supervizije u saradnji sa ostalim regulatorima.

Značajan element Dodd-Frank akta je Vokerovo pravilo (The Volcker Rule), kojim su regulisane aktivnosti bankarskih institucija. Bankama nije dozvoljeno investiranje u hedž fondove, fondove rizičnog kapitala i druge novčane fondove osim ako posluju u skladu sa sledećim zahtevima: vrednost investicije banke u određeni fond može iznositi maksimalno 3% njegove vrednosti i vrednost investicije banke može iznositi maksimalno 3% prvog sloja kapitala. Pored toga, bankama nije dozvoljeno trgovanje finansijskim derivatima, hartijama od vrednosti određenim od strane Komisije za HoV i drugim finansijskim instrumentima, sa namerom zauzimanja suprotne pozicije

system, and especially those banks that were holding in their assets securities of countries with problems in the public sector (Greece, Italy, Portugal, Spain, and Ireland). The reason for the spill-over effect of the crisis was a high degree of interconnection in the banking system on the one hand, and the real sector of the member countries, on the other hand, which was confirmed in the climate of an economic recession and growth of public debts, when the banks were faced with the loss of confidence of citizens in the banking system.

The existing infrastructure of the banking regulation system is based on supervision, regulation and protection at a national level. In such circumstances, there is a stimulation of the national banking systems which results in the growth of costs for rehabilitation of banks. On the other hand, the single regulatory framework would offer assistance to the banking sector in case of high systemic risks, it would also eliminate weaknesses and provide the security of the system. Systemic approach to supervision would contribute towards an upgrading of identification and elimination of risks, while a consistent implementation of the regulatory rules throughout the EU would bring about the reduction of the national disproportions regarding the manner of organising the system and regulatory framework. Hence the formation of the banking union in the area of Europe would eliminate shortcomings in the functioning of the monetary union and would enhance the confidence of the participants whilst creating conditions for the growth of crediting activities in the banking sector.

Mindful of the problems in the EMU and the identified weaknesses in the banking systems, banking union has become a necessity. In this, it is necessary for the union to comprise all types of banks, not only the systemic ones or those in distress, as was voiced by one of the proposals made. In this manner a great contribution would be made to the harmonisation of the business conditions and elimination of the options for regulatory arbitrage.

The proposal of the European Commission of September 2012 pertained to the creation of the Single Supervision Mechanism - SSM, and a more precise stipulation of the European Banking Authority - EBA role. The role of

supervisor was allotted to the ECB which was to commence the implementation of this function as of 2014. In the focus of the supervisory function there will be those banks which have already applied for exterior aid and banks that were in the process of re-capitalisation. Although the ECB is positioned in the centre of the system, as the main supervisory institution, national central banks remain competent for the supervision of banks in their respective states. Hence, for purpose of an efficient functioning of the system, it is necessary to allow for the coordination of actions between the ECB and the national central banks.

Joining together of the supervisory function of banks and conducting monetary policy within the ECB is likely to produce the conflict of interest (Goyal and associates, 2013), therefore it is necessary to separate functions of the ECB and provide for the maximum transparency in its business operations. In addition, for the establishment of an adequate functioning of the supervision system it is necessary to separate responsibilities and authorisations which are in the hands of the national central bank from the responsibilities and the authorisations of the ECB. For better inter-operability of the ECB it is necessary to set up the bodies on the level of entire Europe that would be headed by the ECB experts.

Formation of a banking union, in addition to the benefits, would also involve certain costs, which are among other reflected in the search for adequate human resources. As the new infrastructure requires high quality and well trained staff, the question is raised here what will happen with the already existing infrastructure and staff. Ioannidou (2012) is of the view that the solution is reflected in allowing for a higher degree of competence in the hands of the national supervisors when speaking of smaller institutions which due to certain characteristics may have a higher importance. On the other hand, for achieving maximum benefits, European supervisors must secure a harmonised framework for the functioning on the level of the EMU. For efficacy of supervision it is necessary to respect the following two approaches:

