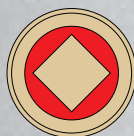


DECEMBAR 2008
godina 1, broj 4



UDRUŽENJE BANAKA
CRNE GORE

ASSOCIATION OF
MONTENEGRIN BANKS

časopis za bankarstvo i finansije

Bankar



Stabilnost, sigurnost i povjerenje

Centralna banka Crne Gore je institucija odgovorna za monetarnu i finansijsku stabilnost i funkcionisanje bankarskog sistema. CBCG posluje na bazi potpune finansijske i institucionalne nezavisnosti.



Centralna banka Crne Gore

www.cb-cg.org

BANKAR

Broj 4. decembar 2008.

IZDAVAČ

Udruženje banaka i finansijskih institucija
Crne Gore, Novaka Miloševa bb/3 Podgorica
Tel: +382 20 232-028
www.ubcg.info

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REDAKCIJSKI ODBOR

GLAVNI I ODGOVORNI UREDNIK
Mirko Radonjić

Milija Vlahović, Prof. dr Aleksandar Živković,
dr Nikola Fabris, dr Slobodan Lakić, dr Saša
Popović, dr Evangelos Markopoulos,
mr Nebojša Đoković

UREDNIK

Peko Nikolić

DIZAJN I PRELOM

mr Nikola Latković

FINALNA PRIPREMA TEKSTOVA I KOREKTURA

Marko Nikolić

FOTOGRAFIJE

www.photos.com i fotodokumentacija UBCG

PREVOD

Tanja Luburić, Jelena Pralas, Vesna Radunović,
Nada Stojović i Milena Ljumović

ŠTAMPA

Grafotisak, Grude, BIH

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BANKAR

Časopis Udruženja banaka
i finansijskih institucija Crne Gore
Broj 4. decembar 2008.

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Nijedna država ne može izbjeći posljedice krize

Ukoliko državne misije (intervencije) spašavanja američkog, ruskog i evropskog finansijskog sistema urode plodom, to će istovremeno imati pozitivan efekat i na crnogorsku ekonomiju

dr Igor Lukšić
Ministar finansija

(pripremljeno polovinom novembra)

Zahuktala globalna finansijska kriza i njeno prelivanje na realni sektor nalaže svakoj odgovornoj vladi oprez i obavezu preventivnog djelovanja. Nijedna država svijeta, osim nekoliko politički, uglavnom samoizolovanih, ne može očekivati da je posljedice krize zaobiđu. Čak ni te zemlje u određenom dijelu neće ostati nepogođene.

Pažljivo prateći globalna ekonomska kretanja, došli smo do zaključka da je potrebno preventivno djelovati kako posljedice ekonomske krize ne bi drastično pogodile našu ekonomiju. U našim okolnostima oprez je dodatno izražen. Crnogorska ekonomija je mala i u razvoju i visoke stope rasta u prethodnim godinama su direktno povezane sa rastom stranih direktnih investicija. Stoga je važno pitanje kako nivo investicione potrošnje zadržati na zadovoljavajućem nivou. Drugo, loše iskustvo sa bankarskim sektorom i teško ponovo stečeno povjerenje građana nalaže snažno djelovanje kako bi bankarski sistem bio zaštićen.

Posebno je važno naše opredjeljenje da u potpunosti zaštitimo depozite građana i privrede. Takav pristup je unio dodatnu sigurnost u bankarski sektor, što potvrđuju ohrabrujući trendovi.

To ne znači da nas iduće godine ne očekuje određeno stezanje kaiša, pa je i odgovornost Vlade da definiše ekonomsku politiku koja treba da obezbijedi „meko prizemljenje“.

Zahuktala globalna finansijska kriza i njeno prelivanje na realni sektor nalaže svakoj odgovornoj vladi oprez i obavezu preventivnog djelovanja. Nijedna država svijeta, osim nekoliko politički, uglavnom samoizolovanih, ne može očekivati da je posljedice krize zaobiđu. Čak ni te zemlje u određenom dijelu neće ostati nepogođene.

Po mom sudu, bilo bi, međutim, potpuno pogrešno izvoditi bilo kakve ideološke zaključke na osnovu aktuelnih ekonomskih kretanja. U svakom slučaju, kapitalizam kao društveno ekonomski poredak ničim nije doveden u pitanje. Ne ukida se tržište niti spori dominacija privatne svojine. Eskalacija krize čak se može dovesti pod lupu kritike pretjeranog uplitanja države u ekonomske tokove. Ekonomskom politikom američka država je stimulisala odobravanje mekih kredita, kao i netržišne šeme osiguranja od rizika stambenih kredita posredstvom paradržavnih osiguravajućih kuća. Tome treba dodati neadekvatnu regulaciju finansijskih tržišta od strane centralnih banaka i različitih supervizorskih institucija koja je doprinijela nedovoljnoj transparentnosti finansijskih tokova što je podstaklo kreiranje „mjehura“. Osim toga, sve je više kritika na račun previše labave monetarne politike (što podsjeća na uzroke Velike depresije iz 1929. godine) američkog Fed-a iz pr-

Crisis Impact No Country Can Avoid

If state missions (interventions) to save the US, Russian and European financial systems prove to be successful, this will also have a positive impact on Montenegrin economy

Igor Lukšić, PhD
Minister of Finance

(prepared in the middle of November)

The global financial crisis, which is currently in full swing, and its spilling over to the real sector urge any responsible government to exercise caution and apply preventive action. No country in the world, with the exception of a few politically self-isolated ones, may expect to be spared the implications of the crisis and even those countries will not remain unaffected to a certain extent.

Through careful observation of global economic trends, we arrived at the conclusion that preventive action is necessary to prevent the implications of the economic crisis from drastically affecting our economy. In our circumstances caution is additionally highlighted. Montenegrin economy is a small and developing one, and high growth rates of the previous years are directly linked with the increase in foreign direct investment. This attaches importance to the issue of how to keep the satisfactory level of investment spending. Secondly, bad experience with the banking sector and citizens' trust that was difficult to regain call for strong action in order to protect the banking system.

Particular importance belongs to our commitment to fully protect retail and corporate deposits. This approach resulted in more trust in the banking sector, as confirmed by the reassuring trends.

This does not mean that some belt-tightening is not to be expected in the next year; therefore, the Government has the responsibility to define the economic policy that should provide a "soft landing".

The global financial crisis, which is currently in full swing, and its spilling over to the real sector urge any responsible government to exercise caution and apply preventive action. No country in the world, with the exception of a few politically self-isolated ones, may expect to be spared the implications of the crisis and even those countries will not remain unaffected to a certain extent.

However, it would be completely wrong, in my view, to derive any ideological conclusions from the ongoing economic trends. In any case, capitalism as a social-economic system is not questioned. There is no abolishment of the market or challenge to the predominance of private property. Crisis escalation may even be brought under the magnifying glass of criticism of excessive state interference in economic trends. By means of its economic policy, the US stimulated approval of soft loans as well as non-market schemes of insurance against home loan risks through quasi-state insurance companies. To that we should add inadequate regulation of financial markets by central banks and various supervisors, which contributed to insufficient transparency of financial trends, in turn fostering the "bubble". Besides that, there is growing criticism of too relaxed monetary policy (reminiscent of the causes of the 1929 Great Depression) of the US Fed

REFORMA MMF, TE PARADRŽAVNE KONZERVATIVNE INSTITUCIJE

Sve ovo bi moglo implicirati i konstrukciju novog globalnog finansijskog sistema, u svijetlu inače dugo najavljivane, ali nikada sprovedene reforme MMF-a, koji je svojevremeno ustanovljen da bi preventivno djelovao u slučaju potencijalne finansijske krize. Kao paradržavna institucija, i on je uz sav ekonomski konzervativizam, bio spor u prilagođavanju, pa samim tim i postao jedna od žrtava krize koja je pokazala svu njegovu nefunkcionalnost.



UVIJEK ZA SLOBODNO TRŽIŠTE

Ono što je karakteristika ili opšte mjesto u najvećem broju analiza, je osuda slobodnog tržišta. U potpunosti odbacujući ovu tezu, smatram da će vrijeme pokazati da je krizu podgrijalo i do kraja raspirilo antitržišno ponašanje mnogih subjekata, koji su neposredno povezani sa finansijskim tržištem (kao što je neodgovorna politika upumpavanja novca američke centralne banke 20-tih godina 20-tog vijeka dovela do Velike depresije), dok će dužina trajanja krize u razvijanim zemljama biti u vezi sa strukturno rigidnim ekonomskim sistemima koji teško apsorbuju negativni dio ekonomskog ciklusa. Budući ekonomski oporavak pokazaće svu nužnost liberalizacije mnogih segmenata ekonomskog sistema, uz potrebu povećanja transparentnosti finansijskih tokova, što je jedan od glavnih propusta regulatora u tim državama.

vih godina ovog vijeka. Upravo zato je i bilo potrebno da država reaguje i preuzme odgovornost za stabilizaciju prilika. U suprotnom, postojao je rizik zaustavljanja ekonomskog krvotoka koji bi imao nesagledive posljedice na ukupni ekonomski sistem.

Sve to ukazuje da jedino o čemu možemo govoriti je neuspjeh neoliberalizma koji je utemeljen tzv. vašingtonskim konsenzusom, što je bitno različito od principa liberalne ekonomije. Tvorcima tog konsenzusa su MMF, Svjetska banka i Ministarstvo finansija SAD. Kako se iz svake velike krize rađa neki novi poredak, nije isključeno da dođe do ubrzavanja reformi bretonvudskih institucija, odnosno MMF-a, čija je funkcija bila da preventivno djeluje u slučaju izbijanja krize. Bez obzira što se činovnici te institucije pripremaju za nove aranžmane, koji su, čini se, i njih iznenadili, sve je više uticajnih poziva da se ipak razmisli o njihovoj budućoj ulozi. Svjetski BDP danas se bitno drugačije distribuira nego prije 60 godina i logično je da zemlje u razvoju traže da imaju jači glas u globalnim institucijama. Međutim, nije do kraja jasno koji bi to trebalo da budu instrumenti upravljanja reformisanog MMF-a, dok bi dobijanje izvršnih funkcija, takođe, moglo biti problematično.

Zapravo, iako su za nekoga to, možda, nijanse, takva državna top down politika je u oštrm kontrastu sa liberalnom ekonomijom koja, prije svega, podrazumijeva ekonomske slobode za pojedince. To, između ostalog, znači da država treba da obezbijedi stabilan i transparentan okvir za poslovanje sa što manje barijera, kao i vrlo čvrstu i konzervativnu monetarnu politiku. Istovremeno, pojedinci plaćaju poreze i za uzvrat očekuju javne usluge kakve su bezbjednost, zaštita slobode ugovaranja i kvalitetna infrastruktura. Smatram da treba istaći i da se može očekivati da će upravo države koje baštine tzv. socijalno-tržišne modele biti prilično pogođene krizom usljed manje fleksibilnosti njihovih ekonomskih sistema, što će, prije ili kasnije, otvoriti pitanje liberalizacije njihovih ekonomskih sistema. Prognoze rasta za iduću godinu to potvrđuju. Francuska, Njemačka, Italija neće uopšte rasti.

Pažljivo prateći globalna ekonomska kretanja, došli smo do zaključka da je potrebno preventivno djelovati kako posljedice ekonomske krize ne bi drastično pogodile našu ekonomiju. U našim okolnostima oprez je dodatno izražen. Crnogorska ekonomija je mala i u razvoju i visoke stope rasta u prethodnim godinama su direktno povezane sa rastom stranih direktnih investicija. Stoga je važno pitanje kako nivo investicione potrošnje zadržati na zadovoljavajućem nivou. Drugo, loše iskustvo sa bankarskim sektorom i teško ponovo stečeno povjerenje građana nalaže snažno djelovanje kako bi bankarski sistem bio zaštićen.

Po ugledu na iskustva drugih, pripremljen je i usvojen Zakon o mjerama za zaštitu bankarskog sektora koji ima za cilj da ponudi odgovore na pitanja obezbjeđivanja likvidnosti i solventnosti bankarskog sektora. Crna Gora je bila jedna od zemalja koja je najbrže reagovala. Dobra je okolnost što za sada nismo i vjerujem da nećemo biti u situaciji da koristimo najveći broj instrumenata koje Zakon predviđa. Posebno je važno naše opredjeljenje da u potpunosti zaštitimo depozite građana i privrede.

IMF REFORM AND QUASI-STATE CONSERVATIVE INSTITUTIONS

This could also imply establishment of a new global financial system in the light of IMF reform that had been announced for a while but never implemented. IMF was established at the time to provide preventive action in case of potential financial crisis. As a quasi-state institution, along with all economic conservatism, it was slow in adjusting, thus rendered victim of the crisis that fully exposed its lack of functionality.

during the initial years of the century. This is precisely what prompted the state to respond and assume responsibility for stabilizing the situation. Otherwise, the risk of stopping the economic circulation was involved, which would have brought about incalculable consequences for the overall economic system.

This all indicates that the all we can talk about is the failure of neoliberalism established by the "Washington Consensus", which is essentially different from the principles of liberal economy. The consensus was established by the IMF, World Bank and US Treasury. Since each major crisis results in a new system, one cannot exclude the option of accelerated reforms of the Bretton Woods institutions, i.e IMF, which had the function of preventive action in case of crisis. Although IMF officials are gearing up for new arrangements that seem to have surprised them as well, there is a growing number of relevant appeals to consider their future role. Global GDP distribution nowadays is significantly different compared to 60 years ago and it makes sense that developing countries are asking for a stronger voice in global institutions. However, intended management instruments of the reformed IMF are not entirely clear, and granting of executive functions could also present a problem.

Although some may see this as nuances, the top-down state policy is in effect in sharp contrast with liberal economy, which primarily implies individual economic freedoms.

ALWAYS IN FAVOUR OF FREE MARKET

A feature or a common place contained in most analyses is condemnation of the free market. While entirely dismissing this position, I believe that time will show that the crisis was fostered and brought to culmination by the anti-market behaviour of a number of entities directly linked with the financial market (such as irresponsible policy of pumping in US central bank's money in the 1920s led to the Great Depression), whereas the duration of the crisis in developed countries will be related to the structurally rigid economic systems that have difficulty absorbing the negative part of the economic cycle. Future economic recovery will show the necessity to liberalize many segments of the economic system, along with the need to enhance the transparency of financial trends, which is one of the major oversights of regulators in these states.

This, among other things, means that state should provide a stable and transparent framework for business with as few barriers as possible, as well as a firm and conservative monetary policy. At the same time, individuals pay taxes and expect the provision of public services such as safety, freedom of contract and quality infrastructure in return. I believe that it is to be highlighted and expected that precisely the states with the tradition of "social-market" models will be rather affected by the crisis due to less flexible economic systems; sooner or later, this will raise the issue of liberalization of their economic systems. This is confirmed by the growth projections for next year - France, Germany, Italy will have no growth at all.

Through careful observation of global economic trends, we arrived at the conclusion that preventive action is necessary to prevent the implications of the economic crisis from drastically affecting our economy. In our circumstances caution is additionally highlighted. Montenegrin economy is a small and developing one, and high growth rates of the previous years are directly linked with the increase in foreign direct investment. This attaches importance to the issue of how to keep the satisfactory level of investment spending. Secondly, bad experience with the banking sector and citizens' trust that was difficult to regain call for strong action in order to protect the banking system.

Law on the Measures to Protect the Banking Sector was developed and adopted based on the experience of others; it aims to respond to the issue of securing the banking sector liquidity and solvency. Montenegro was among the countries that responded most promptly. It is beneficial that we have not been - and I believe will not be - in a position to use most of the instruments included in this Law. Particular importance belongs to our commitment to fully protect retail and corporate deposits. This approach resulted in more trust in the banking sector, as confirmed by the reassuring trends. At the same time, successful implementation of the European states' plan to protect the banking sector will contribute to the stability of our banks associated with the European market. What is to be expected, however, is less intensive lending, since any stabilization is accompanied by downsized spending until the pendulum swings back. It is therefore reasonable to expect a certain increase in interest rates and consequently implications for the real sector.

This is why, in addition to the monetary measures outlined, the budgetary policy for next year needs to apply a set of fiscal measures for preventive response to potential contraction of economic activities. The problems faced by the exporters as well as the risk related to the next tourism season stress the need to implement several measures in order to balance negative consequences and mitigate potential slowdown of economic growth. Reduction of taxes and contributions to salaries, in favour of net salaries, as well as regular and early payment of internal debt aim to retain the satisfactory level of personal spending in economy. Increasing the capital budget to over 6.5% (50% direct investment in infrastructure, excluding some infrastructure development credits that enlarge this percentage) of projected GDP for next year, together with private sector investment, should provide a satisfactory level of investment

Takav pristup je unio dodatnu sigurnost u bankarski sektor, što potvrđuju ohrabrujući trendovi. Istovremeno, uspješna primjena plana evropskih država u cilju zaštite bankarskog sektora doprinijele će stabilnosti naših banaka koje su povezane sa evropskim tržištem. Ono što, ipak, treba očekivati je manja kreditna aktivnost banaka, jer svaku stabilizaciju prati smanjenje potrošnje dok se klatno ponovo ne pomjeri. Iz tog razloga je logično očekivati i određeno povećanje kamatnih stopa i sasvim logično posljedice na realni sektor.

Zato je, uz istaknute monetarne mjere, potrebno budžetskom politikom za iduću godinu primijeniti set fiskalnih mjera kojima treba preventivno djelovati na potencijalnu kontrakciju ekonomskih aktivnosti. Problemi sa kojima se suočavaju izvoznici, kao i rizik naredne turističke sezone naglašavaju potrebu implementacije nekoliko mjera da bi balansirali negativne posljedice i ublažili eventualno usporavanje ekonomskog rasta. Smanjenje poreza i doprinosa na plate u korist neto zarada, kao i redovna i prijevremena otpлата unutrašnjeg duga imaju za cilj održavanje zadovoljavajućeg nivoa lične potrošnje u ekonomiji. Povećanje kapitalnog budžeta na preko 6,5% (od čega je 50% direktno ulaganje u infrastrukturu, ne računajući pojedine infrastrukturne izvođačke kredite koji taj procenat uvećavaju) procijenjenog BDP-a za iduću godinu u kombinaciji sa investicijama privatnog sektora treba da obezbijede zadovoljavajući nivo investicione potrošnje. Sve mjere u dugom roku obezbjeđuju konkurentnost crnogorske ekonomije i održivost ekonomskog rasta.

Iz ugla budžetske strukture ranije najave su u potpunosti ostvarene. Predloženim budžetom tekuća potrošnja budžeta i državnih fondova se smanjuje na nivo od oko 35,5% BDP-a, i pored značajno povećanih izdata-

RAST KAMATNIH STOPA!

Neminovna očekivana posljedica je, čini se, određeni rast kamatnih stopa koji će se odraziti na nivo potrošnje u Crnoj Gori. Taj rast ne mora biti drastičan, jer je bankarski sektor u proteklom periodu pokazao sklonost ka smanjivanju svojih, uslovno rečeno, marži.

ka za Fond PIO, dok se kapitalna potrošnja uvećava. Obazriva fiskalna potrošnja u prethodnom periodu je omogućila takav manevarski prostor koji karakteriše visok suficit tekućeg budžeta. Naravno, sve to ne znači da nas iduće godine ne očekuje određeno stezanje kaiša, pa je i odgovornost Vlade da definiše ekonomsku politiku koja treba da obezbijedi „meko prizemljenje“.

Na kraju, ukoliko državne misije (intervencije) spašavanja američkog, ruskog i evropskog finansijskog sistema urode plodom, to će istovremeno imati pozitivan efekat i na crnogorsku ekonomiju i umanjiti rizik značajnijeg usporavanja ■



BANKAR INFO

I nakon američke intervencije od 700 milijardi dolara, nastavlja se sa bankarskim bankrotima - dvije banke su bankrotirale. Citi bank otpustila oko 52.000 zaposlenih... U Kolumbiji dramatične građanske demonstracije zbog neisplaćene štednje (sa piramidalnim kamatama)...

Kriza se "preselila" i u zemlje Evropske unije

(posebno u Njemačku i Italiju), u Rusiju, čak i u Švedsku, a i Japan je "priznao"... U nekim evropskim zemljama se zvanično ppreporučuje uzdržanost u božićnoj i novogodišnjoj potrošnji. Nedavno su se okupili svjetski lideri u namjeri da "očiste" bankarski svjetski sistem, da postave nove temelje novog kapitalizma, da... Ostala su mnoga otvorena pitanja. Biće još samita...

spending. In the long-term, all measures ensure competitiveness of Montenegrin economy and sustainable economic growth.

From the perspective of budget structure, announcements have fully materialized. The proposed budget cuts down current spending from the budget and public funds to the level of approximately 35.5% of GDP - even with the considerable increase in Pension Fund expenditures - while capital expenditure is increasing. Cautious fiscal spending in the previous period enabled this room for maneuver characterized by a high surplus of the current budget. Naturally, this does not mean that some belt-tightening is not to be expected in the next year; therefore, the Government has the responsibility to define the economic policy that should provide a "soft landing".

Finally, if state missions (interventions) to save the US, Russian and European financial systems prove to be successful, this will also have a positive impact on Montenegrin economy and will reduce the risk of a major slowdown. ■



HIGHER INTEREST RATES!

It seems that higher interest rates will follow as an inevitable consequence, which will reflect on the level of consumption in Montenegro. The increase does not need to be a drastic one, since the banking sector has shown a tendency to cut its, tentatively speaking, margins.

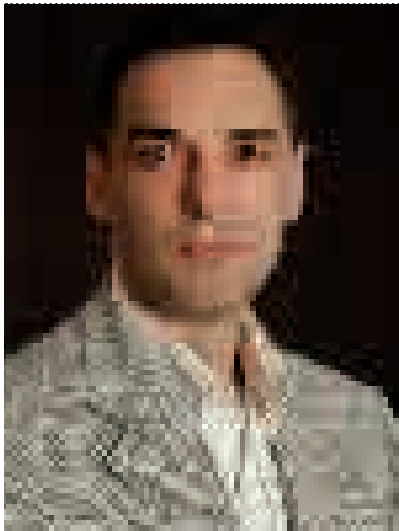


BANKER INFO

Even after the US intervention in the amount of USD 700 billion, bankruptcies continue – two banks have gone bankrupt. Citi Bank let go some 52,000 of its employees. Dramatic civil demonstrations caused by failed payment of savings deposits have taken place in Columbia (pyramidal interest scheme). The crisis has expanded to the EU (in particular

Germany and Italy), Russia, Sweden, and even Japan has recognized it. Some European countries are officially advising restraint in Christmas and New Year's shopping.

Global leaders gathered recently with the aim to "clean up" the global banking system, lay grounds for new capitalism, etc. A number of issues remain open. New summits will follow...



Uzroci i posljedice iz različitih perspektiva

dr Saša Popović
Ekonomski fakultet, Podgorica

U namjeri da nađe odgovarajuće rješenje za nelikvidne, ali solventne finansijske institucije, Valter Bedžet je prije skoro 135 godina formulisao čuvenu doktrinu: centralne banke treba slobodno da pozajmljuju novac nelikvidnim subjektima, ali uz jako obezbjeđenje i po visokim kamatnim stopama. Iako ova doktrina zvuči veoma jasno i razumljivo, teško ju je sprovesti u djelo. Praktičan problem s ovom doktrinom je u tome što to što u periodima krize cijene finansijskih instrumenata nisu pouzdane i teško je ispravno procijeniti tržišnu vrednost imovine zajmoprimca. Zbog toga centralne banke obično prave greške u procjeni imovine komercijalnih banaka i u razlikovanju institucija koje su nesolventne od onih koje su samo nelikvidne. Tako su centralne banke prinuđene da primijene takvo kreditiranje koje se zasniva na diskrecionim procjenama i nepotpunim informacijama

Jedan fenomen iz oblasti medicine na zastrašujući način nalikuje ekonomskom problemu s kojim se danas suočavamo i mogao bi nam biti od pomoći u dijagnostici globalnog ekonomskog sistema. Prema medicinskim stručnjacima, rak nastaje kada ćelije koje nisu normalne počnu ubrzano da rastu i da se šire. Za razliku od normalnih ćelija, ćelije raka ne prestaju da se razvijaju, već nastavljaju da rastu i da se nekontrolisano dijele, i ne umiru sve dok se ne izliječe ili sve dok u potpunosti ne unište tijelo. Na sličan način, mnogi ekonomski stručnjaci koji su analizirali tekuću globalnu krizu shvatili su da je tržište hartija od vrijednosti s hipotekarnim

pokrićem dovelo američko neagencijsko hipotekarno tržište u samo središte krize, kao njenog glavnog pokretača: „Tokom protekle decenije ovo tržište se dramatično širilo i od malog sporednog segmenta preraslo u glavni dio ukupnog američkog hipotekarnog tržišta.“¹ Ova analogija između neobičnog efekta mjehura u biološkim i ekonomskim sistemima i kobne posljedice po oba sistema navode nas da više profesionalne pažnje posvetimo njihovoj prevenciji kao i samoj terapiji. I medicinski i ekonomski stručnjaci koriste sofisticirane kompjuterske programe, posmatraju specifične indikatore ranog upozorenja i pažljivo prate istoriju bolesti pacijenta, ali ni jedni ni drugi još uvijek nisu u stanju da potpuno iskorijene samu bolest.

FINANSIJSKA KRIZA IZBLIZA

Nije mi namjera da prikažem razvojnu liniju „najveće finansijske krize svih vremena“. O tome se podaci lako mogu naći u elektronskim i štampanim medijima. Čini se daleko konstruktivnijim analizirati činjenice koje su, izgleda, prenebregnute, kao i specifične interpretacije krize s nekih drugih aspekata.

Aspekt vjerovatnoće. Prije nego što se izvede konačni zaključak o tekućoj globalnoj finansijskoj krizi, konkretni segment tržišta ne treba potcijeniti zbog njegove veličine, jer, bez obzira na veličinu, on potencijalno može da proizvede cjenovni mjehur. To često i nije dominantni privredni segment. Analizirajući modele za procjenu rizika u bankarstvu, Avinash Persuad je zapazio da, paradoksalno, uočavanje zona sigurnosti u modelima za procjenu rizika stvara rizik, dok uočavanje zona rizika zapravo stvara sigurnost (Prva globalna finansijska kriza 21. vijeka, str. 11). Persuad koristi analogiju s Hajzengergovim principom neodređenosti, koji potiče iz kvantne fizike.

Maligni segment tržišta imao je dvije karakteristike: nepredvidljiv je i ima ogromno dejstvo na ostatak ekonomije. Prema Nikolasu Nasimu Talebu (Nicholas Nassim Taleb), potrebna je još jedna karakteristika da bi se ovaj segment nazvao crnim labudom. Crni labud je krajnje nevjerojatan događaj, koji posjeduje tri glavna svojstva:

¹ Dell'Ariccia at al., pg. 7

Causes and consequences from different perspectives

Saša Popović, PhD
Faculty of Economics, Podgorica

In order to find the appropriate solution for the illiquid but solvent financial institutions almost 135 years ago, Walter Bagehot, formulated his famous doctrine: central banks should lend money freely to the illiquid entities but on sound collateral and at higher interest rates. While this doctrine sounds very clear and easy to understand, it is hard to make it work. The practical problem with the doctrine is that during time of crisis the prices of financial instrument are not reliable and it is hard to properly estimate the market value of borrower's assets. That is why central banks usually make mistakes in evaluating the commercial bank assets and distinguishing between institutions that are insolvent and those that are merely illiquid. So, central banks are enforced to implement discount lending which is based on discretionary evaluations and incomplete information

The phenomenon from the medical field seems to resonate frighteningly with the economic problem here and can help us diagnose the global economic system. According to the medical experts, cancer happens when cells that are not normal grow and spread quickly. Unlike normal body cells, cancer cells do not stop growing but continue to grow and divide out of control and do not die until they are healed or until they destroy the whole body. Similarly, most economic experts who analyzed the current global financial crisis have recognized that the market for mortgage-backed securities have placed the U.S. subprime mortgage industry in the heart of the crisis, as its' main

driver: "Over the last decade, this market has expanded dramatically, evolving from a small niche segment into a major portion of the overall U.S. mortgage market." This analogy of an unusual bubbling effect in biological and economic systems and its fatal consequences for both of them is forcing us to devote more professional attention on its prevention as well as on its therapy. Both medical and economic experts use sophisticated hardwares and softwares, observe specific early-warning indicators and carefully track the patients history, but both of them are still unable to completely eradicate the disease.

CLOSER LOOK AT FINANCIAL CRISIS

Our intention is not to review the timeline of "the greatest financial crises of all time". It can be found easily in electronic or printed media. It seems far more constructive to analyse the facts that seemed to be overlooked and specific interpretations of the crisis from some different perspectives.

Probability perspective. Before making the final conclusion on the current financial crisis, one should not underestimate the market segment which can produce the bubbling effect because of its size. It is usually not a dominant segment of the economy. Elaborating on the bank risk models, Avinash Persaud noted that, paradoxically, the observation of areas of safety in risk models creates risk, and the observation of risk creates safety (The First Global Financial Crisis of the 21st Century, 11). Persaud uses the analogy of Heisenberg's uncertainty principle which originates from Quantum Physics.

A malignant market segment is unpredictable and it has a massive impact on the rest of the economy. One more characteristic, according to the Nassim Taleb, is needed to name that segment as black swan. A black swan is a highly improbable event with three principal characteristics: it is unpredictable; it carries a massive impact; and, after the fact, we concoct an explanation that makes it appear less random, and more predictable, than it was (The Black Swan, 42).

Taleb attempts to explain why we are usually not able to recognize the events of small probability which have dramatic consequences ones they occur. To Alan Greenspan, former Chairman of the United States Federal Reserve Board

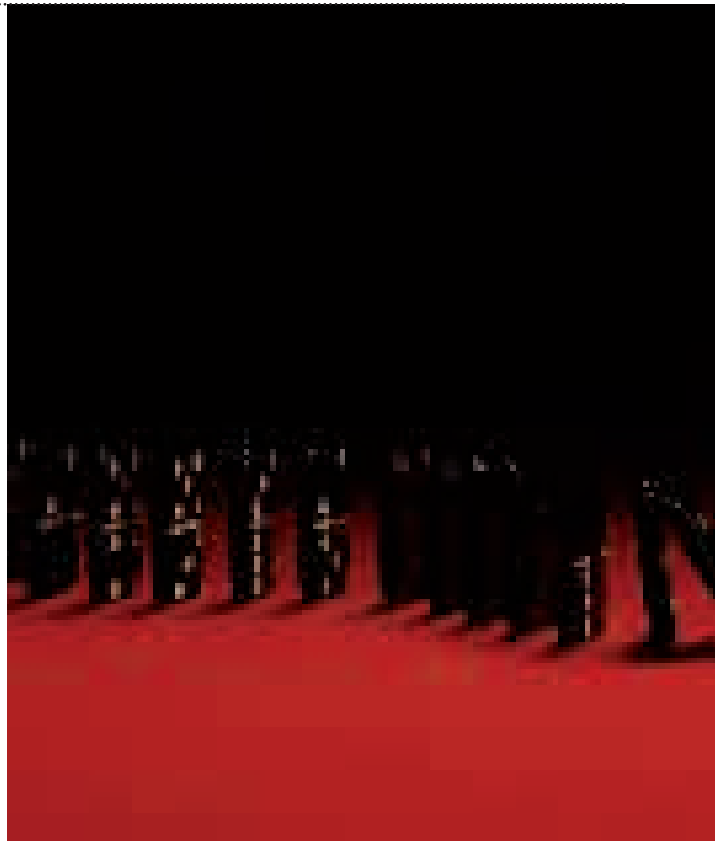
- nepredvidljiv je,
- ima ogroman uticaj i
- kada se dogodi, obično smišljamo objašnjenja koje bi ga učinila manje slučajnim i više predvidljivim nego što je zapravo bio (Crni labud, str. 42).

Taleb pokušava da objasni zašto obično nismo u stanju da prepoznamo događaje male vjerovatnoće koji imaju dramatične posljedice kada se dogode. Sudeći prema opisu hipotekarne krize koji je dao Alan Greenspan (Alan Greenspan), bivši predsjednik Federalnih rezervi (FED), ona je upravo to - crni labud! Poslije berzanskog kraha iz 1987. godine, polovina američkih trgovaca svakog oktobra se pripremala za sledeću krizu - ne uzimajući u obzir činjenicu da prva kriza nije imala prethodnu najavu. *Kada je ekonomija u pitanju obično brinemo kasno!* Pogrešno tumačenje naivne predstave da je prošlost nešto definitivno ili reprezentativno za budućnost jedini je uzrok naše nesposobnosti da razumijemo efekat crnog labuda (Taleb, 42).

Alan Greenspan je priznao da je propustio da detektuje eksploziju cijena u segmentu visokorizičnih hipotekarnih kredita, ali je objasnio da ga nije uznemiravalo što je smanjivao kamatne stope, budući da se on samo trudio da primijeni politiku koju su mu nametali političari. Transfer odgovornosti sa ličnog na politički plan omogućava nam da uzmemo u obzir više aspekata koji su uticali na krizu.

Politički aspekt. Dokaz da kriza može biti veoma podsticajna u traganju za glavnim uzrocima jeste to što se ljudi hvataju za vrlo ozbiljne društveno-ekonomske argumente. Osim nekih neosnovanih nagađanja da je američka vlada svjesno prouzrokovala tekuću finansijsku krizu, postoje i druge, zanimljivije rasprave. Sten Leibovic, profesor ekonomije sa Teksaskog univerziteta u Dalasu, je krajnje eksplicitno izjavio da je skandal s hipotekranim kreditima direktan rezultat svjesnog narušavanja kreditnih standarda, što je vršeno zbog sprječavanja rasne diskriminacije, uprkos upozorenjima da bi moglo doći do velikog broja neizvršenja kreditnih obaveza. Iako je utvrđeno da su kreditne prijave manjinskih grupa bile češće odbijane od drugih prijavi, Leibovic kasnije tvrdi da razlog, zapravo, nije bila rasna diskriminacija, već naprosto činjenica da manjinske grupe imaju slabije prihode. *Teško je izbjeći moralnu dilemu - da li nam je potreban društveno odgovoran ili tržišno zasnovan bankarski sistem?* Ili bi trebalo da razmislimo o tržišno zasnovanom bankarskom sistemu koji je društveno odgovoran? Ostavljajući po strani Leiboviceve komentare, narušeni kreditni standardi korišćeni su i od strane drugih, bez obzira na spektar prihoda. Međutim, očigledno je da kakav god bankarski sistem da izaberemo, svako ekstremno rješenje neizbježno vodi do skandala.

Psihološki aspekt. Postoji mnogo različitih razloga ove krize i teško je naći jednog krivca. Da li smo mi, navodno nedužni građani, doista nedužni u kontekstu ekonomskih previranja? Teorija ukazuje na dva tipa spekulanata koji učestvuju u stvaranju cjenovnog mjehura: oni koji vjeruju da će iz nekog razloga cijena robe znatno porasti i ostati na tom nivou neodređeno vrijeme, i oni koji zagovaraju „teoriju veće budale“;



prema kojoj je razumno kupovati robu sve dok postoji barem jedna „veća budala“ kojoj se ta roba kasnije može prodati po višoj cijeni. U takvom psihološkom okviru, sve što je potrebno za stvaranje mjehura jeste postojanje nekog ko je spreman da finansira našu pohlepu (obično na račun nekog drugog) narušavanjem kreditnih standarda. Ali, s ovom temom već kucamo na vrata ekonomije.

Ekonomski aspekt. Tokom perioda ekstremnog rasta komercijalne banke i drugi kreditori obično snižavaju kreditne standarde. Snižavanje ovih standarda, u svjetlu tekuće finansijske krize, prema Delariciji (Dell'Ariccia) i drugima, može se dovesti u vezu s pet glavnih faktora:

1. Kreditni standardi su imali tendenciju pada uporedo sa širenjem kreditnog buma. Ovo je u skladu sa zbirnim dokazima o kreditnom bumu na međunarodnom planu.

2. Narušavanje kreditnih standarda povezano je s brzim stopom rasta cijena nekretnina, što je u skladu sa shvatanjem da su kreditori donekle igrali na kartu nastavljajući tog rasta, uzdajući se u to da klijenti koji nisu u stanju da izmire obaveze uvijek mogu da aktiviraju kolaterale i isplate zajam.

3. Promjene u strukturi tržišta takođe su bile značajne: kriterijumi za odobravanje kredita više su snižavani u regionima gdje su velike (i agresivne) institucije prodrle na tržište, a kojih prethodno tamo nije bilo.

4. Sve veće pribjegavanje banaka prodaji kredita i sekjuritizaciji imovine izgleda da je uticalo na ponašanje kreditora, pri čemu su kreditni standardi više snižavani u regionima u kojima su kreditori prodali veći dio inicijalnih kredita.



(FED), a subprime mortgage market crisis was a black swan! After the stock market crash of 1929, half of America's traders braced for another one every October - not taking into account that there was no antecedent for the first one. *We worry too late - ex post*. Mistaking a naive observation of the past as something definitive or representative of the future is the one and only cause of our inability to understand the effect of the Black Swan (Taleb, 42).

Alan Greenspan admitted that he missed the opportunity to detect the price explosion in sub-prime mortgage industry, but he explained that he was not troubled for cutting interest rates because what he was trying to do was only to implement the policies politicians imposed. Transfer of responsibility from the personal to the political field gives us opportunity to take into account more influential factors on the crisis.

Political perspective. The proof that a crisis can be very persuasive in finding its main causes is that people snatch for very serious socio-economic arguments. Apart from some wild speculation that the U.S. government intentionally caused the current financial crisis, there are other, more interesting debates. Sten Leibowitz, was quite explicit that the mortgage scandal was the direct result of an intentional loosening of underwriting standards done in the name of ending racial discrimination, despite warnings that it could lead to wide-scale defaults. Although minority mortgage applications were rejected more frequently than other applications, Leibowitz argues that the reason was not, in fact, racial discrimination, but simply the fact that minorities tend to have weaker finances. *The moral dilemma is hard to avoid - do we need a socially responsible or market driven banking system?* Or should we consider a market driven banking system which is socially responsible? Notwithstanding Leibowitz's comments, the

weakened underwriting standards were taken advantage by those across the economic spectrum. However, It is obvious that whatever we choose, any extreme solution unavoidably leads to scandal.

Psychological perspective. There are a lot of different reasons for this crisis so it is hard to find a single culprit. Are we, supposedly innocent citizens, really innocent in the context of economic turmoils. Theory suggests that there are two types of speculators who participate in the growth of a bubble: those who believe that for some reason the prices of goods will move considerably higher and remain there indefinitely, and those who subscribe to the "greater fool theory" which say that is reasonable to purchase goods as long as there exists at least one "greater fool" to whom the goods can be sold at a higher price. With such psychological framework, all that is needed to create a bubble is *someone who is willing to finance our greed (usually at another's expense) by loosening lending standards*. But with that issue we are knocking on the economic doors.

Economic perspective. During the boom time, commercial banks and other lenders usually weaken the lending standards. Deterioration in lending standards, in the light of the current financial crisis, according to Dell'Ariccia et al. can be linked to five main factors:

1. Standards tended to decline more where the credit boom was larger. This is consistent with cross-country evidence on aggregate credit booms.
2. Lower standards were associated with a fast rate of house price appreciation, consistent with the notion that lenders were to some extent gambling on a continuing housing boom, relying on the fact that borrowers in default could always liquidate the collateral and repay the loan.
3. Changes in market structure mattered: lending standards declined more in regions where large (and aggressive) previously absent institutions entered the market.
4. The increasing recourse by banks to loan sales and asset securitization appears to have affected lender behaviour, with lending standards experiencing greater declines in areas where lenders sold a larger proportion of originated loans.
5. Easy monetary conditions seem to have played a role, with the cycle in lending standards mimicking that of the Federal Fund rate. In the subprime mortgage market most of these effects appear to be stronger and more significant than in the prime mortgage market, where loan denial decisions seem to be more closely related to economic fundamentals.

BUYER OF LAST RESORT

What is a lender's last resort role in such circumstances? In order to find the appropriate solution for the illiquid but solvent financial institutions almost 135 years ago, Walter Bagehot, formulated his famous doctrine: central banks should lend money freely to the illiquid entities but on sound collateral and at higher interest rates. While this doctrine sounds very clear and easy to understand, it is hard to make it work. The practical problem with the doctrine is that during time of crisis the prices of financial instruments are not reliable and it is hard to properly estimate the market value of borrower's assets. That is why central banks usually make mistakes in evaluating the commercial bank assets and distinguishing

5. Blaži monetarni uslovi su, izgleda, takođe odigrali ulogu, pri čemu je ciklus kreditnih standarda oponašao ciklus kamatnih stopa Federalnih rezervi. Na tržištu visokorizičnih (neagencijskih) hipotekarnih kredita većina ovih efekata bila je, čini se, jača i značajnija nego na primarnom (agencijskom) hipotekarnom tržištu, gdje su odluke o odbijanju kredita bile izgleda više povezane s osnovnim ekonomskim pokazateljima.

KUPAC KRAJNJE INSTANCE

Koja je uloga zajmodavca krajnje instance u navedenim okolnostima? U namjeri da nađe odgovarajuće rješenje za nelikvidne, ali solventne finansijske institucije, Valter Bedžet je prije skoro 135 godina formulisao čuvenu doktrinu: centralne banke treba slobodno da pozajmljuju novac nelikvidnim subjektima, ali uz jako obezbjeđenje i po visokim kamatnim stopama. Iako ova doktrina zvuči veoma jasno i razumljivo, teško ju je sprovesti u djelo. Praktičan problem s ovom doktrinom je u tome što to što u periodima krize cijene finansijskih instrumenata nisu pouzdane i teško je ispravno procijeniti tržišnu vrednost imovine zajmoprimca. Zbog toga centralne banke obično prave greške u procjeni imovine komercijalnih banaka i u razlikovanju institucija koje su nesolventne od onih koje su samo nelikvidne. Tako su centralne banke prinuđene da primijene takvo kreditiranje koje se zasniva na diskrecionim procjenama i nepotpunim informacijama. Primjena takvog oblika kreditiranja je kritična tačka u kojoj zajmodavac krajnje instance obično postaje kupac krajnje instance. Nakon te tačke, teško je sakriti istinu da kriza nezadrživo nadire poput uragana.

U vrijeme krize, kada se neminovno trpe ogromni gubici i kada nas muči nedostatak povjerenja, skloni smo da okrivljujemo sofisticirane modele za procjenu rizika, investicione inovacije, rejting agencije, monetarne autoritete, političare, direktore banaka, pa čak i manjine. Teško je reći ko je zapravo kriv. *Čak i ako neko naknadno sazna precizan odgovor, to zasigurno ne rješava problem.*

NEKI RELEVANTNI STATISTIČKI PODACI

Slijedi grafički prikaz nekih indikatora koji dokazuju opasne trendove iz nedavne prošlosti. Biće potreban ogroman napor da se oni vrata na normalne nivoe i u normalne tokove.

Kakvo je povjerenje među bankama?

TED je skraćenica nastala od T-bill (kratkoročni zapis državnog trezora) i ED (tiker-simbol za eurodolarske fjučerse). TED raspon je razlika između kamatnih stopa na međubankarske pozajmice i kratkoročnih zapisa američkog državnog trezora. Veličina raspona je obično izražena u baznim poenima. Na primjer, ako kamatna stopa na T-bills iznosi 5,10%, a eurodolarskim fjučersima (ED) se trguje po 5,50%, tada TED raspon iznosi 40 bp ($5,5 - 5,1 = 0,40$). TED raspon oscilira s vremenom, ali istorijski je uvijek imao vrijednosti u opsegu od 10 do 50 bp (0,1% i 0,5%), sve do 2007. godine. Rast TED raspona često prognozira pad na američkom tržištu hartija jer ukazuje na smanjenje likvidnosti.