- The approach based on the Basel standards, which is aimed at the establishment of an adequate supervision structure.
- Pragmatic approach allowing for prompt

u bliskoj budućnosti (proprietary trading) (Manasfi 2012, str. 192). Ipak, ove aktivnosti su dozvoljene ako su pomenuti finansijski instrumenti korišćeni u svrhu investiranja, a ne špekulativnog trgovanja. Pored toga, postoje i određene aktivnosti koje su predmet izuzeća od Vokerovog pravila, kao što su: transakcije sa hartijama SAD vlade; market-maker aktivnosti; transakcije sa HoV u ime i za račun klijenata i određene aktivnosti u cilju smanjenja rizika.

Predlog izmene okvira regulisanja bio je predmet brojnih istraživanja, koja ukazuju da među istraživačima ne postoji konsenzus o efikasnosti Vokerovog pravila. S jedne strane, autori ističu da ovakav način regulisanja neće doprineti poboljšanju efikasnosti sistema bankarske regulative zbog problema diferencijacije dozvoljenih od nedozvoljenih bankarskih aktivnosti. Piasio (2013) ističe da poreski obveznici neće osetiti koristi zbog direktnih ili indirektnih troškova u bankarskom poslovanju. U svom istraživanju, Thakor (2012) daje sveobuhvatnu analizu potencijalnih efekata Vokerovog pravila. Pri tome, autor ističe da eventualno ograničavanje aktivnosti banaka u domenu stvaranja tržišta može u velikoj meri umanjiti efikasnost funkcionisanja finansijskih tržišta. Takođe, model diversifikovanih bankarskih aktivnosti pod uticajem Vokerovog pravila može pretrpeti promene koje će umanjiti efikasnosti bankarskih institucija.

S druge strane, Acharya i Richardson (2012) smatraju da Vokerovo pravilo, kao i čitav Dodd-Frank akt isticanjem sistemskog rizika i ograničenja bankarskih aktivnosti mogu doprineti boljem funkcionisanju sistema bankarskog regulisanja i bankarskog sistema uopšte. Slično stanovište zastupa i Dombalagian (2013), ali kao presudan element efikasnosti sistema bankarske regulative navodi političku podršku, koju nije lako obezbediti.

Još jedno pitanje koje je aktuelizovano u doba svetske ekonomske krize odnosi se na model osiguranja depozita. Odgovor na rast nepoverenja u bankarski sektor ogledao se u povećanju iznosa garantovanih depozita sa 100.000\$ na 250.000\$ tokom 2008. godine, što je u velikoj meri usporilo odliv depozita iz banaka. O značaju same mere govori i činjenica da je nakon prestanka važenja (31. decembar 2012. godine) u roku od samo sedam dana iz banaka

povučeno približno 115 milijardi \$ depozita.

Dodd-Frank zakon je predstavljao pokušaj unapređenja regulative u odnosu na uočene nedostatke. Iako su predložena rešenja, u manjoj ili većoj meri naišla na odobravanje političara, stručnjaka i javnosti, ona još uvek nisu implementirana u punom obimu u zakonodavstvo SAD.

Zaključak

Svetska ekonomska kriza ukazala je na slabosti sistema bankarskih regulativa, koje su iskazane upravo u domenu ciljeva bankarskih regulativa. Nemogućnost njihovog ispunjenja rezultat je neadekvatne primene finansijskih instrumenata, visokog finansijskog leveridža, nezaokruženog sistema upravljanja rizicima i visoke povezanosti finansijskih subjekata u uslovima izloženosti sistemskom riziku. Pored toga, neprimerenošću instrumenata sistema bankarskih regulativa u konkretnim situacijama, stvoreni su dodatni problemi.

Važno je istaći da razvijeni instrumenti nisu vremenski i prostorno jedinstveni, odnosno nisu relevantni za sve sisteme bankarskih regulativa, već mogu biti korišćeni u zavisnosti od konkretnih situacija. Ipak, između razvijenih sistema bankarskih regulativa postoje određene sličnosti, kao što je slučaj u Japanu i Velikoj Britaniji, gde postoji jedinstvena regulatorna institucija. U radu razmatrana pitanja relevantna za sisteme bankarskih regulativa, koja su aktuelizovana u uslovima globalne finansijske krize. Kako je problem asimetričnih informacija sveprisutan u sistemima bankarskih regulativa, potrebno je uspostaviti monitoring nad bankarskim aktivnostima. Uz to, ulogu centralne banke kao kreditora poslednje instance treba posmatrati kao dopunski mehanizam regulisanja, zbog mogućih negativnih posledica na efikasnost sistema. Konačno, značajan element sistema bankarskih regulativa, sistem osiguranja depozita, može biti organizovan na više načina, u zavisnosti od konkretnih situacija.

U radu je, posmatrajući razvoj bankarske regulative u istorijskom kontekstu, ukazano na osobenosti sistema bankarskih regulativa u EU i SAD. Na prostoru EU, gde je finansijski sistem okarakterisan kao bankocentričan, učinjeni su

reaction in case of need. In addition, this approach allows the solution of problems of weak banks and determination of a set of instruments necessary for supervision of these banks by the ECB.

Regarding the implementation of the agreement on the banking union in the EMU area, the planned timeline was mid-year 2013. European representatives offered their support to the idea of formation of the banking union, but only in so far as the framework would be convenient for the actual needs of the banking system of the EMU.

Changes in the banking regulatory system of the USA

Basel III standards in the USA were presented in a rather delayed fashion in respect to the original text of the Basel Committee. Documents that were introducing standards in the banking business regulatory framework were presented in July 2013 (The US Basel III Final Rule). Regulatory approach in the USA is based on the principle "different size fits all", where the banks were being qualified according to the amount of their banking assets. In addition to the basic Basel III principles, the presence of the capital adequacy requirement, there are also some other additional requirements on the level of individual banks which depend on the amount of the banking assets and their importance for the banking system. On the basis of the amount of the bank assets, the banks can be divided into the following 5 groups:

- Small size banks with assets below 500 million \$;
- Joint banks - with the assets between 500 million and 15 billion \$;
- Medium size banks - with the assets between 15 and 250 billion \$;
- Large scale banks - with the assets between 250 and 700 billion \$;
- Global banks - with the assets above 700 billion \$.

The world economic crisis, as was the case in the EU, highlighted the main shortcoming of the US banking sector. The identified weaknesses, which were reflected in increased risks and instability both in individual institutions, but also in the entire system, caused the need for changes in the way in which their regulation

was set up. In the absence of the regulation elements, the entire US financial system suffered a great failure. An important moment of the improving of the banking regulatory framework in the USA was the adoption of the Dodd-Frank Act, which marked a turning point in the manner of regulating financial system. Dodd-Frank Act was an attempt to instigate a comprehensive reform of the financial system in the USA, and it comprises the following reforms:

- Securing consumer protection;
- Emphasising and regulating systemic risk;
- Re-composition of responsibility of the existing and the creation of the new regulatory institutions;
- Regulation of banking activities;
- Setting up of the liquidation procedure for the banking institutions;
- Enhancing the requirements for transparency in business operations.

The effects of the world economic crisis have initiated the question of regulating systemic risk, in mind of the fact that in the USA there was no regulatory institution in place that was responsible for its supervision. Dodd-Frank Act provided for the formation of the Financial Stability Oversight Council - FSOC, with the main role to identify, supervise and regulate risks that are having outstanding importance for the functioning of the financial system. The formation of the new regulatory institution caused the re-composition of the responsibility of the existing regulatory institutions. Hence, in accordance with the Dodd-Frank Act, the Committee for Savings Banks Supervision (OTC) was dissolved, and its competencies were divided between the Federal Reserve System, FDIC and OCC. Although the FSOC was formed, the role of regulator is held by the Federal Reserve System which represents the most important regulatory institution. FED is exercising supervision of the payments, clearing and settlement which the FSOC characterises as the systemically important and has the right to define standards for risk management and participate in the supervision activities in cooperation with other regulators.