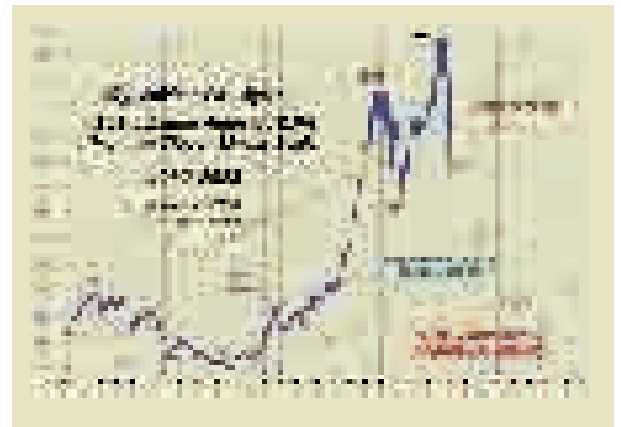


Prikaz 1. TED raspon i njegove komponente tokom 2008. godine

TED raspon je nastavio da obara rekorde u rastu, što je bio jasan znak da se tržišta zaista nalaze usred najgora finansijske krize u istoriji. Nepovjerenje raste, novac je sve skuplji, kao što pokazuje grafikon.

Šta američko tržište govori o krizi?

Na ovom grafiku prikazano je skoro 50 godina istorije američkog tržišta akcija, sadržanih u Dau-Džonsovom Industrijskom prosjeku (DJIA), koji je najpopularniji indikator tržišta akcija, a prikazani podaci prilagođeni su za stope inflacije prema američkom Statističkom birou (BLS). Jasno se vidi da mjesečna linearna skala pokazuje nagli pad DJIA ove godine. Predviđanja analitičara Stivena Viliamsa, koji je autor ovog grafikona, su zaista šokantna.



Prikaz 2. DJIA prilagođen inflaciji (1962-2008)

Kako stoji tržište nekretnina u SAD-u?

Prije nego što se osvrnemo na cijene prikazane na ovom grafikonu, treba ukratko da objasnimo skup indikatora tržišta nekretnina. Prema Standard&Poor-su, S&P/Kejs-Šilerovi indeksi nekretnina, koji su lansirani 2006. godine, kreirani su za praćenje kretanja cijena tipičnih porodičnih kuća. Ova grupa indeksa trenutno obuhvata 20 regionalnih indeksa i dva kompozitna indeksa kao agregate tih regiona. Najpopularniji S&P/Kejs-Šilerov indeks nekretnina jeste ponderisani kompozitni indeks cijena stambenih kuća u 10 glavnih gradskih područja.² S&P/Kejs-Šilerovi indeksi nekretnina se izračunavaju mjesečno, a objavljuju se s dva mjeseca zakašnjenja. Indeks nije reprezentativan za cjelokupno tržište nekretnosti.

² Deset gradskih statističkih područja uključuje: Boston, Čikago, Denver, Las Vegas, Los Anđeles, Majami, Njujork, San Dijego, San Fransisko i Vašington.

between institutions that are insolvent and those that are merely illiquid. So, central banks are enforced to implement discount lending which is based on discretionary evaluations and incomplete information. That implementation is the critical point where lender of last resort usually becomes buyer of last resort. After that point, it is hard to hide the truth that crisis is already rampant as a hurricane.

In time of crisis, when it is inevitable to suffer huge losses and fair amount of distrust, we are blaming sophisticated risk assesment models, investment innovations, rating agencies, central monetary authorities, politicians, bank managers, even minorities. So, it is hard to say who is guilty. *Even if someone knows the precise answer, it seems it does not solve the problem.*

SOME PERTINENT STATISTICS

Here we present graphical presentation of some indicators which prove dangerous trends in the near past. It is going to require an enormous effort to turn them back to their normal levels and streams.

How many banks trust one another?

TED is an acronym formed from T-Bill and ED, the ticker symbol for the Eurodollar futures contract. The TED spread is the difference between the interest rates on interbank loans and short-term U.S. government debt (T-bills). The size of the spread is usually denominated in basis points (bps). For example, if the T-bill rate is 5.10% and ED trades at 5.50%, the TED spread is 40 bps. The TED spread fluctuates over time, but historically has often remained within the range of 10 and 50 bps (0.1% and 0.5%), until 2007. A rising TED spread often presages a downturn in the U.S. stock market, as it indicates that liquidity is being withdrawn.

The TED spread has pushed further into record territory,



Exhibit 1. TED spread and its components during 2008

a clear sign the markets are truly in the midst of the worst financial crisis in history. Distrust is growing, money is getting more expensive, as the graph indicates.

What does the U.S. market say about the crisis?

Here is a nearly 50 year history of U.S. stocks included in DJIA, most popular stock market indicator, all adjusted for U.S. Beureau of Labor Statistics (BLS) inflation rates. As is easily visible, on a log scale, monthly close linear scale show sharp decline DJIA this year. The predictions of the analyst Steven J. Williams are shocking.

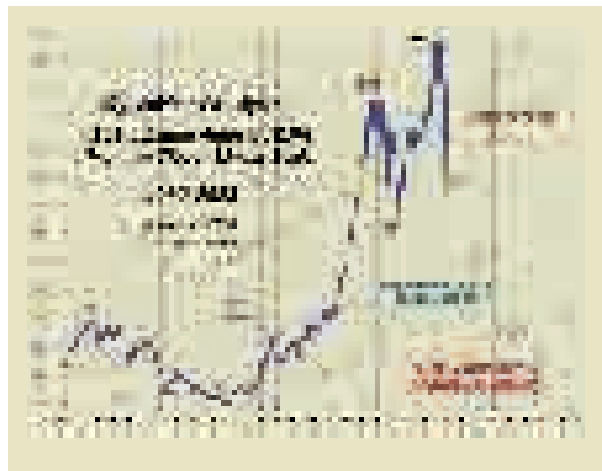


Exhibit 2. BLS Inflation-Adjusted DJIA (1962-2008)

How is the housing market standing?

Before we make any comment on the price path shown in the graph, it is necessary to make a brief explanation of the family of home market indicators. According to the S&P website the S&P/Case-Shiller Home Price Indices, launched in 2006, are constructed to track the price path of typical single-family homes. This index family currently consists of 20 regional indices and two composite indices as aggregates of the regions. The most popular, The S&P/Case-Shiller Composite 10 Home Price Index is a weighted composite index of home prices in ten major metropolitan areas². The S&P/Case-Shiller Home Price Indices are calculated monthly and published with a two month lag. The index is not representative for the overall US housing market. Moreover, the index tracks only single-family houses but not condominiums that represent half the transactions in most cities and does not differentiate between regular sales and forced foreclosed property auction sales, because of the index distortion. Let's get back to the graph.

This rollercoaster-like graph of the year-to-year percent-

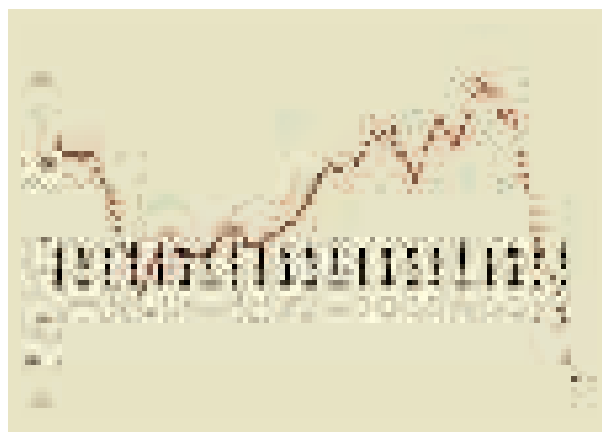
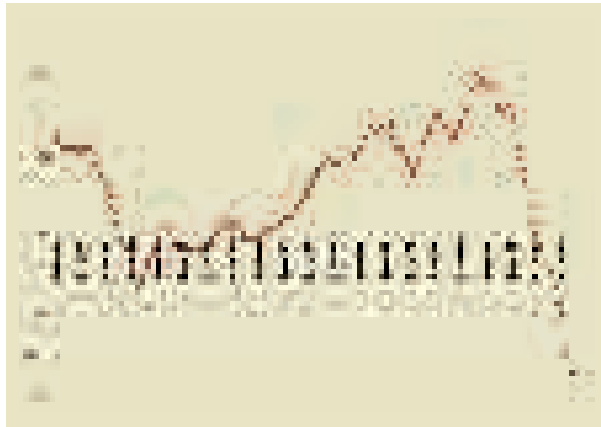


Exhibit 3. S&P/Case Shiller Home Price Index (1987-2008)

tage of housing price change shows that the U.S. housing market experienced terrible downfall. The Standard & Poor's/Case-Shiller U.S. national home price index fell a record 15.4 percent in the second quarter of 2008, compared with the same period in 2007. The 15.4 percent decline

2 The ten metropolitan statistical areas include Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York City, San Diego, San Francisco and Washington D.C

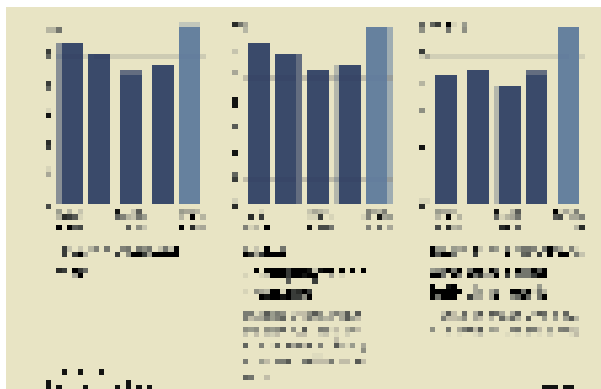
nina u SAD. Štaviše, ovaj indeks prati samo porodične kuće, ali ne i stambene objekte sa više stanova, koji čine polovinu transakcija u većini gradova i ne prave razliku između redovnih prodaja i iznuđenih hipotekarnih prodaja na aukcijama, zbog distorzije indeksa. Pogledajmo sada grafikon.



Prikaz 3. S&P/Kejs-Šilerov indeks nekretnina (1987-2008)

Ovaj grafikon nalik na rolerkoster, koji pokazuje godišnje promjene cijene kuća u procentima, pokazuje da tržište nekretnina u SAD-u doživljava enorman pad. Standard&Poor's/Kejs-Šilerov indeks nekretnina pao je rekordnih 15,4% u drugom kvartalu 2008, u poređenju sa istim periodom 2007. Pad od 15,4% je najveći pad ovog indeksa tokom perioda od 20 godina. Cijene stanova obuhvaćenih ovim indeksom opale su za 14,2% u prvom kvartalu 2008, u poređenju s prvim kvartalom 2007. Kompozitni Indeksi iz ove grupe pokazatelja koji prate 10 i 20 gradskih oblasti takođe su postavili nove rekorde, s padom na godišnjem nivou od 17,0%, odnosno, 15,9%, respektivno. Ovaj najpopularniji grafikon kreditne krize prikazuje kretanje indeksa u periodu od 1987. do 2008, što se skoro potpuno poklapa sa mandatom Alana Grinspana kao predsjednika američkih Federalnih rezervi (1987-2006).

Još uvijek čekamo zvanične podatke o tekućoj finansijskoj krizi i posljedicama po američku ekonomiju i ostatak svijeta. Čini nam se da je važno pratiti stope nezaposlenosti tokom nekoliko narednih godina, ukoliko imamo na umu njihov trenutni trend, prikazan u sledećoj tabeli:



Prikaz 4. Stopa nezaposlenosti u SAD-u (2004-2008)

Prema Američkom statističkom birou rada, stopa nezaposlenosti u septembru 2008. bila je 6,1%. Tokom proteklih 12 mjeseci broj nezaposlenih osoba porastao je za 2,2 miliona i dostigao svoj trenutni nivo od 9,5 miliona, a tokom prethodne godine stopa nezaposlenosti porasla je za 1,4%.



UMJESTO ZAKLJUČKA

Globalizacija ne znači samo uklanjanje prepreka koje usporavaju međunarodne tokove kapitala, već nažalost i onih koje sprječavaju prenošenje finansijskih kriza. Sa jačanjem globalizacije efekat preliivanja finansijske krize pojačava se više nego ikada ranije. Neophodno je da ponovo razmislimo o skrivenim uzrocima i putevima finansijske krize i njihovim strašnim posljedicama po privredu i društva širom svijeta.

Slično Hajzenbergovom principu neodređenosti, pomenutom na početku, prisjetimo se „efekta leptira“, koji ukazuje na kauzalnu povezanost svijeta. Kao posljedica toga, globalna kriza može da se kreće unaokolo uz minimum trenja. *Finansijska nestabilnost nije izolovani događaj, kao što ljudi obično misle.* Ona nastaje jednovremenom kombinacijom ekonomskih i finansijskih neravnoteža, kao što su veliki porast cijene robe, ubrzana kreditna ekspanzija i visok nivo investicionih aktivnosti.

Tokom protekle tri godine postalo je očigledno da smo sve to doživjeli. Ono što široka javnost izgleda ne razumije jeste činjenica da je američka kreditna kriza bila samo okidač čiji je domino efekat proizveo globalnu finansijsku krizu. Razlog ove ludosti jeste to što nam diversifikacija investicija u normalnim okolnostima pomaže da diversifikujemo rizik, dok u nenormalnim periodima ima suprotan efekat - širi zarazne bolesti finansijske imovine među najširoj investicionom publikom ■

was the largest in 20 years for the index. Housing prices in the C-S index declined 14.2 percent in the first quarter of 2008 compared with the first quarter of 2007. The 10-City and 20-City Composites also set new records, with annual declines of 17.0% and 15.9%, respectively.

2008 is 6.1 percent. Over the past 12 months, the number of unemployed persons has increased by 2.2 million and reached its current level of 9.5 million, and over the last year the unemployment rate has risen by 1.4 percentage points.



This most popular graph of the subprime mortgage financial crisis presents the index movement during the 1987-2008 time period, which almost entirely coincides with Alan Greenspan mandate as the Chairman of the Federal Reserve of the United States (1987-2006).

We are still waiting for the official data on current financial crisis and its consequences to the U.S. economy and the rest of the world. It seems important to monitor unemployment rates over the next couple of years, if we have in mind their current trend shown in the exhibit that follows.

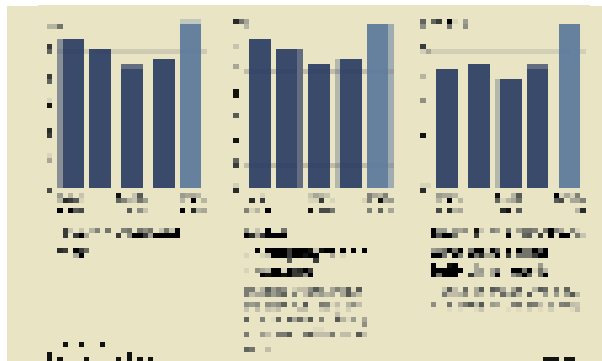


Exhibit 4. U.S. unemployment rates (2004-2008)

According to the U.S. Department of Labor, Bureau of Labor Statistics, the unemployment rate in September

CONCLUDING REMARKS

Unfortunately, globalization means not only breaking barriers that lags international capital flows but also ones that block transmission of financial crises. As globalization becomes more extensive, the spillover effect of the financial crisis is intensifying more than ever before. We need to rethink the hidden causes and paths of financial crises and their terrible consequences on economies and societies worldwide.

In line with the Heideger’s uncertainty principle we mentioned at the beginning of the article, it brings to mind the Butterfly effect, which points to the world’s close causal interconnectedness. Consequently, global crises can move all around with minimum friction. *Financial instability is not an isolated event, as people usually think.* Rather it arises from a simultaneous combination of economic and financial imbalances such as large increase in prices of goods, rapid credit expansions and high levels of investment. Over the last three years, it became evident that we experienced all of them.

What the general public seems to misunderstand is the fact that the U.S. *sub-prime housing market was just a triggering factor whose domino effect created a global financial crisis.* The method behind the madness of the problem is that the diversification of investments in normal circumstances helps us dilute the risk, but in irregular periods has its counter-effect – spreading contagious diseases of the financial assets among broader investment public ■

Integracija evropskih finansijskih tržišta

Više od godinu dana finansijska tržišta bombarduje sve dublja kriza koja slabi vjeru društva u njena finansijska tržišta i institucije. Evropska centralna banka, koja kreira politiku na nivou Evropske unije, mnoge je iznenadila svojom spremnošću da u kratkom roku pruži značajnu i koordiniranu podršku bankarskim tržištima kroz injekcije likvidnosti i odluke vlada usmjerene na podršku u zaštiti deponenata, dokapitalizaciju banaka i međubankarsku pasivu. Ovi dramatični koraci, za određeno vrijeme, smiriće tržište.

Uz ove inicijative za savladavanje krize, novija dešavanja podstakla su mjere sa dugoročnom perspektivom, koje imaju za cilj da ponovo izgrade povjerenje u budućnost bankarskog sistema i da spriječe da ponovo dođe do istih problema. Sve strane, uključujući i finansijsku privredu, dale su svoj doprinos raspravi o politici koja je potrebna. U slučaju banaka, vođenje poslovanja već je prilagođeno novim okolnostima i uvedene su nove mjere samoregulacije - na primjer povećavanje transparentnosti sekjuritizovane aktive

Finansijska tržišta i bankarski sektor suočavaju se sa dugim periodom racionalizacije i restrukturiranja, ali će uvijek opstati rezon da je potrebna jača integracija, da se smanje troškovi i ugrabe nove prilike za profitabilno poslovanje. Zaista, polet ka integracijama mogao bi se umnogome povećati.

U vrijeme kada je objavljen Integralni izvještaj - IR, u decembru 2007. godine, na tržišta su već djelovali subprimarni problemi a postojala je i sveprisutna trema oko posljedica koje će osjetiti banke i privreda. *Godinu dana kasnije, usred krize, jasno je da će cjelokupni troškovi za bankarski sektor biti veoma veliki, i da će ovu privrednu granu obavezati na ugovore.* U svom posljednjem Izvještaju o globalnoj finansijskoj stabilnosti¹, MMF je izračunao da će

na globalnom nivou *gubici na dugove koji su potekli iz Amerike (uglavnom vezani za hipoteke) dostići 1,4 biliona dolara, što je porast od gotovo polovine od njihove ranije procjene od 945 milijardi dolara u aprilu. Za sada su nekih 760 milijardi dolara otpisale banke, osiguravajuća društva, hedž fondovi i ostali koji su posjedovali dugove.*

OGROMNE POSLJEDICE

Slično tome, ekonomske posljedice krize i očekivane recesije, posebno u bankarskom sektoru, vjerovatno će biti ogromne, iako prognoze tek treba da uzmu u obzir najnovije inicijative državnih budžeta i druge promjene politike. MMF trenutno predviđa² da će se rast svjetskog obima proizvodnje usporiti do potencijalno stagnirajućih 3% tokom 2009. godine. Rast u euro zoni Evropske unije do-

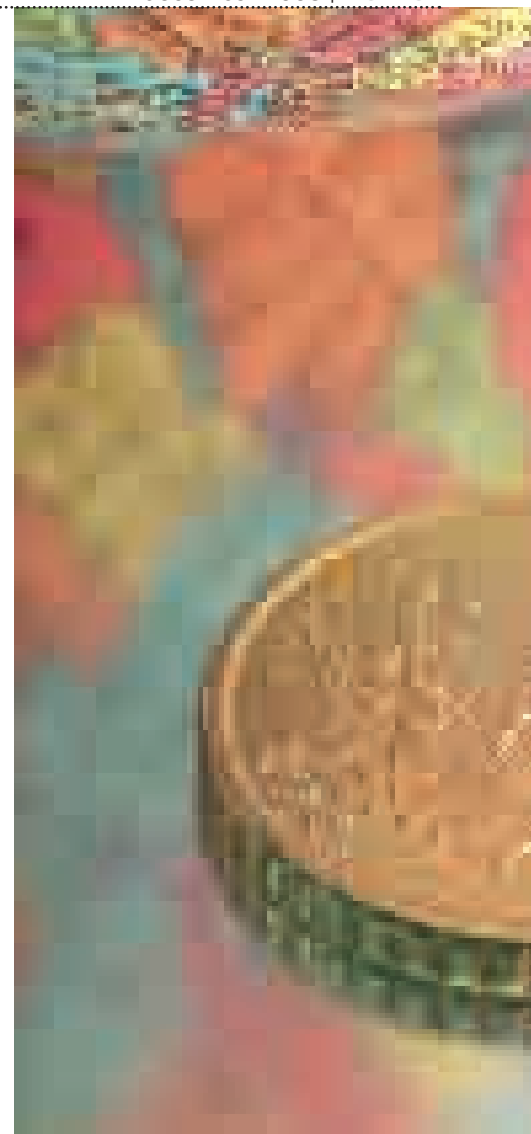
priniće tome sa samo 0,2%, a američki sa marginalnih 0,1%. Ipak, evropska se ekonomija prilagođava nizu šokova - posebno usporavanju rasta na globalnom nivou, znatno većim cijenama roba i jačem euru - bolje nego što se moglo očekivati, dijelom zbog strukturalnih poboljšanja stimulisanih Lisabonskom strategijom.

Iako je prerano da se izvuku jasni zaključci o finansijskim troškovima krize za banke, bankarske strukture već se mijenjaju i nastaviće da se razvijaju kao reakcija na krizu i očekivani pad u ekonomiji. *Direktna posljedica je porast državnog vlasništva, ali to bi trebalo da se smanjuje kako se tržišta budu oporavljala tokom predstojećih mjeseci i godina.* Još jedna početna promjena, koja će vjerovatno biti dugotrajnija, jeste porast u institucionalnoj konsolidaciji

¹ MMF Izvještaj o globalnoj finansijskoj stabilnosti za 2008. godinu

(IMF Global Financial Stability Report 2008) (link za ovu publikaciju: <http://www.imf.org/external/pubs/ft/gfsr/2008/02/index.htm>)

² MME, Globalna finansijska perspektiva (IMF Global Economic Outlook), oktobar 2008. (link za ovu publikaciju: <http://www.imf.org/external/pubs/ft/weo/2008/02/index.htm>)



Integration of European Financial Markets

For more than a year, the financial markets have been buffeted by a deepening crisis which has weakened societies' faith in their financial markets and institutions. The ECB, and EU policy-makers, have surprised many with their readiness at short notice to provide substantial and coordinated support, for banking markets, through liquidity injections and government undertakings in support of protection for depositors, bank recapitalisation and inter-bank liabilities. These dramatic steps will, in due course, settle the markets.

In addition to these crisis-management initiatives, recent events have sparked measures with a longer term perspective, intended to rebuild confidence in the future of the banking system and prevent the same problems from recurring. All parties, including the financial industry, have contributed to the discussion of required policy. In the case of banks, the conduct of business is already being adapted to the new circumstances, and new self-regulatory measures – for example to increase transparency in securitised assets – have been introduced

The financial markets and the banking sector are facing a lengthy period of rationalization and restructuring, but the rationale for greater integration, to reduce costs and grasp new opportunities for profitable business, will remain. Indeed, the momentum towards integration may well increase.

At the time the IR was published, in December 2007, the markets had already been affected by the sub-prime problems, and there was widespread nervousness about the consequences for banks and the economy. A year later, and in the midst of the crisis, it is clear that the full cost to the banking sector will be very substantial, obliging the industry to contract. In its latest Global Financial Stability Report¹, the IMF reckons that worldwide losses on

debt originated in America (primarily related to mortgages) will reach \$1.4 trillion, up by almost half from its previous estimate of \$945 billion in April. So far some \$760 billion has been written down by the banks, insurance companies, hedge funds and others that own the debt.

SUBSTANTIAL FALL-OUT

Likewise, the economic fall-out from the crisis, and from the anticipated recession in the banking sector in particular, is likely to be substantial, although forecasts have yet to catch up with the recent public budgetary initiatives and other policy changes. The IMF currently estimates² the world output growth to slow down to a potentially stagnant 3% in 2009. The EU's euro area growth will contribute to that with only 0.2%,

and the US with a marginal 0.1%. Yet the European economy has been adapting to a range of shocks - notably the slowdown in global growth, sharply higher commodity prices and the stronger euro – better than might have been expected, partly because of structural improvements spurred on by the Lisbon Strategy.

While it is too early to draw clear conclusions about the financial cost of the crisis for banks, banking structures are already changing and will continue to evolve in reaction to the crisis and to the expected downturn in the economy. *An immediate consequence has been an increase in levels of public ownership, but this should be unwound as the markets recover over the coming months and years.* Another initial change, likely to be longer-lasting, has been

¹ IMF Global Financial Stability Report 2008

(publication can be found following this link: <http://www.imf.org/external/pubs/ft/gfsr/2008/02/index.htm>)

² IMF Global Economic Outlook, October 2008 (publication can be found following this link: <http://www.imf.org/external/pubs/ft/weo/2008/02/index.htm>)

u evropskom bankarskom sektoru, i to u velikoj mjeri institucija iz različitih država³. To se ne događa samo zato što su neke banke uskočile u kupovinu akcija u bankama koje prolaze kroz finansijske poteškoće, već i zbog toga što su pojačane nove komercijalne i strateške mogućnosti. U ovim teškim ekonomskim vremenima pritisci konkurencije rastu i banke traže nove izvore prihoda.

Obim bankarskih usluga takođe će se prilagoditi izmijenjenoj perspektivi. Neki bankarski subjekti, posebno investicione banke, pali su kao žrtve gubitka vjere u modele poslovanja koji se baziraju na finansiranju na finansijskom tržištu, visokom odnosu između sopstvenog i tuđeg kapitala, kreditnim derivatima i trgovanju. Vjerovatno će se ponovo fokus vratiti na jednostavnije tradicionalne proizvode, iako bi trebalo da neke aktivnosti koje trenutno nisu omiljene, kao što je sekuritizacija, ožive kada se uslovi smire, uz uslov da se nivo transparentnosti, izvještavanje i regulacija smatraju usklađenima sa rizicima. U međuvremenu će biti tražene tradicionalne bankarske strukture i aktivnosti, na osnovu sakupljanja depozita i usluga koji se dodaju osnovnim bankarskim djelatnostima; konkurencija u ovom poslovanju već se jasno izdvojila. Kako banke sprovode racionalizaciju u različitim funkcijama i u aktivnostima u drugim državama, očekuje se da se ova tendencija integriranja institucija produbi.

INFRASTRUKTURA POLITIKE TREBA DA BUDE AŽURNA

Neke vrijedne lekcije u oblasti politike treba izvući iz ove krize. Jasnije je nego ikada da banke i tržišta Evrope funkcionišu u globalnom okruženju i da su dio globalnih struktura i to sa svim pratećim rizicima kao i mogućnostima. Kreatori politike na nivou Evropske unije rade na izgradnji jedinstvenog evropskog finansijskog područja, prvenstveno da bi omogućili da ekonomija i društvo Evropske unije prosperiraju u svjetskom kontekstu, a da njihove finansijske institucije, korporacije i potrošači imaju bolju priliku da iskoriste dobrobiti ekonomije obima i efikasniju raspodjelu resursa. Suštinski element takvog uspjeha je kvalitet i fleksibilnost regulatornog i nadzornog okvira koji pomaže komercijalna tržišta i njihovu koherentnost sa regulatornim i nadzornim okvirom drugih značajnih međunarodnih tržišta. Ova kriza pokazala je dobre strane strukture ekonomskog

i finansijskog upravljanja u Evropskoj uniji, naglašavajući u isto vrijeme i oblasti gdje su potrebna poboljšanja.

Moglo se očekivati da napredak u postizanju jedinstvenog tržišta finansijskih usluga bude zaustavljen krizom. Ipak, ukazujući na rizike koje nosi nepostojanje integracije u upravljanju tržištima, nedavna dešavanja dala su jasne argumente za napredovanje u nizu ključnih "izazova" u oblasti politike koji su utvrđeni u prvobitnom IR. U slučaju nadzora, rizik da će velike međunarodne finansijske institucije možda biti neuspješne u sadašnjim turbulentnim uslovima ubrzao je unutar Savjeta Evropske unije prihvatanje novih mjera usmjerenih na osiguravanje saradnje između supervizora i nadležnih organa. Kreatori politike obnovljene snage ulažu u popravlanje opaženih nedostataka u zakonima koji se odnose na finansijske usluge, posebno u dijelu nadzora, investicionim fondovima, tržištima za rad sa stanovništvom i finansijskom izvještavanju. Takođe, u oblasti šema za zaštitu depozita, Evropska komisija je brzo reagovala da bi poboljšala zaštitu deponenata i sačuvala njihovo povjerenje u finansijsku zaštitnu mrežu. Njihovi naponi trebalo bi, dugoročno gledano, da pomognu da se izgradi solidan temelj za bolju konsolidaciju tržišta. Posebna je briga u ovoj fazi potrebna aktivnostima politike koje, usljed teške situacije na tržištima, nijesu osjetile dobrobiti optimalnog stepena koordinacije na nivou Evropske unije, a naročito mogućim nenamjeranim posljedicama koje su proistekle iz međusobnih djelovanja različitih inicijativa vođenih od strane vlada i osmišljenih za bankarski sektor na nivou država članica Evropske unije.

Revolucija koja je u toku trebalo bi da donese pozitivne rezultate. Suštinska pomoć finansijskim tržištima je povjerenje, koje sa svoje strane zavisi od stepena u kome društvo prihvata ciljeve i metode finansijskog sektora. Taj konsenzus sada moraju veoma pažljivo ponovo da izgrade političari i bankari iz centralnih banaka, kao i sam bankarski sektor. Neće biti vraćanja na status quo ante, ali kada se povrti smirenost, mora se dati prostor da ponovo profunkcionišu sposobnosti tržišta da vrše samoregulaciju. *Ako kreatori politike uspiju da postignu pravu ravnotežu između regulacije i slobodnog funkcionisanja tržišta, izaći ćemo iz krize i naći se u finansijskom svijetu gdje prirodni trend ka integracijama i informacijama na finansijskim tržištima dolazi u bliskom tandemu sa sigurnom*

i dobro koordiniranom infrastrukturom međunarodne politike.

ZAKLJUČNI KOMENTARI

U proteklih decenijama finansijska tržišta, a naročito američka, funkcionišu sa velikim stepenom slobode. Međutim, u svjetlu finansijske krize situacija se radikalno mijenja: stojimo na pragu perioda intenzivne regulatorne aktivnosti. Sa kratkoročnijim mjerama za izgradnju povjerenja i početkom nove regulacije, okruženje finansijskih tržišta transformiše se svakog trenutka.

Mora se odati priznanje vladama država širom svijeta koje su reagovala brzo na krizu koja se rasplamsavala u bankarskom sektoru. One su brzo i efikasno uvele mjere da bi pomogle finansijskom sektoru i zaštitile svoje građane od gubitaka. U kontekstu sve jače krize, pokazao se izuzetan značaj saradnje između vlada i finansijskog sektora. U prošlosti su finansijske institucije u velikoj mjeri bile zajedno sa vladama uključene u davanje savjeta o novim zakonima, koregulaciji, i u osmišljavanje kodeksa prakse u oblastima gdje je sektoru dato pravo na samoregulaciju. Ova saradnja ostaće od suštinskog značaja u nastupajućim mjesecima pošto se okvir kodeksa, pravila i regulative preoblikuju. S obzirom na brzinu reagovanja vlada i želju svih interesnih strana da se riješi problem koji je naglasila i pojačala sadašnja kriza, zajedničko nam je predviđanje da ćemo do sljedećeg ažuriranog IR imati mnogo više uspjeha u oblasti finansijske politike. Međutim, ostaje nam još mnogo posla, u oblastima politika oporezivanja i rada sa stanovništvom, na primjer. Nadalje, kao ključni izazov vezan za osnaživanje međunarodne saradnje, zadaci koje treba ispunjavati narednih godina moraju se doživljavati ne samo u evropskom, već u globalnom kontekstu. U slučaju ove grupe ciljeva kriza je još više naglasila naše ključne preporuke.

Cilj koji obuhvata sve druge i koji je najhitniji u ovom trenutku jeste prevazilaženje sadašnje krize. Njegovo ostvarivanje treba započeti ponovnim uspostavljanjem povjerenja u finansijska tržišta širom svijeta. Osim toga, kreatori politike suočiću se sa teškim izazovom stvaranja nove ravnoteže između tržišnih sila i regulacije. Prostora za nadu ima. Ako budu uspješni u izgradnji bezbjednog okruženja za finansijsku djelatnost, koja ne guši kreativnost i ostavlja prostor za prirodne tržišne procese kao što je integracija, privrede Evrope i SAD će imati solidnu osnovu za oporavak ■

³ Primjeri takve konsolidacije o kojima se raspravljalo ili su zaključeni od kada je kriza počela obuhvataju BNP Paribas (FR) – Fortis (BE), Santander (ES) – Alliance & Leicester (UK) – Bradford & Bingley (UK), Credit Mutuelle (FR) – Citi Germany (DE) i na nacionalnim tržištima Lloyds – HBOS, Commerzbank – Dresdner, and Deutsche Bank – PostBank.

a stepping up in institutional consolidation in the European banking sector, much of it cross-border³. This is taking place not only because some banks have stepped in to purchase shares in banks which are experiencing funding difficulties, but also because new commercial and strategic opportunities have been intensified. In these difficult economic times, competitive pressures are growing and banks are searching for new sources of revenue.

The range of banking services will also be adjusted to the changed outlook. Some banking entities, particularly the investment banks, have fallen victim to the loss of faith in business models based on wholesale funding, high leverage, credit derivatives and trading. There is likely to be a renewed focus on simpler, traditional products, although some activities which are currently out of favour, such as securitisation, should see a revival when conditions are calmer, provided that levels of transparency, reporting and regulation are seen to be commensurate with the risks. Meanwhile, traditional banking structures and activities, based on the garnering of deposits and on services attached to basic banking activities, will be at a premium; competition in these businesses has already sharply identified. As banks rationalise across functions and across borders, the tendency to integrate institutions is expected to deepen.

THE POLICY INFRASTRUCTURE NEEDS TO BE IN STEP

Some valuable policy lessons are to be learned from the crisis. It is clearer than ever that Europe's banks and markets are operating in a global environment and part of global structures, with attendant risks as well as opportunities. EU policy makers pressed forward with building a single European financial area primarily to enable the EU economy and society to flourish in a world context, with its financial institutions, corporations and consumers better able to benefit from economies of scale and more efficient allocation of resources. An essential ingredient for such success is the quality and flexibility of the regulatory and supervisory framework which underpins the commercial markets and its coherence with that of other important international markets. *The crisis has demonstrated the strengths of the structure of economic and financial governance in the EU, while highlighting the areas where improvements are required.*

It could have been expected that progress in achieving a single market in financial services would have been stalled by the crisis. Yet by showing the risks of lack of integration in governance of the markets, recent events have sharpened the case for moving forward in a number of the key policy "challenges" which were identified in the original IR. In the case of supervision, the risk that a large cross-border financial institution might fail in the current turbulent conditions has hastened acceptance within the EU Council of new measures to ensure collaboration between supervisors and the authorities. Policy makers are working with renewed effort to repair the perceived gaps in the financial services legislation, particularly in that of supervisory architecture, investment funds, retail markets and financial reporting. Also, in the area of deposit guarantee schemes, the European Commission has reacted quickly to improve depositor protection and to maintain the confidence of depositors in the financial safety net. Their efforts should, in the longer run, help to build a solid foundation for the greater market consolidation. Particular care needs to be given at this stage also to policy actions that, due to the severe situation in the markets, have not benefited from an optimal degree of coordination at EU level, and, in particular, to the possible unintended consequences derived from the interplay of the various government-led initiatives designed for the banking sector at EU Member State level.

The revolution which is underway should bring some positive result. The essential underpinning for financial markets is confidence, which in turn depends on a degree of social endorsement of the objectives and methods of the financial sector. This consensus is now having to be painstakingly rebuilt, by politicians, and central bankers as well as by the banking industry itself. There will be no returning to the *status quo ante*, but when calm is restored, scope must be given for the markets' self-regulating possibilities to operate once again. *If policy-makers succeed in achieving the right balance between regulation and the free operation of markets, we will emerge from the crisis in a financial world where the natural trend towards integration and innovation in the financial markets occurs in close tandem with a secure and well-coordinated international policy infrastructure.*

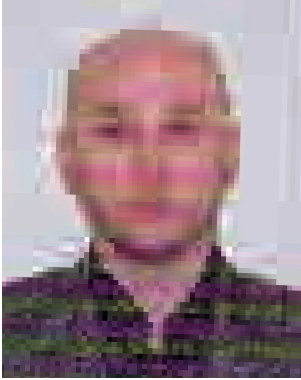
CONCLUDING REMARKS

In the past decades, financial markets, particularly those in the US, have been functioning with a high degree of freedom. However, in light of the financial crisis the situation is changing radically: we stand on the threshold of a period of intense regulatory activity. With the shorter term confidence-building measures and the onset of new regulation, the landscape of the financial markets is transforming by the moment.

Appreciation must be expressed to the governments of countries around the world that have reacted swiftly to the unravelling crisis in the banking sector. They have quickly and effectively put in place measures to support the financial industry and protect their citizens from losses. In the context of an unfolding crisis, the importance of collaboration between governments and the industry has proven paramount. In the past, financial institutions have been heavily involved with governments in providing advice on new laws, in co-regulation, and in devising codes of practice in areas where the industry has been given the right to self-regulate. This collaboration will remain essential in the coming months as the framework of codes, rules and regulations is reshaped. Given the speed of government response and desire of all stakeholders to solve the problems highlighted and intensified by the current crisis, our shared anticipation is that by the time of the next IR Update there will be many more achievements in the realm of financial policy to report. However, the important tasks remain, for example in the fields of taxation and retail policy. Furthermore, as key challenge on intensifying international cooperation, the tasks to be undertaken in the coming year must be seen not only in the European, but also the global context. In the case of this set of objectives, the crisis has given added emphasis to our critical recommendations.

The overarching and most urgent current objective is overcoming the current crisis, starting with re-establishing confidence in the financial markets around the world. Beyond this, policy-makers will face the difficult challenge of creating a new balance between market forces and regulation. There is room for hope. If they succeed in building a secure environment for financial activity, which does not stifle creativity and allows room for natural market processes such as integration, the economies of Europe and the US will have a solid basis for recovery.

³ Examples of such consolidation, mooted or concluded since the crisis include BNP Paribas (FR) – Fortis (BE), Santander (ES) – Alliance & Leicester (UK) – Bradford & Bingley (UK), Credit Mutuelle (FR) – Citi Germany (DE) and in the national markets Lloyds – HBOS, Commerzbank – Dresdner, and Deutsche Bank – PostBank.



Magnituda i implikacije finansijske i bankarske krize

Tržište hartija obezbijedenih hipotekom raslo je rapidno tokom posljednje decenije od malog segmenta na nivou niše do značajnog udjela u hipotekarnom tržištu SAD. Pad kreditnih standarda, prekomjerno izlaganje riziku kreditora i, vjerovatno, direktna prevara bile su karakteristike ovog trenda. Subprimarna kriza koja je otpočela u avgustu 2007. predstavlja najgoru finansijsku krizu od Velike Depresije. Jasno je da ovakav slom finansijskog sistema vrlo brzo ili gotovo trenutno utiče na cjelokupnu ekonomiju budući da ekonomska aktivnost zavisi od efikasnog funkcionisanja sistema plaćanja. Zemlje sa slabim institucionalnim arazmanima (zemlje u razvoju) mogu generalno proći bez ozbiljnih teškoća u bankarskom sektoru. Ipak, ukoliko se pogorša okruženje (ambijent), kriza se može pojaviti veoma brzo

dr Slobodan Lakić

Ekonomski fakultet Podgorica

Analize ukazuju da se kriza koja se prvobitno ispoljila na malom segmentu hipotekarnog tržišta SAD proširila na međunarodna kreditna i tržišta finansiranja preko dva kanala - izlaganjem subprimarnim hipotekarnim tržištima i smetnjama na bankarskim i tržištima finansiranja. Spirala širenja problema bi izgledala ovako: problemi na neprimarnim hipotekarnim tržištima - finansiranje zaduživanjem i strukturisana kreditna tržišta povezana sa hipotekom - globalna tržišta novca - pomjeranje spektra kredita od nisko do visoko gradiranih korporativnih kreditnih tržišta - primarna rezidencijalna i komercijalna hipotekarna tržišta - aktive na tržištima zemalja u razvoju. Tokom krize banke su pokazale visoko izlaganje riziku, što je navodno bilo neočekivano. To se baziralo na kupovini hartija zasnovanim na zajmovima, implicitnim garancijama vanbilansnih mehanizama, kreditnim linijama visoko rizičnim klijentima..

Nesolventnost, ili gotovo nesolventnost, jedne ili više važnih banaka može da smanji kredit (pogotovo zajmove) tržištu, izazove juriše deponenata na "sigurne" banke ili nerizične državne hartije i valutu, smanji depozite i ponudu novca (novčanu masu). Takođe, da podrije

funkcionisanje sistema plaćanja, poveća neizvjesnost i uznemiri finansijska tržišta, prouzrokuje gubitke koji će oboriti cijene hartija ispod njihovih ravnotežnih nivoa. Svakako, ovo su stvarne ili potencijalne posljedice tekuće finansijske i bankarske krize. Nakon svih dosadašnjih kriza slijedila je intervencija, što libertarijanska i "neoliberalna" teorija ne preferira. U odsustvu intervencije, bankarske krize imaju drastično nepovoljniji uticaj na ekonomiju. Izgleda da će spirala: usloznavanje finansijskog sistema - finansijska kriza - intervencija spašavanja, i ubuduće predstavljati nezaobilazan segment funkcionisanja svjetske ekonomije.

SUBPRIMARNI BANKARSKI PRELUDIUM FINANSIJSKE KRIZE

Iskustva iz prethodne decenije pokazuju da su se poteškoće kod većine pojedinačnih banaka često ispoljavale kao kreditni problemi, a katkad i kao operativni rizik. Tržišni rizik je rijetko bio ozbiljniji problem. U većini slučajeva značajne su bile slabosti upravljanja i kontrole. U periodu od 1980. do 2000, banke koje su

Magnitude and Implications of the Financial and Banking Crisis

The asset-backed security market has recorded a rapid growth over the last decade. Starting as a small niche market, it has become a significant portion of the United States mortgage market. This trend was characterized by the fall of credit standards, excessive exposure of creditors to risk, and perhaps direct fraud. The subprime crisis which started in August 2007 has been the worst financial crisis ever since the Great Depression. It is clear that this kind of breakdown of the financial system has a very rapid or almost instant adverse affect on the entire economy due to the dependence of economic activities on the efficiency of functioning of the payment system. The countries with weak institutional arrangements (developing countries) may generally come through without experiencing any major difficulties in the banking sector. Nevertheless, should the situation deteriorate out of the country (ambience effect), the crisis may break out very rapidly

Slobodan Lakić, PhD

The Faculty of Economics, Podgorica

The analysis show that the crisis which had originally emerged in a small segment of the United States mortgage market expanded towards international mortgage and financial markets through two channels: exposure to subprime mortgage markets and difficulties in the banking and financial markets. The difficulties expanded spiraling as follows: problems in nonprime mortgage markets - loan-based financing and mortgage-backed structured credit markets - global monetary markets - credit spectrum moving from low to high grade corporate credit markets - prime residential and commercial mortgage markets - active capital in the markets of developing countries. During the crisis, banks demonstrated a high exposure to risk, which was allegedly unexpected. The business was based on the purchase of asset-backed securities, implicit guarantees through off-balance mechanisms, and issuing of credit lines to high-risk clients.

Insolvency or almost insolvency of one or several important banks may reduce credit issuing (especially loans) to the market, make the depositors rush to "safe" banks or no-risk government securities and currency, and reduce both

the deposits and monetary offer (money in circulation). It may also undermine the functioning of payment systems, increase uncertainty, disturb the financial markets, result in losses and cause the securities to fall beyond their price equilibrium. These are certainly either actual or potential consequences of the current financial and banking crisis. Until now, all crisis used to be followed by an intervention, which is not endorsed by the libertarian or "neo-liberal" theory. Lacking intervention, banking crisis has more drastic adverse effects on the economy. It appears that the spiral: increasingly complex financial system - financial crisis - rescue intervention shall keep being present as an inevitable segment of the global economy functioning.

SUBPRIME BANKING PRELUDE OF THE FINANCIAL CRISIS

Experiences from the last decade show that difficulties in most individual banks often used to emerge as credit problems, and occasionally also as an operative risk. Market risk was rarely a more significant problem. Management and control weaknesses were critical in the majority of cases. From 1980 to 2000, the banks which faced difficulties were

se našle u problemima bile su više izložene špekulativnim zajmovima za nekretnine, polazeći od njihove velike profitabilnosti i privlačnosti za rast banke. Aktive u vidu nekretnina bile su u priličnoj mjeri nepouzdana u uslovima slabog ekonomskog okruženja. Teže posljedice za pojedine banke u SAD u ranijem periodu izgleda da nisu bile dovoljna lekcija. Iste "greške" su se ponavljale i u prethodne dvije decenije.

Bank of New England je početkom '80-ih bila jedna od najvećih banaka u SAD na Srednjem istoku, sa aktivom od preko 32 milijarde dolara i sa oko 480 ogranka. U regionu je primjenjivala agresivnu strategiju kreditora nekretnina. Kolaps koji je krajem '80-ih uslijedio kod vrijednosti nekretnina odrazio se i na banku u vidu neperformansnih zajmova, odnosno brzog pogoršanja zajmovnog kvaliteta. Krajem 1990. neperformansni zajmovi činili su 20% ukupnih zajmova (3,2 milijarde \$). Gubici su bili enormni i banka je postala nesolventna. Uslijedilo je masovno povlačenje sredstava (1 milijarda nedjeljno), uglavnom sa ATM-a. Slom ove banke uticao je na dalje proširenje regulatornog sistema donošenjem Dopusnjenog Zakona o FDIC - federalnoj agenciji koja daje ograničene garancije (osiguranje) za sredstva depozitovana u bankama članicama.

Neuspjesi banaka i štedionica su bili svedeni na najmanju mjeru do sredine 90-ih usljed djelovanja dva faktora: značajnog smanjenja kamatnih stopa i regulatornim promjenama (FDICIA i FIRREA). Ipak, ove institucije su se potom suočile sa problemima uključivanjem u subprimarno potrošačko kreditiranje. Uz ista pravila koja se odnose na kapital, subprimarno kreditiranje je poprimilo visoko rizičan profil i znatno povećan leveridž. BestBank je bila prva subprimarna institucija koja je propala (krajem 80-ih). Banka je bila specijalizovana u izdavanju kreditnih karti za subprimarne zajmotražioce koji su bili spremni da se pridruže putničkom klubu. Prevara je imala osnovu u ogromnim zakašnjenjima u portfoliju. Banka je zatvorena, a osigurani depoziti su prenešeni na lokalnu instituciju. Troškovi FDIC su iznosili 222 miliona dolara, što je značilo 95% aktive.

Uslijedilo je još nekoliko primjera propasti subprimarnih banaka krajem '90-ih, detaljnije analiziranih u publikaciji BIS (BCBS, 2004). U jednom slučaju (Keystone) bila je otkrivena prevara - stotine miliona zajmova koji nisu postojali ili nisu posjedovani - koja je koštala 780 miliona dolara. U slučaju Pacific Thrift and Loan originalno su odobreni subprimarni zajmovi, zatim sekjuritizovani i prodati, uz zadržavanje rezidualne kamate. Prevare navodno nije bilo, a gubici su iznosili 33% aktive. Uopšte, pozajmljeni iznosi su pri subprimarnom pozajmljivanju uglavnom prodati kroz sekjuritizaciju. Propasti subprimarnih banaka dešavale su se nakon Bazela I, kojim se naglašavala adekvatnost kapitala, a kulminirale nakon Bazela II, koji stavlja poseban naglasak na rizike. Bazel II je promovisao dobitnike i gubitnike, ne najpreciznije, a Bazel III će morati da promoviše novu strategiju (strukturu) do nove bankarske krize.

Banke u SAD kao cjelina su od 2000. postajale više izložene rezidencijalnim nekretninama. To se odražavalo u povećanju holdinga zajmova za nekretnine i hartija i iznosa raspoloživih kreditnih linija za stambe-





more exposed to speculative loans for real estate development, as highly profitable and appealing loans for their growth. Real estate assets were considerably unreliable due to a declining economic situation out of the country. It appears that lessons learned from the heavy consequences previously suffered by some banks in the United States were not sufficient. The same “mistakes” used to be repeated over the last two decades.

In the early '80s, the Bank of New England was one of the largest banks in the United States and Middle East, with an active capital of more than 32 billion dollars and approximately 480 branch banks. It led an aggressive strategy in the region, as a real estate creditor. The value of real estate collapsed in the late '80s, which also affected the bank in the form of non-performing loans, or rapid worsening of loan quality. By the end of 1990s, its non-performing loans made 20% of the total loan amount (\$3.2 billion). The losses were enormous, resulting in the bank's insolvency. A mass withdrawal of funds followed (\$1 billion per week), mostly from ATMs. As a result of the collapse of this bank, regulatory system was further developed. The Federal Deposit Insurance Corporation Act was amended. The FDIC is a federal corporation offering partial guarantees (insurance) for the deposits in its member banks.

Until the mid-'90s, downfalls of banks and savings banks were minimized due to two active factors: significant reduction of interest rates and regulatory changes (FDICIA and FIRREA). Nevertheless, these institutions subsequently engaged in subprime consumer lending and faced some difficulties. Following the same rules that apply to capital funds, subprime lending assumed a high risk profile and significant increase in leverage. The BestBank was the first subprime banking institution which broke down (by the end of the '80s). The Bank specialized in issuing of credit cards to subprime borrowers who were ready to join its passenger club. The fraud was based on immense delays in its portfolio. The Bank was closed while the insured deposits were transferred to a local institution. The FDIC's costs amounted to \$222 million, or 95% of its active capital.

By the end of the '90s, a few additional subprime banks collapsed. The BIS analyzed these examples in more detail in one of its publications (BCBS, 2004). In one case a fraud was discovered (Keystone). There were hundreds of millions of loans which neither existed nor had an owner. This fraud was worth \$780 million. In the case of Pacific Thrift and Loan failure, subprime loans which had originally been approved were securitized and sold, while the residual interest was retained. There was allegedly no fraud, while the losses amounted to 33% of active capital. Generally, loans were mostly sold during subprime lending through securitization. Failures of subprime banks occurred after Basel I, which accentuated the adequacy of capital, and reached a climax after Basel II, which placed special emphasis on risks. Basel II promoted winners and losers, although not completely accurately, while Basel III shall have to promote a new strategy (structure) until the following bank crisis.

The US banks have generally become more exposed to residential properties since 2000. This was reflected in an increase in real estate loan holdings and securities, and also the percentage of financial resources allocated for credit lines for residential properties (real estate-backed mortgages)

ne objekte (uz obezbjeđenje u imovini) kao procenat ukupne bankarske aktive. Bankarski kapital se povećao pa je povećano izlaganje rezidencijalnim nekretninama bio manji problem nego što bi inače bio. Dio zajmova za rezidencijalne nekretnine i hartija u posjedu banaka garantovala su treća lica. Mnoge banke su kupovale samo visoko rangirane hartije koje su imale mali kreditni rizik. Prema analizama, američke banke su bez obzira na izloženost kao cjelina bile znatno manje osjetljive na pad cijena nekretnina u poređenju sa bankama koje su bile locirane u državama SAD sa visokim padom cijena krajem '80-ih i početkom '90-ih.

Finansijske institucije koje su bankrotirale u 2008. godini, ili bi bankrotirale bez pomoći države, zapale su u teškoće zbog nedostatka akcijskog kapitala. Prošle godine su isplatile akcionarima suviše mnogo od obilnih zarada. Svoje operacije su pretjerano leveridžovale dužničkim kapitalom. Kao što je slučaj i sada, finansijska kriza se mora pojaviti ukoliko se ne preduzmu mjere za povećanje minimalnih zahtjeva za kapitalom bankama i drugim finansijskim institucijama. Investicione banke su poznate po pristupu minimalističkog akcijskog kapitala. Dok je običnim bankama potreban racio kapital/aktiva od najmanje 7%, investicione banke tipično operacionišu sa raciom od samo 4%. Nedostatak kapitala je uglavnom rezultirao iz koncepta "ograničene odgovornosti" (limited liability) kojim se daje podsticaj za prekomjerno zaduživanje.

Usljed nedostatka akcijskog kapitala, akcionari ("ne-skloni riziku") unajmljuju "kockare" da upravljaju njihovim kompanijama sa ograničenom odgovornošću. Menadžeri odabiraju prilično rizične operacije znajući da akcionari ne bi simetrično participirali u rizicima. Dok bi se rastući rizici preobratali u dividende, opadajući bi bili limitirani do iznosa investiranog akcijskog kapitala. Potraživanja od lične imovine akcionara bila bi blokirana ograničenjem odgovornosti (ograničene). Na kraju, kreditori banke ili vlade snosili bi bilo koji gubitak. Prema pojedinim autorima (Sinn, 2008), zajednička interakcija između podsticaja da se minimizira akcijski kapital i onog za kockanjem, kako bi se iskoristio rastući rizik, proizvela je krizu. Na američku krizu je uticalo i to da su kućevlasnici uživali ograničenu odgovornost sličnu onoj kod kompanija. Kockanje sa tzv. Main (odvod) street uzrok je subprimarne krize.

EVOLUCIJA KRIZE SUBPRIMARNE HIPOTEKARNE INDUSTRIJE

U literaturi su se apostrofirale sljedeće osnovne karakteristike subprimarnog tržišta. Kao relativno nov i snažno rastući segment hipotekarnog tržišta, subprimarno kreditiranje je proširilo pul kredita zajmotražiocima koji bi inače bili uskraćeni za kredit. Potencijalni zajmotražiocima koji ne ispunjavaju kreditne zahtjeve na standardnom (primarnom) hipotekarnom tržištu imaju veći pristup kreditu na subprimarnom tržištu. Ovaj oblik kreditiranja je sa visokom cijenom koja zavisi od kreditne istorije i obaveza depozitnog plaćanja (down payments). Vjerovatnoća neizvršenja je bila barem šest puta veća za neprimarne (veće kamatne stope) nego za primarne zajmove. Neprimarni zajmovi su manje osjetljivi na promjene kamatne stope. Oni koji se za-

dužuju na subprimarnom tržištu teško mogu koristiti raspoložive jeftinije oblike finansiranja.

Subprimarno tržište je vremenom postalo sličnije primarnom tržištu zbog sekjuritizacije subprimarnih zajmova. Na rast subprimarnog kreditiranja uticali su zakonski faktori, pogotovo Zakon o poreskoj reformi (TRA, 1986) povećavajući tražnju za hipotekarnim dugom, što je snizilo kamate na hipoteke za osnovno stanovanje i za dodatni stan. To je uticalo da hipotekarni dug sa visokom cijenom postane jeftiniji od potrošačkog duga za mnoge kućevlasnike. Prije desetak godina, tzv. cash-out finansiranje je postalo popularno kod kućevlasnika. Ono pokazuje da je novi zajam veći od starog, a zajmoprimalac dobija razliku u gotovini. Na rast i dospelost subprimarnih zajmova uticale su i tržišne promjene, emitovanje hartija obezbijedenih hipotekom.

Chomsisengphet i Pennington-Cross (2006) su detaljnije analizirali razvoj subprimarnog hipotekarnog tržišta (kreditiranja) u periodu 1995-2004. Dva su zasebna perioda u razvoju subprimarnog tržišta u prethodnoj deceniji: 1) od sredine '90-ih do '99, kojeg karakteriše rapidan rast, a rast se desio u najrizičnijim segmentima tržišta (B i niže gradiranje); 2) od 2000 se nastavlja snažan rast, a tržištem dominiraju manje rizični zajmovi (A-). Privremeni pad na subprimarnom tržištu desio se kada je ukupan broj subprimarnih zajmova sa fiksnom stopom opao tokom 1998-2000. Nakon toga ponovno slijedi zamah, a u periodu od 2002-03. rast je bio, u zavisnosti od izvora, 56 ili 62%. U početku su dominirale zajmovi sa fiksnom stopom (FRM). Značajnim rastom subprimarnog kreditiranja preovladale su promjenljive kamatne stope (ARM).

Prema analizi pomenutih autora, ARM zajmoprimaoci su imali niže kreditne ocjene od FRM zajmoprimalaca, često i 50 poena niže. Ipak, tokom '90-ih subprimarni kreditori su sve više odobravali kredite zajmotražiocima sa nižom kreditnom sposobnošću, što je značilo niži kreditni kvalitet. Posljedica su veće stope zakašnjelosti i neizvršenja. Pretpostavlja se da su kreditori prosječno odobravali manje zajmove zajmotražiocima sa nižim kreditnim rizikom kako bi ograničili izlaganje riziku. Takođe, najveće povećanje iznosa bilo je kod onih sa boljim kreditnim ocjenama, koji su i kupovali najskuplje stambene objekte.

Nakon ostvarenih gubitaka 1998, kreditori subprimarnih zajmova su se preusmjerili na zajmotražioce sa višim kreditnim ocjenama (niskorizični zajmovi). Poslije 2000. ovi kreditori su povećali iznose zajmova, usmjerili distribuciju ka depozitnom plaćanju i povećali obaveze kod kreditnog ocjenjivanja. Filozofija je bila da se zajmovi koji se smatraju rizičnijim moraju kompenzirati većim depozitnim plaćanjem. Time se doprinosilo smanjivanju kreditnog rizika koji se odnosio na događaje poput nezaposlenosti i promjene strukture domaćinstva, koji bi otežali pravovremeno plaćanje. Zajmovi koji su bili gradirani na višem nivou imali su u prosjeku manje depozitno plaćanje (kreditne ocjene su se poboljšavale).

Ističe se da je rast i razvoj sekundarnog hipotekarnog tržišta omogućio veći pristup tržištima kapitala i nižim transakcionim troškovima. Proširio je podjelu rizika i

in total bank assets. Bank assets were growing. Accordingly, an increased exposure to residential properties was less of a problem than it would have otherwise been. The loans for residential properties and bank-owned securities were partly guaranteed by third persons. Many banks used to purchase only high-ranking securities with low credit risk. The analysis show that, regardless of their exposure, the American banks were on the whole less sensitive to a reduction in real estate prices than those operating in the United States during the major price reduction by the end of the '80s and the beginning of the '90s.

The financial institutions that went bankrupt in 2008, or would have gone bankrupt had the government not helped them, fell into difficulties because of a lack of equity capital. Last year they generously distributed a very abundant profit among their stockholders. The banks borrowed too much money to leverage their operations. As it is currently the case, the financial crisis has to break out if no measures are undertaken in order to increase minimal demand for capital from banks and other financial institutions. Investment banks are known for their minimalist equity approach. While the asset to equity ratio in ordinary banks has to be no less than 7%, investment banks typically operate with a ratio of only 4%. The lack of capital funds mostly resulted from the concept of "limited liability", whereby an excessive debt accumulation is encouraged.

Because of lack of capital, stockholders ("not inclined to risk") hire "gamblers" to manage their LLCs. Managers choose rather risky operations, knowing that the stockholders' participation in risks would not be symmetrical. While the growing risks would be transformed into dividends, the declining ones would be limited to the invested equity capital. No personal property of stockholders would be within reach because of their limited liability. Loss would be finally born by the creditors, either banks or governments. According to some authors (Sinn, 2008), there was a mutual interaction between the stimulus to minimize equity capital and the one to opt for gambling in order to benefit from a growing risk, which resulted in the crisis. The fact that home owners enjoyed a similar type of limited liability like the LLCs had an adverse effect on the American crisis. The subprime crisis was caused by the so-called Main Street.

EVOLUTION OF SUBPRIME MORTGAGE INDUSTRY CRISIS

Technical literature emphasizes basic characteristics of subprime market, as described below. As a relatively new and strongly growing segment of the mortgage market, subprime lending extended lending activities to the borrowers who would have otherwise been denied a loan. Subprime market offers better access to loans for potential borrowers who do not meet the credit criteria in the standard (primary) mortgage market. This form of lending includes high-cost loans, on the basis of credit history and down payments. The probability of loan default was at least six times higher for non-primary (higher interest rates) than primary loans. Non-primary loans are less sensitive to interest rate variations. Subprime market borrowers can hardly have access to the existing cheaper forms of financing.

In time, the subprime market has become more like the primary market because of the securization of subprime loans. The growth of subprime lending was also effected by some legal factors, especially the Tax Reform Act (TRA, 1986). The demand for mortgage-backed debt went up, which resulted in reduced interest rates for permanent dwelling units and second homes. As a result of that, high-cost mortgage debt became less expensive than the consumer debt for many home owners. About ten years ago, the so-called cash-out financing became popular among homeowners. It showed that the new loan was bigger than the old one, and the difference was paid out to the borrower in cash. The growth and maturity of subprime loans was affected by market changes and issuing of mortgage-backed securities.

Chomsisengphet and Pennington-Cross (2006) analyzed in more detail the subprime mortgage market (lending) development during the period 1995-2004. In the last decade there were two separate periods in the subprime market development: 1) from the mid-'90s to 1999, characterized by rapid growth in the most risky segments of the market (rated B and lower); 2) after 2000, when the growth strongly continued while the market was dominated by less risky loans (A-). From 1998 to 2000, there was a temporary fall in the subprime market when the total number of subprime fixed-rate loans went down. It was then followed by a swing-up. In 2002-2003, the growth varied between 56% and 62%, depending on the source of information. Fixed-rate mortgages (FRM) initially prevailed. Adjustable-rate mortgages (ARM) prevailed after a significant growth of subprime lending.

As analyzed by the mentioned authors, credit assessments of ARM borrowers used to be lower than those of FRM borrowers, often even by 50 points. Nevertheless, during the '90s, subprime lenders increasingly approved loans to less creditworthy customers, which resulted in worse credit quality. Consequently, untimely debt repayment and loan default rates went up. It is assumed that on average creditors used to approve smaller loans to the borrowers with lower credit risk, in order to limit own risk exposure. Also, borrowers who had good credit ratings were issued the biggest loans. They also used to purchase the most expensive residential properties.

Having made losses in 1998, subprime creditors turned to the customers with better credit ratings (low risk loans). After 2000, they increased loan amounts, geared loan distribution towards down payment requirements and introduced stricter loan quality assessments. The philosophy behind this was that higher deposits were required to compensate for potentially high-risk loans. This contributed to the reduction of credit risk originating from the events such as unemployment and changes in household structure, which would impede timely debt repayment. On average, smaller deposits were required for higher-rated loans (improving credit ratings).

It is pointed out that the growth and development of secondary mortgage market allowed better access to capital markets and lower transaction costs. Distribution of risk was broadened and mortgage credit offer made more available to all types of households. Over the last fifteen years, a "dramatic" growth was recorded, based on rapid expansi-

povećao ponudu hipotekarnog kredita svim tipovima domaćinstava. Rast u prethodnih petnaestak godina, zasnovan na ekspanziji visoko rizičnog hipotekarnog kreditiranja, bio je "dramatičan". Naglašava se i da su kreditori razvili nove tehnike za korišćenje informacija o kreditnoj sposobnosti budućih zajmotražilaca. Te informacije su trebale da služe za determinisanje osnovnih standarda, određivanje kamatnih stopa i upravljanje rizicima. Subprimarni zajmotražiocu su se suočavali sa većim cijenama zaduživanja od primarnih, uz veću vjerovatnoću neizvršenja.

Analizirajući probleme u subprimarnom hipotekarnom sektoru, Bernanki (2007) je smatrao da je kvalitet hipotekarnog kredita generalno bio poprilično pouzdan posljednjih godina. Ipak, djelovali su faktori koji su pogoršali kvalitet kredita. Nakon 2005. cijene stanova su se kretale usporenije ili negdje i padale. Fiksne i promjenljive kamatne stope na hipotekarne zajmove dobile su uzlazni trend, pogotovo do sredine 2006. Uz date cijene stanova, neki subprimarni zajmotražiocu sa promjenljivim stopama (ARM) nisu imali dovoljnu vrijednost imovine da bi se kvalifikovali za novi zajam. Regionalni ekonomski problemi su takođe doprinijeli. Pojedine države SAD sa najvećim stopama zakašnjelog plaćanja i prodaje imovine dužnika su bile najviše pogođene smanjenjem posla u automobilskoj industriji. Problemi u subprimarnom sektoru su bili usložnjeni praksom nekih prvobitnih hipotekarnih povjerioca.

Praksa se odnosila na gubljenje postojećih standarda poput nekompletne dokumentacije o dohotku, visokog kumulativnog odnosa duga prema vrijednosti hipoteke (LTV). To je najvjerovatnije dovelo do rasta "neizvršenja ranih plaćanja" kod subprimarnih hipoteka sa promjenljivom stopom, nekoliko mjeseci od odobravanja kredita (pogotovo od 2006). Na slabljenje postojećih standarda mogla je da utiče praksa prodaje hipoteka investitorima. Time se rizik uglavnom prenosio na investitore. Umjesto obezbjeđenja kvaliteta zajmova kreditore su povećavali obim zajmova, a investitori su imali pravo da adresiraju zajmove sa neizvršenjem ranog plaćanja na prvobitnog povjerioca. Originalni kreditore nisu raspolagali dovoljnim iznosima kapitala, a nisu ni ispunjavali svoje obaveze otkupa (buy back) nakon što je došlo do izrazitijeg rasta zakašnjelosti plaćanja.

Nakon toga su se navodno pojavili znaci samokorekcije tržišta. To bi značilo jačanje postojećih standarda od strane kreditora i ozbiljnije pristupanje investitora subprimarnim zajmovima. Povećao se kreditni spread na nove subprimarne sekjuritizacije, a ponuda kredita tržištu se smanjila. Na to ukazuje obim emitovanih hartija obezbjeđenih hipotekom. S jedne strane, opale su kupovine sekjuritizovanih subprimarnih hipoteka za kolateralizovane dužničke obligacije (izvor tražnje). Ipak, povećala se kupovina od strane investicionih banaka, hedž fondova i drugih pulova kapitala, što je dopunilo tražnju. Sve u svemu, Bernanki i drugi analitičari nisu vidjeli ozbiljnije prelijanje problema na subprimarnom tržištu na banke ili štedionice, dok problematični kreditore uglavnom nisu bile institucije čiji su depoziti bili federalno osigurani.



Usljed povećanih kamatnih stopa i pada cijena stanova, povećana kašnjenja plaćanja su povećala neizvjesnost vezanu za vrijednost strukturisanih kreditnih proizvoda, koju su imale ovi tipovi aktiva u svojim osnovnim portfolijima. Zbog kolapsa transakcija na sekjuritizovanim tržištima povezanim sa hipotekom i zbog kolateralizovanih zajmovnih obligacija (CLOs), tržišta za hipotekarnim i leveridžovanim zajmovima su se iscrpila. Posljedice su osjetili hedž fondovi i druge finansijske institucije. Opao je nivo međubankarskog kreditiranja usljed kreditnog rizika i rizika likvidnosti. Pad vrijednosti sekjuritizovanih hipoteka i strukturisanih hartija u bilansima stanja doveo je do ekstenzivnih otpisa. Izgleda da je povećanje finansijske integracije i inovacija doprinijelo da se pažnja sa nelikvidnosti tržišta i finansiranja preusmjeri na problem nesolventnosti.

VREMENSKI PERIOD	TRAJANJE (DANI)	UKUPNI GUBICI (PC)
1901 - 1903	875	46.1
1906 - 1907	665	48.5
1916 - 1917	393	40.1
1919 - 1921	660	46.6
1929	71	47.9
1932	813	86
1937 - 1938	386	49.1
1939 - 1942	959	40.4
1973 - 1974	694	45.1
2000 - 2002	999	37.8
2007 - 2008	???	???

Tabela 1: Deset najgorih berzanskih lomova u SAD

MEHANIZAM KRIZE - DOMINO EFEKAT

Enormni problemi koji su isplivali na površinu imaju osnovu u događanjima u posljednjih desetak godina. To je bio period priliva velikih iznosa novca u SAD od inostranih investitora, pogotovo iz Azije. Veliki prilivi novca u američke banke i finansijske institucije, uz niske kamatne stope, omogućile su lakši pristup kreditima. Takođe, pogrešne pretpostavke o budućem rastu vrijednosti kuća dovele su do neumjerenih i loših odluka. Odobravali su se zajmovi bez tačnog uvida u sposobnost vraćanja, i to onima koji su uzimali više nego što su realno mogli sebi priuštiti. Očekivanja zajmotražilaca su se zasnivala na budućoj prodaji ili refinansiranju po većoj cijeni. Zaduzivanja su se značajno povećala iznad uobičajenih normi. Broj onih koji su željeli da kupe stanove postao je manji od broja novih kuća, jer je došlo do buma u izgradnji stanova. Usljed veće ponude od tražnje snizile su se cijene stanova.

Na ovom nivou, krivica (odgovornost) za stvaranje problema se usmjerava na prvobitne hipotekarne povjerioce. Kreditore su u krajnjem odobravali sredstva

on of high-risk mortgage lending. It is emphasized that creditors developed new techniques for using of information on creditworthiness of potential customers. The intention was to use such information for the establishment of basic standards, interest rates and risk management procedures. Subprime borrowers faced higher loan costs than the primary ones, including higher probability of default.

Analyzing the difficulties in the subprime mortgage sector, Bernanki (2007) believed that the mortgage credit quality was generally quite reliable over the latest years. Nevertheless, some active factors had an adverse effect on the credit quality. After 2005, a slower increase in the price of apartment units was recorded or even occasional downfalls. Fixed and variable interest rates on mortgage credits recorded a growing trend, especially until the mid-2006. With the existing real estate prices, the value of the property owned by subprime borrowers with adjustable interest rates (ARM) was not sufficient to make them eligible for a new loan. This was also contributed by regional economic problems. Some U.S. member states that recorded the highest rates of bad loans and sales of debtor property were affected the most by the decline in automobile industry. Business practices of some primary mortgage creditors made the difficulties in the subprime sector more complex.

These practices included incompliance with the applicable standards, such as incompletely documented revenues and high cumulative ratio of the outstanding debt on the mortgaged property to its market value (LTV). This most probably led to an increase in "early payment defaults" concerning subprime adjustable-rate mortgages several months after credit approval (especially since 2006). The practice of selling mortgaged properties to further investors could have affected lowering of the existing standards. That way the risk was mostly transferred to the investors. Instead of securing quality loans, the creditors used to increase their loan portfolios, while the investors were entitled to address the loans with early payment defaults to the original creditors. The original creditors did not have sufficient capital funds, and failed to meet their buy back responsibilities, after the occurrence of more evident growth of payment defaults.

Thereafter some signs of self-correction allegedly occurred in the market. This would mean strengthening of the existing standards, and a more serious approach of the investors to subprime loans. The loan spread expanded to new subprime securitizations, while less loans were available to the market. This is manifested in the actual volume of mortgage-backed securities. On one side, purchases of securitized subprime mortgages in exchange for collateralized debt obligations went down (source of demand). Nevertheless, investment banks, hedge funds and other pools of capital increased their purchases, which complemented the demand. All in all, Bernanki as well as other analysts saw no serious redirection of difficulties from the subprime market to the banks or savings banks, while the institutions which had their deposits secured by the federal government were mostly not problematic.



With interest rates going up and real estate prices going down, the number of payment defaults went up. This resulted in a higher degree of uncertainty regarding the value of structured credit products, or the original value of this type of active capital in their basic portfolios. Since the transactions in the mortgage-backed securitized markets collapsed, and because of the collateralized loan obligations (CLOs), both mortgage and leverage credit markets were exhausted. The hedge funds and other financial institutions felt the consequences. The level of inter-bank lending went down, due to lending and solvency risks. The value of securitized mortgages and structured securities went down, as shown on balance sheets, which led to extensive write downs. It appears that an increase in financial integration and innovations contributed to shifting of the attention from the market insolvency and insolvent finance over to the issue of insolvency.

TIME PERIOD	DURATION (DAYS)	TOTAL LOSSES (%)
1901 - 1903	875	46.1
1906 - 1907	665	48.5
1916 - 1917	393	40.1
1919 - 1921	660	46.6
1929	71	47.9
1932	813	86
1937 - 1938	386	49.1
1939 - 1942	959	40.4
1973 - 1974	694	45.1
2000 - 2002	999	37.8
2007 - 2008	???	???

Table 1: The Worst Ten Stock Market Crashes in the USA

CRISIS MECHANISM - DOMINO EFFECT

The enormous emerging problems are rooted in the events which occurred over the last ten years, when huge amounts of money were brought into the United States by foreign investors, especially from Asia. Such huge inflows of money into the U.S. banks and financial institutions resulted in easier access to loans at low interest rates. Also, future increases in real estate prices were wrongly assessed, which resulted in immoderate and poor decisions. Lacking accurate assessment of customer creditworthiness, loans were approved to the borrowers who could not realistically afford them. They expected to service such loans from a future sale or through refinancing of the existing debt obligation at a higher price. The standard norms of debt accumulation were significantly exceeded. The number of new apartment blocks exceeded the number of customers who wished to purchase an apartment, since there was a boom in the housing market development. As the offer went up, the prices of apartment units went down.

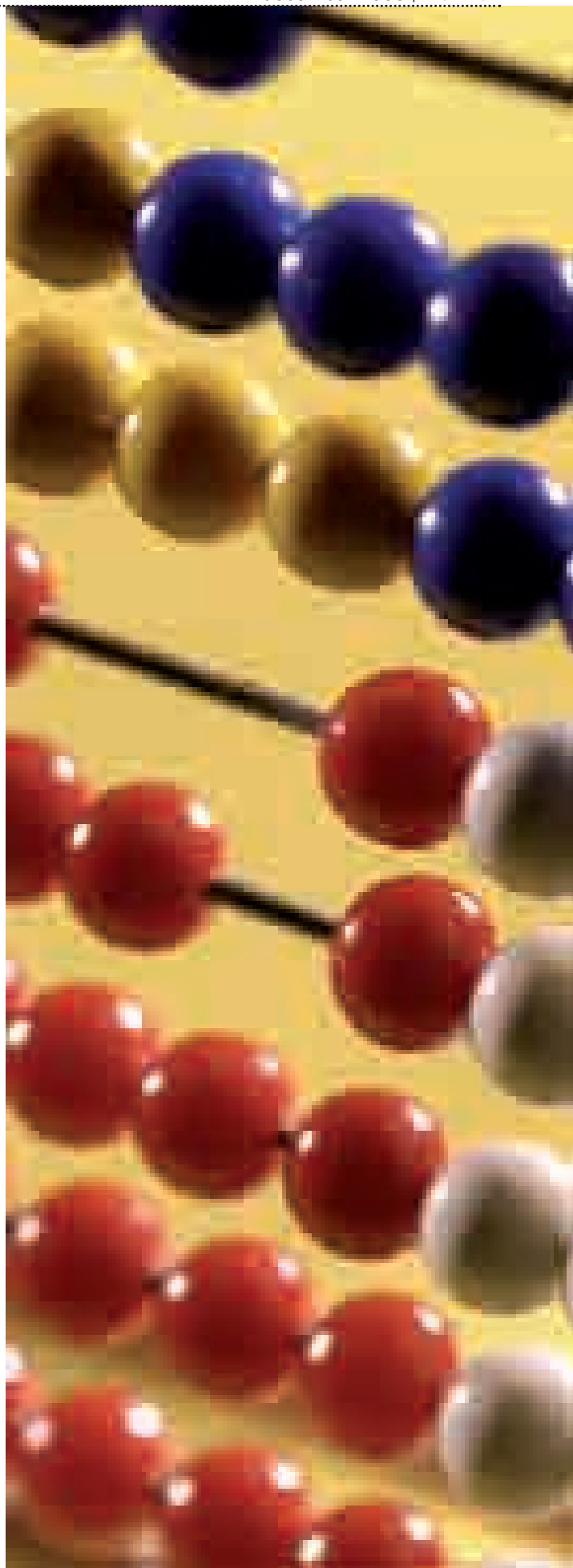
At this point, primary mortgage creditors were blamed (held responsible) for the creation of difficulties. The creditors had ultimately approved loans to less creditworthy customers, with a high risk of defaulting on loans. Such loans grew from \$173 billions in 2001 in order to reach the record of \$665 billions in 2006, having increased by 300%.

onima sa slabim kreditnim predispozicijama i visokim rizikom neizvršenja obaveza. Njihov rast je bio od 173 milijardi dolara 2001. do rekordnog nivoa od 665 milijardi dolara 2006. To je povećanje od 300%. Kreditori su navodno smatrali da su subprimarne hipoteke manje rizične nego što one u stvari jesu: kamatne stope su bile niske, ekonomija je bila "zdrava", a ljudi su izvršavali plaćanja. Kao "partnere u kriminalu" bili su kupci kuća koji su igrali rizičnu igru kupovanja. Bilo im je omogućeno da izvrše kupovine uz ne-tradicionalne hipotekarne zajmove kojima su nuđene niske "uvodne" kamatne stope i minimalni inicijalni troškovi na principu "bez depozitnog plaćanja" (no down payment). Nadu su polagali u apresijaciju cijena, ali je mjehur pukao a cijene rapidno snižene.

2Oni koji su se zaduživali po promjenljivim stopama (adjustable rate mortgages), koje su inicijalno bile niske uz kasniji rast, nisu mogli da se refinansiraju prije podešavanja (promjene) kamate. Kada je podešavanje počelo, došlo je do kašnjenja u ispunjenju obaveza kod mnogih hipotekarnih povjerioca. Neispunjenja obaveza plaćanja i posljedne zaplijene i prodaje nekretnina hipotekarnih dužnika imali su uticaj na ovo tržište. Procedurom zajedničkog pakovanja zajmova za kuće kreirane su hartije obezbijedene hipotekom. Investitori širom svijeta su ih kupovali polazeći i od datih visokih rejtinga kreditnih rejting agencija. Među najvećim kupcima bili su Fannie Mae i Freddie Mac, za koje se uglavnom smatralo da imaju državnu garanciju. Time im je bilo omogućeno da dođu do ogromnih svota novca, čime je tržište bilo zapljusnuto problematičnim investicijama. Finansijski sistem se suočio sa problemima (rizikom).

Dakle, padom cijena stanova nije ostvaren iznos koji bi preostao dužniku nakon prodate imovine i isplate povjerioca (equity). Kućevlasnici su bili prisiljeni da izvrše rekalkulaciju (reset) uz veće kamatne stope, koje mnogi nisu mogli da priušte. Bilioni dolara vrijedni hipotekarni zajmovi sa promjenljivim stopama trebalo bi da budu resetovani u sljedećim godinama. Talasi rekalkulacije kamatne stope bi mogli da utiču na potrošačko trošenje, a po nekim analitičarima i na ekonomiju SAD. Postojalo je više od 2 biliona ovih zajmova - četvrtina svih neizmirenih hipotekarnih dugova, koji su trebali da stignu na prilagođavanje kamatne stope u prethodnoj i ovoj godini. Mnogi kupci kuća su bili prinuđeni da kasne sa otplatom hipotekarnih zajmova. Prodaja nekretnina hipotekarnih dužnika nastavila je da raste tokom 2006. i 2007. Po nekim autorima (Petroff, 2008), cjelokupni efekti bi bili pod kontrolom da su zajmotražioc sprovedili manje agresivne kupovine i uzimali manje rizične zajmove.

Kada zajmotražioc sa niskim dohotkom uzmu zajam za kupovinu kuće (obično 100% od kupovne cijene) tipično mogu iskoristiti kuću kao kolateral, bez garancije otplate iz druge imovine ili čak dohotka. Time su bili su zaštićeni od opadajućeg rizika pada cijena kuća, uz profitiranje špekulisanjem rastućim rizikom rasta cijena. Mogli su znati da će rastom cijena ostvariti dobit ili prodajom kuća ili povećanjem svog duga. U slučaju pada cijena jednostavno bi predali ključeve banci. Uz datu neizvjesnost oko budućih cijena kuća, logično je bilo očekivati dobit, što je bilo podsticaj i za momen-



talno veće plaćanje. Američka domaćinstva su, umjesto akumuliranja bogatstva smanjenjem potrošnje, špekulirala sa nekretninama. Nije nemoguće da je to predstavljalo samo jedan segment šireg manipulisanja (prevare). Uz ovakvo kockanje na Main Street-u, između ostalog, subprimarna kriza je postala realnost.

3Mnoge banke su pokretale emisiju hartija obezbijedene hipotekom ili su trgovala njima međusobno. Ove hartije su prije porasta cijena postale "nepouzdanе" pa se njima nije više trgovalo. Počeli su da se nagomilavaju ogromni gubici. Investicione banke su se suočile sa velikim iznosima aktiva koje nisu mogle prodati. Nisu raspolagale novcem kojim bi izvršile neposredne obaveze i kolaps je bio neizbježan. Druge banke su se takođe suočile sa poteškoćama. One nisu ispuštale iz ruku svoj novac. Kreditiranje je presušilo, a "zaprega američkog finansijskog sistema počela je da posustaje od iscrpljenosti". Najveće investicione banke, koje su imale izvanredne rejtinge, ili su propale, spojile se sa drugim institucijama - prodate su jačim bankama ili su se jednostavno preobratile u komercijalne banke. Kriza sa kreditnog tržišta počela je da se prenosi globalno. Međubankarske kamatne stope su se znatno povećale, a mogućnosti kratkoročnog finansiranja nefinansijskog sektora su sužene.

Po svemu sudeći, u korijenu problema krize je nesolventnost. Anna Schwartz takođe potvrđuje da se američke banke nisu suočile sa likvidnosnom krizom, već da je realnost kriza solventnosti. Drugim riječima, banke mogu imati dovoljno rezervi da pozajmljuju, ali ne postoji sigurnost da će ispuniti sve svoje finansijske obaveze u slučaju loših zajmova. Zaista, bankari su imali isuviše gubitaka i suočili se sa tolikom neizvjesnošću koja im ne dozvoljava da pozajmljuju. Loši zajmovi su "ubijali" njihove banke. Kriza solventnosti eksplodirala je sredinom septembra ove godine kada je Lehman Brothers propala. Roubini procjenjuje ukupne kreditne gubitke na oko 3 biliona dolara, a Faber čak na 5 biliona dolara. Jedan od mehanizama preko kojeg se hipotekarna kriza proširila u katastrofalnu finansijsku krizu je napad na finansijske institucije, poput juriša na Bear Stearns, Lehman Brothers i Washington Mutual. Model investicionog bankarstva praktično je iščezao.

Model koji su banke primijenile je bio "uzrokovati i proslijediti" (originate and distribute), a ne držati zajmove u bilansima stanja banaka. Rizik se transferisao prepakivanjem zajmova i premošćavanjem na različite finansijske institucije. Dugoročni holdinzi aktiva su sve više finansirani instrumentima (papirima) sa kraćom dospeljošću. To je pogoršavalo poziciju banaka vezanu za finansiranje likvidnosti (rizik likvidnosti). Nepodudaranje dospeljosti se povećavalo i u bilansima investicionih banaka. Razlog je bilo finansiranje bilansa stanja kratkoročnim (prekonoćnim) repo aranžmanima. Investicione banke i hedž fondovi su bili prilično aktivni u kupovini strukturisanih proizvoda. To upućuje da se kreditni rizik zadržao u bankarskom sistemu (Brummeirmer, 2008). Bazel I i Bazel II nisu imali efekta kod neugovornih kreditnih linija.

Frank, Gonzales-Hermosillo i Hesse (2008) su istraživali vezu između pritiska na tržišnu likvidnost i likvidnost finansiranja, kao i njihovu povezanost sa solventnošću ključnih finansijskih institucija tokom subprimarne krize 2007. Veza se povećavala tokom krize, a bankarska sol-

ventnost je postala vrlo bitna. Zbog pritiska vezanih za likvidnost finansiranja došlo je do brzog deleveridžovanja, a potom i do depresiranja cijena aktive. Finansijske institucije su se sve više oslanjale na finansiranje sa međubankarskog tržišta novca. Posljedično povećanje Libor-OIS (overnight index swap) spredova na tržištu novca je povećalo troškove finansiranja. Usljed pritiska došlo je do sniženja racija kapitala u bankarskom sektoru. Tokom krize, kao posljedica, značajno su se povećali spredovi kod svopa koji se odnosi na neispunjenje obaveze otplate kredita.

VODEĆI INDIKATORI AKTUELNE FINANSIJSKE KRIZE

Prepoznato je da su kreditna tržišta značajnija mjera ozbiljne finansijske krize nego berze. Takođe, kredtina tržišta je teže pratiti. Vidljivo je pet načina kojima se mogu mjeriti aktuelni lomovi na kreditnim tržištima:

1. Efektivno ukamaćenje (yield) na tromjesečnu kratkoročnu državnu obveznicu (T-bill) - što je niže, prisutna je veća briga za finansijski sistem. Prinos na T-bills će se smanjiti povlačenjem novca od strane investitora iz akcija, obveznica i fondova tržišta novca radi kupovine sigurnijih aktiva. Prinos tromjesečnog T-bills koji je blizu nule znači da su ljudi voljni da se odreknu kamate samo da bi očuvali sigurnim svoj novac (glavnicu) tri mjeseca. Dakle, znak je visokog nivoa averzije prema riziku i pokazatelj restriktivnih uslova pozajmljivanja. Spređ (razlika u prinosima) između kratkoročnih obveznica Fannie Mae i T-bills tradicionalno je bio znak finansijskih nepovoljnosti, mada je ovaj odnos komplikovan.

2. Londonska međubankarska kamatna stopa za ponudu (LIBOR) - kamatna stopa koju internacionalne banke koje su najviše kreditno sposobne računavaju jedna drugoj za zajmove u rang od 24 časa do 5 godina. LIBOR je znak međubankarskog povjerenja i opšte ponuđeni nivelator za kratkoročne kamatne stope. Veća kamatna stopa znači da su banke manje spremne da pozajmljuju novac međusobno. Korisna je osnova za mjerenje nepovoljnosti tekuće krize likvidnosti. Obično se koristi kao osnova za državne zajmove sa varijabilnom stopom i korporativne zajmove, kao i proizvode zasnovane na derivatima poput kreditnih svopova. Procjenjuje se da je oko 150 milijardi dolara u zajmovima i derivatima vezano za LIBOR. LIBOR ima efekat na svop stope, mada su svopovi uglavnom vođeni tržištem i očekivanjima trgovaca o tome što će se desiti sa stopama u nekom budućem periodu.

3. TED je razlika između rizičnog tromjesečnog LIBOR-a i bezrizične kamatne stope na T-bills. TED raspon predstavlja mjeru vjerovatnoće međubankarskog pozajmljivanja. Ukoliko je visok, banke će radije pozajmljivati Vladi. U periodu 2002-2006. prosječno je iznosio 0,25%. Tokom godine je bio visok, što označava nepovoljne vijesti.