The important element of the Dodd-Frank Act is the Walker Rule which regulates activities of banking institutions. Banks are not allowed

napori na integraciji i harmonizaciji regulatorno okvira različitih država. Problemi nedovoljne harmonizacije regulatornih okvira i nedovoljne integrisanosti finansijskih tržišta ispoljeni su i u uslovima visoke političke integrisanosti. Stoga su posebni napori učinjeni u cilju stvaranja jednoobraznih standarda i procedura, kao i integrisanog finansijskog tržišta, gde su značajni FSAP i Lamfalussy-eva procedura. S druge strane, razvoj bankarske regulative na prostoru SAD, karakterisao se promenama trendova. Nakon Velike depresije, usvajanje Glass - Steagall akta označilo je pobjedu snaga regulacije nad snagama deregulacije finansijskog sistema. Faktori inovacija su u krajnjoj instanci rezultovali uklanjanjem barijera u bankarskom poslovanju i promenama u strukturi bankarskog sistema u SAD. Konačno, barijere su uklonjene tokom poslednje decenije XX veka, usvajanjem Riegle-Neal Interstate Banking and Branching Efficiency akta 1994. godine i Gramm Leach Bliley akta 1999. godine.

Značajno mesto u razvoju bankarske regulative zauzima Bazelski komitet za bankarsku superviziju, koji je do danas publikovao tri dokumenta značajna za bankarsko regulisanje. Svaki dokument predstavlja odgovor Komiteta na tada aktuelna pitanja regulative. Tako su osnovni ciljevi prvog sporazuma bili sprečavanje nastanka bankarskih kriza, uspostavljanje jedinstvenih zahteva u pogledu visine kapitala i integracija regulativa. Međutim, kasniji razvojni trendovi usloveli su potrebu za revizijom ovog dokumenta, pripisujući mu kao nedostatke usredsređenost na kreditni rizik i nemogućnost diversifikacije portfolija. Publikovanje standarda Bazela II rešilo je pomenute probleme, ali je njihova neadekvatnost iskazana u uslovima svetske ekonomske krize. Danas se u svetu ulažu napori ka implementaciji standarda Bazela III, koji predstavljaju odgovor regulatora na probleme iskazane svetskom ekonomskom krizom. Implementirani standardi se razlikuju između EU, gde je relevantan princip „jedna mera za sve“ i SAD sa principom „različita mera za sve“.

Pod dejstvom efekata svetske ekonomske krize, u prvi plan su istaknute slabosti bankarskih sektora. Rešenja na prostoru EU, podrazumevaju dva pristupa superviziji, i to: makro pristup koji u prvi plan ističe značaj sistemskog rizika i njegovo regulisanje; mikro pristup koji je usmeren na koordinaciju regulatornih aktivnosti u pojedinim segmentima finansijskog sistema. U tom kontekstu značajno je osnivanje institucija kao što su Evropski odbor za sistemski rizik (ESRB) i Evropski sistem finansijskih supervizora (ESFS), koji uz druge podređene finansijske institucije predstavljaju institucionalni okvir novog sistema bankarske regulative. Značajno pitanje jeste formiranje bankarske unije na prostoru Evropske monetarne unije (EMU). Argumenti koji govore u korist formiranja bankarske unije ističu da bi ona doprinela efikasnijem funkcionisanju monetarne unije, rastu kreditne zaduženosti i rastu poverenja, pri čemu je neophodno da obuhvati sve tipove banaka.

Na prostoru SAD, značajno je usvajanje Dodd - Frank akta, koji predstavlja pokušaj sveobuhvatne reforme bankarskog sistema. Isticanjem u prvi plan sistemskog rizika, oformljen je Savet za nadzor finansijske stabilnosti, čiji su osnovni zadaci identifikacija, nadzor i regulisanje sistemskog rizika, pa je značajno istaći i prekompoziciju odgovornosti regulatornih institucija. Svetska ekonomska kriza je dovela do zaokreta u načinu regulisanja bankarskog sistema, budući da su Vokerovim pravilom ograničene bankarske aktivnosti.