4. Komercijalni papir - kratkoročni dug koji primarno izdaju banke i velike firme. Veća kamatna stopa pokazuje da je firmama otežan pristup novcu koji im je potreban za svakodnevne troškove. Ročnost ovog instrumenta je svega nekoliko dana. Trenutno, tržište komercijalnog papira je u zastoju, uz prilično malu trgovinu ili nova izdanja.

lation (fraud). With such gambling activities in the Main Street, among other things, the subprime crisis became the reality.

3 Many banks initiated issuing of mortgage-backed securities. They were selling and buying those among themselves. Before the prices went up, these securities became “unreliable” and were no longer used in trading transactions. Huge losses were accumulated. Investment banks had large amounts of active capital that could not be sold. They had no money to settle their immediate obligations. A collapse was therefore inevitable. Other banks also faced difficulties. They did not let any money out of their hands. Lending dried up, and the “cart of the American financial system started falling back with exhaustion”. The biggest investment banks which either had excellent ratings or broke down merged with other institutions. They were sold to stringer banks or simply transformed into commercial banks. The crisis was gradually transferred from the credit market to the global one. Interbank interest rates were considerably increased, while options for short-term financing to the non-financial sector grew narrower.

Judging by this, the root of the crisis is in insolvency. Anna Schwartz also confirms that the American banks faced no liquidity crisis. In reality it was an insolvency crisis. In other words, banks may have sufficient reserves for credit issuing, but may not be certain of meeting their full financial obligations in case of bad loans. Indeed, bankers suffered too many losses and the uncertainty they faced did not allow them to proceed with their lending activities. Bad loans were “killing” their banks. The solvency crisis exploded by the end of September this year, when Lehman Brothers collapsed. Roubini assessed the credit losses to approximately \$3 trillions, while Faber mentioned even \$5 trillions on the whole. One of the mechanisms through which the mortgage crisis was transformed into a disastrous financial crisis was an attack on the financial institutions, such as the assault on Bear Stearns, Lehman Brothers and Washington Mutual. The investment banking model practically disappeared.

The model which was applied by the banks was “originate and distribute”. No loans were kept on their balance sheets. The risk was transferred to various financial institutions through loan packaging and bridging. Long-term active capital holdings were increasingly financed using shorter-term financial instruments (securities). This aggravated the position of the banks in terms of liquidity financing (liquidity risk). Maturity disagreements were also growing on balance sheets of investment banks, since the balance was financed from short-term (overnight) repo arrangements. Investment banks and hedge funds were rather active in structured product purchasing. This shows that credit risk remained in the banking system (Brummeirmeier, 2008). Basel I and Basel II had no effect on non-contractual credit lines.

Frank, Gonzales-Hermosillo and Hesse (2008) investigated the connection between the pressures on market liquidity and financing liquidity, as well as their relation with the solvency of key financial institutions during the subprime crisis in 2007. The connection was growing stronger during the crisis, while bank solvency became very important. Pressures related to financing liquidity resulted very soon in rapid deleveraging followed by a

depression of active capital prices. Financial institutions increasingly relied on financing from the interbank money market. A consequential increase of Libor-OIS (overnight index swap) spreads in the money market increased the costs of financing. Because of the pressures, capital ratio in the banking sector went down. During the crisis, consequently, swap spreads significantly increased. Those were related to credit default swaps.

PRINCIPLE INDICATORS OF THE CURRENT FINANCIAL CRISIS

Credit markets were recognized as a more significant measure of serious financial crisis than stock markets. Also, credit markets are harder to follow. Current crashes in credit markets can be measured in the following five apparent ways:

1. Effective bearing of interest (yield) on a short-term debt obligation backed by the U.S. government with a three-month maturity (T-bill) - the lower it is, the bigger is the concern for the financial system. Return on T-bills shall be reduced when the investors withdraw their money from stocks, bonds and money market funds in order to buy safer active capital. If the return on a three-month T-bill is close to zero, this means that customers are willing to give up the interest just to keep their money (principal) safe for three months. Accordingly, this is a sign of a high level of aversion to risk, and an indicator of restrictive lending terms. The spread (difference in returns) between short-term bonds of Fannie Mae and T-bills has traditionally been a sign of financial adverseness, although this is a complicated relation.

2. London Interbank Offered Rate (LIBOR) - interest rate at which the most solvent international banks borrow funds to each another for a period between 24 hours and 5 years. LIBOR is the sign of interbank trust and generally offered leveler for short-term interest rates. Higher interest rates mean that banks are less ready for interbank lending. This represents useful basis for measuring of adverse effects of the current liquidity crisis. It is usually used as the basis for government loans with adjustable rates and corporate loans, as well as products based on derivatives such as credit swaps. It is assessed that approximately \$150 billions in loans and derivatives are tied to LIBOR. LIBOR has an effect on swap rates, although swap transactions are mostly regulated by the market as well as expectations of businessmen in terms of what would happen with the rates in some future period of time.

3. TED represents the difference between risky 3-month LIBOR interest rate and no-risk interest rate on T-bills. The probability of interbank lending is measured by TED value. In case it is low, banks will prefer lending to the Government. In 2002-2006, its approximate value was 0.25%. It was high during the year, which was bad news.

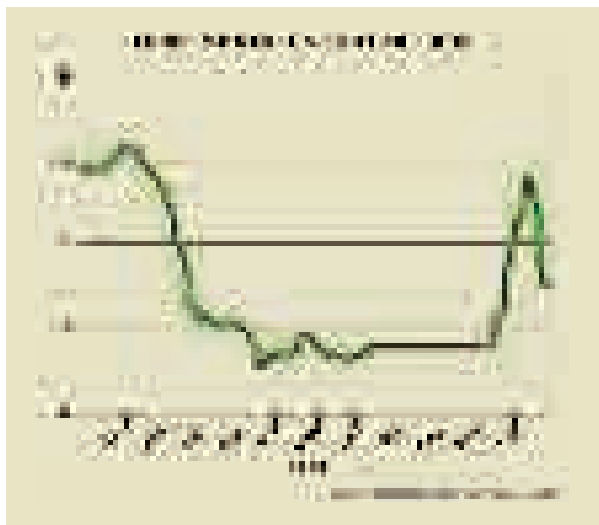
4. Commercial papers - short-term debt primarily issued by banks and big companies. Higher interest rates indicate that access to money for regular expenses of companies is more difficult. This instrument matures in only several days. At the moment there is a slowdown in the commercial papers market. Trading transactions are quite rare, just like issuing of new papers.

5. Bonds - higher yield indicates lower tendency for lending to companies. Aversion to risk was demonstrated exactly by high-yield risky (junk) bonds.

5. Obveznice - viši prinosi pokazuju manju sklonost za pozajmljivanje firmama. Averziju ka riziku su pokazale upravo rizične (junk) obveznice čiji su prinosi odskočili.

LIBOR je trenutno skup kamatnih stopa, a računa se za nekoliko valuta polazeći od prekonoćnog do 12-mjesečnog ranga. Time se determinišu cijene za finansijske ugovore vrijedne 393 milijarde dolara (31. decembra), što znači 60000 dolara za svaku osobu na svijetu (FitzGerald, 2008). Ova kamatna stopa predstavlja osnovu mnogih finansijskih ugovora uključujući hipotekarne kredite za kuće i studentske zajmove. Većina kamatnih stopa na ARM i kreditne karte zasnovana je na LIBOR-u. Porastom od preko 400 bazičnih poena tokom oktobarske krize, sve je postalo mnogo skuplje. Cijena kredita je oštro porasla. Uz "novo sređivanje" hipoteka sa promjenljivim stopama, uslijediće i veliki broj "pakovanja".

Usljed bankarske krize likvidnosti u 2007, banke su se ustručavale od međusobnog kreditiranja, pa je LIBOR rastao nezavisno od kamatnih stopa na rezerve kod Fed-a (Fed Funds rate). Fed je nastojao da sniženjem LIBOR-a omogući da banke ponovo počnu međusobno da pozajmljuju, ali bezuspješno. LIBOR se, u stvari, ne može vratiti u svoj uobičajeno odgovarajući odnos sa kamatnim stopama na rezerve sve dok se finansijska tržišta ne stabilizuju. U avgustu prošle godine otpočeo je prvi "talas nelikvidnosti" na međubankarskom tržištu. Kašnjenja u neispunjenju obaveza (default) i likvidnosni rizici banaka su značajno porasli. Kao rezultat, LIBOR je potisnut na gore. Kao važan indikator rizika, LIBOR je prošle jeseni sugerisao na probleme sa kreditnom krizom u ovoj godini. Njegovo kretanje, uključujući i druge međubankarske kamatne stope, ukazuje dalje na nastupajući loš period sa kreditnim problemima.

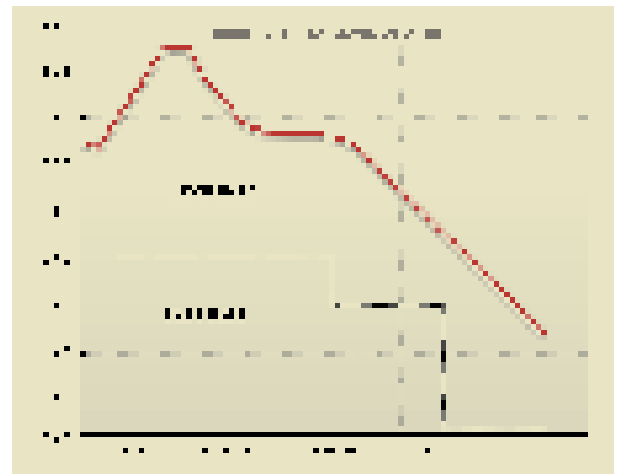


Grafik 1: Tromjesečni LIBOR u dolarima

LIBOR je bio visok krajem '80-ih i početkom '90-ih jer je eskontna stopa Fed-a bila visoka zbog kontrole inflacije. Spred je bio mali, svega nekoliko bazičnih poena. Upravo je potrebno porediti raspon između ove dvije kamatne stope budući da LIBOR sam po sebi nije od velikog značaja. Kako je stopa Federalnih rezervi niska, LIBOR

je ipak visok, a raspon je nekoliko stotina bazičnih poena. Dakle, ne postoji povjerenje na kreditnom tržištu. Ipak, međubankarsko tržište je ekstremno tanko, čak i ako to ne odražava LIBOR. Mnogo je ponuda za kupovinu na LIBOR tržištu uz malo onih za prodaju, posebno sa dužim dospeljima. Najprikladniji i šire poznat način izražavanja oskudnosti tržišta je TED.

Ključna tromjesečna sterling LIBOR kamatna stopa početkom godine bila je iznad 5,5%, što je bilo blizu bazne stope. Širenjem kreditne krize povećala se do 6% u aprilu iako je bazna stopa pala na 5% tog mjeseca. Dalje je padala do 5,7% 12. septembra. Sredinom septembra se desio kolaps investicione banke Lehman Brothers, što je uticalo na LIBOR. Dramatično pogoršanje krize je dovelo do najnižeg nivoa tromjesečnog LIBOR-a od kolapsa LB - 22. oktobra LIBOR je pao na 3,54%. Većim padom bazne stope sa 4,5 na 3% početkom novembra došlo je do daljeg sniženja LIBOR-a. Pojedine analize prognoziraju veći pad LIBOR-a krajem godine, kao što se to dogodilo krajem prošle godine u skladu sa baznom stopom.



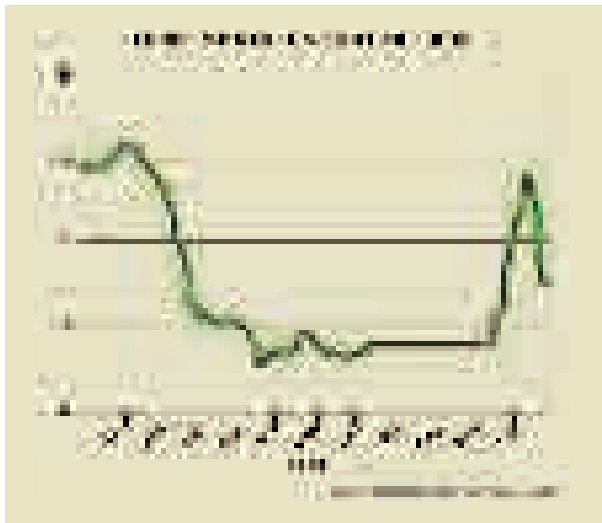
Grafik 2: Kretanje bazne i LIBOR stope

LIBOR bi trebalo da se kreće 10 do 20 bazičnih poena iznad stope banke (bazne stope). To znači da bi u uslovima prije kreditne krize, uz stopu banke od 3%, LIBOR trebalo da bude 3,1 ili 3,2%. Veza između ove dvije stope je pokidana početkom kreditne krize u avgustu 2007. Spašavanje banaka bi trebalo da pomogne da se snizi LIBOR. To nije bio slučaj nakon ubacivanja 700 milijardi dolara, već je LIBOR u Britaniji porastao iznad 6%. Novčana injekcija od 40 milijardi funti u banke 13. oktobra imala je pozitivan, ali umjeren efekat na kamatne stope. Uprkos sniženju bazne stope, relativno visok nivo LIBOR-a je odgovoran za serije povećanja troškova hipoteka sa varijabilnom stopom sredinom oktobra.

LIBOR bi trebalo posmatrati u kontekstu odnosa sa indikatorom TED. Kao mjera kreditnog rizika za međubankarsko pozajmljivanje, TED spred se povećao dramatično tokom septembra ove godine. TED spred je ekstremnim širenjem pokazivao da su se kreditna tržišta značajno pogoršavala. Veći značaj od promjena LIBOR-a imale su promjene prinosa T-bills. Ipak, samo usmjeravanje na ovaj spred nije najuputnije jer je dio rasta LIBOR-a nastao povećanjem kolateralizovanog pozajmljivanja

LIBOR is currently a group of interest rates. It is calculated for several currencies, from overnight to 12-month grade. It determines the price of financial agreements worth \$393 billion (31 December), which means \$60,000 for every single person in the world (Fitz-Gerald, 2008). This interest rate constitutes the basis of many financial agreements, including mortgage loans for homes and student loans. Interest rates on ARM and credit cards are mostly based on LIBOR. Everything became much more expensive due to its increase of more than 400 base points. Credit prices increased severely. Together with "new arranging" of adjustable-rate mortgages, numerous "packages" are to follow.

Because of the bank liquidity crisis in 2007, banks hesitated using interbank lending. Accordingly, LIBOR was increasing separately from the Fed Funds rate. Fed lowered LIBOR attempting to restore interbank lending. However, it was unsuccessful. Actually, it is not possible to restore regular relations between LIBOR and interest rates on reserve funds for as long as the financial market is not stabilized. The first «wave of insolvency» in interbank market started in August last year. Debt repayment defaults and liquidity risks run by the banks were considerably increased. As a result, LIBOR was pushed upwards. As an important indicator of risk, last autumn LIBOR indicated problems with credit crisis in the current year. Its movement, also including other interbank interest rates, indicates continuation of a bad period with credit difficulties.

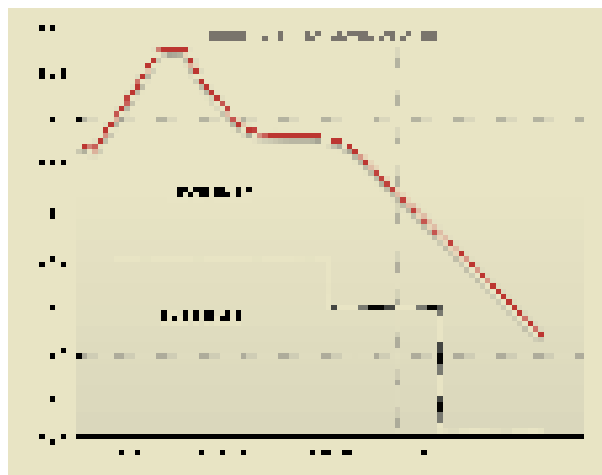


Graph 1: Three Month U.S. Dollar LIBOR

By the end of the '80s and the beginning of the '90s, LIBOR was high due to a high Fed discount rate in order to control the inflation. The spread was small, only a few base points. It is exactly required to compare the difference between these two interest rates, since LIBOR itself is not of major importance. Since the Fed Funds rate is low, while LIBOR is yet high, there is a difference of several hundreds of base points. Accordingly, no trust exists in the credit market. Nevertheless, interbank market is extremely weak, even if it is not reflected through LIBOR. LIBOR market is rich in purchase offers, while offers to sell are rare, especially those with longer terms of payment.

TED is the most appropriate and widely known way to express the degree of market inadequacy.

The key three-month sterling LIBOR interest rate was above 5.5% by the beginning of the year, which was close to the base rate. As the credit crisis was spreading, it went up to 6% in April, although the base rate went down to 5% during the same month. The downward trend continued in order to reach 5.7% on September 12. By mid-September the investment bank Lehman Brothers collapsed, which affected LIBOR. The crisis dramatically deteriorated leading to the lowest level of three-month LIBOR since the collapse of Lehman Brothers. On October 22, LIBOR went down to 3.54%. As the base rate fell from 4.5% to 3% by the beginning of November, LIBOR was reduced even further. Some analysis forecast further downfall of LIBOR by the end of the year, the way it occurred last year in accordance with the base rate.



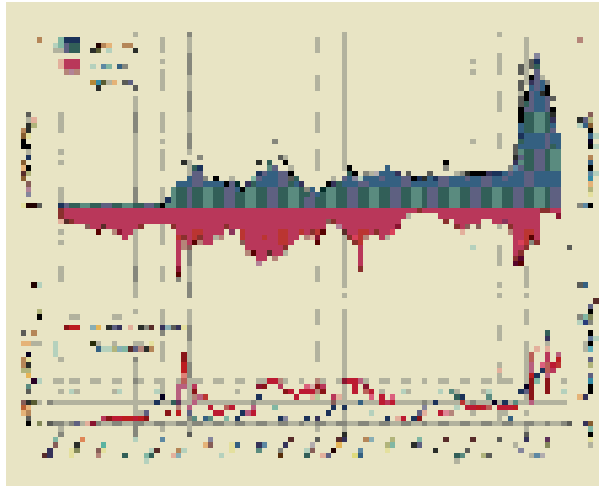
Graph 2: Base and LIBOR Rate Movement

LIBOR should vary between 10 and 20 base points above the Bank's rate (base rate). This means that under the pre-crisis conditions, with the Bank's rate of 3%, LIBOR should be 3.1% or 3.2%. The connection between these two rates was broken as the credit crisis broke out in August 2007. The rescue of banks should help LIBOR go down. This was not the case after introduction of \$700 billions, when LIBOR in Britain exceeded 6%. The financial injection on 13th October worth 40 billions of British pounds had a positive, although moderate effect on interest rates. Despite of base rate reduction, a relatively high LIBOR value is responsible for the series of increases of adjustable-rate mortgage costs by mid-October.

LIBOR should be viewed in the context of its relation with TED indicator. As a measure of credit risk in interbank lending, TED spread was dramatically growing in September this year. An extreme spreading of TED spread indicated considerable aggravation of credit markets. Changes in T-bills return carried more significance than LIBOR changes. Nevertheless, it is not recommendable to focus solely on this spread because LIBOR partly grew due to an increase in collateralized lending of central banks. Namely, in case of sequential payments, subordinate uninsured LIBOR lending is more risky and expensive (Brunnermeier, 2008). The spread of two indicators

centralnih banaka. U slučaju redosljeda plaćanja, naime, podređenije neosigurano LIBOR kreditiranje je rizičnije i skuplje (Brunnermeier, 2008). Spred dva indikatora "našiljen" nakon kolapsa LB uticao je da se širom svijeta upumpaju bilioni dolara u globalni bankarski sistem. Sljedeći grafik efektivno oslikava promjene indikatora finansijske krize polazeći od njihovih raspona.

Grafik 3: Finansijska kriza predstavljena kamatnim spredovima
Izvor: Bloomberg, LehmanLive, and Federal Reserve Board



Objašnjenje: Gornja slika pokazuje LIBOR - OIS spred (tamno osjenčena zona). TED spred (LIBOR minus kamatna stopa na kratkoročnu državnu obveznicu - T-bill) predstavljen je sumom dvije osjenčene zone. Podrazumijeva činjenicu da su dugoročne državne obveznice (T-bond) posebno tražen kolateral u periodu krize. Gornja slika prikazuje još i stopu ABCP minus OIS raspon. Donja slika pokazuje raspon između repoa obezbijedenih hipotekom i repoa sa opštim kolateralom i spread agencije.

Raspon LIBOR/OIS - sumarni indikator finansijskog stresa - mjeri iznos raspoloživog novca za međubankarsko pozajmljivanje. Koriste ga i banke za determinisanje kamatnih stopa. U prvoj polovini oktobra tekuće godine, spred između Prekonoćnih indeksiranih svopova (OIS) i tromjesečnog LIBOR-a porastao je na najveći nivo od 2,94%. Uz veći spred biće raspoloživo manje novca. Uprkos podršci centralne banke prethodnih mjeseci, nedostatak novca za potrebe drugih banaka i potrošača bio je enorman. Banke u periodu neizvjesnosti obračunavaju veću kamatu za neosigurane zajmove. Tipično pozajmljuju samo na osnovu T-bonds kao kolateral, što snižava kamatnu stopu na T-bonds. Iz ovog razloga, a s obzirom na period krize, logično je da je TED raspon velik. Osim LIBOR-OIS sprede, "efekat kolaterala" može se vidjeti na osnovu raspona između repo stope koja se plaća za korišćenje hartija obezbijedenih hipotekom (MBS) kao kolateral i repo stope koja koristi T-bonds kao kolateral (GC).

Na grafiku je prikazan i kreditni spred između 30-godišnjih "obveznica agencije", koje emituju Fannie Mae i Freddie Mac i 30-godišnjih T-bonds. Ovaj spred se katkad približava gornjem nivou prije TED sprede. Do sredine juna ove godine, spred kamatne stope između agencijskih obveznica i T-bonds ponovo se širio, kako su se stope zakašnjelog hipotekarnog plaćanja povećavale. Agencije Fannie Mae i Freddie Mac su bile institu-

cije koje su javno trgovala na tržištu, ali i državne institucije koje su sekjuritizovale veliki dio hipotekarnih zajmova u SAD. Imale su oko 1,5 biliona dolara neizmirenog duga (outstanding bonds). Nakon problema sa IndyMac, velikim privatnim hipotekarnim brokerom, pojavili su se problemi sa agencijama. Napravljen je plan da se implicitna državna garancija učini eksplicitnom. Ipak, nakon daljeg pada akcija agencije su na kraju "konzervirane" od strane države.

MAKROEKONOMSKI AMBIJENT KRIZE KAO UZROK I POSLJEDICA

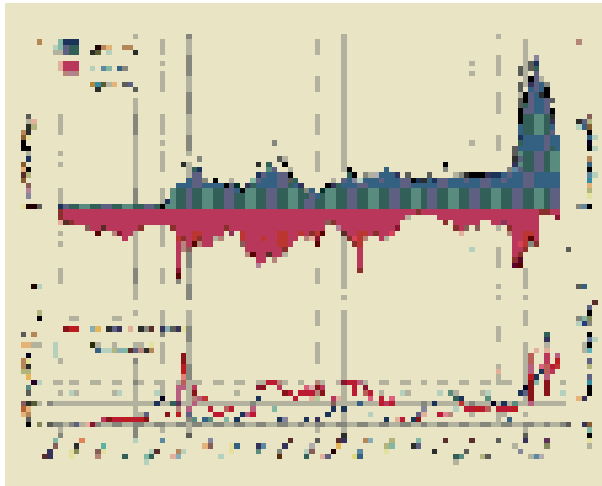
Relevantan je nalaz Kaminsky i Reinhart (1999) da su krize povezane sa ekonomskim fundamentalnostima. To je u skladu sa radom na finansijskim krizama u SAD u devedesetim i početkom ovog vijeka. Gorton (1988) i Calomiris i Gorton (1991) ukazuju da je dokaz u skladu sa hipotezom da su bankarske krize suštinski dio poslovnog ciklusa. Prema Kaminsky i Reinhart (1996), finansijska liberalizacija se obično dešava prije bankarske krize. Anatomija bankarskih epizoda sugerise da se kriza pojavljuje kako ekonomija ulazi u recesiju, slijedeći odloženi bum ekonomske aktivnosti koji je bio pothranjen kreditom, prilivima kapitala i propraćen precijenjenošću valute. Dakle, krizama je tipično prethodilo mnoštvo slabih i pogoršanih ekonomskih fundamentalnosti. Problemi subprimarnog hipotekarnog tržišta pojavili su se u kontekstu priličnog usporavanja realnog ekonomskog rasta (realnog BDP).

Značajno povećanje cijena stanova u SAD od 2000. izazvalo je zabrinutost za moguće efekte oštrog pada cijena stanova na finansijske institucije i makroekonomsku aktivnost. Iskustva iz drugih zemalja sugerisala su da je pad cijena stanova, pogotovo nakon perioda značajnog rasta, imao značajan kontrakcioni uticaj na makroekonomsku aktivnost. Empirijski dokaz iz SAD i drugih zemalja ukazivao je da pad vrijednosti stanova može da ima nepovoljne makroekonomske reperkusije, posebno ukoliko kapital bankarskog sistema postane ugrožen (nije pokriven aktivom). Prema pojedinih autorima (npr. Wheelock, 2006), banke su generalno manje ranjive na šokove vezane za nekretnine na lokalnom nivou u odnosu na kraj '80-ih i početak '90-ih. Takođe, smatrali su da su američke banke pozicionirane da mogu da se odupru umjerenom padu cijena stanova.

Empirijski dokaz pokazuje da određene makroekonomske varijable karakteristično prikazuju značajan obrazac za period u susret epizode nevolja bankarskog sistema, i dok se epizoda razvija. Nakon brzog rasta, realni BDP, potrošnja i pogotovo investicije počinju da opadaju; ubrzanje inflacije iznenada dobija obrt; kredit bankarskog sistema privatnom sektoru brzo se proširuje, doživljava vrh, a zatim se sužava; realne kamatne stope se odmjereno povećavaju; realni efektivni devizni kurs apresira i zatim depresira. U susret krizi, banke se obično oslanjaju sve više na zaduživanje iz inostranstva, koje zatim presušuje. Nakon izbivanja krize u avgustu 2007, desile su se promjene u ekonomskom okruženju: dramatična depresijacija dolara u odnosu na euro, jen i druge valute i postojani rast cijena nafte i drugih

was “pointed” after the collapse of LB causing trillions of dollars to be pumped into the global banking system all over the world. The graph below effectively pictures the variations of the financial crisis indicators based on their spreads.

Graph 3: Financial Crisis Shown through Interest Spreads
Source: Bloomberg, Lehman Live, and Federal Reserve Board



Explanation: LIBOR – OIS spread is shown in the picture above (highlighted gray area). TED spread (LIBOR minus interest rate on short-term government bond - T-bill) is shown as a sum of two highlighted areas. It understands the fact that long-term government bonds (T-bond) are in high demand as collaterals in the periods of crisis. The picture above also shows ABCP rate minus OIS spread. The picture below shows the spread between mortgage-backed repos and repos with general collateral, as well as agency spread.

The LIBOR/OIS spread - summarized financial stress indicator - measures the amount of money available for interbank lending. It is also used by the banks, for interest rate establishment. In the first half of October of the current year, the spread between overnight index swaps (OIS) and three-month LIBOR reached the highest level of 2.94%. The higher the spread, the less money will be available. Despite of support from the central bank over the last months, there has been an enormous shortage of money for the needs of other banks and consumers. In the period of uncertainty, banks charge higher interest rates for unsecured loans. They typically lend only based on T-bonds as the collateral, which reduces interest rates on T-bonds. For this reason, taking into consideration the crisis period, it is logical to have a wide TED spread. Except for the LIBOR-OIS spread, the “effect of collaterals” may be seen based on the spread between the repo rate paid for the use of mortgage-backed securities (MBS) as a collateral, and the repo rate which uses T-bonds as a collateral (GC).

The graph also shows credit spread between 30-year “agency bonds” issued by Fannie Mae and Freddie Mac, and 30-year T-bonds. This spread occasionally reaches the upper level before TED spread. Until mid-June this year, interest rate spread between agency bonds and T-bonds was spreading again, as interest on mortgage arrears increased. The agencies Fannie Mae and Freddie Mac were the institutions which publicly did business in the market. They were also governmental institutions which securitized a great deal of mortgage loans in the U.S. They had an

outstanding debt of approximately \$1.5 trillions (outstanding bonds). Problems with Indy Mac, a big private mortgage broker, were followed by problems in the agencies. A plan was devised in order to turn the implicit governmental guarantee into an explicate one. Nevertheless, after the stocks had kept going down, the government «conserved» the agencies.

MACROECONOMIC MILIEU OF THE CRISIS AS THE CAUSE AND THE CONSEQUENCE

Kaminsky and Reinhart (1999) came up with relevant findings according to which there was a connection between the crisis and economic basics. This is in accordance with the work on financial crisis in the U.S. in the ‘90s, and by the beginning of this century. Gorton (1988) and Calomiris and Gorton (1991) point out that the hypothesis on banking crisis being essentially a part of the business cycle corresponds with evidence. According to Kaminsky and Reinhart (1996), banking crisis is usually preceded by financial liberalization. Anatomy of banking episodes suggests that crisis appear as the economy descends into recession, following a postponed boom of economic activity which was given rise by loans and inflow of capital, and accompanied by currency overpricing. Accordingly, the crisis used to be typically preceded by numerous weak and deteriorating fundamental economic qualities. Problems in subprime mortgage market appeared in the context of considerable deceleration of actual economic growth (actual GDP).

A considerable increase in apartment prices in the U.S. since 2000 raised concerns over possible impacts of their sudden reduction on the financial institutions and macroeconomic activity. The experiences of other countries suggested that a reduction of apartment prices, especially after a period of considerable growth, had a significant compression impact on macroeconomic activity. Empirical evidence in the U.S. and other countries shows that reduced apartment values may have adverse macroeconomic repercussions, especially if the capital of the banking system comes under a threat (not covered by active capital). According to some authors (for example Wheelock, 2006), banks are generally less susceptible to local real estate-related shocks than by the end of the ‘80s and the beginning of ‘90s. They also believed that the position of American banks was such that they could resist a moderate reduction in apartment prices.

Empirical evidence confirms that certain macroeconomic variables characteristically show an important pattern both in the eve of an episode of difficulties in the banking sector, as well as during its development. After a rapid growth, actual GDP, spending and especially investments start going down. There is a sudden turn in inflation. Bank loans to private sector rapidly expand, reach a climax, and then go down. Actual interest rates are moderately increasing. Actual effective foreign currency exchange rate experiences an apression, followed by depression. On their way to the crisis, banks usually increasingly rely on lending from abroad, which eventually dries out. After the crisis had broken out in August 2007, some changes in the economic milieu occurred: dramatic depression of the dollar in comparison with the euro, Japanese yen and other currencies, and a stable increase

roba. Mnoge nefinansijske firme su već nakon avgusta 2007. doživjele značajan pad cijena akcija.

Ključni indikatori govore o stanju koje je na nivou duboke depresije u SAD. Stopa nezaposlenosti je najveća od 1994. i iznosi 6,5% u oktobru. Smanjen je broj zaposlenih u prethodna dva mjeseca za oko 524000, uz ukupan broj od 1,18 miliona tokom 2008. godine. To svakako nije definitivno, a procjene za narednu godinu su 2 miliona izgubljenih radnih mjesta. U junu je 45% svih zakašnjelih plaćanja (delinquencies) bilo usljed nezaposlenosti ili gubitka prihoda. Tri automobilske kompanije, sa enormnim operativnim gubicima, zapošljavaju više od 200.000 Amerikanaca. GM planira smanjenje radne snage za 30% ili više. Tržište rada se ozbiljno pogoršalo. Američki BDP se smanjio za tri mjeseca (kraj septembra) za 0,3%. U četvrtom kvartalu očekuje se pad BDP od 2-4%. Po Gilani-u (2008), praktično svi pokazatelji ukazuju na dalji dramatičan pad ekonomske aktivnosti i stalne nestabilnosti, makar u narednih 12-18 mjeseci.

Analitičari se slažu da će drastično promijenjeni finansijski uslovi imati uticaj na rast. Neslaganje je oko vjerovatne veličine i tajminga ovih efekata. Model Međunarodnog monetarnog fonda (MMF, oktobar 2008) sugerise da će, uprkos agresivnoj politici sniženja kamatnih stopa FED-a i depresijaciji dolara, već duže postojeći kontrakcioni finansijski uslovi usporiti rast za oko 1,25 procentnih poena do kraja godine. Sljedeće godine će se nastaviti usporavanje. Usporavanje američke i kineske ekonomije prouzrokuje oštar pad tražnje za robama, kao što su nafta, energija, hrana i minerali (Roubini, 2008). Prema analizi, projektovani globalni rast outputa će iznositi 3,9% u 2008, odnosno 3,0% u 2009. godini. SAD su najveći dio globalne ekonomije - 25% svjetskog BDP, uz još veći procenat finansijskih transakcija. Od Kine i Indije se očekuje najveći doprinos globalnom rastu.

Prema GFSR (MMF, oktobar 2008), usljed pada cijena stanova i usporavanja ekonomije ugrožene su hipoteke većeg kvaliteta. Tokom godine povećala su se: zakašnjenja u plaćanjima kod subprimarnih i Alt-A hipotekarnih zajmova; prodaje nekretnina dužnika, pogotovo tamo gdje je pad cijena kuća bio najveći; otpisi dugova. Opet su se smanjile cijene neagencijskih hartija povezanih sa hipotekom, a posebno Alt-A i prioritetnih subprimarnih tranši. Primarne hipoteke koje agencije smatraju neprihvatljivim (jumbo) poprimaju čvršće kreditne standarde, veće hipotekarne stope i ograničeniji potencijal za sekjuritizaciju. Time postaju teže za refinansiranje. Povećale su se i stope otpisa dugova kod potrošačkih zajmova i zajmova za komercijalne nekretnine. Pogoršanje je zahvatilo i kredit korporacijama, pogotovo kod firmi koje su blisko povezane sa potrošačima, kao i LBO transakcije.

Veliki dio rizičnih, "radioaktivnih" američkih hartija od vrijednosti koje su "propale" - rezidencijalne hartije obezbijedene hipotekom (MBS) i kolateralizovane dužničke obligacije sa dodatnim jemstvom (CDOs) - prodate su stranim investitorima. Tako se finansijski gubici od neizvršenih hipotekarnih zajmova širom SAD

pokazuju i na drugim kontinentima. Roubini sugerise da je globalna ekonomija neizbalansirana. Amerikanci troše više nego što zarade (9 biliona dolara godišnje), a SAD ostvaruju velike spoljne deficite. Pad vrijednosti dolara usljed ekonomskog usporavanja i sniženja bazne stope u uvozno-izvoznom mehanizmu nepovoljan je za neke razvijene zemlje. Globalna tržišta akcija su najbolji pokazatelj širenja finansijske groznice. Oruđa centralnih banaka poput baznih kamatnih stopa, usmjerena na ublažavanje efekata globalnog usporavanja i na stimulisanje ekonomija, na ovom nivou problema nemaju dejstvo kao ranije.

PROGRAMI SPAŠAVANJA BANAKA - OTPISI I POVEĆANJE KAPITALA

Problem na strani aktive banaka su toksične hartije koje se ne mogu prodati, ne zna se njihova vrijednost, a bilans stanja nije kredibilan. Njihova prodaja bi značila nesolventnost mnogih institucija. Banke su plaćale toksične aktive (npr. MBS) izdavanjem komercijalnog papira. Smatrale su da igraju veliku igru kratkoročnog zaduživanja i dugoročnog pozajmljivanja. Broj bankarskih lomova bio bi još veći da Fed nije kupovao komercijalni papir direktno od beznačajnih institucija. Predlog težak 700 milijardi dolara omogućava vladi da kupi toksične aktive od najvećih banaka, sa ciljem "podupiranja bilansa stanja i vraćanja povjerenja unutar finansijskog sistema". Predlog obezbjeđuje milijarde dolara novca poreskih obveznika bankama na Wall Street-u, koje su po mnogima prvenstveno prouzrokovale krizu.

Politika i tehnike rješenja pojedinačnih i/ili sistemskih bankarskih kriza izgleda da su na nivou koji se može smatrati univerzalnim i definitivnim. Generalno, postoji nekoliko slojeva javnih politika za redukovanje rizika sistemskih kriza: pravila o korporativnoj kontroli u cilju obezbjeđenja dobrog upravljanja bankama; obaveze izvještavanja koje pomažu da tržišni učesnici aktivno prate promjene izlaganja riziku banke; prudencione regulacije i supervizorski nadzor; rane korektivne akcije kada se pojave problemi; osiguranje depozita; funkcija kreditora krajnje instance. Kao što je bio slučaj i ranije, aktuelna kriza nedvosmisleno pokazuje da se pomenuete komponente politike ne primjenjuju ili je njihova primjena neadekvatna i iziskuje izmjenu.

Opcije politike koje se bave bankarskim problemima mogu se podijeliti u dvije kategorije. Politike finansijskog restrukturiranja su usmjerene na održavanje bankarske likvidnosti i vraćanju povjerenja u bankarski sistem odmah nakon krize. Srednjoročne politike operativnog restrukturiranja su usmjerene na poboljšanje bilansa stanja onih banaka koje se drže otvorene i zatvaranju nesolventnih banaka na odgovarajući način. Problem je u tome što može da bude potrebno nekoliko godina da se očiste bilansi stanja bankarskog sektora zbog skrivanja neperformansnih zajmova. To ima negativan odraz na finansijsko posredovanje, uz kreditnu krizu nebankarskog privatnog sektora. Sumarno, postoji nekoliko praktičnih opcija politike (Tanaka, Hoggarth, 2006) koje su na raspolaganju za suočavanje sa bankarskim problemima.

in prices of oil and other goods. The prices of stocks of many non-financial companies went significantly down immediately after August 2007.

Key indicators show a deep state of depression in the U.S. The unemployment rate has never been higher since 1994. In October it was 6.5%. The work force was reduced by approximately 524,000 workers over the last two months, or a total of 1.18 million workers in 2008. This is certainly not final. As assessed, 2 million jobs will be lost next year. In the month of June 45% of all delinquent payments (delinquencies) were caused by unemployment or revenue losses. Three automobile companies with enormous operating losses employ more than 200,000 Americans. GM intends to reduce its work force by no less than 30%. The labor market seriously deteriorated. The U.S. GDP was reduced by 0.3% in three months (end of September). A reduction of GDP by 2-4% is expected in the last quarter of the year. According to Gilani (2008), practically all indicators show a further dramatic downfall of economic activity, with a continuous instability at least over the following 12-18 months.

Analysts agree that drastic changes in the financial circumstances shall impact the growth. Disagreements concern only possible sizes and timings of such effects. The International Monetary Fund model (IMF, October 2008) suggests that in spite of an aggressive policy of reduction of FED interest rates and dollar depreciation, the compressing financial conditions which have been present for some time now will slow the growth down for approximately 1.25 percent points until the end of the year. It will continue slowing down next year. Slowing down of the U.S. and Chinese economy will cause the demand for the goods such as oil, energy, food and minerals to go seriously down (Roubini, 2008). According to the analysis, planned global output growth will equal 3.9% in 2008, and 3.0% in 2009. The U.S. economy constitutes the biggest part of global economy - 25% of global GDP, while the percentage of its participation in the financial transactions is even higher. The biggest contribution to the global growth is expected from China and India.

According to GFSR (IMF, October 2008), the downfall of apartment prices together with slowing down of the economy threatened high quality mortgages. During this year, the arrears on subprime and Alt-A mortgage credits have increased, as well as the sale of debtor mortgaged properties, especially where home prices have recorded the biggest downfall and debt write-downs. Prices of non-agency mortgage-based securities have gone down again, and especially Alt-A and subprime priority blocks of shares. Prime mortgages which are considered unacceptable by the agencies (jumbo) assume firmer credit standards, higher mortgage rates and a more limited potential for securitization, thus becoming harder to refinance. Writedown rates on consumer loans and commercial loans for real estate have increased as well. Worsening of the situation also expanded to corporate loans, especially in case of companies which are closely connected with customer demand, as well as LBO transactions.

A major part of risky "radioactive" American securities which "failed", such as residential mortgage-backed securities (MBS) and collateralized debtor obligations with ad-

ditional security (CDOs) were sold to foreign investors. That way the financial losses caused by defaulted mortgage loans are manifested in other continents too. Roubini suggests that the global economy is unbalanced. Americans spend more than they earn (\$9 trillions per year), while the U.S. realize large foreign deficits. The decreasing dollar value due to economic deceleration, as well as the base rate reduction in the export-import mechanism has an adverse effect on some developed countries. Global stock markets represent the best indicators of the financial fever spreading. Tools of central banks such as base interest rates intended to mitigate the global deceleration effect and encourage the economy do not have an equal effect like before at this stage of the problem.

BANK RESCUE PROGRAMS - WRITEDOWNS AND CAPITAL INCREASES

Active capital-related difficulties concern toxic securities which cannot be sold because their actual value is not known, while balance sheets are not credible. Their sale would mean insolvency for many institutions. Banks used to pay toxic active capital (for example MBS) by issuing commercial documents. They believed they were playing a big game of short-term borrowing and long-term lending. The number of bank collapses would have been even greater if Fed had bought no commercial papers directly from hopeless institutions. The proposal to insert 700 billion dollars made it possible for the government to purchase toxic active capital from the biggest banks, aiming at "balance sheet support and regaining of inner confidence within the financial system". The proposal secured billions of dollars of taxpayer money to the Wall Street banks which, as claimed by many, had primarily caused the crisis.

Policy and methods of resolution of both individual and/or systemic banking crisis appear to have reached the level which can not be rated as universal or final. Generally, there are several layers of public policies for risk reduction in a systemic crisis: rules on corporate supervision to ensure good bank management; reporting requirements helping market participants monitor changes in risk exposure of the banks; prudential regulations and supervision; early corrective actions when some difficulties arise; deposit insurance; and last instance creditor function. Like in previous cases, the current crisis undoubtedly shows that those policies are not applied, or are inadequately applied and have to be changed.

Policy options dealing with banking difficulties can be divided into two categories. Financial restructuring policies are directed to the maintenance of banking solvency and restoration of confidence into the banking system immediately after the crisis. Mid-term operating restructuring policies are directed to improvement of balance sheets of operating banks and closing down of insolvent banks in an appropriate manner. The concern is that several years may be required for clearing out of banking sector balance sheets caused by hiding of non-performing loans. It has an adverse effect on the financial mediation, along with credit crisis in the non-banking private sector. In summary, several practical policy options are available (Tanaka, Hoggarth, 2006) for facing banking problems.

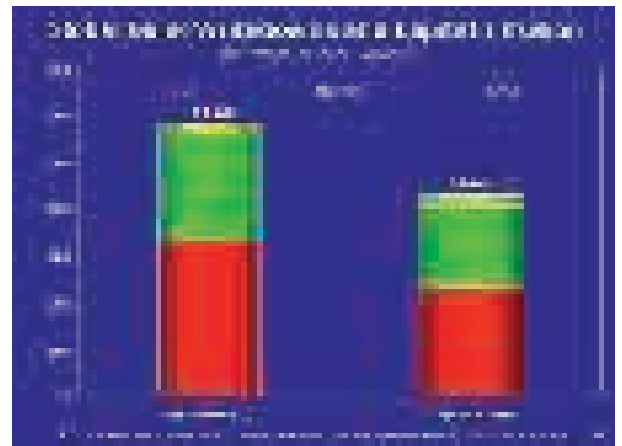
BANKA	DATUM	STATUS
Fannie Mae	07 Septembar	Nacionalizovana
Freddie Mac	07 Septembar	Nacionalizovana
Lehman Bros	15 Septembar	Propala
Merrill Lynch	15 Septembar	Preuzeta
AIG	16 Septembar	Dijelom nacionaliz.
HBOS	17 Septembar	Preuzeta
WaMu	25 Septembar	Propala i prodana
Fortis	28 Septembar	Nacionalizovana
Bradford&Bingley	29 Septembar	Nacionalizovana
Wachovia	29 Septembar	Preuzeta
Glitnir	29 Septembar	Nacionalizovana
Hypo Real-Estate	06 Oktobar	Paket spašavanja
RBS	13 Oktobar	Dijelom nacionaliz.
Lloyds-TSB	13 Oktobar	Dijelom nacionaliz.

Tabela 2: Banke pogođene globalnom krizom - 2008

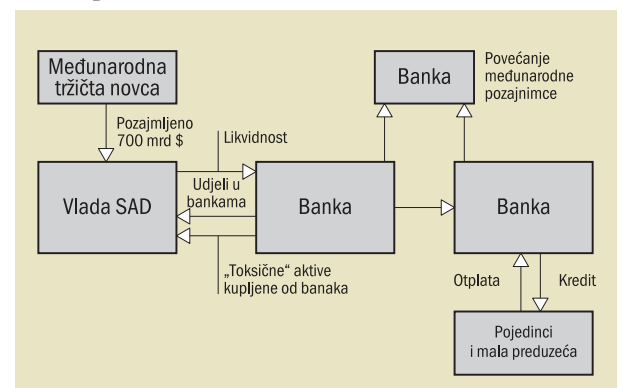
Regulatorna suzdržljivost se primjenjuje kada regulatorne vlasti sumnjaju da su banke finansijski slabe. Dozvoljava im se da nastave funkcionisanje u nadi da će se njihove performanse popraviti ubuduće. Samo-rekapitalizacijom i likvidacijom se umjesto javne podrške traži tržišno zasnovano prvo rješenje, poput traženja od postojećih akcionara da povećaju kapital. Alternativa je zatvaranje banke ukoliko ne postoji spremnost ili mogućnost investiranja dodatnog kapitala. Kada tržišno zasnovano rješenje nije praktično primjenjuje se ubrizgavanje javnog kapitala (fiskalnih sredstava). Prije toga banke se dijele u tri kategorije: solventne, održive i nesolventne. Teoretski bi se trebalo usmjeriti ka drugoj grupi banaka. Kupovina neperformansnih zajmova subvencioniranjem njihove likvidacije je prihvatljivo rješenje kada vlasti mogu da poboljšaju kvalitativni miks bankarskih aktiva kupovinom ovih zajmova u zamjenu za državne obveznice. Ovaj metod je potencijalno skup za državu, a menadžeri banke mogu da pogoršaju moralni hazard.

Prema studiji MMF-a (GFSR, oktobar 2008), otpisi kod pojedinačnih banaka su bili nešto veći nego što je očekivano. Ovo je rezultat jednog ili više faktora: a) ranijeg nekompletnog objavljivanja izlaganja problematičnim zajmovima ili hartijama; b) većih od očekivanih rezervi za pokriće gubitaka za zajmove koji su držani do dospelosti; c) gubitaka od restrukturiranja i prodaje subsidijarnih jedinica koje su izložene kreditnom tržištu; d) gubitaka od trgovanja i izvršenja. Gubici se uglavnom odnose na hipoteke i primarno ih snose američke i evropske banke. Očekuje se da će otpisi od GSEs porasti do 115 milijardi dolara tokom punog kreditnog ciklusa. Hedž fondovi i drugi tržišni učesnici, prema procjenama, izloženi

su gubicima u iznosu od 60, osiguravajuće kompanije 100, a nebankarske institucije 180 milijardi dolara. Od potresa na tržištu sredinom 2007. do septembra, otpisi su koncentrisani kod nekoliko banaka, od kojih tri najveća gubitnika obuhvataju 30%, a 20 najvećih tri četvrtine od ukupnog.

Grafik 4: Globalni otpisi banaka i infuzija kapitala (u milijardama \$)
Izvor: Global Financial Stability Report, 2008 (October)

Forme infuzije kapitala su se mijenjale u posljednje vrijeme. Dominirale su hibridne hartije od vrijednosti koje kombinuju dug i akcije. Ovaj kapital je bio atraktivan iz poreskih, signalizirajućih i nekih drugih razloga. Ipak, manja je atraktivnost posljednjih mjeseci zbog udjela u ukupnom kapitalu. Naime, od 2009. američke banke biće limitirane na maksimalnih 25% povjereničkog preferencijalnog kapitala u odnosu na kapital prvog nivoa (Tier 1), kao i 15% za međunarodno aktivne banke. Američke banke su emitovale više hibridnih kapitala, a evropske izvršile emisiju novih akcija. Tokom ove godine, 69 % svježeg kapitala došlo je od javnih investitora, a samo 31% od institucionalnih investitora i državnih investicionih fondova (sovereign wealth funds). Ministarstvo SAD je ubacilo kapital u Fannie Mae i Freddie Mac kupovinom od po 1 milijarde povlašćenih preferencijalnih akcija (plus garantovanih 79,9% običnih akcija). Mogućnost ubacivanja 100 milijardi kapitala maksimalno u svaki entitet je uvedena sa ciljem da se obezbijedi da neto vrijednost ostane pozitivna.



Grafik 5: Plan spašavanja banaka u SAD

1994. godine ruski "finansijer" Mavrody je osnovao preduzeće MMM i počeo da prodaje akcije. Obćavao

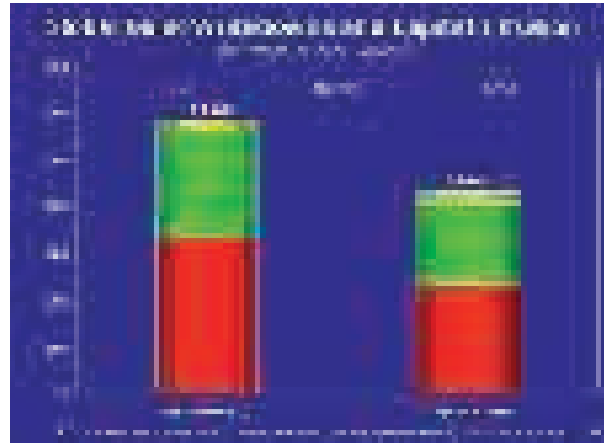
BANKA	DATUM	STATUS
Fannie Mae	September 7	Nationalized
Freddie Mac	September 7	Nationalized
Lehman Bros	September 15	Collapsed
Merrill Lynch	September 15	Taken over
AIG	September 16	Partly nationalized
HBOS	September 17	Taken over
WaMu	September 25	Collapsed and sold
Fortis	September 28	Nationalized
Bradford&Bingley	September 29	Nationalized
Wachovia	September 29	Taken over
Glitnir	September 29	Nationalized
Hypo Real-Estate	October 6	Rescue package
RBS	October 13	Partly nationalized
Lloyds-TSB	October 13	Partly nationalized

Table 2: Banks Affected by the Gobar Crisis – 2008

Regulatory reserve is applied when the regulatory authority suspects financial weaknesses of the banks. They are allowed to continue with their business operations in the hope that their future performance shall be improved. Through self-recapitulation and liquidation, instead of public support, the first market-based solution is sought, such as to request the stockholders to increase the capital. Closing of the bank is an alternative, if there is no readiness or ability to invest additional capital. When no market-based solution is practical, an injection of public capital is applied (fiscal means). Banks are previously divided into three categories: solvent, sustainable and insolvent. One should theoretically be directed towards the latter group of banks. Purchasing of non-performing loans by subsidizing their liquidation is an acceptable solution when the authorities can improve the quality mix of bank capital by purchasing those loans in exchange for governmental bonds. This method is potentially expensive for the government, while bank managers may aggravate moral hazard.

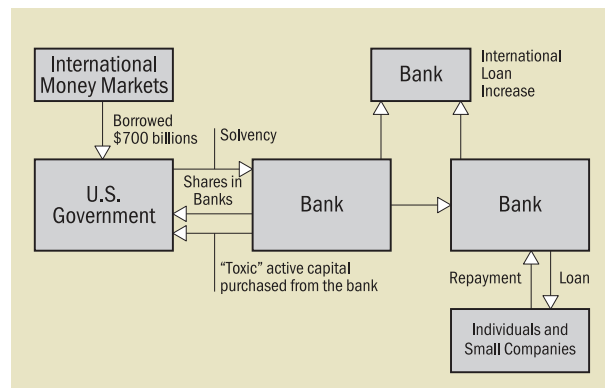
According to IMF study (GFSR, October 2008) write-downs in case of individual banks were somewhat higher than expected. This is the result of one or several factors: a) previous incomplete publishing of exposure to problematic loans or securities; b) higher than expected reserves for loss covering in case of loans which were held until the time of maturity; c) loss caused by restructuring or sale of credit market-exposed subsidiary units; d) business and performance losses. Losses mostly concern mortgages. They are primarily born by American and European banks. GSE write-downs are expected to increase to \$115 billions during full credit cycle. Hedge funds and other market participants, as assessed, are exposed to loss incur-

ring in the amount of \$60 billions, insurance companies \$100 billions, and non-banking institutions \$180 billions. Since the market shock by mid-2007, write-downs have been centered in several banks, that is 30% in 3 and three fourths of total write-downs in 20 biggest losers.



Graph 4: Global Bank Writedowns and Capital Infusion (In \$ billions)
Source: Global Financial Stability Report, 2008 (October)

Types of capital infusions have been changing lately. Hybrid securities were dominant. They combine debt and stocks. This capital was attractive for tax, signalization and other reasons. Nevertheless, it has been less attractive over the last months due to its share in the total capital. Namely, starting from 2009, American banks shall be limited to a maximum of 25% of creditor's preferential capital in relation to Tier 1 capital, and 15% for internationally active banks. American banks issued additional hybrid capital, while the European ones issued new stocks. During the current year, 69 % of fresh capital originated from public investors, while only 31% came from institutional investors and governmental investment funds (sovereign wealth funds). The U.S. State Department inserted capital into Fannie Mae and Freddie Mac by purchasing from each one of them \$1 billion of preferential stock (in addition to \$79.9 billions of ordinary shares). The possibility of injection of no more than \$100 billions of capital into each entity was introduced in order to ensure keeping of a positive net value.

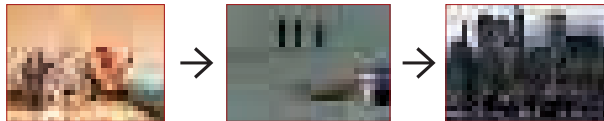


Graph 5: Rescue Plan for the U.S. Banks

In 1994 Mavrody, a Russian financier, established the Company MMM and started selling stocks. He promised a rate of return of no less than 3000% per year. The price of

je stopu povraćaja od najmanje 3000% godišnje. Cijena akcija je rasla, broj akcionara povećao se na 10 miliona, us nastanak mjehura akcija. Preduzeće se nije bavilo proizvodnjom, nije raspolagalo imovinom. Standardna piramidna šema je značila plaćanje obećanih isplata korišćenjem sredstava od prodaje novih akcija. Šema je uspijevala zahvaljujući povećanju novih akcionara i iznosa koji se raspoređivao postojećim akcionarima. U uslovima duboke recesije ekonomije, ovakva šema je bila privlačna za Ruse. Naravno, piramida je srušena, a Mavrody je insistirao da vlada isplati akcionare. To se nije desilo, a akcionari su bili ponajmanje ljuti na finansijera. Mavrody se, kao "branilac" oštećenih akcionara, kandidovao za parlament i pobijedio.

Budući da 700 milijardi dolara pritiče iz određenog izvora, očigledno je da su poreski obveznici SAD primarni gubitnici. S obzirom na postojeći deficit, bilo koji priliv sredstava automatski se usmjerava u dug. Izlaganjem većem dugu potrebno je platiti dodatnu kamatu za svaki dolar duga kome se izlaže. Ovo na kraju pogađa poreske obveznike jer vlada vrši prikupljanje iz iste ograničene poreske osnove. Ako bi željela da smanji dug, vlada SAD mora ili da poveća poreze ili da ponudi manje "usluga". U suprotnom dolar bi bio pogođen, što je inače izvjesno. Programi spašavanja poput ovog podsjećaju na situaciju u kazinu. Naime, poreski obveznici izdvajaju, a banke privajaju. Banke će potom tražiti još veće iznose jer ne žele da snose odgovornost za gubitke u kazinu, a poreski obveznici će davati još više. Jasno je ko je u ovom mehanizmu prelivanja pobjednik, a ko gubitnik.



STEPEN PROBLEMATIČNOSTI KRIZE

Vodeći američki ekonomisti, poput Bernankija (2007), navodno su smatrali da će uz fundamentalne faktore postojati tražnja za stanogradnjom. Problemi u subprimarnom sektoru kada je u pitanju šire tržište stanova vjerovatno bi bili ograničeni. Zvanično nisu očekivali značajnija prelivanja sa subprimarnog tržišta na ostatak ekonomije ili na finansijski sistem. Po njihovim analizama, ogromna većina hipoteka uključujući i subprimarne, nastavljala je da pokazuje dobre performanse. Takođe, tržišne zakonitosti će obuzdati sve prekomjernosti, dok su u alociranju kredita tržišta bolja od regulatora. Svakako, FED preduzima sve da spriječi prevaru i zloupotrebe (nepravilnosti) kreditiranja. To će doprinijeti da kreditori sprovedu snažnu praksu garantovanja, a potrošačima obezbijediti efektivno informisanje. Konačno, uz pomoć regulatora i Kongresa moguće je ostvariti finansijsko blagostanje, pristup kreditu i mogućnosti posjedovanja stanova od strane američkih građana.

U stvarnosti, subprimarna hipotekarna kriza se brzo prenijela na druga finansijska tržišta u SAD (i inostranstvu) tokom druge polovine 2007. Bez obzira na inicijalnu kapislu, problem se ispoljio primarno u pogoršanju kvaliteta subprimarnih hipoteka (kredita) u SAD, a ne likvidnosnih problema. Naime, povećanjem ovog problema finansijska tržišta su pokazala znake

pritiska ("stresa") budući da su se sklonosti investitora preusmjerile od složenih strukturisanih proizvoda ka likvidnosnim potrebama. Ekspanzija subprimarnog kreditiranja, praćena finansijskim inovacijama, labavim monetarnim uslovima i povećanom konkurencijom, mogla je da ukaže da će kreditni bum loše završiti. Za pojedine autore, nestabilnost kreditnog tržišta je predstavljala šok uprkos činjenici da je obim kredita koristan i efektivan signal, a da je cijena posebno visoka za banke sa slabom tehnologijom zajma.

Ne tako davno, Barth, Caprio i Levin (2000) su analizirali vrednovanje veze između regulatornih/vlasničkih praksi i performansi finansijskog sektora i stabilnosti bankarskog sistema. Vrednovali su odnos između bankarskih kriza i: regulatornih restrikcija na aktivnosti komercijalnih banaka i miksovanja bankarstva i trgovanja; državnog vlasništva nad bankama. Njihov



empirijski rezultat pokazao je da zemlje koje ograničavaju komercijalne banke od uključivanja u aktivnosti sa hartijama i od posjedovanja nefinansijskih firmi imaju veću vjerovatnoću da dožive značajne bankarske krize. Ograničavanje miksa bankarstva i trgovanja je povezano sa finansijskim slabostima. Konačno, biće ostvaren manji finansijski razvoj ukoliko je veće

stocks was rising. The number of stockholders went up to 10 million, followed by a stock bubble. The Company was in no production business. It had no assets. The standard pyramid scheme included selling of new stocks in order to pay out guaranteed funds. The scheme worked because the number of new stockholders was increasing, while the collected funds were distributed among original stockholders. Under the conditions of deep economic recession, this scheme was attractive for the Russians. Certainly, the pyramid broke down, while Mavrody insisted for the government to pay out the stockholders. It never happened, while the stockholders were least of all angry with the financier. Mavrody, as the “defender” of the affected stockholders, ran for the parliament and won.

Since the amount of \$700 billions had to come from some source, it is obvious that the primary losers are the U.S. taxpayers. Concerning the existing deficit, any in-



flow of funds is automatically directed to debt. Exposure to higher debt entails payment of additional interest for every dollar of such debt. This finally affects the taxpayers because the government is raising funds from the same limited tax base. In case the U.S. government wished to go for debt reduction, it would either have to increase taxes or offer less «services». In an opposite case the dollar

would be affected, which is anyhow certain. Rescue programs like this one remind of casino situations. Namely, taxpayers make payments appropriated by the banks. Banks will then ask for higher sums because they want to bear no the responsibility for the casino losses, while taxpayers will pay even more. The winner and the loser are clearly identified in this mechanism of redirection of funds.



DEGREE OF SERIOUSNESS OF THE CRISIS

Leading American economists, like Bernanki (2007), allegedly believed that a demand for housing development would be present along with fundamental factors. Problems in subprime sector, when it comes to a wider market, would probably be limited. Officially they did not expect any redirection of funds from the subprime market into the rest of the economy or the financial sector. According to their analysis, a vast majority of mortgages, including the subprime ones, continued to show good performance. Also, market forces will restrain any excessiveness, while markets work better than regulators in credit allocation. FED certainly undertakes everything possible to prevent fraud or lending misuse (irregularities). This will facilitate implementation of strong guarantee practices by creditors, and also ensure efficient informing of customers. Finally, supported by the regulator and the Congress, it is possible to accomplish financial prosperity, access to loans and an opportunity for the American citizens to own apartments.

In reality, supreme crisis rapidly shifted to other financial markets in the U.S. (and abroad) in the second half of 2007. Regardless of the initial stimulus, the problem was primarily reflected in deterioration of subprime mortgage (loan) quality in the U.S., not liquidity difficulties. Namely, as this problem was growing, financial markets showed signs of pressure (“stress”) since the investors moved from complex structured products to liquidity requirements. An expansion of subprime lending, followed by financial innovations, loose monetary conditions and growing competition, could indicate that the credit boom would end poorly. Some authors believe that credit market instability was a shock despite of the fact that credit volume was a useful and real caution signal. They also believe that the price was especially high for the banks which had weak credit technology.

Not so long ago, Barth, Caprio and Levin (2000) analyzed an assessment of co-relations among regulatory/ownership practices, financial sector performance and banking system stability. They assessed the relations between banking crisis and: regulatory restrictions on the activities of commercial banks and banking business mixing with trading transactions; government-owned banks. Their empirical results showed that the countries which restricted their commercial banks from trading with securities and owning non-financial companies were more likely to experience more significant banking crisis. Limitations on banking business mixing with trading transactions are connected with financial weaknesses. Finally, financial development performance decreases as the governments’

državno učešće u bankama. Empirijski dokazi o mehanizmu i posljedicama tekuće finansijske i bankarske krize vjerovatno će dovesti do suprotnih i dopunskih zaključaka.

Bankarska kriza se generalno prouzrokuje ekonomskom (ili pravnom) nesolventnošću jedne ili više većih banaka ili sličnih finansijskih institucija, ili širenjem juriša deponenata na veće banke ili slične finansijske institucije, opaženih da su nesolventne ili nesposobne da isplate svoje depozite ili drugi dug na vrijeme i po nominalnoj vrijednosti. Problemi likvidnosti i solventnosti su međupovezani i mogu prouzrokovati jedni druge. To znači da je često teško iz vidljivih razloga determinisati osnovni uzrok krize. Mehanizam i implikacije subprimarne hipotekarne krize u SAD dovoljan su argument. Takođe, okvir sekjuritizacije kredita sam po sebi očigledno nije osnovni uzrok krize, iako se vratio kao bumerang u lancu opšteg pada na tržištu. Tekuća kriza se može smatrati "klasičnom bankarskom krizom" sa dodatkom sekjuritizacije, koja je dovela do ne baš najjasnije "mreže međupovezanih obaveza".



Tokom krize banke su pokazale visoko izlaganje riziku, što je navodno bilo neočekivano. Počivalo je na kupovini hartija zasnovanim na zajmovima iniciranim od banaka, implicitnim garancijama vanbilansnih mehanizama, kreditnim linijama visoko rizičnim klijentima. Strategije čiji je cilj bio da poboljšaju upravljanje rizikom bile su bezuspješne i doprinosile su gubicima i likvidnosnim problemima. Transferi rizika vanbilansnih pozicija banaka bili su precijenjeni, što se odrazilo na bilanse banaka. Regulacija i supervizija novih strukturisanih kreditnih instrumenata i tehnika takođe je bila neefikasna. Pristup adekvatnosti kapitala nije dobar, a poboljšanja se moraju odnositi na rizike koji nisu adekvatno obuhvaćeni Stubom 1 Bazela II. Inovacije na kreditnom tržištu proširile su mogućnosti mnogim domaćinstvima - da dobiju, ali i izgube u krajnjem.

Preuzimanje kreditnog rizika preko svop transakcije CDS (credit default swap) mogao bi relativno brzo biti uzrok implozije na finansijskom tržištu. Postoji aktivno i potpuno neregulisano tržište CDS, sa procijenjenim iznosima od 45 od 62 biliona dolara. Najznačajniji faktor na ovom tržištu je JP Morgan Chase, odgovoran za 16 do 18 biliona dolara. Izgleda da je prvi pomenuti procijenjeni iznos investiran u CDS tržište približno jednak polovini cjelokupne imovine domaćinstava u SAD ili 5 puta nacionalnog duga. Originalni CDS može proći kroz 15-20 trgovina, što stvara problem identiteta odgovornosti i postojanja resursa za rješenje u slučaju neizvršenja. Da bi se otklonio rizik kontra strane neophodno je uspostaviti institucionalni okvir za poravnaje kod ovog tipa svopa. Primjer CDS bi nakon izvjesnog vremenskog protoka mogao da pokaže da su i derivati "finansijska oružja za masovnu destrukciju".

Ekonomske aktivnosti utiču na cijene akcija, i obrnuto, sa daljim uticajem na ličnu potrošnju i investicije. Pad cijena akcija 2000. u SAD neki su posmatrali kao početak većeg pada. Smatrali su da je trenutni nivo akcija previsok u odnosu na njihove bazične vrijednosti. Rapidan pad Nikkei-a (dugo klizanje prema dolje) nakon špekulativnog mjehura '80-ih bio je jedan od uzroka ekonomske krize u Japanu u '90-im. Mnogi ekonomisti smatraju da je krah tržišta akcija (precijenjenost akcija) 1929. bio jedan od uzroka Velike krize. Pitanje je, dakle, da li cijenu akcija određuju bazične vrijednosti ili odstupanje cijena od nje ("hirovi") i mjehuri. Ako je tačno da mnogi finansijski ulagači ne razmišljaju racionalno, pretjerani su optimisti, sigurno je i da se neki finansijski ulagači, takođe optimisti, ponašaju prilično racionalno dok mjehur raste.

U dijapazonu predloga prominentnih imena svjetske ekonomije za ublažavanje posljedica krize su i sljedeći: koordinisano stimulisanje globalne ekonomije fiskalnim i monetarnim mjerama (Alesina); ograničavanje štete od krize, sprečavanje probijanja cijena aktive (Spenser); mjere povećanja potrošnje kod zemalja sa velikim trgovinskim suficitima (Rodrik); povećanje kreditnog kapaciteta MMF-a (Buitter); jačanje i reforma MMF-a uz promjene kvota (Rajan); stvaranje nove "Svjetske Finansijske Organizacije" (Eichengreen); promjena upravljanja međunarodnim finansijskim sistemom (Claessens); ograničavanje banaka na tradicionalno (uže) bankarstvo (DeGrauwe); međunarodni sporazum o procedurama bankrotstva za velike banke, uz ekstenzivno transnacionalno uključivanje (Ito). Potrebno je napomenuti da su potrebe za nekim od ovih akcija i mjera bile očigledne i ranije, odnosno da su se trebale umjesto post faktum prepoznati u susret nastupajućoj krizi. Druge, pak, podstiču na ozbiljno razmišljanje o stvarnim namjerama inicijatora.

Postojeći ekonomski uslovi često su bili determinisani agresivnim globalizacionim strategijama. Globalna tržišta kapitala i svjetska ekonomija su čvrsto povezan sistem. Procesi finansijske liberalizacije generalno nisu bili uzrok kriza, već samo jedan od faktora u pojedinim zemljama (Španija, Norveška, Švedska) ili kod pojedinih institucija (S&Ls u SAD). Izgleda da bi uzroke najnovijih bankarskih kriza ponovo trebalo tražiti u kombinaciji makroekonomskih faktora, poput recesije i odnosa razmjene, i mikroekonomskih, kao što su slaba supervizija i regulacija i upravljanje bankama. Između pomenutog, možda bi još dublje analize trebalo da obuhvate i nezvanični osnovni uzrok zvaničnog nedovoljno obrazloženog uzroka (story behind the story). Inicijalni prasak prve velike finansijske krize se desio 24. oktobra 1929. (Crni Četvrtak). Inicijalni slom tekuće finansijske krize dogodio se 24. oktobra 2008. (Crni Petak). Finansijska kriza ubrzano počinje da djeluje kao staro vino u novoj ambalaži ■

Denis Healey je napisao: "Svjetski događaji se ne dešavaju slučajno. Prouzrokovani su nacionalnim ili ekonomskim pitanjima. Većinom se dešavaju u etapama, dok njima upravljaju oni koji u rukama drže konce novčanih tokova."

involvement in banking increases. Empirical evidence on the mechanisms and consequences of the current financial and banking crisis will probably lead to contrary and supplementary conclusions.

Banking crisis is generally caused by economic (or legal) insolvency of one or more bigger banks, or similar financial institutions, and also a growing number of depositors rushing to withdraw their deposits from bigger banks or similar financial institutions suspecting their insolvency or inability to settle the deposits and other liabilities at nominal value and in a timely manner. Liquidity and solvency problems are inter-related. One can cause the other. This means that it is often hard for obvious reasons to determine the fundamental cause of a crisis. The mechanisms and implications of the subprime mortgage crisis in the U.S. represent a sufficient argument for this. Also, the framework of credit securitization is obviously not the basic cause of the crisis by itself, although it boomeranged back in the chain of general collapse in the market. The current crisis can be rated as a «classical banking crisis» with an addition of securitization which led to a not entirely clear «network of interconnected obligations».



Banks demonstrated high exposure to risk during the crisis, which was allegedly unexpected. It was founded on purchasing of securities based on bank-initiated loans, implicit guarantees of off-balance mechanisms, and credit lines to high risk customers. Risk management improvement strategies were unsuccessful which contributed to losses and liquidity problems. Off-balance risk transfer positions of the banks were overestimated, which was reflected on their balance sheets. Regulation and supervision of newly structured credit instruments and techniques was also inefficient. Access to capital adequacy was not good, and improvements had to be made in the area of risks which were not adequately included in Tier 1, Basel II. Innovation in credit market provided more options to many households - to gain, but ultimately loose as well.

Assuming of credit risk through CDS (credit default swap) swap transaction could relatively soon cause a collapse in the financial market. There is an active and completely unregulated CDS market. Its estimated value varies from \$45 to \$62 trillions. The most significant factor in this market is JP Morgan Chase. It is responsible for \$16-18 trillions. It appears that the afore mentioned estimated amount invested into CDS market approximately equals one half of the total asset value owned by U.S. households, which is 5 times higher than the national debt. An original CDS may pass through 15-20 trading businesses, which creates the problem of identity of responsibility and existence of resources for a solution in case of non-performance. In order to remove counterpart risk bearing, it is necessary to establish an institutional framework for settlements in such swap transactions. After some time, the CDS example could show that the derivatives are also «financial weapons for mass destruction».

Economic activities have an effect on stock prices, and the other way around. This effect is extended to personal

consumption and investments. The downfall of share prices in the U.S. in 2000 was interpreted by some analysts as the beginning of a major downfall. They believed that the current level of shares was too high in comparison with their base values. A rapid downfall of Nikkei (second sliding) after the speculative bubble in the 80s was one of the causes of Japanese economic crisis in the '90s. Many economists believe that the stock market collapse (overpriced stocks) in 1929 was one of the causes of the Great Depression. The question is therefore if the price of stocks is determined by base values or a deviation of prices from the base value («whims») and bubbles. If it is true that many financial investors do not think rationally, being too optimistic, it is also sure that some financial investors, who are also optimists, act rather rationally while the bubble is being inflated.

The diapason of proposals made by some prominent experts in global economy regarding mitigation of impacts of the crisis include the following: coordinated stimulation of global economy using fiscal monetary measures (Alesina); limitation of damages caused by the crisis; prevention of breaching of active capital prices (Spenser); measures to increase consumption in the countries which record major trade surpluses (Rodrik); increase of IMF credit capacity (Buiter); IMF strengthening and reform, including quota changes (Rayan); creation of a new «World Financial Organization» (Eichengreen); changing of international financial system management (Claessens); confinement of banks to the traditional (narrower) banking (DeGrauwe); international agreement on bankruptcy procedures for big banks, including extensive transnational involvement (Ito). It should be noted that it was also obvious before that some of these actions and measures were needed. Instead of post factum, such need should have been recognized before the crisis came upon. And yet they encourage the others to think seriously about the true intentions of the initiators.

The existing economic conditions have often been decided by aggressive globalization strategies. Global capital markets and the world economy constitute a firmly connected system. Generally, financial liberalization processes did not cause the crises, but were only one of the factors in certain countries (Spain, Norway, and Sweden) or institutions (S&L in the U.S.). It appears that the causes of the latest banking crisis should be looked for again in a combination of macroeconomic factors, such as recession and exchange rates, and microeconomic factors, such as weak bank supervision, regulation and management. In addition to what was mentioned, a more extensive analysis may perhaps further consider why the cause of the crisis was officially not sufficiently explained, as well as the essential unofficial cause behind that (story behind the story). The initial burst of the first major financial crisis occurred on October 24, 1929 (Black Thursday). The initial collapse of the current financial crisis occurred on October 24, 2008 (Black Friday). The financial crisis rapidly begins to give the impression of a mature wine in new packing ■

Denis Healey wrote: «World events do not occur by accident: They are made to happen, whether it is to do with national issues or commerce; and most of them are staged and managed by those who hold the purse strings.»



U PRAVO VRIJEME, NA PRAVOM MJESTU!

Šta god da stvaramo u životu, bilo malo ili veliko, za nas ima posebnu vrijednost. I zato nam je veoma važno da pronađemo mjesto koje pruža idealne uslove i sigurnost.

Prva banka Crne Gore već 107 godina profesionalno brine o Vašem novcu, kako biste Vi mogli da planirate svoju budućnost.



PRVA BANKA CG

OSNOVANA 1901.



Metodologija praćenja operativnih rizika

Ono što čini operativne rizike posebnim i zahtjevnijim u odnosu na ostale jeste činjenica da se oni ne mogu, ili veoma teško mogu kvantifikovati. Operativni rizici su naime, kvalitativnog karaktera

mr Marko Miročević

Direktor sektora za upravljanje rizicima,
First Financial Bank

Svaku investicionu odluku treba donositi posmatrajući dvodimenzionalan prostor kojeg čine prinosi i rizik. Budući da deponovanje novca u banku predstavlja formu raspolaganja, odnosno investiranja novca, neophodno je i banku posmatrati u tom dvodimenzionalnom prostoru.

Nije tako mali broj slučajeva, da su se u prošlosti odluke, da li deponovati novac u banku ili ne, i/ili u koju banku deponovati novac, donosile samo na bazi prinosa koji je nuđen u formi kamatnih stopa na štednju, zaboravljajući dimenziju rizika. Upravo zbog nedostatka svijesti o značaju praćenja rizika u poslovanju banaka, a samim tim i mehanizama koji se u te svrhe koriste, dešavalo se da dođe do iznenadnih padova u njihovom poslovanju, te do gubljenja povjerenja klijenata u pouzdanost bankarskog sistema.

BAZELSKJE IZMJENE

Ipak, u posljednjoj deceniji situacija se počela bitno mijenjati. Sa sazrijevanjem svijesti o značaju koji praćenje rizika u bankarstvu ima kako za poslovanje pojedinih banaka, tako i za povjerenje u stabilnost bankarskog sistema, nastali su Bazel II standardi.

Bazel II standardi obuhvataju praćenje brojnih vrsta rizika koje pogađaju poslovanje banaka, ali mi ćemo se fokusirati na samo jednu vrstu rizika, umnogome drugačiju od ostalih. U pitanju su operativni rizici.

Ono što čini operativne rizike posebnim i zahtjevnijim u odnosu na ostale jeste činjenica da se oni ne mogu, ili veoma teško mogu kvantifikovati. Operativni rizici su naime, kvalitativnog karaktera.

Bazel II standardi daju smjernice u praćenju operativnih rizika, ali odluka o načinu monitoringa i upravljanja njima ostavljena je svakoj banci ponaosob. Imajući to u vidu, banke kontinuirano pokušavaju razvijati sistem praćenja operativnih rizika koji će im omogućiti da njihov kvalitativan aspekt kvantitativno izraze. Borba za usavršavanje sistema praćenja operativnih rizika je prisutna ne samo na malim tržištima, koja su relativno skoro počela da primjenjuju Bazel II standarde, kao što je tržište Crne Gore, već i na mnogo većim i razvijenijim tržištima.

U skladu sa standardima o upravljanju operativnim rizikom koji su propisani od strane Bazelskog komiteta (Basel II), u nastavku, predložimo model identifikovanja, monitoringa i otklanjanja operativnih rizika kao i postupak njegovog uvođenja, koji je prilagođen mogućnostima crnogorskog bankarskog sistema i fazi u kome se on nalazi.

PRIJEDLOG MODELA IDENTIFIKOVANJA

Model je baziran na COSO-ERM (Committee of Sponsoring Organizations of the Treadway Commission "Enterprise Risk Management") okviru za identifikovanje, monitoring i otklanjanje operativnih rizika, kao i na ORMMM (Operational Risk Management Maturity Model) procesu uvođenja cijelog postupka upravljanja operativnim rizicima u poslovanje banke.

Primjena COSO-ERM modela omogućiće da banka postepeno pređe iz faze kada postoji samosvijest o postojanju operativnih rizika, i kada su procedure za upravljanje operativnim rizicima definisane, ali još uvijek ne postoje standardizovane mjere za regovanje u slučaju nastanka gubitka po osnovu operativnog rizika - kvalitativne faze, u fazu kada postoje jasni indikatori rizika izraženi kvantitativno - kvantitativna faza.

Primjenjujući ovaj model omogućeno je postupno uvođenje sistema kontrole operativnih rizika, koji podrazumijeva postepen prelazak sa kvalitativnog na kvantitativno praćenje operativnih rizika, što je u potpunosti u skladu sa Basel II standardima.

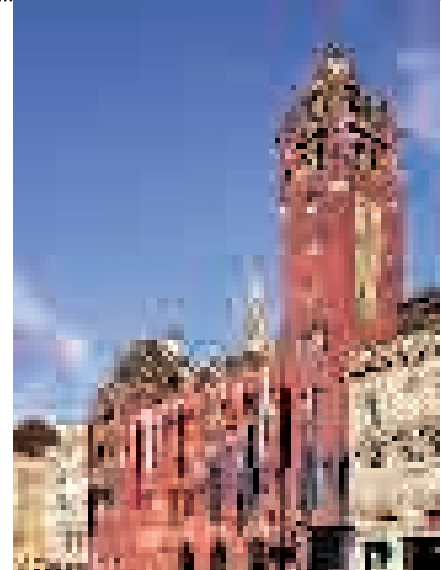
Osam komponenti na koje je fokusiran COSO-ERM okvir su:

- Unutrašnje okruženje: utvrđivanje organizacione klime i kulture koja uključuje poštovanje načela upravljanja operativnim rizicima u cilju njihovog smanjivanja, inkorporiranje filozofije upravljanja operativnim rizicima u etičke norme, i sl.
- Postavljeni ciljevi: praćenje da menadžment pojedinih organizacionih jedinica banke adekvatno upravlja procesima neophodnim za ostvarenje postavljenih ciljeva u okviru tih organizacionih jedinica, i da postupa u okviru datih limita od strane organizacione jedinice za upravljanje operativnim rizicima.

Methodology of Monitoring Operational Risks

What makes operational risks exceptional and more demanding compared to other types of risks is the fact that they may not, or may hardly be, quantified. The nature of operational risks is therefore qualitative

Marko Miročević, M.Sc
 Head of Risk Management Department,
 First Financial Bank



Each investment decision should be made based on observation of a two-dimensional framework consisting of return and risk. Since depositing money at the bank represents a form of investment, it is also necessary to consider the bank in this two-dimensional framework.

There were numerous cases in the past when decisions as to whether to deposit money in the bank or not, and/or in which bank to deposit money were made solely based on return that was offered in the form of savings interest rates, while risk dimension was neglected. It is exactly the lack of awareness about the significance of risk monitoring in bank operations, and accordingly the mechanisms used for such purposes, that caused sudden collapses in their operations and losing of clients' confidence in reliability of the banking system.

BASEL MODIFICATIONS

However, the situation was beginning to change over the last decade. Awareness raising about the significance of risk monitoring in banking for operations of certain banks and confidence in the stability of banking system gave rise to Basel II standards.

Basel II standards include monitoring of numerous types of risks affecting bank operations, but still we will focus only on one type of risk which largely differs from the other ones. These are operational risks.

What makes operational risks exceptional and more demanding compared to other types of risks is the fact that they may not, or may hardly be, quantified. The nature of operational risks is therefore qualitative.

Basel II standards provide guidelines for monitoring of operational risks, but the decision on the manner of risk monitoring and management is up to each individual bank. Having that in mind, banks continuously endeavor to develop the operational risks monitoring system that will enable them to express their qualitative aspect in quantitative terms. The struggle to improve operational risks monitoring system is present not only in small markets that have begun implementing Basel II standards relatively recently, such as the mar-

ket of Montenegro, but also on much bigger and more developed markets.

In line with the operational risk management standards laid down by the Basel Committee (Basel II), in the text below we propose the model of identification, monitoring and elimination of operational risks and the procedure of its introduction which is tailor made to the prospects of Montenegrin banking system and the stage it is in.

PROPOSAL FOR IDENTIFICATION MODEL

The model is based on COSO-ERM (Committee of Sponsoring Organizations of the Treadway Commission – Enterprise Risk Management) identification, monitoring and elimination of operational risks framework, as well as on ORMMM (Operational Risk Management Maturity Model) process of introduction of a complete operational risks management procedure into the bank operations.

Implementation of the COSO-ERM model will ensure that the bank gradually effects transition from the phase of self-awareness about the existence of operational risks when procedures for operational risk management have been defined, but still there are no standardized measures for reaction in the event of occurrence of loss based on operational risk - that is qualitative phase, into the phase with clear indicators of risk expressed in quantitative terms-quantitative phase.

Application of this model enables gradual introduction of the system of controlling operational risks which includes gradual transition from qualitative into quantitative monitoring of operational risks which is fully in line with Basel II standards.

The eight components COSO-ERM is focused on are the following:

- Internal Environment: defining organizational climate and culture that includes following of the operational risk management principle aimed at its reduction, incorporation of the operational risk philosophy into ethical values etc.
- Objective Setting: monitoring whether the management of certain organizational units adequately mana-

- Identifikacija događaja: utvrđivanje događaja koji utiču na povećanje operativnih rizika unutar pojedinih organizacionih jedinica.
- Procjena rizika: utvrđivanje vjerovatnoće nastupanja pojedinih operativnih rizika, kao i potencijalnih načina za njihovo otklanjanje.
- Odgovor na operativni rizik: odabir akcija koje moraju biti preduzete radi otklanjanja nastalih operativnih rizika i njihovog svođenja na prihvatljiv nivo.
- Kontrolne aktivnosti: implementiranje procedura za kontrolu organizacionih jedinica, a u cilju reduciranja operativnih rizika.
- Prikupljanje i slanje informacija: redovno izvještavanje organizacione jedinice za upravljanje rizicima od strane ostalih organizacionih jedinica o svim događajima koji mogu biti dovedeni u vezu sa operativnim rizikom; kao i redovno izvještavanje ostalih organizacionih jedinica od strane organizacione jedinice za upravljanje rizicima po pitanju korektivnih mjera koje u tom pogledu moraju biti preuzete.
- Monitoring: periodično (kvartalno i godišnje) revidiranje cjelokupnog procesa upravljanja operativnim rizicima, i njegovo konstantno usavršavanje.

Na nivou svake od navedenih komponenti COSO-ERM okvira, banka mora preciznije definisati procedure i postupke za optimizaciju cjelokupnog postupka.

MAPA RAZVOJA PROCESA UPRAVLJANJA

Na osnovu COSO-ERM okvira, banka razvija mapu razvoja procesa upravljanja operativnim rizicima koja predstavlja osnovu za praćenje tog procesa. Naime, na osnovu izvještaja

koji se dostavljaju od strane pojedinih organizacionih jedinica, svakog mjeseca, kao i na kraju godine, organizaciona jedinica za upravljanje operativnim rizicima sačinjava mapu razvoja procesa upravljanja operativnim rizicima i redovno obavještava upravu banke o razvoju cjelokupnog procesa.

Mapa razvoja procesa upravljanja operativnim rizicima obuhvata pojedine organizacione jedinice banke i njihov napredak po pitanju implementiranja opštih principa i procesa upravljanja operativnim rizicima. Razvijena je u skladu sa klasifikacijom na "biznis linije", propisanom od strane Basel II standarda.

U osnovi mape se nalaze tri boje (zelena, žuta i crvena), koje pokazuju koliko je pojedina biznis linija (organizaciona jedinica) daleko od ciljanog nivoa razvoja po pitanju inkorporiranja svake od komponenata COSO-ERM okvira, pri čemu zelena boja označava da je željeni nivo ostvaren. Takođe, strelice označavaju da li je ostvaren napredak ili nazadovanje u odnosu na prethodni period posmatranja. Strelice u kombinaciji sa bojama šalju signal o akciji koja se mora preduzeti kako bi se adekvatno razvijao proces praćenja operativnih rizika. Pored toga, treba istaći da su kao predmet analize praćeni i uprava banke i organizacioni dio za upravljanje rizicima, kao dva bitna elementa u realizaciji cjelokupnog procesa praćenja operativnih rizika.

Na kraju treba istaći i da je potrebno odgovarajuće mape razvijati i za svaku organizacionu jedinicu zasebno, budući da one moraju biti prilagođene poslovanju tih organizacionih jedinica.

PRIMJER MAPE RAZVOJA PROCESA UPRAVLJANJA OPERATIVNIM RIZICIMA

	Internal Environment	Objective Setting	Identify Risks
Corporate Finance Treasury & Sales	Yellow	Yellow	Green
Retail Banking	Yellow	Yellow	Green
Commercial Banking	Yellow	Yellow	Green
Payment & Settlement Accounts Services Asset Management	Red	Red	Yellow
Bank IT Operations	Yellow	Green	Green
UKM Finance Board & Management	Yellow	Yellow	Green
OVERALL	Yellow	Yellow	Green



ges processes necessary for achievement of the objectives set in the framework of organizational units and whether it acts within the limits given by organizational unit for operational risk management.

- **Event Identification:** Identification of events causing increase of operational risks in individual organizational units.
- **Risk Assessment:** identification of the likelihood of occurrence of certain operational risk and potential ways of their elimination.
- **Operational Risk Response:** selection of actions to be undertaken in order to eliminate operational risks and reduce them to an acceptable level.
- **Control Activities:** implement procedures for control of organizational units in order to reduce operational risks.
- **Information and Communication:** regular reporting of organizational units to the risk management organizational unit about all the events that might be related with operational risk; as well as regular reporting of operational risk management unit to the other organizational units about corrective measures that must be undertaken in that respect.
- **Monitoring:** regular (quarterly and annual) revision of the entirety of the operational risk management process and its continuous upgrading.