Navedeno ukazuje da se u uslovima svetske ekonomske krize, razlike između sistema bankarskih regulativa u EU i SAD smanjuju budući da izmene regulatornog okvira imaju zajedničke karakteristike. To se u prvom redu odnosi na tretman sistemskog rizika i institucija koje su zadužene za njegov nadzor. Međutim, uočene razlike u razvoju bankarske regulative u uslovima krize između EU i SAD proističu iz činjenice da značajan razvojni element u EU predstavlja formiranje bankarske unije.

to invest in hedge funds, risky capital funds and other monetary funds except if they are operating in accordance with the following requirements: value of the bank investment in the given fund may amount to a maximum sum of 3% of its value, and the value of the bank investment may amount to a maximum amount of 3% of the Tier 1 capital. In addition, banks are not allowed to trade in financial derivatives, securities determined by the Securities Commission and other financial instruments, with the aim of taking opposite positions in the near future (proprietary trading) (Manasfi, 2012, p. 192). Nevertheless, these activities are allowed if the above mentioned financial instruments are being used for purpose of investment, and not for speculative trading. In addition, there are also certain activities which are the subject of exception to the Walker Rule, such as the following: transactions in the US treasury securities; market-maker activities; transactions in securities in the name and on behalf of the client, and certain activities for purpose of risk mitigation.

The proposal for changes to be made to the regulatory framework was the subject of many research studies, which point out that amongst the research scholars there is no consensus on the efficacy of the Walker Rule. On the one hand, the authors are arguing that such a manner of regulation will not contribute to improving efficiency of the banking regulation system, because of problems of differentiation in the allowed and not allowed banking activities. Piasio (2013) argues that tax payers will not feel any benefits from either the direct or indirect costs in the banking business. In his research, Thakor (2012) gives a comprehensive analysis of potential effects of the Walker Rule. In this the author underlines that an eventual limitation of the banks activities in the domain of market making may to a great extent diminish the efficacy of the financial markets functioning. In addition, the model of diversified banking activities, under the influence of the Walker Rule, may suffer changes that will reduce efficacy of the banking institutions.

On the other hand, Acharya and Richardson (2012) argue that the Walker Rule, just like the entire Dodd-Frank Act, by putting at the forefront the systemic risk and limitation of

banking activities, may contribute to a better functioning of the banking regulation system and of the banking system in general. Similar stance is held by Dombalagian (2013), but as the crucial and decisive element of the banking regulation system efficacy he is stating the political support which is not easy to provide.

Yet another question which was actualised at the time of the world economic crisis pertains to the model of deposit insurance. The response to the growth of mistrust in the banking sector was reflected in the growth of the amount of guaranteed deposits, from 100,000 \$ to 250,000 \$ during 2008, which had greatly slowed down the outflow of deposits from banks. On the importance of the measure itself also speaks the fact that upon the expiry date (31 December 2012), over a period of only seven days, from the banks some 115 billion \$ in deposits were withdrawn.

Dodd-Frank Act was an attempt at promoting regulation framework in respect to the identified shortcomings. Although the proposed solutions, to a lesser or greater extent had encountered approval by politicians, experts and the broader public, they have not as yet been implemented in their full scope and range within the US legislature.

Conclusion

The world economic crisis has revealed the weaknesses in the banking regulation system that is expressed actually in the field of objectives of the banking regulations. The failure of their realisation is the result of an inadequate implementation of financial instruments, high financial leverage, incomplete risk management system, and high connection of financial subjects in the climate of the systemic risk exposure. In addition, inappropriate instruments of the banking regulation system in concrete situations have created additional problems.