The bank needs to define more precisely the procedures

and actions for optimization of an entire process for each of the above mentioned components of the COSO-ERM framework.

MAP OF THE MANAGEMENT PROCESS DEVELOPMENT

Based on COSO-ERM framework, the bank designs a map of development of the operational risk management process which forms the basis for monitoring of the process. In fact, based on reports submitted by certain organizational units each month and at the end of the year, the operational risk management organizational unit designs a map of the development of the operational risk management process and regularly informs bank management about the development of the complete process.

The map of the development of operational risk management process includes certain organizational units in the bank and the progress they made in implementation of general principles and processes of operational risk management. It is designed in line with the business line classification prescribed by Basel II standards.

The map basically contains three colors (green, yellow and red) which show how far a certain business line (organizational unit) is from the targeted development level in terms of incorporation of each of the components of the COSO-ERM framework, whereby green color marks achievement of desired level. In addition, arrows indicate whether there has been either progress or deterioration with a view to the previous observation period. Arrows combined with colors send a signal for the action to be undertaken in order to adequately develop the operational risk monitoring process. Additionally, it is worthwhile to underline

EXAMPLE OF THE MAP OF DEVELOPMENT OF OPERATIONAL RISK MANAGEMENT PROCESS

Business Line	Event Identification	Risk Assessment	Operational Risk Response	Control Activities	Information and Communication	Monitoring
Business Line 1	Red	Red	Red	Yellow	Yellow	Green
Business Line 2	Red	Red	Red	Red	Red	Red
Business Line 3	Yellow	Red	Red	Yellow	Yellow	Green
Business Line 4	Red	Red	Red	Yellow	Yellow	Green
Business Line 5	Yellow	Red	Red	Yellow	Yellow	Green
Business Line 6	Yellow	Red	Red	Yellow	Yellow	Green
Business Line 7	Yellow	Red	Red	Yellow	Yellow	Green
Business Line 8	Red	Red	Red	Yellow	Yellow	Green



that the bank management and risk management organizational unit were subject of the analysis as they represent two important elements of an entire operational risk monitoring process.

Finally, it should be emphasized that it is necessary to design appropriate maps for each organizational unit respectively since they must be adjusted to the operation of these organizational units ■



Od utvrđivanja do osiguranja

Banke moraju utvrditi politike i procedure za kontrolisanje operativnog rizika. Utvrđene politike i procedure trebalo bi povremeno preispitati u zavisnosti od sklonosti banke ka operativnom riziku. Za svaki novi profil rizika banke bi trebalo da usklade i primjenu politika i procedura. Nakon identifikacije operativnog rizika neophodno je da banke odluče hoće li upotrijebiti odgovarajuće politike i procedure za oganičavanje, kontrolisanje rizika ili će snositi rizik. Za one rizike koji se ne mogu kontrolisati banke treba da odluče hoće li smanjiti poslovnu aktivnost koja dovodi do rizika ili će u potpunosti napustiti tu aktivnost. Banka treba da utvrdi procedure i postupke i da osigura sprovođenje utvrđenih politika

Mr Ristan Stijepović

O kvir za upravljanje operativnim rizikom koji je uspostavila banka mora se prevesti u konkretne politike i procedure. Kod utvrđivanja politika i procedura prije svega treba poći od činjenice da li banka ima osposobljene kadrove. Uz pretpostavku da banka ima osoblje sa iskustvom, koje je tehnički osposobljeno i koje ima pristup resursima, viša uprava treba jasno da raspodijeli ovlašćenja, nadležnosti i odgovornost. Na taj način obezbjeđuje se djelotvornost i uspješnost sprovođenja utvrđene politike upravljanja operativnim rizikom. Politike i procedure banke moraju biti jasne zaposlenim na svim nivoima i u poslovnim jedinicama koje preuzimaju operativni rizik. Iako je menadžment poslovnih jedinica nadležan za primjenu politika i procedura, viša uprava mora procjenjivati jesu li ti nadzorni poslovi menadžmenta primjereni s obzirom na rizike svoje svake poslovne jedinice pojedinačno.

U banci mora postojati efikasna komunikacija između osoblja koje je zaduženo za upravljanje operativnim rizikom i osoblja koje je zaduženo za upravljanje kreditnim, kamatnim, valutnim i ostalim rizicima. Neophodna je i efikasna komunikacija sa osobljem koje je zaduženo za pribavljanje spoljašnjih informacija. Ukoliko je komunikacija loša onda može doći do problema u cjelokupnom programu upravljanja rizicima banke. Politike koje su povezane sa naprednom tehnologijom podrazumijevaju permanentnu kontrolu dokumenata i kvalitetno obavljanje transakcija. Posebno,

transakcije velikih iznosa moraju biti dobro dokumentovane i pažljivo praćene od strane relevantnog osoblja. Viša uprava treba da obezbijedi adekvatnu politiku nagrađivanja zaposlenih da bi bila u skladu sa bančinom sklonošću riziku. Politike nagrađivanja moraju biti takve da stimulišu osoblje koje uspješno primjenjuje utvrđene politike i procedure, a sankcioniše osoblje koje odstupa ili ne sprovodi utvrđenu politiku (npr. prekoračuje dopuštene limite).

UTVRĐIVANJE OPERATIVNOG RIZIKA

Poseban značaj za održivost ukupnog sistema upravljanja ima utvrđivanje operativnog rizika. Za uspješno utvrđivanje moraju se uzeti u obzir interni i eksterni podaci. Banke moraju posebno pratiti interne podatke o gubicima vezanim za operativni rizik. Praćenje internih podataka o gubicima bitno je zbog sprovođenja sistema mjerenja. Interni podaci o gubicima najrelevantniji su kada su jasno povezani sa bankarskim poslovnim aktivnostima, tehnološkim procesima i procedurama upravljanja operativnim rizikom. Interno mjerenje operativnog rizika sprovodi se u cilju određivanja obaveznog kapitala. U početku implementacije poželjno je da se mjerenje zasniva na petogodišnjem razdoblju posmatranja internih podataka o gubicima. Kasnije je prihvatljivo i trogodišnje razdoblje posmatranja podataka.

Bankarski sistem upravljanja operativnim rizikom mora koristiti eksterne podatke, pogotovo kada postoji sumnja da

From Definition to Insurance

Banks must define policies and procedures for controlling operational risk. Defined policies and procedures should occasionally be reviewed depending on the predisposition of the bank to the operational risk. Banks should harmonise implementation of policies and procedures for each new profile of the bank risk. Following identification of the operational risk, banks need to decide whether they will apply certain policies and procedures for restriction and control of risk or bear the risk. Regarding uncontrollable risks, banks should decide if they will cut down business activity producing risk or they will completely abandon the activity. The banks should define procedures and actions and ensure implementation of defined policies

Ristan Stijepović, M.Sc

Framework for operational risk management established by the bank must be translated into specific policies and procedures. In establishing policies and procedures, one should start from the question whether the bank has a competent staff. Assuming that the bank employs experienced staff that is technically competent and has access to resources, senior management should clearly divide powers, competencies and responsibility. That ensures effectiveness and success of implementation of defined operational risk management policy. Policies and procedures of the bank must be clear to the staffs on all levels and operational units which assume operational risk. Even though management of the operational units is responsible for implementation of policies and procedures, senior management must evaluate whether supervision affairs of the management are appropriate taking into account the risks inherent to each operational unit individually.

The bank must have efficient communication between the staff responsible for operational risk management and staff responsible for credit, interest, currency and other risks management. Efficient communication with the staff responsible for acquisition of external information is also necessary. Inadequate communication may result in problems in entire risk management program of the bank. Policies related with advanced technology include permanent control of documents and quality execution of transactions. In particular, large transactions must be well documented and carefully monitored by relevant

staff. Senior management should provide adequate awarding policy for the staff in order to be harmonised with the bank's risk exposure. The awarding policy must stimulate the staff that successfully implements defined policies and procedures and sanction the staff that deviates or fails to implement defined policy (for instance, exceeds allowed limits).

DEFINING OPERATIONAL RISK

Defining operational risks has a particular importance for sustainability of the complete management system. Successful defining must take into account internal and external data. Banks must particularly monitor internal data about losses related to the operational risk. Monitoring of internal data about losses is important for implementation of the measurement system. Internal data about losses are the most relevant when they are clearly connected with bank business activities, technological processes and operational risk management procedures. Internal measurement of operational risk is conducted with the aim of establishing statutory capital. At the beginning of implementation it is desirable that measurement be based on five year period of observance of internal data about losses. Later on, three year period of data observance is acceptable.

Banking system of operational risk management must use external data, especially if there arises doubt that the bank has been exposed to a serious risk. They must be checked and documented on regular basis and periodically reviewed.

je banka izložena ozbiljnom gubitku. Oni moraju biti redovno provjeravani, dokumentovani i periodično ispitivani. Eksterni podaci moraju uključiti informacije o stvarnim iznosima gubitaka, veličini poslovnih aktivnosti gdje se događaj desio i uzrocima i okolnostima stvaranja gubitka.

Banke mogu da utvrde minimalne pragove (granice) bruto gubitka za evidentiranje operativnog rizika, s tim što se ne preporučuje da ovaj prag bude viši od 1.000 eura. Neke banke imaju i niži prag npr. 100 ili 200 eura (minimalni prag znači da se operativni rizik ispod ovog praga ne evidentira).

IDENTIFIKACIJA DOGAĐAJA

Identifikacija je prepoznavanje događaja koji mogu biti potencijalni izvor operativnog rizika. Rezultat procesa identifikacije je mapiranje koje detaljno prikazuje prisutnost operativnog rizika po različitim linijama poslovanja, po identifikacionom događaju i po vrstama uzroka. Takođe je neophodno i kontinuirano evidentiranje podataka u određenu bazu. Na osnovu Metodologije za evidentiranje i praćenje operativnog rizika u banci koju je uradilo UBS, kao u tabeli br.1 dato je mapiranje koje predviđa identifikaciju izvora operativnog rizika i praćenja gubitaka po linijama poslovanja.

ANALIZA SCENARIJA

Banka mora koristiti analizu scenarija na osnovu stručnog mišljenja zajedno sa eksternim podacima da bi procijenila svoju izloženost riziku. Takav pristup traži znanje iskusnih poslovnih menadžera i stručnjaka za upravljanje rizikom

da bi se dobile razumne procjene vjerovatnih gubitaka (npr. stručne procjene mogu biti izražene kao parametri statističke distribucije gubitaka).

Analiza scenarija mora biti korišćena za procjenu odstupanja od pretpostavki ugrađenih u bančin okvir mjerenja operativnog rizika. Ukoliko se analizom utvrdi da su bančine procjene izloženosti mogućih gubitaka loše, onda se pristupa novoj procjeni operativnog rizika. Kod nove procjene uzimaju se u obzir parametri i pokazatelji koji nijesu u prethodnoj procjeni korišćeni kao i eksterni podaci.

UBLAŽAVANJE OSIGURANJEM

Bankama je dozvoljeno ublažavanje operativnog rizika osiguranjem. Ublažavanje osiguranjem je dozvoljeno na 20% ukupnog obaveznog kapitala izračunatog prema metodologiji naprednog pristupa. Da bi banka iskoristila prednosti ublažavanja operativnog rizika moraju biti usklađeni sledeći kriterijumi - Osiguravajuće društvo mora imati sposobnosti isplate oštetnog zahtjeva; Polisa osiguranja mora imati rok ne manji od jedne godine; Polisa osiguranja može imati otkazni rok od 90 dana; Polisa nema ograničenja koja sprečavaju naplatu pretrpljene štete ili troška, osim u slučaju događaja koji mogu nastati nakon uvođenja prinudne uprave (stečaja) ili likvidacionog postupka; Polisa osiguranja može isključiti bilo kakve kazne, penale ili kaznene odštete, koje su posledica supervizorskih postupaka; Osiguranje daje subjekt, treća strana; Okvir za preuzimanje osiguranja dobro je argumentovan i dokumentovan; Banka objavljuje opis svoje upotrebe osiguranja u svrhe ublažavanja operativnog rizika.

LINIJA POSLOVANJA	PODKATEGORIJA	ŠIFRA	GRUPE AKTIVNOSTI
Finansiranje privrede	Finansiranje privrede Finansiranje javnog sektora - Vlade Trgovačko bankarstvo Savjetodavne usluge	101	Spajanje i pripajanje, Primarna emisija hartija od vrijednosti, Privatizacije, Sekjurizacija, Istraživanje, Finansiranje javnog duga (veliki prinosi) i Akcijski kapital, Sindicirani poslovi, Inicijalna javna ponuda (IPO), Sekundarna ponuda hartija
		102	
		103	
		104	
Trgovina i prodaja	Prodaja Uloga market marker-a Uzimanje pozicije za svoj račun Trezor	201	Fiksni prihod, Akcijski kapital, Devize, Roba, Kredit, Trgovina hartijama od vrijednosti za svoj račun, Plasiranje i Repo poslovi, Brokerski poslovi, Dužničke hartije, Brokerski poslovi u primarnoj emisiji
		202	
		203	
		204	
Poslovi sa građanima	Poslovi sa građanima	301	Plasmani građanima i depoziti, Bankarske usluge, Depo poslovi i nekretnine Privatno bankarstvo Kartičarstvo
	Privatno bankarstvo Kartičarstvo	302	
		303	
Komercijalno bankarstvo	Komercijalno bankarstvo	401	Projektno finansiranje, Nekretnine, Finansiranje izvoza, Finansiranje trgovine, Faktoring, Lizing, Drugi plasmani, Garancije, Mjenice
Obračuni i plaćanja	Spoljni klijenti	501	Plaćanje i naplata, Transfer novca, Obračun i kliring
Agencijske usluge	Kastodi	601	Eskrow, Depozitne potvrde, Davanje hartija na zajam, Korporativne aktivnosti Agenti za emisiju i Agenti za naplatu
	Korporativni agent Korporacijski fond	602	
		603	
Upravljanje aktivom	Diskreciono upravljanje fondovima	701	Formiranje pulova, Segregiranje, Fondovi za građane, Institucionalni fondovi, Zatvoreni, Otvoreni, Fondovi sa privatnim akcijama, Formiranje pulova, Segregiranje, Fondovi za građane, Institucionalni fondovi, Zatvoreni, Otvoreni
	Ne-diskreciono upravljanje fondovima	702	
Brokerski poslovi sa građanima	Brokerski poslovi sa građanima	801	Izvršenje i Druge usluge

Tabela 1. Mapiranje linija poslovanja

External data must contain information about actual losses, size of business activities where the event took place and causes and circumstances of creation of losses.

Banks may define minimum thresholds (limits) of gross losses for recording operational risk, and it is not recommended that the threshold exceeds 1.000 Euros. Some banks have even lower threshold, for instance 100 or 200 Euros (the minimum threshold means that the operational risk below that threshold is not recorded).

IDENTIFICATION OF EVENT

Identification means recognition of events that may be potential sources of risk. Result of the identification process is mapping which shows in detail presence of operational risk in various lines of operations by identification event and types of causes. It also necessary to continuously record data in a special base relying on the methodology for recording and monitoring of operational risk conceived by the UBS, like in the table number 1 which shows mapping that anticipates identification of the source of operational risk and monitoring of losses by lines of operations.

ANALYSIS OF THE SCENARIO

The Bank must use analysis of the scenario based on expert opinion together with the external data in assessment of its risk exposure. Such approach requires knowledge of experienced business managers and experts for risk management in order to produce reasonable assessments of potential losses (for instance,

expert assessments may be expressed as the parameters of statistical distribution of losses).

Analysis of the scenario must be used for the assessment of deviation from assumptions integrated in the banks` s framework of operational risk measurement. If the analysis reveals that bank` s assessments of the exposure to potential losses are bad, then new assessment of operational risk is undertaken. New assessment takes into consideration parameters and indicators not used in previous assessment and external data as well.

MITIGATION BY INSURANCE

Banks are allowed to mitigate operational risk with insurance. Mitigation by insurance is allowed for 20% of total statutory capital calculated on the basis of advanced approach methodology. In order for the bank to use the possibility to mitigate operational risk, the following criteria must be harmonised: Insurance company must be able to pay claim for damages, the insurance policy must have at least one year validity period, insurance policy may have 90 days period of notice, the policy does not have restrictions which prevent collection of incurred damage or cost, except in case of the events that may result from introduction of forced administration (bankruptcy) or liquidation procedure, insurance policy may exclude any kinds of punishments, penalties or punitive damages resulting from supervisory procedures, Insurance given by an entity, the third party, framework for taking of insurance is well argued and documented, the Bank publishes description of its use of insurance for the purpose of mitigation of operational risk

LINE OF OPERATION	SUB-CATEGORY	CODE	GROUPS OF ACTIVITIES
Financing of Economy	Financing of Economy	101	Mergers and acquisitions, primary offer of securities, privatizations, securitisation, research, financing public debt (high returns) and equity capital, syndicated affairs, Initial Public Offering (IPO), Secondary offer of securities
	Finan. of Public Sector – Government	102	
	Merchant banks	103	
	Consultancy services	104	
Trade and Sale	Sale	201	Fixed income, equity capital, foreign currencies, goods, loan, trade in securities for one`s own account, placement and Repo transactions, brokering activities, debt securities, brokering activities in primary offer
	The role of market marker	202	
	Taking position for one`s own account	203	
	Treasury	204	
Retail banking	Retail banking	301	Placements to citizens and deposits, banking services, Depo transactions and real estates Private placements and deposits, banking services Depo transactions and real estate, consultancy for investors, individual and company cards
	Private banking	302	
	Credit cards department	303	
Commercial banking	Commercial banking	401	Project financing, real estates, financing of export, financing of trade, factoring, leasing, second placements, guarantees, drafts
Balanc. of accounts and payments	External clients	501	Payment and collection, money transfer, accrual and clearing
Agency services	Custody	601	Escrow, depositary certificates, loaning securities, corporate activities Agents for issuance, agents for collection
	Corporate agent	602	
	Corporate fund	603	
Assets Management	Discretionary fund management	701	Establishment of pools, segregation, funds for citizens, institutional funds, closed, open, funds with private shares Establishment of pools, segregation, funds for citizens, institutional funds, closed, open
	Non-Discretionary fund management	702	
Broker activities with citizens	Broker activities with citizens	801	Execution and other services

Table 1. Mapping of the Lines of Operations

PROCJENJIVANJE OSJETLJIVOSTI

U procesu upravljanja operativnim rizikom, nakon utvrđivanja, banke moraju procjenjivati sopstvenu osjetljivost na operativni rizik. Procjenjivanje je procedura koja podrazumijeva kvalitativno ocjenjivanje kao i uspješno kontrolisanje i praćenje izloženosti riziku. Procjena takođe omogućava kvalitativno procjenjivanje potencijalnih slabosti, šta treba preduzeti da se organizacija posla poboljša, ko je odgovoran za nastali gubitak, kako prevazići nastalu situaciju. Kvalitativno procjenjivanje operativnog rizika moguće je samoprocjenjivanjem, razvrstavanjem rizika i pomoću pokazatelja rizika.

Samoprocjenjivanje rizika - Sve svoje poslove i aktivnosti banka samoinicijativno ili na osnovu regulatorne obaveze procjenjuje u zavisnosti od potencijalne osjetljivosti na operativni rizik. Za uspješno samoprocjenjivanje često se koriste bodovne liste. Bodovima se rangiraju rizici koji su svojstveni određenoj poslovnoj aktivnosti ili bodovanje koje se odnosi na rizike koji se pojavljuju u različitim poslovnim aktivnostima. Bodovi se mogu odnositi i na inherentne rizike, kao i na kontrole za njihovo smanjenje. Bodovne liste mogu se koristiti pri raspodjeli obaveznog kapitala različitim poslovnim aktivnostima, zavisno od njihove uspješnosti u upravljanju i kontrolisanju različitih aspekata operativnog rizika.

Razvrstavanje rizika - U ovom se postupku različite poslovne jedinice, organizacione funkcije i poslovni tokovi, razvrstavaju prema vrsti rizika. Ovaj postupak doprinosi lakšem otkrivanju organizacionih i poslovnih slabosti, a istovremeno pomaže višoj upravi u određivanju prioriteta daljih aktivnosti.

Pokazatelji rizika su najčešće finansijski podaci koji najbolje odlikavaju poziciju banke. Pokazatelji rizika mogu biti i drugi statistički podaci i mjerenja. Neophodno je redovno preispitivanje najvažnijih (finansijskih) pokazatelja, najčešće je to svaka tri mjeseca ili polugodišnje. Provjeravanje pokazatelja ima za cilj da upozori banke na promjene koje mogu biti problematične i koje su povezane sa rizikom. Takvi su pokazatelji: broj propalih transakcija, stope prometa po zaposlenom ili ozbiljnost grešaka i propusta.

Dakle, procjena rizika se bazira na kvalitativnoj ocjeni i ova faza u procesu upravljanja operativnim rizikom se razlikuje od mjerenja koje predstavlja kvantitativnu ocjenu izloženosti operativnom riziku.

Mjerenjem banke kvantifikuju svoju izloženost operativnom riziku koristeći se različitim pristupima. U prethodnom broju mjesečnika BANKAR ukazano je na tri metode mjerenja obaveznog kapitala za pokriće operativnog rizika i to: Metoda osnovnog pokazatelja (BIA), Metoda standardizovanog pristupa (SA) i Metoda naprednog mjerenja (AMA).

NADZIRANJE I IZVJEŠTAVANJE

U bankama je neophodno sprovesti proceduru redovnog nadziranja jer je ono važno za adekvatno upravljanje operativnim rizikom. Ako se u praksi obezbijedi i organizuje redovno nadziranje, banka će kao rezultat imati brzo otkrivanje i ispravljanje nedostataka u upravljanju operativnim rizikom. Brzo otkrivanje nedostataka i propusta kao i njihovo pravovremeno analiziranje, može



značajno smanjiti potencijalne gubitke. Pored redovnog nadziranja izloženosti operativnom riziku, poželjno je da banke utvrđuju koji će od pokazatelja blagovremeno i veoma brzo upozoriti na povećani rizik i nastanak potencijalnog gubitka. Ti pokazatelji najčešće se nazivaju ključni pokazatelji rizika ili pokazatelji ranog upozorenja. Ovi pokazatelji moraju biti usmjereni na buduća dešavanja koja odražavaju potencijalne izvore operativnog rizika kao što su: brz rast, uvođenje novih proizvoda i finansijskih usluga, promet po zaposlenom, prekidi transakcija, vremenski period u kojem je informacioni sistem van upotrebe itd.

Namjera procesa nadziranja nije samo osiguranje da banke obezbijede obavezni kapital za pokriće operativnog rizika, već i podsticaj bankama da razviju i koriste bolje tehnike za upravljanje operativnim rizikom i njegovu praćenje. Zbog toga povećanje obaveznog kapitala ne treba gledati kao na jedinu opciju za rješavanje povećane izloženosti operativnom riziku sa kojom se banke suočavaju. Moraju se razmotriti i drugi načini za smanjenje izloženosti riziku poput jačanja nadzornog procesa, primjene unutrašnjih ograničenja i poboljšanja unutrašnjih kontrola. Povećanje obaveznog kapitala ne bi se smjelo uzimati kao zamjena za rješavanje u osnovi neadekvatnog nadziranja i kontrolisanja ili procesa upravljanja rizikom. Zbog toga redovno nadziranje mora biti svakodnevna aktivnost banaka.

Banke moraju uspostaviti adekvatan sistem za praćenje i izvještavanje o izloženostima operativnom riziku. Odbor direktora ili viši menadžment banke moraju redovno dobijati izvještaje o bančinom profilu rizika. Izvještaji moraju odboru direktora ili višem menadžmentu omogućiti da procijeni nivo i trend operativnog rizika, utvrdi da banka ima dovoljno kapitala za pokriće operativnog rizika i procijeni buduće kapitalne zahtjeve na osnovu izloženosti operativnom riziku.



ASSESSMENT OF VULNERABILITY

The process of operational risk management requires from the bank to assess their vulnerability to operational risk after it has been defined. Assessment is a procedure which implies quality evaluation and successful control and monitoring of risk exposure. The assessment also includes quality evaluation of potential weaknesses, what should be done in order to enhance organisation of operation, who is responsible for the loss incurred, how to overcome the existing situation. Quality assessment of operational risk is possible by self-assessment, classification of risks and risk indicators.

Risk Self-Assessment – All affairs and activities are assessed by the bank either on its own initiative or on the basis of regulatory obligation depending on the potential vulnerability to operational risk. The lists of points are often used for successful self-assessment. Points classify risks inherent to a specific business activity or points are related to the risks emerging in various business activities. Points may refer to inherent risks as well, and the control for their reduction. Points lists may be used in distribution of statutory capital to various business activities, depending on their success in management and control of the various aspects of operational risk.

Classification of Risks – This procedure classifies various operational units, organizational functions and operational flows according to the type of risk. The procedure contributes to easier detection of organizational and operational weaknesses, and at the same time helps senior management in determination of priorities in their future activities.

Risk indicators – are most often financial data which best reflect the position of the bank. Risk indicators may be other statistical data and measurements. It is necessary to regularly monitor the most important (financial) indicators, most often every three months or half year. Verification

of indicators aims at warning the banks of the risk related changes that may cause problems. Such are the following indicators: the number of failed transactions, trade rate per employee or seriousness of errors or failures.

Therefore, risk assessment is based on quality evaluation and this phase of operational risk management differs from the measurement which is a quantitative evaluation of operational risk exposure.

Measurement enables banks to quantify their operational risk exposure by using various approaches. Previous issue of the Banker monthly indicated three methods for measurement of statutory capital for the coverage of operational risk: the Basic Indicator Approach (BIA), the Standardized Approach (SA) and Advanced Measurement Approach (AMA).

SUPERVISION AND REPORTING

Banks need to conduct the regular supervision procedure which is important for adequate operational risk management. If the regular supervision is organized and provided in practice, the bank will be able to quickly detect and rectify deficiencies in operational risk management. Quick detection of deficiencies and failures and their timely analysis may significantly reduce potential losses. In addition to regular supervision of the operational risk exposure, it is desirable for the banks to establish which one of the indicators will timely and very quickly warn of increased risk and occurrence of potential loss. Those indicators are most often referred to as key risk indicators or early warning indicators. These risks must be turned to the future developments which sustain potential sources of operational risk such as: fast growth, introduction of new products and financial services, trade per employee, interruptions in transactions, time period when information system is out of order etc.

The aim of the supervision process is not only to ensure that the banks provide statutory capital for the coverage of operational risk, but also to encourage banks to develop and apply better techniques for operational risk management and monitoring. That is why increase of the statutory capital should not be considered as the only option for resolution of increased exposure to the operational risk that the banks face. Other methods for reduction of the risk exposure must also be taken into account, such as strengthening supervision process, implementation of internal restrictions and improvement of internal controls. Increase of statutory capital should not be taken as a substitution for resolution of inadequate supervision and control or risk management process. That is why regular supervision must be day to day activity of the banks.

Banks must establish adequate system of monitoring and reporting about exposures to the operational risk. Board of Directors or senior management of the bank must regularly receive reports about the risk profile of the bank. Reports must enable the Board of Directors or senior management to assess the level and trend of operational risk, establish if the bank has sufficient capital to cover operational risk and evaluate future capital requirements based on operational risk exposure.

The reports should, in addition to the Board of Directors and senior management, be submitted to the relevant le-

Pored odbora direktora i višeg menadžmenta izvještaje treba dostavljati odgovarajućim nivoima uprave i organizacionim djelovima banke, koji su zaduženi za pojedine nivoe upravljanja operativnim rizikom i koji mogu uticati na rješavanje problematičnih područja izloženosti operativnom riziku. U područjima u kojima su utvrđeni problemi treba preduzeti konkretne mjere i na taj način smanjiti izloženost riziku. Kako bi se osigurala korisnost i pouzdanost tih izvještaja, viša uprava treba redovno da provjerava tačnost, pravovremenost i relevantnost sistema izvještavanja. Ona, kao i ostali nivoi upravljanja u banci, mora koristiti izvještaje koje su pripremili spoljni izvori (angažovane agencije, druge bankarske institucije ili supervizori), kako bi se dopunili unutrašnji izvještaji ili provjerila njihova pouzdanost i tačnost. Svi izvještaji i interni i eksterni trebaju da se analiziraju u cilju poboljšanja uspješnosti upravljanja operativnim rizikom.

KONTROLISANJE - SMANJIVANJE

Banke moraju utvrditi politike i procedure za kontrolisanje operativnog rizika. Utvrđene politike i procedure trebalo bi povremeno preispitati u zavisnosti od sklonosti banke ka operativnom riziku. Za svaki novi profil rizika banke bi trebalo da usklade i primjenu politika i procedura. Nakon identifikacije operativnog rizika neophodno je da banke odluče hoće li upotrijebiti odgovarajuće politike i procedure za oganičavanje, kontrolisanje rizika ili će snositi rizik. Za one rizike koji se ne mogu kontrolisati banke treba da odluče hoće li smanjiti poslovnu aktivnost koja dovodi do rizika ili će u potpunosti napustiti tu aktivnost. Banka treba da utvrdi procedure i postupke i da osigura sprovođenje utvrđenih politika.

Za uspješnu kontrolu operativnog rizika, pored propisanih politika i procedura, za banku je od izuzetnog značaja nivo kulturne kontrole koja je sastavni dio dobre prakse upravljanja rizikom. Pošto je kontrola sastavni dio redovnih aktivnosti banke, za uspostavljanje efikasne kulture unutrašnje kontrole nadležna je viša uprava. Dobra praksa sistema unutrašnje kontrole rizika podrazumijeva jasnu podjelu nadležnosti zaposlenog osoblja u banci. Ukoliko bi došlo do preklapanja nadležnosti to bi proizvelo kod osoblja sukob interesa, što je preduslov za pojavu neprimjerenih aktivnosti, namjernih ili nenamjernih grešaka u radu kao i prikrivanja potencijalnih gubitaka.

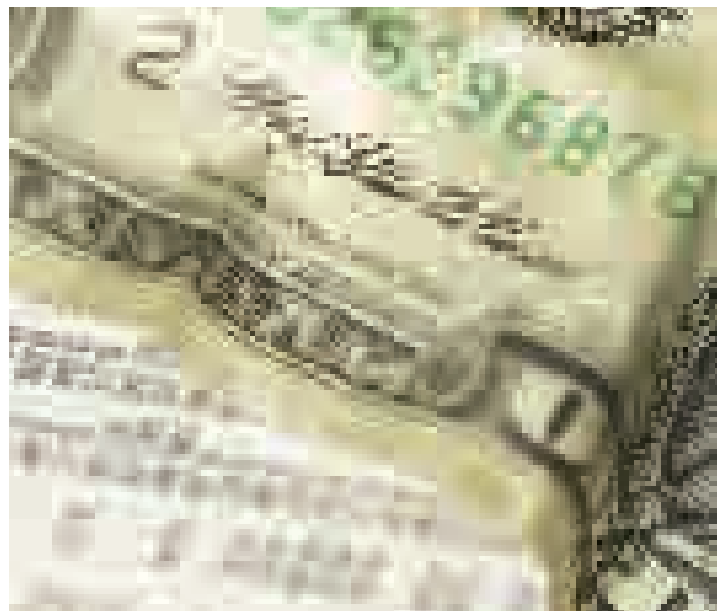
Osim podjela nadležnosti dobra praksa sistema unutrašnje kontrole bankarskog rizika podrazumijeva i: pažljivo nadziranje utvrđenih limita; zaštitu pristupa sredstvima i evidenciji banke; kontrolu osoblja banke; redovnu provjeru transakcija i računa; konstatovanje bankarskih poslovnih aktivnosti kod kojih dobit nije u skladu sa realnim očekivanjima (na primjer, ako se očekuje da će neka bankarska poslovna aktivnost ostvariti nizak profit, a ona nasuprot očekivanju ostvariti veliku dobit, onda se može postaviti logično pitanje je li i to posledica loše unutrašnje kontrole).

Kada izostane dobra praksa unutrašnje kontrole to može dovesti do značajnih gubitaka u banci. Desi li se da kontrola operativnog rizika ne prati nove poslovne aktivnosti banke ili kad banke uđu na nova tržišta ili počnu sa poslovnim aktivnostima na drugom području (u

odnosu na sjedište banke) onda operativni rizik može biti znatno izraženiji i potencijalno veći. Neke od navedenih okolnosti dovele su do značajnih gubitaka nekoliko velikih banaka tokom poslednjih godina. Postoje operativni rizici „rijetke učestalosti, velike ozbiljnosti“ koji se ne mogu kontrolisati, čiji su uzroci zemljotresi, poplave, druge prirodne katastrofe, ratovi itd. Programi za smanjenje rizika koji nastaju u ovakvim okolnostima su ublažavanja osiguravanjem.

Smanjivanje ne predstavlja zamjenu već dopunu unutrašnjoj kontroli operativnog rizika. Izloženost operativnom riziku može se značajno smanjiti ako postoje mehanizmi za njegovo prepoznavanje. Neophodno je prethodno utvrditi u kojoj mjeri će programi za smanjivanje operativnog rizika - kao što je osiguranje ili primjena savremene informatičke tehnologije - zaista smanjiti rizik. Banke moraju računati na činjenicu da programi ublažavanja osiguranjem mogu prenijeti rizik na drugi sektor ili stvoriti novi rizik (na primjer pravni rizik), dok primjena informatičke tehnologije može česte gubitke malih vrijednosti pretvoriti u rijetke gubitke velikih vrijednosti. Gubici velikih vrijednosti mogu nastati zbog internih slabosti ili zbog ekstremnih događaja koji su van uticaja i kontrole banke. Ovi događaji mogu banci stvoriti velike probleme u njenom budućem poslovanju. Za rješavanje ovih problema banke moraju izraditi planove za vanredne situacije.

Agencijskim aktivnostima (eksternalije) banke mogu takođe smanjivati profil operativnog rizika. Sklapanje agencijskih ugovora ne znači i prenošenje potpune odgovornosti na treću stranu, što znači da ovakvi ugovori ne smanjuju u potpunosti odgovornost više uprave. Zbog toga se ovi poslovi moraju temeljiti na čvrstom i jasnom ugovoru o nivou usluge, koja obezbjeđuje jasnu podjelu odgovornosti između pružaoca usluga i banke. Banka se mora osigurati ako se desi da treća strana ne ispuni svoju ugovorenu obavezu, uključujući poslovni neuspjeh ili prekid poslovanja. Zbog toga u slučaju procjenjivanja rizika banka mora procjenjivati i finansijsku sposobnost pružaoca usluga da može banci da nadoknadi nemar i operativni gubitak ■



vels of administration and organisational divisions of the bank which are responsible for certain levels of operational risk management and which may affect the resolution of problematic areas of operational risk exposure. In the areas where problems have been identified, specific measures are to be undertaken to reduce risk exposure. In order to assure usefulness and reliability of such reports, senior management should regularly check accuracy, timeliness and relevance of these reporting systems. Senior management, just like other management levels in the bank, must use reports prepared by external sources (hired agencies, other banking institutions or supervisors) in order to supplement internal reports and verify their reliability and accuracy. All internal and external reports must be analyzed in order to enhance success of the operational risk management.

CONTROL-REDUCTION

Banks must define policies and procedures for controlling operational risk. Defined policies and procedures should occasionally be reviewed depending on the predisposition of the bank to the operational risk. Banks should harmonise implementation of policies and procedures for each new profile of the risk of the bank. Following identification of the operational risk, it is necessary for the banks to decide whether they will apply certain policies and procedures for restriction and control of risk or bear the risk. Regarding controllable risks, banks should decide if they will cut down business activity producing risk or they will completely abandon the activity. The banks should define procedures and actions and ensure implementation of defined policies.

In addition to prescribed policies and procedures, the level of cultural control which makes an integral part of the good practice of risk management is considerably important for the bank's successful control of operational risk. Since control forms integral part of regular activities of the bank, senior management is responsible for the establishment of efficient culture of internal control. Good practice of internal control system includes clear divi-

sion of powers between the staff employed in the bank. Overlapping of powers would result in conflict of interest among the staff which is a prerequisite for undertaking of inappropriate activities, intentional or non-intentional errors in work and hiding of potential losses.

In addition to the division of powers, good practice of the system of internal control of banking risk also includes the following: careful supervision of established limits, protection of access to assets and records of the banks, control of the bank staff, regular check of transactions and accounts, stating banking business activities where profit fails to meet real expectations (for instance, if some banking operational activity is expected to generate low profit, but despite these expectations it generates high profit, then there is a logical question whether that results from bad internal control).

Failure of the good practice of internal control might result in substantial losses in the bank. If the control of the operational risks fails to go along with the new operational activities of the bank or when banks enter new markets or start operational activities in some other area (outside the headquarters of the bank), operational risk may be significantly higher or potentially higher. Some of the above mentioned circumstances have resulted in significant losses in several major banks over the last years. There are operational risks of rare frequency, great seriousness which are beyond control being caused by earthquakes, other natural disasters, wars etc. Programs for reduction of risks emerging in these circumstances are mitigations by insurance.

Reduction is not a substitution, but a supplement to the internal control of operational risk. Operational risk exposure may be significantly reduced with mechanisms for its identification. It is necessary to previously establish to what extent the programs for operational risk reduction-such as insurance or advanced information technology- will actually reduce the risk. Banks must take into account the fact that programs of mitigation by insurance may transfer risk to some other department or create a new risk (for instance, legal risk), while information technology may turn frequent losses of small value into rare losses of high values. High value losses may result from internal weaknesses or extreme events beyond the influence and control of the bank. These events may cause serious problems for the bank in its future work. Banks need to design emergency programs for resolution of these problems.

Agency activities (external) may help the banks in reducing profile of the operational risk management. Conclusion of agency contracts does not mean transfer of full responsibility to the third party, which means that this type of contracts does not completely reduce responsibility of senior management. That is why these affairs must be based on firm and clear agreements about the level of service, which provides clear division of responsibilities among provider of services and the bank. The bank must protect itself in the event of third party's failure to fulfill its contractual obligation, including business collapse or suspension of operations. That is why in risk assessment the bank must assess financial capacity of the provider of services as to whether the provider may compensate the bank for negligence and operational loss ■





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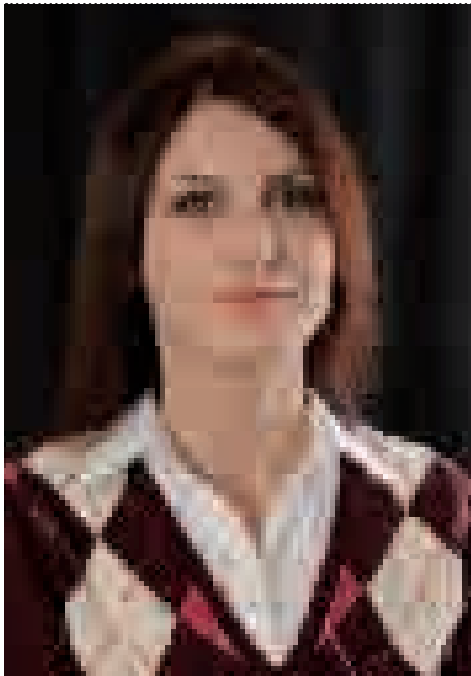
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Mehanizmi i identifikacija

Inovacije, deregulacija i globalizacija u bankarstvu doprinijeli su da bankarsko poslovanje postane mnogo kompleksnije i rizičnije. Banke, kao i ostale firme, mogu se suočiti sa finansijskim poteškoćama kada vrijednost njihove aktive padne ispod vrijednosti pasive. Problem u pojedinačnoj banci može biti povezan sa problemima u ostalim bankama, ako je svaka banka istovremeno izložena istom šoku. Ako banke imaju slične fundamentalne karakteristike, mogućnost da se desi problem u bankarskom sistemu je mnogo veća

mr Željka Asanović

Centralna banka Crne Gore

Ekonomske sistemi u razvijenim zemljama su zasnovani na različitim institucionalnim pretpostavkama u odnosu na zemlje u razvoju. Samim tim, karakteristike bankarskih sistema razvijenih zemalja su različite u odnosu na bankarske sisteme zemalja u razvoju. Bez obzira da li je riječ o razvijenim ili zemljama u tranziciji, u diskusijama o ekonomskoj politici sve veća pažnja se posvećuje stabilnosti bankarskog sektora. Razlog su visoki troškovi bankarskih kriza i njihova sve veća učestalost u prethodne tri decenije.

Učestalost bankarskih kriza, kao i troškovi koje prouzrokuju, zahtijevaju od ekonomista širom svijeta odgovore na mnogobrojna pitanja. To su, prije svega, pitanja koja se odnose na uzroke kriza, predviđanje kriza, njihovo sprječavanje, kao i ublažavanje njihovih posljedica. Upravljanje kriznom situacijom u bankama je znatno drugačije u odnosu na ostale korporacije, i to zbog specifičnosti banaka kao finansijskih institucija. Posebna karakteristika banaka je, prije svega, njihova ključna uloga u finansijskom posredovanju, kao i u platnom prometu. Takođe, kod upravljanja krizom u banci, sa aspekta supervizije, bitna je činjenica da li je riječ o većoj, sistemski važnijoj ili o manjoj banci.

TEORETSKI I EMPIRIJSKI PRISTUP BANKARSKIM KRIZAMA

U nesistemskim bankarskim krizama riječ je o problemima sa kojima se suočava individualna banka, dok se sistemske bankarske krize odnose na probleme sa kojima se suočava veliki dio, ili pak cjelokupan bankarski sistem. Prema pojedinim autorima (Goodhart i Schoenmaker, 2006), krize koje pogađaju banke su makroekonomskog karaktera, i u globalu prate kolapse tržišta aktive i pad ekonomske aktivnosti, prije nego što su pojedinačne (prije Skandinavija nego Barings). Iako je do sada posebna pažnja u naučnim istraživanjima bila posvećena sistemskim bankarskim krizama, i to prije svega zbog njihovih ogromnih posljedi-

ca na finansijski i ekonomski razvoj, postoje i mnogi slučajevi gdje su bankroti pojedinačnih banaka imali velike finansijske i ekonomske troškove za deponente, zajmoprimce i poreske obveznike (Beck i Laeven, 2006). To je bio slučaj sa BCCI i sa Barings bankom, koje predstavljaju najpoznatije primjere prevara u bankarskom poslovanju. Dok je BCCI bankrotirala zbog prevare širokih razmjera, Barings banka je bankrotirala zbog ogromne prevare jednog čovjeka. Takođe, dok je BCCI imala takvu internacionalnu organizacionu strukturu da izbjegne eksternu kontrolu, Barings banka je posjedovala mnogo transparentniju internacionalnu strukturu, koja je u svakom slučaju, uspjela da izbjegne efektivnoj kontroli bilo kog eksternog entiteta (Herring, 2005).

Obično se prevara vezuje za pojedinačne slučajeve, ali ona nekad može biti i u centru sistemske krize, kao što je bio slučaj u Venecueli 1994. godine. Još jedan primjer sistemske prevare je čudan i dramatičan slučaj Gvineje 1985. godine, gdje je šest najvećih banaka, koje čine preko 95% sistema, zatvoreno u jednom danu. Prema istraživanju koje je uradio Tenconi (1988), ovo je bila kulminacija široko rasprostranjene prevare koji su izveli klijenti banke (možda uz saučestvo osoblja banke).

Sve do kraja devedesetih godina prošlog vijeka, odlivi depozita su bili prvi objekat istraživanja kada su u pitanju bankarske krize (Winkler, 2006). Starije definicije bankarskih kriza imaju akcenat upravo na odlivima depozita. U skladu s tim, bankarska kriza je stanje kada je toliko intenzivna tražnja za rezervnim novcem, da na kratak rok ne mogu biti zadovoljeni zahtjevi svih deponentata istovremeno (Miron, 1986). Najčešće se pod bankarskim krizama podrazumijevaju periodi kada značajan segment bankarskog sistema postane nelikvidan ili nesolventan (Demirgüç-Kunt, 2000), odnosno periodi kada postoji ekstremna tražnja za likvidnim sredstvima na novčanom tržištu (Von

Mechanisms and identification

Innovations, deregulation and globalization in banking contributed the banking business to become much more complex and risky. Banks, like other companies, may encounter financial difficulties when the value of their assets declines below the value of their liabilities. A problem in an individual bank may be related to problems in other banks, if each of the banks is simultaneously exposed to the same shock. If banks have similar fundamental characteristics, the possibility for a problem to arise in the banking system is much higher

Željka Asanović, M.Sc
Central Bank of Montenegro

Economic systems in developed countries are based on various institutional assumptions in comparison to developing countries. Therefore, characteristics of banking systems in developed countries are different from banking systems in developing countries. Irrespective whether developed countries or countries under transition are considered, the discussions on economic policy more and more focus on the stability of the banking sector. The reason is the high costs of banking crises and their increasing frequency during the previous three decades.

The frequency of banking crises, as well as costs caused by them, requires economists around the world to give answers to numerous questions. These are, primarily, questions related to causes of crises, prediction of crises, their prevention, as well as mitigation of their consequences. Crisis situation management in banks significantly differs from other corporations, due to specificity of banks as financial institutions. A special feature of banks is, primarily, their key role in financial intermediation, as well as in payment operations. Also, in case of crisis management in a bank, from the supervision aspect, it is important whether it is a large, systemically important bank or a small bank.

THEORETICAL AND EMPIRICAL APPROACH TO BANKING CRISES

In non-systemic banking crises, it is all about problems that an individual bank encounters with, while the systemic banking crises relate to problems encountered with by a major part of, or overall banking system. According to some authors (Goodhart and Schoenmaker, 2006), crises that affect banks are rather of macroeconomic character and globally they associate the collapse of market of assets and the fall of economic activity, than they are individual (rather Scandinavia than Barings). Although special attention has been paid to systemic banking crises in scien-

tific researches so far, primarily due to their massive consequences on financial and economic development, there also are many cases where bankruptcies of individual banks had major financial and economic costs for depositors, borrowers and taxpayers (Beck and Laeven, 2006). This was the case with BCCI and with Barings Bank, which represent the widest known examples of fraud in banking business. While BCCI bankrupted due to a high-scale fraud, Barings Bank bankrupted due to one man huge fraud. Also, while BCCI had such international organizational structure to avoid external control, Barings Bank had much more transparent international structure, which still succeeded to escape the effective control of any external entity (Herring, 2005).

Typically, the fraud is related to individual cases, but it can never be in the center of a systemic crisis, as was the case in Venezuela in 1994. Another example of the systemic fraud is a strange and dramatic case of Guinea 1985, where six largest banks, making 95% of the system, were closed in a single day. According to the research made by Tenconi (1988), this was the culmination of widely spread fraud made by bank clients (maybe in collaboration with bank's staff).

All the way to the end of nineties of the last century, outflows of deposits were the first object of research with regard to banking crises (Winkler, 2006). It is exactly the outflow of deposits that older definitions of banking crises emphasize. In accordance with that, the banking crisis is a state when the demand for reserve money is such that in the short-term period the demands from all depositors cannot be satisfied at the same time (Miron, 1986). Most frequently, banking crises imply periods when a significant segment of the banking system becomes illiquid or insolvent (Demirgüç-Kunt, 2000), or periods when there is extreme demand for liquid funds in the money market. (Von Jürgen and Ho, 2004). In accordance with this

Jürgen i Ho, 2004). U skladu sa ovom definicijom, bankarske krize se posmatraju sa aspekta likvidnosti i solventnosti (Ishihara, 2005).

Dominantna savremena teorija koja objašnjava bankarske krize je teorija asimetričnih informacija. Asimetrične informacije predstavljaju ključnu smetnju za funkcionisanje finansijskog sistema.¹ Pod njihovim uticajem dolazi do situacije u kojoj jedna strana u finansijskom ugovoru ima manje preciznih informacija nego druga strana. U prisustvu asimetričnih informacija, struktura kapitala je ključna determinanta performansi banke, zato što utiče na ponašanje različitih stejkholdera, poput menadžmenta, akcionara i depone-nata (Villar, 2006). Asimetrične informacije objašnjavaju zašto banke imaju važniju ulogu u finansijskim sistemima u zemljama u razvoju i tranziciji, a to je zbog veće teškoće dobijanja informacija o privatnim firmama. Kada je kvalitet informacija o ovim firmama slab, izraženiji su problemi asimetričnih informacija, i biće teže firmama da emituju hartije od vrijednosti. Manja uloga tržišta hartija od vrijednosti u ovim zemljama ostavlja više prostora bankama. Asimetrične informacije dovode do dva bazična problema u finansijskom sistemu: negativne selekcije i moralnog hazarda (Mishkin, 1996).

Negativna selekcija se pojavljuje prije nego što se transakcija obavi jer su zajmotražioc koji su manje kvalitetni i koji imaju veći rizik, najviše spremni da uzmu zajam ili plate najveću kamatnu stopu, jer znaju da je vjerovatno neće platiti. Time će učesnici koji će najvjerovatnije proizvesti negativan rezultat biti najvjerovatnije izabrani. Da bi se minimizirao problem negativne selekcije potrebno je da zajmodavci odvoje dobre od loših kreditnih rizika.

Moralni hazard se pojavljuje kada je transakcija obavljena budući da je zajmodavac izložen hazardu da zajmoprimac ima motiv da se uključi u aktivnosti koje su nepoželjne (odnosno nemoralne) sa tačke posmatranja zajmodavca. Zajmoprimac ima podsticaj da se usmjeri u projekte sa većim rizikom u kojima će dobro proći ukoliko uspiju, dok zajmodavac snosi većinu gubitka ako projekat ne uspije. Moralni hazard nastaje i zbog toga što nametnuti troškovi mogu da učine previše skupim zajmodavcu da ga spriječi, čak i kada je potpuno informisan o aktivnostima zajmoprimca. Da bi se minimizirao problem moralnog hazarda, zajmodavac mora da nametne strožije ugovorne uslove. Takođe, ako država ili centralna banka čvrsto kontrolišu bankarski sistem, efekti moralnog hazarda biće vjerovatno beznačajni.

Problem slobodnog jahača predstavlja još jedan od problema vezanih za funkcionisanje finansijskog sistema, i posebno je važan na tržištima hartija od vrijednosti.² Banke, kao najznačajnije finansijske institucije, imaju posebne prednosti u odnosu na druge finansij-

ske posrednike u rješavanju problema asimetričnih informacija, zato što imaju sposobnost uključivanja u dugoročne odnose sa klijentima i davanje zajmova korišćenjem aranžmana kreditnih linija, niže troškove monitoringa; mogućnost sprječavanja rizika koji preuzimaju zajmoprimci (strah od neodobravanja budućih zajmova); obaveze kolaterala i slično.

Bankarski sistemi u ekonomijama u razvoju su u prethodne dvije decenije bili pod uticajem tri značajna trenda i to: privatizacija, konsolidacija i ulazak stranih banaka u velikom obimu (Turner, 2006). Sve zemlje u razvoju su prošle kroz sistemske bankarske krize ili kroz oštre probleme u bankarskom sistemu tokom procesa tranzicije. Posebno su krize u Latinskoj Americi u periodu 1994-95. godine, i u Aziji u periodu 1997-98. godine, pogodile veliki broj zemalja, i imale sistemske posljedice na međunarodni finansijski sistem u cjelini (Bussière i Fratzscher, 2002). Ključni faktori koji su doprinikli nastanku kriza u ovim zemljama bili su ogromni iznosi naslijeđenih dugova iz prethodnih socijalističkih režima, kao i nedovoljno poznavanje preduzeća i banaka sa funkcionisanjem tržišne ekonomije (Tang, Zoli i Klytchnikova, 2000). Kada dođe do kolapsa bankarskog sistema, proizvodnja drastično opadne, i ekonomiji je potrebno dugo vremena da se oporavi.

Da nijesu samo zemlje u tranziciji prolazile kroz sistemske bankarske krize, dokaz je Japan u posljednjoj deceniji XX vijeka, kao i SAD u 2007. godini. Krizu u SAD-u su proučavali Reinhart i Rogoff (2008), i to upoređujući je sa pet velikih kriza, koje uključu-



ju: Španiju (1977), Norvešku (1987), Finsku (1991), Švedsku (1991) i Japan (1992). Pet navedenih velikih kriza su sve dugotrajne finansijske krize koje su povezane sa ogromnim padom ekonomske aktivnosti na duži period. Norveška bankarska kriza je pogodila skoro 2/3 bankarskog sistema i dovela do nacionalizacije tri najveće norveške banke. To je bila prva sistemska kriza u industrijalizovanim zemljama od '30-ih

1 *Finansijski sistem ima ekstremno važnu funkciju u ekonomiji jer omogućava prenos sredstava od agenata koji nemaju prilike za produktivne investicije, ka onima koji ih imaju (Mishkin, "Understanding Financial Crises: A Developing Country Perspective", 1996).*

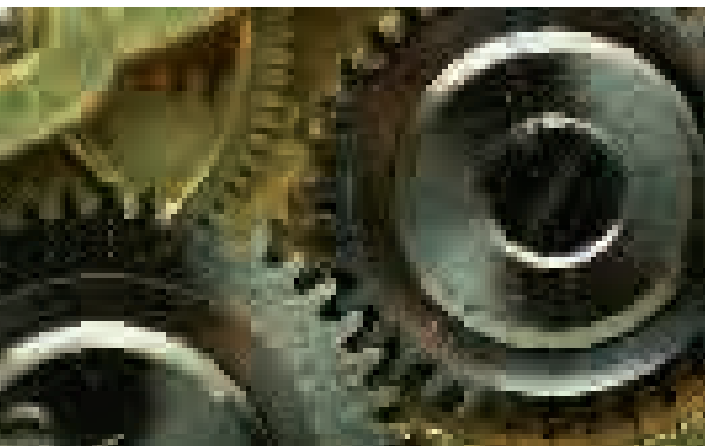
2 *Na tržištima hartija od vrijednosti, ovaj problem se manifestuje na sljedeći način: investitori koji ne troše resurse na sakupljanje informacija još uvijek*

moгу da koriste prednosti informacija u odnosu na druge ljude koji su sakupili informacije. Ako neki investitori traže informacije o tome koje su hartije od vrijednosti potcijenjene, a zatim ih kupe, drugi investitori koji nijesu platili za informaciju mogu da urade to isto. Ovo će dovesti do toga da investitori koji su tražili informaciju više neće moći da zarađuju cjelokupno povećanje vrijednosti koje nastaje od dodatnih informacija.

definition, banking crises are considered from the aspect of liquidity and solvency. (Ishihara, 2005).

Dominant contemporary theory which explains banking crises is the theory of asymmetric information. Asymmetric information represents the key obstacle for functioning of a financial system.¹ Under its influence the situation arises where one party to a financial agreement has less clear information than the other party. With asymmetric information present, the structure of capital is the key determinant of the bank's performance, since it influences the behavior of various stakeholders, such as management, shareholders and depositors. (Villar, 2006). Asymmetric information explains why banks have more important role in financial systems in the countries under development and transition, and this is due to greater difficulties in obtaining information on private companies. When the quality of information on such companies is poor, the problems of asymmetric information are more distinctive and it will be more difficult for companies to issue securities. The lesser role of securities markets in these countries leaves more space to banks. Asymmetric information leads to two basic problems in the financial system: negative selection and moral hazard (Mishkin, 1996).

Negative selection arises before the transaction is made since the borrowers of lesser quality and bearing higher risk are most willing to take a loan or pay the highest interest rate, knowing that they will probably not repay it. Therefore, participants the most likely to produce the negative outcome will be most likely



selected. To minimize the problem of negative selection, it is necessary for lenders to distinguish good from bad credit risks.

Moral hazard arises when the transaction has been made since the lender is exposed to the hazard that the borrower has a motif to get involved in activities which are not desirable (i.e. immoral) from the point of view of the lender. The borrower has incentive to

focus on projects with higher risk where it would benefit well if they succeed, while the lender bears most of the loss if the project fails. Moral hazard also arises because the imposed costs may make it too expensive for the lender to prevent it, even when fully informed about the activities of the borrower. In order to minimize the moral hazard issue, the lender must impose stricter contracting conditions. Also, if the state or the central bank tightly supervises the banking system, the effects of moral hazard will probably be insignificant.

Free rider problem is another problem related to financial system functioning, and is particularly important in securities markets.² Banks, as the most significant financial institutions, have special advantages in comparison to other financial intermediaries in solving the asymmetric information problems, because they are capable to get involved in long-term relations with clients and extend loans through credit line arrangements, they have lower monitoring costs; possibility for preventing risk undertaken by borrowers (fear from non-extending of future loans); collateral obligations and the like.

Banking systems in economies under development have been for the last two decades under the influence of three significant trends, such as: privatization, consolidation and entry of foreign banks in large scale (Turner, 2006). All countries under development were subject to systemic banking crises or to harsh problems in the banking system throughout the transition process. Particularly, the crises in Latin America during the period 1994-95, and in Asia in the period 1997-98 affected a large number of countries and had systematic consequences on international financial system as a whole (Bussière and Fratzscher, 2002). The key factors that contributed to the crises to arise in these countries were huge amounts of debts inherited from previous socialist regimes, as well as insufficient knowledge of enterprises and banks about market economy functioning (Tang, Zoli and Klytchnikova, 2000). When the collapse of the banking system takes place, the production drastically declines, and economy takes a long time to recover.

The fact that it's not only countries under transition to have been subject to systemic banking crises, evidence is Japan in the last decade of the 20th century, as well as the USA in 2007. The crisis in the USA was studied by Reinhart and Rogoff (2008), through its comparison with five major crises, including: Spain (1977), Norway (1987), Finland (1991), Sweden (1991) and Japan (1992). The five mentioned crises are all long-term financial crises related to huge decline of economic activity for a longer period. Norwegian banking crisis affected almost 2/3 of the banking system and brought three largest Norwegian banks to nati-

¹ Financial system has an extremely important function in economy since it enables the transfer of funds from agents who haven't got opportunity for productive investments to those who have (Mishkin, "Understanding Financial Crises: A Developing Country Perspective", 1996).

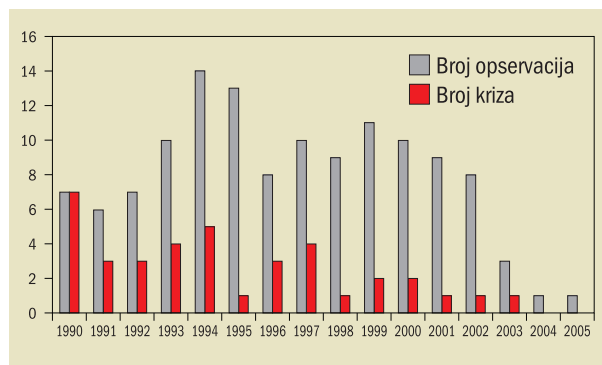
² In securities markets, this problem is reflected in the following manner: investors who do not spend resources on collecting information still may use advantages

of information with regard to other people who collected information. If some investors are looking for information about what securities are underestimated, and then buy them, other investors who did not pay for the information may do the same. This will lead to the situation that investors who were looking for information won't be able to earn the total increase of the value contributed by the additional information.

godina. Bankarska kriza u Finskoj je bila najoštrija od svih nordijskih kriza, i troškovi njenog saniranja su dostigli 8-10% GDP-a (2000). Osnovna razlika između sistemske bankarske krize u Japanu, u odnosu na krize u ostalim industrijskim zemljama je spora i neefikasna politika Ministarstva finansija u cilju rješavanja finansijske krize.

Autori Caprio i Klingebiel (2002) su u svom istraživanju o sistemskim bankarskim krizama u periodu 1990-2005. godine, mjerili njihovo prosječno trajanje. Ono se kretalo od jedne do sedam godina. Od ukupno 31 zemlje koja je imala bar jednu sistemska krizu u tom periodu, dvije zemlje su imale krizu koja je trajala sedam godina (Ekvador i Jamajka). Sistemska kriza je u pet zemalja iz uzorka trajala godinu dana (Kina, Hrvatska, Jordan, Liban i Šri Lanka). Prosječno trajanje sistemske bankarske krize u odabranom uzorku za dati period je nešto više od tri godine.

Frekvencija bankarskih kriza u periodu 1990-2005. godine, prikazana je na grafiku 1. Autori Duttagupta i Cashin su uočili da je u periodu 1990-2000. godine broj kriznih epizoda bio znatno veći, nego poslije 2000. godine. Uzorak obuhvata godišnje opservacije iz 50 brzo rastućih tržišta i zemalja u razvoju u periodu 1990-2005. godine, u Aziji, Africi, Evropi, Južnoj Americi, Srednjem Istoku i Karibima. Učestalost bankarskih kriza je bila visoka početkom '90-ih godina, i opadala je postepeno kako se približavao kraj decenije. Od 50 zemalja iz uzorka, 31 je imala bar jednu bankarsku krizu tokom ovog perioda koja je trajala 2-3 godine, iako je u pojedinim zemljama kriza trajala više od šest godina (npr. Ekvador i Jamajka). Samo pet zemalja je doživjelo ponovljene bankarske krize tokom istog perioda (Argentina i Turska su imale tri krize, dok su Brazil, Indonezija i Nikaragva imale dvije). U uzorku se nalazi i kontrolna grupa od 19 zemalja koje nijesu imale nijednu sistemska bankarsku krizu tokom ovog perioda.



Grafik 1: Bankarske krize u periodu 1990-2005. godine
Izvor: R. Duttagupta i P. Cashin, "The Anatomy of Banking Crises", 2008.

Povećana nesolventnost banaka povezana je sa procesima deregulacije i globalizacije finansijskog sektora. Glavna komponenta finansijske liberalizacije je liberalizacija u određivanju kamatne stope (Kraft i Galac, 2007). Jak porast konkurencije na bankarskom tržištu imao je neposredni efekat na sužavanje kamatne marže i na smanjenje profitabilnosti banaka. Bankarski menadžeri u početnom periodu nijesu bili

dovoljno spremni da kvantifikuju znatno povećanu volatilitnost banaka i da adekvatno kontrolišu pojačane bankarske rizike.

U periodu između 1995. i 2002. godine, u zemljama u razvoju, primijećen je vrlo značajan procenat učešća stranih banaka, pogotovo u Istočnoj Evropi, Centralnoj Aziji i Latinskoj Americi. Na primjer, u Južnoj Americi je procenat učešća stranih banaka povećan sa 19% na 37%, i to posebno u Meksiku gdje je zabilježen rast sa 2,31% na 61,9%, i u Urugvaju gdje je zabilježen rast sa 24% na skoro 95% (Cull i Martinez Peria, 2007). U Africi je takođe zabilježen veći procenat ulaska stranih banaka, ali manje nego u Istočnoj Evropi, Centralnoj Aziji i Latinskoj Americi, dok je u Istočnoj i Južnoj Aziji, kao i Srednjoistočnoj i Sjevernoj Africi zabilježena stagnacija ili čak pad.

Empirijski, postoje određeni dokazi da ulazak stranih banaka čini domaći bankarski sistem manje osjetljivim na unutrašnje i više osjetljivim na spoljne šokove. Globalne banke su generalno veće, i imaju više diverzifikovan portfolio aktive, u odnosu na lokalne banke. Tržišta u razvoju definitivno nijesu izolovana od globalnih finansijskih šokova, kao što se vrlo jasno pokazalo u azijskim krizama, i što se i danas pokazuje tačnim. Studija Demirgüç-Kunt, Levine i Min (1999), bazirana na radu Demirgüç-Kunt i Detragiache (1997), pokazuje da prisustvo stranih banaka smanjuje vjerovatnoću bankarske krize u domaćoj zemlji (Del Negro i Kay, 2002). Finansijski sistem pod reperesijom je, u krajnjem slučaju, zaštićen od pojedinih rizika povećanih finansijskom liberalizacijom, posebno uklanjanje kontrole kamatne stope i liberalizacije ulaska. Posebno gdje makroekonomske okolnosti nijesu stabilne, opšti nivo kamatnih stopa može postati vrlo promjenljiv usljed liberalizacije, i mogu ostati vrlo visoke u realnim vrijednostima, na duži period.

Dvostruka kriza je situacija kada se bankarska kriza dogodi dvije godine ranije, tokom ili poslije početka valutne krize (Hutchison i Neuberger, 2002). Da bi se vidjelo koliko puta se u toku perioda t valutna kriza dešava istovremeno sa bankarskom krizom (At, t), odnosno bez bankarske krize (Ct, t), može se koristiti matrica prilagođena literaturi o bankarskim i valutnim krizama. Slična matrica bi se mogla napraviti da se izračuna koliko puta je valutnoj krizi u periodu t, prethodila ili, nakon koje je uslijedila bankarska kriza u periodu t-1, odnosno t+1, respektivno. Sljedeća matrica se koristi kada se radi o jednoj zemlji, dok se slična matrica može konstruisati za identifikovanje veza između više zemalja.

	Valutna kriza _t	Nema valutne krize _t
Bankarska kriza _t	At, t	Bt, t
Nema bankarske krize _t	Ct, t	Dt, t

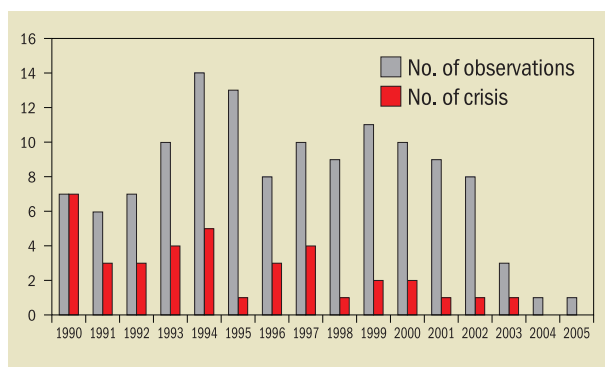
Tabela 1: Matrica prilagođena literaturi o bankarskoj i valutnoj krizi
Izvor: A. Vila, "Asset price crises and banking crises: some empirical evidence", 2008.

Hutchison i Neuberger (2002) su u svom istraživanju uzeli podatke za period 1975-1997. godine, gdje su došli do zaključka da je prosječno trajanje bankarske

onalization. This was the first systemic crisis in the industrialized countries from 30's. The banking crisis in Finland was the harshest of all Nordic crises, the costs of its rehabilitation reached 8-10% GDP (2000). The basic difference between the systemic banking crisis in Japan and the crises in other industrial countries is slow and inefficient policy of the Ministry of Finance in resolving the financial crisis.

Authors Caprio and Klingebiel (2002) measured the average duration of banking crises in all their research works related to banking crises in the period 1990-2005. Out of the total 31 countries which had at least one systemic crisis during that period, two countries had crises that lasted seven years (Ecuador and Jamaica). The systemic crises in five sample countries lasted one year (China, Croatia, Jordan, Lebanon and Sri Lanka). Average duration of systemic banking crises in the selected sample for the given period is somewhat more than three years.

The frequency of banking crises in the period 1990-2005 is shown in the graph 1. Authors Duttagupta and Cashin noticed that in the period 1990-2000 the number of crisis episodes was significantly higher than after 2000. The sample includes observations from 50 fast growing markets and countries under development in the period 1990-2005 in Asia, Africa, Europe, South America, Middle East and Caribbean's. The frequency of banking crises was high at the beginning of 90's and was gradually downsizing towards the end of the decade. Out of 50 sampled countries, 31 had at least one banking crisis during this period which lasted 2-3 years, although in some countries the crisis lasted longer than six years (e.g. Ecuador and Jamaica). Only five countries re-experienced banking crises during the same period (Argentina and Turkey had three crises each, while Brazil, Indonesia and Nicaragua had two each). The sample also includes the control group of 19 countries which had no systemic banking crisis during this period.



Graph 1: Banking crises in the period 1990-2005
Source: R. Duttagupta and P. Cashin, "The Anatomy of Banking Crises", 2008.

Increased insolvency of banks is related to the processes of deregulation and globalization of the financial sector. The main component of financial liberalization is the liberalization in setting of interest rate (Kraft and Galac, 2007). Strong growth of competition in the banking market had direct effect on narrowing of interest margin and on the decline of the profitability of banks. Banking managers in the initial period were not sufficiently re-

ady to quantify the significantly increased volatility of banks and to adequately control the strengthened risks.

In the period between 1995 and 2002, in the countries under development, a very significant percentage of the share of foreign banks, particularly in the Eastern Europe, Central Asia and Latin America was noticed. For example, in the South America the percentage of the share of foreign banks increased from 19% to 37%, particularly in Mexico where there was the growth from 2.31% to 61.9%, and in Uruguay where the growth was from 24% to almost 95% (Cull and Martinez Peria, 2007). In Africa there was higher percentage of entry of foreign banks, but less than in the Eastern Europe, Central Asia or Latin America, while in the Eastern and South Asia, as well as in Middle-east and North Africa there was stagnation or even fall.

Empirically, there are specific evidences that the entry of foreign banks makes domestic banking system less sensitive to internal and more sensitive to external shocks. Global banks are generally larger, and have more diversified portfolio of assets, in comparison to local banks. Markets under development definitively are not isolated from global financial shocks, which was very clearly proven in Asian crises, and is being proven correct even today. The Study Demirgüç-Kunt, Levine and Min (1999), based on the work Demirgüç-Kunt and Detragiache (1997), indicates that the presence of foreign banks decreases the probability of banking crisis in the domestic country (Del Negro and Kay, 2002). Financial system under repression is, in the final instance, protected from specific risks increased by financial liberalization, particularly removal of interest rate control and liberalization of entry. Particularly where macroeconomic circumstances are not stable, general level of interest rates may become very volatile due to the liberalization, and may remain very high in realistic values for a longer period of time.

Double crisis is the situation when a banking crisis happens two years before, during or after the beginning of the currency crisis (Hutchison and Neuberger, 2002). In order to see how many times during the period t the currency crisis happens simultaneously with the banking crisis (At, t), or without the banking crisis (Ct, t), the matrix adjusted with the literature on banking and currency crises may be used. Similar matrix could be made to calculate how many times the currency crisis in the period t , was preceded by or followed by the banking crisis in the period $t-1$, or $t+1$, respectively. The following matrix is used when it is about one country, while similar matrix may be constructed for identification of relations among several countries.

	Currency crisis _t	No currency crisis _t
Banking crisis _t	At, t	Bt, t
No banking crisis _t	Ct, t	Dt, t

Table 1: Matrix adjusted to the literature on banking and currency crises
Source: A. Vila, "Asset price crises and banking crises: some empirical evidence", 2008

Hutchison and Neuberger (2002) used data for the period 1975-1997 in their research, where they concluded that the average duration of the banking cri-

krize 3,2 godine, a valutne samo 1,3 godine. Prema drugom istraživanju, koje je obuhvatilo 23 zemlje koje su imale jednu sistemsku bankarsku krizu (Boyd, Gomis, Kwak i Smith, 2000), prosječno trajanje krize je bilo 5,1 godinu, dok je prosječno trajanje krize, kod 13 obuhvaćenih zemalja koje su imale više bankarskih kriza, iznosilo 3,2 godine.

MAKROEKONOMSKI I MIKROEKONOMSKI FAKTORI KRIZA

Upravljanje sistemskim bankarskim krizama može biti znatno kompleksnije od upravljanja pojedinačnom bankarskom krizom. Razloga za to je mnogo, a najvažniji je taj što je krizom zahvaćen veliki dio ili cijeli bankarski sistem jedne zemlje, te samim tim postoji čitav spektar makroekonomskih i mikroekonomskih faktora čije je uticaje teško izolovati i izmjeriti. Faktori bankarskih kriza mogu biti makroekonomski i mikroekonomski. Eksterni makroekonomski faktori su oni na koje se ne može uticati, ili pak može nedovoljno. Prema pojedinim autorima (Kamin, Schindler i Samuel, 2001), sljedeće varijable se posmatraju kao varijable eksternog šoka, jer su one skoro u potpunosti eksternog karaktera:

1. Procentualna promjena izvoznih cijena u odnosu na uvozne cijene u trgovini, i to u odnosu na prethodnu godinu (povećanje bi ojačalo poziciju platnog bilansa zemlje, i smanjio vjerovatnoću nastanka krize).
2. Realne kamatne stope na tromjesečne američke državne obveznice (veće realne kamatne stope na tromjesečne američke državne obveznice znače manje prilive kapitala, povećanje troškova otplate eksternog duga, i veću vjerovatnoću nastanka krize).
3. Promjene rasta GDP-a u industrijskoj zemlji, u odnosu na prethodnu godinu (veći inostrani rast bi trebao da ojača izvoz i smanji vjerovatnoću nastanka krize).

Postoje i varijable koje spadaju u tzv. intermedijarnu kategoriju, što znači da nijesu isključivo eksternog karaktera. S obzirom da nijesu isključivo eksternog karaktera, na njih se može u većoj mjeri uticati. U ovu grupu varijabli spadaju:

1. Odstupanje u realnim efektivnim deviznim kursovima (veći realni efektivni devizni kursevi su povezani sa nestabilnim eksternim pozicijama i povećavaju vjerovatnoću pojave krize).
2. Odstupanje u rastu izvoza, u odnosu na prosjek u prethodne tri godine (za povećanje izvoza se očekuje da ukaže na smanjenu potrebu za devalvacijom i smanjenje vjerovatnoće nastanka krize).
3. Racio bilans tekućeg računa/GDP (za povećanje ponude izvoza se očekuje da ukaže na smanjenu potrebu za devalvacijom i smanjenje vjerovatnoće nastanka krize).
4. Racio strane direktne investicije/GDP (veći iznos stranih direktnih investicija pokazuje manji udio tekućeg računa koji se finansira od nestabilnijih priliva portfolija, i pokazuje manju vjerovatnoću nastan-

ka krize; veći racio stranih direktnih investicija može biti pokazatelj atraktivne ekonomske politike).

Finansijska liberalizacija se često smatra glavnim, ili jednim od glavnih makroekonomskih internih faktora bankarskih kriza. Tabela 2 pokazuje odnos između bankarskih kriza i finansijske liberalizacije u periodu 1973-1998. godine. Podaci pokazuju da se od ukupno 60 bankarskih kriza koje čine uzorak, pet godina poslije finansijske liberalizacije dogodilo 36 kriza (60%). Takođe, od ukupno 92 finansijske liberalizacije, 40 ih je dovelo do bankarske krize u narednih pet godina (43,48%).

Međutim, mnogo je češće riječ o uticaju više raz-

Ukupan broj bankarskih kriza	60
Prije finansijske liberalizacije	15
Pet godina poslije finansijske liberalizacije	36
Više od pet godina poslije finansijske liberalizacije	9
Ukupan broj liberalizacija	92
Broj liberalizacija koje nijesu imale krizu u sljedećih pet godina	52
Broj liberalizacija koje su imale krizu u sljedećih pet godina	40

Tabela 2: Bankarske krize i finansijska liberalizacija
Izvor: G. Mehrez i D. Kaufmann, "Transparency, Liberalization and Banking Crises", 2000.

ličitim internih makroekonomskih faktora. Sljedeće varijable se smatraju domaćim varijablama, i uglavnom odražavaju politiku zemlje, kao i ostale ekonomske uslove:

1. Odstupanje realnog rasta GDP-a od njegovog prosjeka u odnosu na prethodne tri godine (očekuje se da će povećanje GDP-a smanjiti vjerovatnoću krize, s obzirom da se smanjuje pritisak depresijacije).
2. Racio fiskalni deficit javnog sektora/GDP (ukoliko je veći deficit očekuje se povećanje vjerovatnoće nastanka krize, s obzirom da se povećava osjetljivost na šokove, i smanjuje povjerenje investitora).
3. Trogodišnji rast zajmova domaćih banaka (u suštini, visoke stope rasta zajmova se povezuju sa mogućim pritiskom na tražnju, povećanjem neperformansnih zajmova, pa stoga i nastankom finansijske krize; u svakom slučaju, u granici u kojoj se krediti banaka često usporavaju kako se rast usporava, i banke predviđaju probleme; viši rast kredita banke može biti povezan sa nižom vjerovatnoćom nastanka krize).
4. Trogodišnji rast racija M2/internacionalne rezerve (povećanje racija znači i povećanje vjerovatnoće nastanka finansijske krize, zato što to odražava visok rast domaćih kredita, i jer je povezano sa niskim pokrićem čvrstom valutom u pasivi centralne banke).
5. Odstupanje od dugoročnog prosjeka eksternog racija dug/izvoz (visok nivo dospjelog duga označava veću osjetljivost na kolebanja u tokovima kapitala, i vjerovatnoću nastanka krize).
6. Odstupanje racija internacionalne rezerve/kratkoročni eksterni dug, uzet kao prosjek na dugi rok (veći racio znači manju osjetljivost na probleme sa likvidnošću, i samim tim manju vjerovatnoću nastanka finansijske krize).

sis is 3.2 years, and the currency crisis only 1.3 years. According to another research, which included 23 countries which had one systemic banking crisis (Boyd, Gomis, Kwak and Smith, 2000), average duration of the crisis was 5.1 years, while the average crisis duration in 13 included countries which had several banking crises was 3.2 years.

MACROECONOMIC AND MICROECONOMIC FACTORS OF CRISES

Systemic banking crisis management may be significantly more complex than individual banking crisis management. The reasons are numerous, and the most important is that the crisis affects a large part of or overall banking system of one country, and therefore there is a whole range of macroeconomic and microeconomic factors which impacts are difficult to be isolated or measured. The factors of banking crises may be macroeconomic or microeconomic. External macroeconomic factors are those which may not be influenced on, or may, but insufficiently. According to some authors (Kamin, Schindler and Samuel, 2001), the following variables are observed as external shock variables, since they are nearly fully of external character:

1. Percentage change of export prices in relation to import prices in trading, specifically in comparison to the previous year (increase would strengthen the payment balance position of the country, and reduce the probability of crisis taking place).
2. Realistic interest rates on three-month American government bonds (higher real interest rates on three-month American government bonds mean lesser capital inflows, increase of external debt repayment costs, and higher probability of the crisis to arise).
3. The changes in the growth of GDP in an industrial country in relation to the previous year (higher foreign growth should strengthen the import and reduce the probability of crisis taking place).

Also there are variables which belong to the so-called intermediary category, which means they are not exclusively of external character. Since they are not fully of external character, they may be influenced on to a higher extent. This group of variables includes:

1. Deviation in real effective FX rates (higher effective FX rates are related to unstable external positions and they increase the probability for a crisis to arise).
2. Deviation in the growth of export, in comparison to the average in the previous three years (the increase of export is expected to point out the reduced need for devaluation and reduction of the probability for a crisis to arise).
3. The current account balance/GDP ratio (the increase of export supply is expected to point out the reduced need for devaluation and reduction of the probability for a crisis to arise).
4. The foreign direct investment/GDP ratio (higher amount of foreign direct investments indicates smaller share of the current account which is financed by unstable inflows of the portfolio, and

indicates lesser probability of the crisis to arise; higher ratio of foreign direct investments may be the indicator of attractive economic policy).

Financial liberalization is frequently considered to be the main, or one of the main macroeconomic internal factors of banking crises. Table 2 indicates the ratio between banking crises and financial liberalization in the period 1973-1998. The data show that out of total 60 sample banking crises, 36 crises (60%) took place five years after the financial liberalization. Also, out of total 92 financial liberalizations, 40 led them to banking crisis in the following five years (43.48%).

Total number of banking crises	60
Prior to financial liberalization	15
Five years after the financial liberalization	36
More than five years after the financial liberalization	9
Total number of liberalizations	92
Number of liberalizations without crises in the following five years	52
Number of liberalizations that had crisis in the following five years	40

Table 2: Banking crises and financial liberalization
Source: G.Mehrez and D.Kaufmann, "Transparency, Liberalization and Banking Crises", 2000

However, much more frequently it is about the impact of several various internal macroeconomic factors. The following variables are considered to be domestic variables and mostly they reflect the policy of the country, as well as other economic conditions:

1. The deviation of GDP real growth from its average in relation to the previous three years (the increase of GDP is expected to reduce the probability of the crisis, since it reduces the pressure of depreciation).
2. Public sector fiscal deficit /GDP ratio (if the deficit is higher, the increase of probability of crisis to arise is expected, since the sensibility to shocks increases, and the trust of investors decreases).
3. Three-year growth of loans of domestic banks (in fact, high rates of loan growth are related to possible pressure on demand, increase of nonperforming loans, and therefore financial crisis; in any case, within the limits in which the loans of banks are frequently slowed down as the growth slows down, and banks foresee problems; higher growth of loans of the bank may be linked with lower probability of the crisis to arise).
4. Three-year growth of M2/international reserves ratio (increase of ratio means increase of probability of financial crisis to arise, because it reflects high growth of domestic loans, and because it is related to low cover by firm currency in the liabilities of the central bank).
5. Deviation from long-term average of external debt/export ratio (high level of matured debt means higher sensitivity on fluctuations in capital flows and probability of the crisis to arise).
6. Deviation of international reserves/short-term

Uzroci sistemskih bankarskih kriza mogu biti kombinacija eksternih i internih makroekonomskih faktora. To je bio slučaj sa azijskom krizom koja je zahvatila devizna tržišta i tržišta akcija (Tajland, Filipini, Singapur, Malezija, Indonezija i Južna Koreja). Pored makroekonomskih postoje i značajni mikroekonomski faktori rizika koji mogu da dovedu individualne banke ili čak čitav bankarski sistem u stanje nedovoljne solventnosti, pa i bankarske krize. Neefikasan menadžment se smatra glavnim faktorom odgovornim za propast banaka i x-inefikasnost (Styrin, 2004). Prema pojedinim autorima (Ćirović, 2006) mikroekonomski rizici neposredno izviru iz poslovanja banaka dovodeći do slabljenja njihove pozicije, i to su:

- Pihvatanje pretjerano visokih kreditnih rizika koji nijesu kompenzovani odgovarajućim stopama prinosa kao i formiranjem rezervi i dodatnog kapitala banaka;
- Pihvatanje pretjeranih tržišnih rizika, naročito u vezi sa dilerskim poslovanjem vrijednosnim papirima i finansijskim derivatima;
- Pretjerane ročne i valutne neravnoteže;
- Nedovoljna stopa profitabilnosti banaka i sledstveno formiranje nedovoljne stope kapitala u odnosu na aktivu ponderisanu rizikom i
- Slab menadžment banke je generalni faktor koji utiče na formiranje pretjeranih rizika i nepovoljnih performansi poslovanja, što dovodi do krize bankarske institucije. Top menadžment banke je odgovoran za nedovoljno formiranje dohotka i profita banke kao i za neadekvatnu procjenu rizika i načina njegovog pokrivanja.

Dakle, od mikroekonomskih faktora, presudan uticaj gotovo uvijek imaju slaba supervizija i regulacija, kao i slab menadžment. Loše upravljanje bankom, a samim tim nedovoljno posvećena pažnja upravljanju rizicima, internoj kontroli, kao i nedostatak dobre prakse bankarskog poslovanja glavni su uzroci nastanka kriza u banci.³

Makroekonomski i mikroekonomski faktori često stoje u interakcionom odnosu. Pri tome, mikroekonomski faktori imaju bazični značaj za objašnjenje izbijanja krize individualnih banaka, dok su makroekonomski faktori značajni kod izbijanja systemske krize bankarskog sistema. Mikroekonomski faktori generalno djeluju na pogoršanje/poboljšanje pozicije solventnosti i likvidnosti banaka, dok vremenski momenat (tajming) izbijanja krize individualnih banaka ili grupe banaka često zavisi od pogoršavanja makroekonomskih faktora.

INDIKATORI I POSLJEDICE BANKARSKIH KRIZA

U susret krizi, banke se obično oslanjaju sve više na zaduživanje iz inostranstva, koje zatim presušuje.

Smanjenje autputa, porast i zatim smanjenje inflacije, i pad realnog efektivnog deviznog kursa, prati sve poteškoće bankarskog sektora, bez obzira na njihovu snagu. Bitna karakteristika početka krize je sužavanje spoljnog zaduživanja banaka. Spoljna kretanja su faktori potpuno naduvane bankarske krize, dok su domaće varijable glavni vodeći indikatori nepovoljnih, ali obuzdanih bankarskih problema. Nakon brzog rasta, realni BDP, potrošnja i investicije počinju da opadaju, i ubzanje inflacije iznenada dobija obrt. Bankarski krediti odobreni privatnom sektoru se povećavaju ubrzano, dostižu maksimum, a zatim opadaju. Realne kamatne stope se odmjereno povećavaju, dok realni efektivni devizni kurs apresira i zatim depresira.

Prema MMF-u i navedenim autorima, sljedeće varijable povezane sa bankarskom krizom godinu dana prije bankarske krize, ili još ranije su: ubrzan rast domaćih kredita, povećanje racija M3/M0 (MMF), apresijacija realnog deviznog kursa, ekspanzija na berzi, ekspanzija poslovnog ciklusa, visoke realne kamatne stope, rastući novčani multiplikator (Kaminsky i Reinhart) i slabost finansijske strukture (Caprio i Klingebiel).

Takođe, prema istim autorima, varijable povezane sa bankarskom krizom godinu dana prije bankarske krize, ili manje su: pad berze i tržišta nekretnina (MMF, Kaminsky i Reinhart), opadajući trend ekonomske aktivnosti (MMF), ubrzan rast pozajmljivanja banaka i nepovoljni uslovi trgovine (Caprio i Klingebiel). Prema MMF-u, varijable koje se javljaju istovremeno sa bankarskom krizom su: rast depozita i visoke realne kamatne stope koje dostižu vrhunac, autput je značajno ispod trenda i berza znatno ispod maksimuma.

U toku '80-ih i '90-ih godina, bankarske i/ili valutne krize su se često događale istovremeno (Kaminsky i Reinhart, 1999). Iako teoretski nije utvrđeno objašnjenje prirode veze između njih, i ne postoji jasno određena uzročna veza, utvrđeno je da su troškovi saniranja dvostrukih kriza mnogo veći nego kada se one jave pojedinačno. Visoki troškovi se prije svega odnose na smanjenje dohotka i povećanje nezaposlenosti u zemlji i vani.

Problemi u bankarskom sektoru obično prethode valutnoj krizi, zatim valutna kriza produbljuje bankarsku krizu, i tako se aktivira začarani krug. U sljedećoj tabeli dat je prikaz potencijalnih vodećih indikatora valutnih kriza, koji su prema klasifikaciji pojedinih autora (Kaminsky i dr) podijeljeni u pet grupa. (Tabela 3 na sljedećoj strani)

Kao potencijalne vodeće indikatore valutnih kriza, pojedini autori (Kaminsky, Lizondo i Reinhart, 1997) navode sljedeće: internacionalne rezerve, uvozi, izvozi, uslovi trgovine (racio uvoz prema izvozu po jedinici vrijednosti), odstupanje indeksa realnog deviznog kursa od trenda, razlika između domaćih i stranih kamatnih stopa na realne depozite, monetarni ekvilibrijum (razlika između M1 i procijenjene tražnje

³ Lekcije koje se mogu izvući iz slučaja banke Barings, prije svega se odnose na: nedostatak interne kontrole, nedostatak razumijevanja poslova, lošu superviziju zaposlenih i nedostatak jasnog izvještavanja. Pogrešno bi bilo optužiti samo jednu osobu za to što se desilo Barings banci, jer ključni uzroci odnose se na loše menadžere koji nisu preuzeli odgovornost za uspostavljanje sistema i postupaka koji bi spriječili bankrot banke. Značajan dio izvršnog osoblja kasnije je

penzionisan ili otpušten iz službe. Dakle, potrebno je u banci posvetiti izuzetnu pažnju prethodno navedenim faktorima, odnosno potencijalnim uzročnicima krize. Barings je svakako jedan od najboljih primjera kako kombinacija prevare, tržišnog rizika i neadekvatna interna kontrola mogu dovesti do sloma. Nedostatak interne kontrole i supervizije je ovu banku skupo koštao, uvrstivši je u sam vrh najvećih bankarskih prevara svih vremena.

external debt ratio, taken as average for a longer period (higher ratio means lesser sensibility to liquidity problems, and therefore lesser probability of financial crisis to arise).