It is important to note that the developed instruments are not unique in time and space, i.e. they are not relevant for all the banking regulation systems, but may be used depending on the concrete situation at hand. Nevertheless, between the developed banking regulation systems there are certain similarities, such as is the case with Japan and the United Kingdom,

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where there is a single regulatory institution. The issues deliberated in this work relevant for the banking regulation system came into focus during the global financial crisis. As the problem of asymmetric information is omnipresent in the banking regulation systems, it is necessary to establish monitoring over the banking activities. In addition, the role of central bank as the lender of last resort should be observed as an additional regulatory mechanism because of the possible negative consequences that it may have on the efficacy of the system. Finally, the important element in the banking regulation system, the deposit insurance system, may be organised in several ways, depending on the concrete circumstances.

In this paper, while examining the development of the banking regulatory framework within the historical context, particular features of the banking regulation systems in the EU and in the USA were highlighted. In the EU area, where the financial system is characteristic for bank-centricity, efforts were made towards integration and harmonisation of regulatory frameworks of the different countries. The problems of insufficient harmonisation of regulatory frameworks and inadequate integration of financial markets were manifested also in the conditions of high political integration. Hence special efforts were made with the aim to create uniform standards and procedures, but also an integrated financial market where the FSAP and the Lamfalussy procedure are important. On the other hand, development of the banking regulatory framework in the area of the USA is characteristic for the change in trends. After the Great Depression, the adoption of the Glass-Steagall Act marked the victory of the financial system regulation forces over the deregulation forces. Factors of innovations have ultimately resulted in the elimination of barriers in the banking business and changes in the structure of the banking system in the USA. Finally, barriers were eliminated during the last decade of the 20th century by the adoption of the Riegle-Neal Interstate Banking and Branching Efficiency Act in 1994, and the Gramm Leach Bliley Act in 1999.

The important place in the development of the banking regulation is occupied by the Basel

Committee for Banking Supervision, which has up to date published three documents significant for banking regulation. Each one of these documents is the response of the Committee to the then-actual issues pertaining to the banking regulation framework. Hence the basic targets of the first Accord were prevention of eruption of the banking crisis, establishment of single requirements regarding capital adequacy and integration of regulatory frameworks. However, the later development trends caused the need for revision of this document, ascribing as its shortcomings the focus on the credit risk and the inability to have portfolio diversification. Publishing of the Basel II standards resolved the said problems, but their inadequacy surfaced in the climate of the world economic crisis. Today, efforts are being made in the world towards implementation of the Basel III standards, which are a response of the regulator to the problems manifested during the world economic crisis. Standards implemented differ between the EU where the relevant principle is "one fit for all", and the USA where the principle "different fit for all" is applied.

Under the impact of the world economic crisis weaknesses of the banking sector have been pushed to the forefront. Solutions in the EU area require two approaches to the supervision, as follows: macro approach which is emphasizing the significance of the systemic risk and its regulation; and the micro approach which is focused on coordination between regulatory activities in the particular segments of the financial system. In this context, what is important is the establishment of institutions such as the European Systemic Risk Board - ESRB, and the European System of Financial Supervisors - ESFS, which together with some other subordinate financial institutions represent the institutional framework of the new banking regulation system. The important question is the formation of the banking union in the area of the European Monetary Union - EMU. The arguments speaking in favour of the formation of the banking union are pointing out that it would contribute towards a more efficient functioning of the monetary union, growth of credit borrowing and boost in confidence building, where it is necessary to cover all types of banks.

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In the USA, the adoption of the Dodd-Frank Act is important as it represents an attempt at a comprehensive reform of the banking system. By placing at the forefront the systemic risk, Council for Financial Stability Supervision was formed with the basic tasks to identify, supervise and regulate systemic risk, so that it is important to note also re-composition of responsibilities of the regulatory institutions. The world economic crisis was a turning point in the manner of regulation of the banking system, as the Walker Rule limits banking activities.

The above mentioned leads to be conclusion

that in the climate of the world economic crisis differences between the banking regulation systems in the EU and in the USA are decreasing as the changes in the regulatory framework are having common characteristics. This is primarily the case with the treatment of the systemic risk and institutions that are in charge of its supervision. However, the differences identified in the development of the banking regulation in the climate of crisis between the EU and the USA are deriving from the fact that the important development element in the EU is the formation of the banking union.