The causes of systemic banking crises may be a combination of external and internal macroeconomic factors. This was the case with Asian crisis which affected FX markets and share markets (Thailand, Philippines, Singapore, Malaysia, Indonesia and South Korea). In addition to macroeconomic there are significant microeconomic risk factors which may bring individual banks or even overall banking system in the condition of insufficient solvency, even banking crisis. Inefficient management is considered the key factor responsible for failures of banks and x-inefficiency (Styrin, 2004). According to specific authors (Ćirović, 2006) microeconomic risks directly arise from banks' operations leading to weakening of its position, and they are as follows:

- Acceptance of excessively high credit risks which are not offset by corresponding return rates as well as formation of reserves and additional capital of banks;
- Acceptance of excessive market risks, particularly with regard to dealer operations in securities and financial derivatives;
- Excessive maturity and currency disbalance;
- Insufficient rate of profitability of banks and consequently formation of insufficient rate of capital in relation to risk weighted assets and
- Poor management of the bank is a general factor which influences the formation of excessive risks and unfavorable operating performance, which leads to the banking institution crisis. Top management of the bank is responsible for insufficient formation of income and profit of the bank as well as for inadequate assessment of risks and manner of its covering.

Namely, out of microeconomic factors, the critical impact almost always lies on poor supervision and regulation, as well as poor management. Poor bank management, and therefore insufficiently paid attention to risk management, internal control, as well as lack of good practice of banking operations are the main causes for crises to arise in a bank.³

Macroeconomic and microeconomic factors frequently have interactive relationship. Thereby, microeconomic factors have basic significance for explaining the breaking out of crisis of individual banks, while macroeconomic factors are significant in breaking out of a systemic banking system crisis. Microeconomic factors generally affect aggravation/improvement of the position of solvency and liquidity of banks, while timing of breaking out of individual banks or a group of banks frequently depends on aggravation of macroeconomic factors.

INDICATORS AND CONSEQUENCES OF BANKING CRISIS

In meeting the crisis banks usually increasingly rely on borrowings from abroad, which afterwards dries up. Reduction of the output, increase and then decrease of the inflation and fall of the real effective exchange rate, accompanies all difficulties of the banking sector, regardless of their intensity. Important feature of the outbreak of the crisis is narrowing of the foreign borrowing for banks. Foreign trends are factors of completely over-proportionate banking crisis, while the domestic variables are main leading indicators of adverse, but restrainable banking problems. Following a rapid growth, real GDP, consumption and investments start to decline and inflation acceleration suddenly gains a twist. Bank credits approved for the private sector are rapidly increasing, reaching maximum and then declining. Real interest rates are steadily increasing, while the real effective interest rate is appreciated and then depreciated.

According to the IMF and stated authors, following variables connected with the banking crisis one year prior the banking crisis or even earlier are: rapid growth of domestic credit, increase of the M3/M0 ration (IMF), real exchange rate appreciation, stock market expansion, expansion of business cycle, high real interest rates, vigorous M2 multiplier (Kaminsky and Reinhart) and weakness of financial structure (Caprio and Klingebiel).

Additionally, according to the same authors, variables linked with the banking crisis one year or less before the beginning of the banking crisis are: collapse of stock and real-estate markets (IMF, Kaminsky and Reinhart), downtrend of economic activity (IMF), accelerated growth for bank lending and declining terms of trade (Caprio and Klingebiel). According to IMF, variables that occur simultaneously with the banking crisis are: growth of deposits and high real interest rates reaching peak, output is considerably below the trend and the stock market significantly below its maximum.

During 1980's and 1990's banking and/or currency crises have often happened in tandem (Kaminsky and Reinhart, 1999). Even though a theoretical explanation of the relation between these two was not established and there is no clearly set causative link, it was established that costs of bailout of twin crisis are much higher than if those would occur individually. High costs primarily refer to reduction of income and increase of unemployment in the country and outside of it.

Problems in the banking sector usually precede a currency crisis, than the currency crisis deepens the banking crisis and thus activating a vicious circle. Table below presents possible leading indicators of currency crisis, which are divided into five groups according to the classification of some authors (Kaminsky et al).

³ Lessons that may be learnt from the case of the bank Barings, are primarily related to: the lack of internal control, lack of understanding of operations, poor supervision of employees and lack of clear reporting. It would be wrong to accuse only one person for what happened to Barings Bank, since the key causes are related to poor managers who did not undertake responsibility for establishing the system and procedures to prevent the bankruptcy of the bank. A

significant part of executive staff subsequently retired or was released from duty. Therefore, it is necessary to pay exceptional attention to previously mentioned factors, i.e. potential causes of the crisis. Barings is certainly one of the best examples how the combination of fraud, market risk and inadequate internal control may lead to a crash. The lack of internal control and supervision cost this bank dearly, classifying it among the top largest banking frauds of all times.

MODELI	INDIKATORI
Prva generacija	Fiskalni deficit/GDP Prekoračenje ravnoteže realnog novca (M1)
Druga generacija	Izvozi Uvozi Realni devizni kurs Uslovi trgovine Proizvodnja Domaća realna kamatna stopa
Treća generacija	Domaći kredit/GDP M2/rezerve M2 multiplikator Depoziti Berzanske cijene Bankarske krize
Državni dug (Sovereign debt)	Dug/Izvozi Kratkoročni dug/Rezerve
Iznenadni prekidi (Sudden stops)	Svjetska realna kamatna stopa Strane devizne rezerve

Tabela 3: Indikatori valutnih kriza
Izvor: G.Kaminsky, "Varieties of currency crises", 2003.

za novcem), novčani multiplikator (M2/M0), kredit/GDP, kamatne stope na realne depozite, veza između domaćeg nominalnog pozajmljivanja i kamatnih stopa na depozite, depoziti u komercijalnim bankama (u nominalnom iznosu), M4/internacionalne rezerve, indeks GDP-a i indeks cijena akcija. Sljedeća matrica se koristi za procjenu potencijalnih indikatora valutnih kriza, i to za period od dvije godine.

	KRIZA	NEMA KRIZE
Signal postoji	A	B
Signal ne postoji	C	D

Tabela 4: Matrica ocjenjivanja indikatora
Izvor: G.Kaminsky, S.Lizondo i C.Reinhart, "Leading indicators of currency crises", 1997.

Gdje su:

- A - broj mjeseci pojave tačnih signala,
- B - broj mjeseci pojave pogrešnih signala,
- C - broj mjeseci bez signala a kriza nastupa i
- D - broj mjeseci bez signala i kriza ne nastupa.

Posljedice bankarskih kriza na monetarnu politiku mogu biti izuzetno negativne, zato što se iskrivljuje normalan odnos između monetarnih instrumenata i intermedijarnih i krajnjih ciljeva monetarne politike. Bankarske krize komplikuju vođenje monetarne politike zato što one destabilizuju novčanu tražnju i novčane multiplikatore, smanjuju efektivnost monetarnih instrumenata, i utiču na vezu između monetarnih indikatora i cijena. Takođe, bankarske krize mogu smanjiti mogućnost vlade da postigne željenu stopu inflacije (Martinez Peria, 2000).

Krize u bankarskom sistemu dovode do oštre kontrakcije ekonomskih aktivnosti, često i do finansijske krize, kroz šta je prošla većina privreda u razvoju. Upravo u ekonomijama u razvoju, poboljšanje bankarskog sistema je značajan i izazovan zadatak za nosioce ekonomske politike. Da bi se to postiglo, potrebno je poboljšati bankarsko okruženje da bi se omogućilo finansijskim institucijama da prihvate najbolju praksu u svojim poslovima. Privrede u razvoju su prepoznate po svom slabom bankarskom okruženju koje pokazuje da se ne radi o zdravim ekonomskim uslovima.

Štiglic je, poslije velike azijske finansijske krize 1997. godine, istakao značaj liberalizacije tržišta kapitala jer može biti "opasna", kao i "da u veoma integrisanom svijetu postoji potreba za pouzdanom međunarodnom finansijskom institucijom koja će da kreira pravila u cilju da pojača globalnu stabilnost i promoviše ekonomski rast u zemljama u razvoju". Velike globalne finansijske neravnoteže predstavljaju danas najveću prijetnju globalnoj finansijskoj stabilnosti (Štiglic, 2007).

SISTEMI RANOG UPOZORENJA I PREDVIĐANJA BANKARSKIH KRIZA

Iako bankarska kriza može doći kao iznenađenje, često su dostupne informacije koje mogu ukazivati na osjetljivost bankarskog sistema na krizu (Hardy, 1998). MMF koristi sisteme ranog upozorenja (Early Warning System, EWS) za predviđanje valutnih kriza, ali eksplicitno nema EWS za predviđanje bankarskih kriza. Davis i Karim (2007) smatraju da ovo djelimično može odražavati istorijsku dominaciju valutnih kriza, jer prema studiji koja je obuhvatila 20 zemalja, Kaminsky i Reinhart (1999) su zaključile da je tokom '70-tih godina bilo 26 valutnih i samo tri bankarske krize. Prema istom izvoru, bankarske krize su se učestvostručile, i to u periodu poslije liberalizacije, tokom '80-tih i '90-tih godina.

Literatura o sistemima ranog upozorenja i predviđanja bankarskih kriza (Gaytán i Johnson, 2002) može biti klasifikovana u skladu sa nivoom predviđanja (kriza pojedinačne banke i sistemske krize), i u skladu sa metodologijom koju koristi (kvalitativni indikatori problema, signalni pristup, ograničena zavisna procjena i modeli trajanja). Izgleda da su napor da se razviju EWS za bankarske, valutne i generalno finansijske krize u zemljama u razvoju veoma neuspješni. Jedan od osnovnih razloga je taj što su EWS bazirani na pogrešnim teoretskim hipotezama (Grabel, 2004).

U dizajniranju modela ranog upozorenja i određivanju varijabli koje će model uključivati, potrebno je da se ima u vidu da je u pitanju proces a ne čin. U literaturi o sistemima ranog upozorenja, nailazi se na dva tipa varijabli koje mogu biti od pomoći prilikom prognoziranja finansijskih kriza (Kamin, Schindler i Samuel, 2001):

- Varijable koje odražavaju osnovne determinante finansijske pozicije zemlje (npr. deficit tekućeg računa, neusklađenost realnog deviznog kursa, fiskalni deficit, operativni troškovi servisiranja duga, kapacitet otplate) i
- Varijable koje odražavaju očekivanja buduće krize na tržištu ili inicijalni efekti krize koja počinje (stvarne kamatne stope, eksterni rast obveznica i indeksi).

Na Grafiku 2 je prikazana opšta ekonomska logika sistema ranog upozorenja (EWS). Naime, sistem ranog upozorenja identifikuje destabilizujuću ekonomsku tendenciju, što utiče na ponašanje investitora/zajmodavca. Promjena ponašanja investitora/zajmodavca bi trebalo da dovede do stabilizujućih efekata na ekonomiju.

MODELS	INDICATORS
First generation	Fiscal Deficit/GDP Excessive Real Money (M1) Balances
Second Generation	Exports Imports Real Exchange Rate Terms of Trade Output Domestic Real Interest Rate
Third Generation	Domestic Credit/GDP M2/Reserves M2 Multiplier Deposits Stock Prices Banking Crisis
Sovereign Debt	Debt/Exports Short-term Debt/Reserves
Sudden Stops	SWorld Real Interest Rate Foreign Exchange Reserves

Table 3: Indicators of Currency Crisis
Source: G. Kaminsky, "Varieties of currency crises", 2003

As possible leading indicators of currency crisis, some authors (Kaminsky, Lizondo and Reinhart, 1997) state the following: international reserves, imports, exports, terms of trade (per unit value of exports over the unit value of imports), deviations of the real exchange rate from trend (in percentage terms), the differential between foreign and domestic real interest rates on deposits, "excess" real M1 balances (percentage difference between actual M1 in real terms and an estimated demand for M1), the money multiplier (of M2/M0), the ratio of credit to GDP, the real interest rates on deposits, the ratio of nominal lending to deposit interest rates, the stock of commercial bank deposits (in nominal terms), the ratio of broad money (M4) to gross international reserves, an index of GDP and an index of equity prices. The following matrix is used to assess possible indicators of currency crisis for a period of two years.

	CRISIS	NO CRISIS
Signal was issued	A	B
No signal was issued	C	D

Table 4: Matrix to evaluate indicators
Source: G. Kaminsky, S. Lizondo and C. Reinhart, "Leading indicators of currency crises", 1997

Where:

A – number of months in which the indicator issued a good signal, B – number of months in which the indicator issued a bad signal, C – number of months in which the indicator failed to issue a signal and the crisis occurs, and D – number of months in which the indicator refrained from issuing a signal and the crisis does not occur.

Consequences of banking crisis to monetary policy may be extremely adverse, as they distort normal relation between monetary instruments and intermediary and ultimate objectives of the monetary policy. Banking crisis complicate conduct of monetary policy as they destabilize money demand and monetary multipliers, reduce effectiveness of monetary instruments and impact the relation between monetary indicators and prices. Furthermore, banking crisis may reduce the government's ability to achieve its inflation objective (Martiney Peria, 2000).

Crisis in the banking system lead to sharp contractions in economic activities, often up to the level of financial crisis, which was the a process that many developing economies

have gone through. Improvement of the banking system is a significant and challenging task for champions of economic policy in the very emerging economies. Banking environment needs to be improved, in order to achieve this, to enable financial institutions to take on board best practice in their operations. Developing economies are recognized for their weak banking environment which indicates that those are not sound economic conditions.

After the big Asia's financial crisis in 1997 Stiglitz highlighted importance of the capital market liberalization as it could be "dangerous", as well as that "in a highly integrated world, there is need for a credible international financial institution to design the rules of the road in ways that enhance global stability and promote economic growth in developing countries". The massive global financial imbalances represent the main threat to global financial stability today (Stiglitz, 2007).

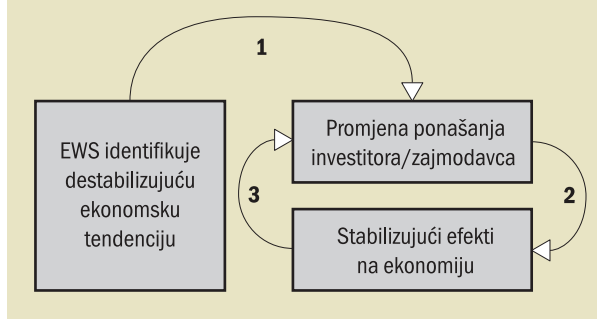
EARLY WARNING SYSTEMS AND PREDICTING OF BANKING CRISES

Even though banking crisis may come as a surprise, very often information is available which could indicate vulnerability of the banking system to crises (Hardy, 1998). IMF uses Early Warning Systems (EWS) to predict currency crisis, but there is no explicit EWS for predicting banking crisis. Davis and Karim (2007) believe that this could reflect in part a historical dominance of currency crisis, since according to the study which included 20 countries, Kaminsky and Reinhart (1999) have concluded that during 1970's there were 26 currency and only 3 banking crisis. According to the same source, the banking crisis have quadrupled, and that in the period after liberalization, during 1980's and 1990's.

Literature about early warning systems and prediction for banking crisis (Gaytán and Johnson, 2002) may be classified according to the scope of the prediction (individual bank failure and systemic crisis) and in accordance with the methodology employed (qualitative indicators of distress, signal approach, limited dependent estimation and duration models). It seems that the efforts to develop EWS for banking, currency and generally financial crisis in developing countries were very unsuccessful. One of the basic reasons for that was that EWS were based on wrong theoretical hypothesis (Gabel, 2004).

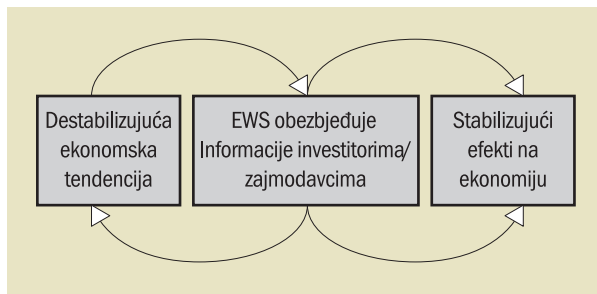
When designing early warning models and determining variables to be included in the model, it is necessary to have in mind that this is a process and not an act. The literature on early warning systems finds two types of variables that could be of assistance when predicting financial crisis (Kamin, Schindler and Samuel, 2001):

- Variables which reflect the fundamental determinants of the financial position of the country (for example current account deficits, real exchange rate misalignment, fiscal deficits, operating costs of debt service, repayment capacity); and
- Variables that reflect the expectations of a future crisis on the market or the initial effect of an emerging crisis (real interest rates, external bond spreads and indexes).



Grafik 2: Opšta ekonomska logika sistema ranog upozorenja (EWS)
Izvor: I.Gabel, "Trip Wires and Speed Bumps: Managing Financial Risks and Reducing the Potential for Financial Crises in Developing Economies", 2004.

Slično, Grafik 3 prikazuje kako djeluje sistem ranog upozorenja u sadašnjem okruženju liberalizovanih i međunarodno integrisanih finansijskih tržišta. Zahvaljujući sistemima ranog upozorenja, investitori/zajmodavci dobijaju informacije, što dovodi do određenih mjera koje imaju stabilizujuće efekte na ekonomiju.



Grafik 3: Efekat EWS modela u sadašnjem okruženju liberalizovanih i međunarodno integrisanih finansijskih tržišta
Izvor: I.Gabel, 2004.

Kaminsky i Reinhart kod sistema ranog upozorenja valutnih kriza, "rano" definišu kao period između 1 i 24 mjeseca prije početka krize (Yap, 2002). Međutim, kada su u pitanju bankarske krize, taj period je 1-12 mjeseci prije početka krize, ili do 12 mjeseci poslije početka krize. Razlog je što bankarske krize traju četiri do pet godina, mnogo duže nego valutne krize, koje traju najčešće manje od jedne godine, kao i to što je vrhunac bankarske krize često nekoliko godina poslije njenog početka. Demirgüç-Kunt i Detragiache (1998) su koristili u svojim modelima pojedine varijable za predviđanje bankarskih, odnosno valutnih kriza, i to klasifikujući ih u tri grupe. U Tabeli 5 je data klasifikacija tih varijabli.

Makroekonomske varijable	1. Realni rast GDP (%) 2. Promjena u uslovima trgovine (%) 3. Nominalna depresijacija (%) 4. Realna kamatna stopa (%) 5. Inflacija (%) 6. Fiskalni suficit / GDP (%)
Finansijske varijable	7. M2 / Devizne rezerve (%) 8. Krediti privatnom sektoru/GDP (%) 9. Likvidne rezerve banke/ Ukupna aktiva banke (%) 10. Realni domaći kreditni rast (%)
Institucionalne varijable	11. Realni GDP po stanovniku 12. Osiguranje depozita

Tabela 5: Demirgüç-Kunt i Detragiache (1998) varijable
Izvor: P.Davis i D.Karim, "Comparing Early Warning Systems for Banking Crises", 2007.

Koeficijenti kapitala se već dugo koriste za procjenu bezbjednosti i stabilnosti banaka. Estrella, Park i Peristiani (2000) istraživali su njihov značaj, i to fokusirajući se na tri vrste ovih koeficijenata: rizikom ponderisani raciji, leveridž i raciji bruto prihoda. Oni ističu veliki značaj ovih koeficijenata u predviđanju bankarske krize, a posebno značaj najkompleksnijeg koeficijenta a to je rizikom ponderisani racio. Raciji kapitala su dugo bili važno oruđe za procjenjivanje sigurnosti i snage banaka.⁴ Da bi bili uspješni u predviđanju, raciji kapitala bi trebalo da imaju značajan negativan odnos prema riziku kraha banke.

Autori Čihák i Schaeck (2007) su u svojoj studiji prikazali ponašanje pet izabranih pokazatelja, tri godine prije i tri godine poslije krize, i to: (a) regulatorni kapital/rizikom ponderisana aktiva, (b) kapital/aktiva, (c) neperformansni zajmovi/ukupni zajmovi, (d) rezerve na neperformansnim zajmovima/kapital i (e) prinos na sopstveni kapital.

(a) Racio regulatorni kapital/rizikom ponderisana aktiva blago opada za vrijeme krize. U periodu odmah poslije krize, regulatorni kapital se povećava usljed učestalih i sve većih zahtjeva za kapitalom.

(b) Racio kapital/aktiva se za razliku od prethodnog pokazatelja, značajno povećava u periodu prije krize. Jedan od uzroka može biti taj što institucije povećavaju kapital anticipirajući regulatorni pritisak da se povećaju rezerve.

(c) Racio neperformansni zajmovi/ukupni zajmovi se povećava prije krize što ukazuje na pogoršanje kvaliteta aktive u finansijskim institucijama. Kada je kriza na vrhuncu, neperformansni zajmovi su u potpunosti priznati sa vremenskim kašnjenjem i njihov nivo opet opada u narednim godinama (što je u potpunosti u skladu sa teorijom).

(d) Racio rezerve na neperformansnim zajmovima/kapital se povećava neposredno pred izbijanje krize, što govori da je slab kvalitet aktive u finansijskom sistemu. Dalji rast slijedi poslije nastanka sistemskog problema.

(e) Prinos na sopstveni kapital ostaje prilično stabilan u periodu odmah prije krize a kasnije opada. Činjenica da ne dolazi do pogoršanja ovog racija za vrijeme krize može biti posljedica povećanog preuzimanja rizika od strane bankarskih menadžera jer su postali svjesni nastupajućih problema. Oni se mogu u tom periodu "kockati za povratak u život" i preduzimanjem rizičnih investicija povećati profit na kratak rok. Poslije nastanka krize, racio znatno opada, što ukazuje na značajne probleme u bankarskom sistemu.

Dostupnost sveobuhvatnih, jasnih i pouzdanih podataka je ključ za formulaciju modela ranog upozorenja. Rezultati koje model ranog upozorenja daje, zavisice najviše od kvaliteta podataka koji se koriste kao input. Ovo se ne odnosi samo na različitost i integritet podataka koje banke pružaju u vidu regulatornog izvještavanja, već i na dostupnost i kvalitet podataka bilo koje druge baze podataka koja se može koristiti

⁴ U SAD-u, racija minimalnog kapitala su zahtjevana bankarskom regulacijom od 1981. godine, dok je Bazelski sporazum uveo obavezni racio kapitala nakon 1988. godine.

Figure 2 shows general economic logic of the Early Warning System (EWS). Precisely, the Early Warning System identifies destabilizing economic tendency which affects the behavior of investors/lenders. Change in behaviors of investors/lenders should lead to stabilizing effects for economy.

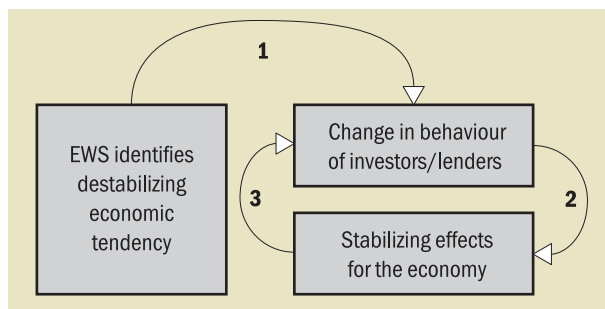


Figure 2: General economic logic of the Early Warning System (EWS)
 Source: I. Gabel, "Trip Wires and Speed Bumps: Managing Financial Risks and Reducing the Potential for Financial Crises in Developing Economies", 2004

Similarly, the Figure 3 shows how the Early Warning System operates in the context of the current environment of liberalized and internationally integrated financial markets. Thanks to the Early Warning Systems, investors/lenders can obtain information which lead to certain measures having stabilizing effects on the economy.

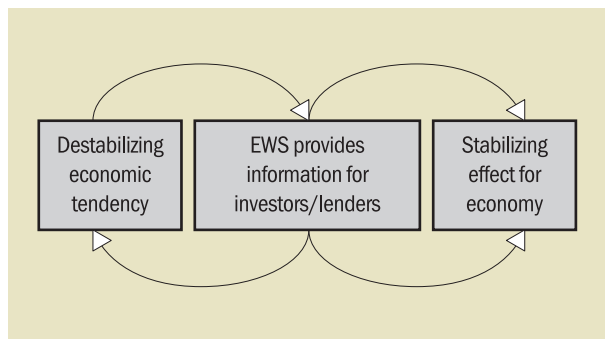


Figure 3: Effects of EWS models in the context of the current environment of liberalized and internationally integrated financial markets
 Source: I. Gabel, 2004.

Kaminsky and Reinhart define "early" in Early Warning Systems for currency crisis as period between 1 and 24 months before the beginning of the crisis (Yap, 2002). However, in case of banking crisis such period is 1-12 months before the beginning of the crisis or up to 12 months after the beginning of the crisis. However, in case of banking crisis, such period is 1 to 12 months before the beginning of the crisis or 12 months after the beginning of the crisis. Reason for that is that banking crisis last four to five year, much longer than the currency crisis which usually last for a period of less than one year, as well as that peak of the banking crisis is usually several years after its beginning. Demirgüç-Kunt and Detragiache (1998) used in their models certain variable for forecasting banking or currency crisis and have classified them into three groups. Table 5 gives classification of those variables.

Macroeconomic variables	1. Real GDP growth (%) 2. Change in Terms of Trade (%) 3. Nominal Depreciation (%) 4. Real Interest Rate (%) 5. Inflation (%) 6. Fiscal Surplus/GDP (%)
Financial variables	7. M2 / Foreign Exchange Reserves (%) 8. Credit to Private Sector/GDP (%) 9. Bank Liquidity Reserves/Total Bank Assets (%) 10. Real Domestic Credit Growth (%)
Institutional variables	11. Real GDP per Capita 12. Deposit Insurance

Table 5: Demirgüç-Kunt and Detragiache (1998) Variables
 Source: P. Davis and D. Karim, "Comparing Early Warning Systems for Banking Crises", 2007

Capital Ratios are being used to assess safety and soundness of banks. Estrella, Park and Peristiani (2000) have examined their importance and they focus on three types of these ratios based on: risk-weighted assets ratio, leverage and gross revenue ratio. They highlight significant importance of these ratios as predictors of banking crisis, in particular the importance of the most complex ratio which is risk-weighted ratio. Capital ratios were for a very long time significant tool for assessing safety and strength of banks.⁴ In order for the capital ratios to be successful in predictions, they would have significant negative relation in respect of the bank failure risk.

Authors Čihák and Schaeck (2007) in their study show behavior of five selected indicators, three years before and three years after the crisis, and those are: (a) regulatory capital to risk-weighted assets ratio; (b) capital to assets ratio; (c) non-performing loans to total gross loans ratio; (d) non-performing loans net of provisions to capital ratio; and (e) return on Tier 1 capital.

(a) Regulatory capital to risk-weighted assets ratio is slightly declining at the time of crisis. In the period immediately after the crisis, regulatory capital is increased as a result of frequent and increased demand for capital.

(b) Capital to asset ratio in contrast to the previous indicator, considerably increases in the period before the crisis. One of causes could be that the institutions are increasing capital in anticipation of regulatory pressure to increase reserves.

(c) Non-performing loans to total gross loans ratio is increasing before the crisis which indicates deterioration of the asset quality in financial institutions. When a crisis is at its peak, non-performing loans are fully recognized with a time lag and their level decreases again in subsequent years (which is fully in line with the theory).

(d) Non-performing loans net of provisions to capital ratio is increasing immediately before the outburst of the crisis, which indicates poor asset quality in the financial system. A further increase follows the onset of a systemic problem.

(e) Return on Tier 1 capital remains pretty stable in the period immediately before the crisis and declines afterwards. The fact that there is no deterioration of this ratio during the crisis may be a consequence of increased risk taking of bank managers as they became aware of the arising problems. In that period, they may "gamble for resurrection" and increase profits over a short term by taking risky investments. Ratio considerably declines after the onset of the crisis, which indicates significant problems in the banking system.

⁴ In the USA, minimum capital ratios have been required in banking regulation since 1981, while the Basel Accord has introduced mandatory capital ratio after 1988.

ti u modelu. Stoga, supervizori treba konstantno da rade na poboljšanju kvaliteta podataka koji se koriste u sistemima ranog upozorenja.

Sistemi ranog upozorenja koji su bazirani na kvantitativnoj osnovi mogu se podijeliti na ekonometrijske i statističke modele. Postoji namjera da se povećava korišćenje kvantitativnih modela za predviđanje bankarskih kriza. Ipak, nije moguće kvantifikovati sve indikatore koji se smatraju važnim varijablama. To znači da sistemi ranog predviđanja, koji su više kvalitativni nego kvantitativni, imaju relativno značajan uticaj u predviđanju, pa se preporučuje kombinacija ova dva osnovna tipa modela.

Statistički modeli ranog upozorenja su bazirani na rigoroznoj kvantitativnoj analizi. Vremenski horizonti koji se trenutno koriste u ovim modelima se uglavnom kreću u intervalu od par mjeseci do tri godine. Uticaj kvalitativnih faktora poput kvaliteta menadžmenta, interne kontrole i drugih faktora karakterističnih za banke (kreditna kultura, standardi prilikom odobravanja kredita itd), nijesu tipični za ove modele. Uprkos tome, poznato je da kvalitativni faktori mogu biti izuzetno značajni uzroci bankarske krize, što se posebno odnosi na efikasnost odnosno neefikasnost menadžmenta. Postoje i pojedini modeli koji su pokušali da kvantifikuju kvalitet menadžmenta ili pak, da uvedu realne surrogate za performanse menadžmenta. Takođe, statistički modeli ne uzimaju u obzir ostale nefinansijske faktore poput prevare ili neprofesionalnog ponašanja.

Duttagupta i Cashin (2008) su u svom istraživanju koristili model Drvo binarne klasifikacije (Binary Classification Tree model, BCT) da bi analizirali bankarske krize u 50 zemalja u razvoju, u periodu 1990-2005. godine. BCT identifikuje ključne indikatore, kao i njihove vrijednosti pri kojima se povećava osjetljivost na bankarsku krizu. Tri uslova identifikovana kao signali da se javlja kriza su: vrlo visoka inflacija, visoko dolarizovani depoziti banaka u kombinaciji sa nominalnom depresijacijom ili niskom likvidnošću i niska profitabilnost banaka.

Posebno se naglašavaju rizik strane valute, loša finansijska stabilnost, i makroekonomska nestabilnost kao ključni uzroci bankarskih kriza. Duttagupta i Cashin (2008) potvrđujući značaj BCT pristupa za monitoring osjetljivosti bankarskog sistema, analizirali su bankarske krize na uzorku od 50 rastućih tržišta, odnosno zemalja u razvoju, u periodu 1990-2005. godine. Set eksplanatornih varijabli uključuje: indikatore ukupnog makroekonomskog okruženja (rast, inflacija, nominalna depresijacija i platni bilans); eksternu osjetljivost (zvanične devizne rezerve (FX) pokriće agregata M3, rast izvoza, rast relativnih cijena izvoza i uvoza zemlje); monetarne uslove (kreditni rast, realna stopa na depozite, inostrana kamatna stopa, postojanje eksplicitnog osiguranja depozita, i de facto režima deviznog kursa) i zdravlje bankarskog sektora (dolarizacija pasive u bankama u vidu depozita deviznih rezervi, ukupne zvanične FX rezerve, neto FX otvorena pozicija, likvidnost banke, jačina kapitala, kvalitet aktive, i dva pokazatelja za profitabilnost banke).

Bazični model identifikuje sljedećih pet kandidata "varijabli" kao najvažnije determinante bankarskih kriza: nominalnu depresijaciju, profitabilnost banke, inflaciju, dolarizaciju pasive i likvidnost banke. Takođe, identifikuje tri ključna uslova kada je riječ o pojavljivanju krize:

- Makroekonomska nestabilnost: Visoka godišnja inflacija (više od 19%) u kombinaciji sa relativno niskim rastom relativnih cijena izvoza i uvoza (manje od 3¼%), tako da se vjerovatnoća nastanka krize povećava od 5.3% do 21.4%;
- Niska profitabilnost banke: Niska profitabilnost kamata (koju pokazuje spread između aktivne i kamatne kamatne stope manji od 3%) u kombinaciji sa skromnim rastom izvoza (manje od 12%), dok vjerovatnoća krize raste do preko 20%; i
- Visok (FX) rizik deviznog kursa: Visoka dolarizacija pasive (FX depoziti prema zvaničnim FX rezervama više od 140%) i kombinovani međusobno:
 - a) relativno visoka depresijacija (viša od 9%), gdje se vjerovatnoća krize povećava do 25%, ili
 - b) niska likvidnost banke (krediti privatnog sektora prema depozitima više od 150%), gdje se vjerovatnoća krize povećava do 100%.

Opširna empirijska literatura o bankarskim krizama, generalno je koristila dva standardna ekonometrijska modela odnosno pristupa. Prvi je signalni pristup, koji proučava i upoređuje ponašanje ekonomskih indikatora za periode prije i poslije krize, i identifikuje individualne varijable koje najbolje signalizuju da je kriza na pomolu, bazirane iznad ili ispod specifične vrijednosti koje predstavljaju "prag" (Kaminsky i Reinhart, 1999). Drugi pristup računa vjerovatnoću bankarske krize koristeći model ograničene zavisne varijable (Demirgüç-Kunt i Detragiache, 1998; Eichengreen i Rose, 1998).

Prema jednom pristupu, sistematsko istraživanje bankarskih kriza je najpouzdanije na osnovu logit ili probit modela (Ho, 2004). Na lijevoj strani regresije je binarna varijabla koja može imati vrijednost 1 (kada postoji kriza) i 0 (kada ne postoji kriza). Na desnoj strani regresije su eksplanatorne varijable poput domaćih makro turbulencija, eksternih šokova, i institucionalnih faktora. Jedan od najpoznatijih ovakvih modela je Markovljevi model preusmjeravanja (Markov switching model, MSM). Postoje dva tipa Markovljevi modela preusmjeravanja. Prvi je jednostavan, i izgleda ovako:

$$IMMP_t = \beta_{S_t} + e_{S_t}, \quad e_{S_t} \sim N(0, \delta_{S_t}^2)$$

$$\beta_{S_t} = \beta_1(1 - S_t) + \beta_2 S_t$$

$$\delta_{S_t}^2 = \delta_1^2(1 - S_t) + \delta_2^2 S_t$$

$$S_t = 1, 2$$

Accessibility to comprehensive, clear and reliable data is a key to formulating model of early warning. Results provided by the early warning model will depend largely from the quality of data that are used as input. This does not refer only to diversity and integrity of data which are offered by banks in form of regulatory reports, but the accessibility and quality of data from any other database which could be used in the model. Therefore, supervisors should constantly work on the improvement of the quality of data which are used in the early warning systems.

The early warning systems which are based on the quantitative base could be divided into econometric and statistical models. There is intent for an increase of the use of quantitative models for banking crisis prediction. However, it is not possible to quantify all indicators which are considered as important variables. Which means that the early warning systems, which are more qualitative than quantitative, have relatively significant impact in prediction, therefore a combination of these two basic models is recommended.

Statistical early warning models are based on rigorous quantitative analysis. Time horizons which are currently used in these models are mainly ranging in the interval from several months to three years. Impact of qualitative factors, such is quality management, internal controls and other factors are characteristic for banks (credit culture, standards in credit approval process etc) are not typical in case of these models. In spite of that, it is known that qualitative factors may be exceptionally important factors of the banking crisis, which is particularly the case in terms of efficiency or inefficiency of the management. There are certain models which have attempted to quantify quality management or to introduce real surrogates in performance management. Additionally, statistical models do not take into account other non-financial factors like fraud or unprofessional conduct.

Duttagupta and Cashin (2008) have used the Binary Classification Tree Model (BCT) in their research in order to analyze banking crisis in 50 developing countries in the period from 1990 to 2005. The BCT identifies key indicators, as well as their values at which vulnerabilities to banking crisis are increasing. The three conditions identified as signals that the crisis is approaching are: very high inflation, highly dollarized bank deposits combined with nominal depreciation or low liquidity and low profitability of banks.

The foreign currency risk, poor financial stability and macroeconomic instability are particularly highlighted as key causes of bank crisis. Duttagupta and Cashin (2008) in confirming importance of the BCT approach for monitoring of vulnerabilities of the banking system have analyzed banking crisis at the sample of 50 emerging markets, or developing countries in the period 1990-2005. Set of explanatory variables includes: indicators of the overall macroeconomic environment (growth, inflation, nominal depreciation and balance of payments); external vulnerability (official foreign exchange reserves (FX) cover of broad money aggregate (M3), export growth, growth of relative prices for export and import of the country); monetary conditions (credit growth, real deposit rate, foreign interest rate, existence of explicit deposit insurance and de facto exchange rate regime) and health of the banking

sector (dollarization of liability in banks given by foreign exchange reserves deposits in total official FX reserves, net FX open position, bank liquidity, equity strength, asset quality and two indicators for profitability of bank).

Basic model identifies following five candidate “variables” as the most important determinants of banking crises: nominal depreciation, bank profitability, inflation, dollarization of liability, and bank liquidity. Additionally it identifies three key conditions in respect of the occurrence of crises:

- Macroeconomic instability: High annual inflation (higher than 19%) in combination with relatively low relative prices of export and import (less than 3¼ percent), so that the probability of occurrence of crisis increase from 5.3% to 21.4%;
- Low bank profitability: Low interest rate profitability (indicated by a spread between lending and deposit interest rates of less than 3%) in combination with modest growth of export (less than 12%), while the probability of crisis increase to over 20%; and
- High foreign exchange (FX) risk: High dollarization of liability (FX deposits to official FX reserves more than 140%) and combined mutually with:
 - a) Relatively high depreciation (more than 9%), whereat the probability of crises increases to 25%, or
 - b) Low liquidity of bank (private sector credit to deposits higher than 15%), whereat the probability of crises increase to 100%.

Extensive empirical literature about banking crises has generally used two standard econometric models or approaches. The first, signal approach, which studies and compares behavior of economic indicators for the period before and after the crises, and identifies individual variables which are signaling in the best way that the crises is at prone, based above or below values which represent the “threshold” (Kaminsky and Reinhart, 1999). Another approach calculates probability of banking crises using the model of limited dependable variable (Demirgüç-Kunt and Detragiache, 1998; Eichengreen and Rose, 1998).

According to one approach, systemic research of banking crisis is the most dependable on the basis of logit or probit models (Ho, 2004). At the left side of the regression is a binary variable which could have value of 1 (when the crises exist) and 0 (when there is no crises). At the right side of regression are explanatory variables such are domestic macro turbulences, external shocks and institutional factors. One of the most famous models of this type is the Markov switching model (MSM). There are two types of Markov switching models. The first is simple and this is how it looks like:

$$IMMP_t = \beta_{S_t} + e_{S_t}, \quad e_{S_t} \sim N(0, \delta_{S_t}^2)$$

$$\beta_{S_t} = \beta_1(1 - S_t) + \beta_2 S_t$$

$$\delta_{S_t}^2 = \delta_1^2(1 - S_t) + \delta_2^2 S_t$$

$$S_t = 1, 2$$

Međutim, mnogo je bolji drugi tip ovog modela GARCH (1,1) Markovljev model preusmjeravanja (Gray, 1996).⁵

$$\text{IMMP}_t = \mu_{i,t} + \varepsilon_{i,t} = \alpha_i + \beta_i \text{IMMP}_{t-1} + \varepsilon_{i,t}, \quad i = 1, 2$$

$$\varepsilon_{i,t} = \sqrt{h_{i,t}} z_t, \quad z_t \sim i.i.d.(0,1)$$

$$h_{i,t} = w_i + \alpha_i \varepsilon_{i,t-1}^2 + b_i h_{i,t-1}$$

$$h_t = E[\text{IMMP}_t^2 | \Phi_{t-1}] - E[\text{IMMP}_t | \Phi_{t-1}]^2$$

$$\varepsilon_t = \text{IMMP}_t - E[\text{IMMP}_t | \Phi_{t-1}]$$

Kod ekonometrijskih modela predviđanja bankarskih kriza posebnu pažnju je potrebno posvetiti izboru adekvatnog praga osjetljivosti. To znači da je neophodno procijeniti relativni značaj grešaka prvog tipa u odnosu na greške drugog tipa. Generalno posmatrano, greške drugog tipa mogu biti manje zabrinjavajuće iz perspektive nosilaca politike, iz dva razloga. Prvo, greške drugog tipa imaju tendenciju da budu manje skupe sa aspekta blagostanja od grešaka prvog tipa. Cijena grešaka drugog tipa može biti cijena preduzimanja mjera predostrožnosti. S druge strane, izostanak signala da će se kriza dogoditi često ima veću cijenu. Npr, visoki troškovi finansijskih kriza su se manifestovali u vidu ogromnih kontrakcija autoputa, povećane nezaposlenosti i stope siromaštva širom mnogih pogođenih rastućih tržišta '90-tih godina. Drugo, greške drugog tipa ne nastaju uvijek usljed pogrešnog predviđanja modela, već jednostavno reflektuju činjenicu da su ekonomske osnove zaista bile ranjive, ali su preduzete odgovarajuće mjere politike radi poboljšanja otpornosti ekonomije i sprječavanja krize.

Potrebno je definisati presjek odnosno prag vjerovatnoće iznad koje predviđena vjerovatnoća može biti interpretirana kao slanje signala nastupajuće krize. Ključno pitanje koje treba da se riješi je optimalni nivo praga. Što je izabrani nivo niži, model će poslati više signala, ali će se zato povećati broj pogrešnih signala (greške drugog tipa). S druge strane, povećanje nivoa praga dovodi do smanjenja broja pogrešnih signala, ali zato dovodi do povećanja broja izostalih signala za krizu, npr. odsustvo signala kada se kriza zapravo desila u okviru 12 mjeseci (greške prvog tipa). U Tabeli 6 prikazan je problem trade-off-a.

	$S_{i,t} = 0$: Nije emitovan signal	$S_{i,t} = 1$: Signal je emitovan
$Y_{i,t} = 0$: Nema krize u sljedećih 12 mjeseci	A Tačan signal da nema krize	B Greška II tipa - Pogrešan signal
$Y_{i,t} = 1$: Desiće se kriza u sljedećih 12 mjeseci	C Greška I tipa - Izostaje signal	D Tačan signal krize

Tabela 6: Problem trade-off-a kod izbora optimalnog praga
Izvor: M.Bussière and M.Fratzscher, "Towards a New Early Warning System of Financial Crises", 2002.

Jedan od poznatih ekonometrijskih modela predviđanja bankarskih kriza, logit BF model, koji su na-

pravili Bussière i Fratzscher (2002) sa odabranih 20 zemalja, ima bolje performanse od IMF-DCSD modela, Kaminsky-Lizondo-Reinhart modela, kao i od modela privatnog sektora Goldman-Sachs i modela Credit Suisse First Boston. Logit BF model je tačno signalizirao 84.1% opservacija (najviše u odnosu na ostale navedene modele) i dao je najmanje lažnih signala. Uslovna vjerovatnoća da će se desiti kriza ako bude signala je 50%, što je mnogo više nego kod ostalih modela. Ovaj procenat možda ne djeluje značajno ali, još uvijek je visok u odnosu na bezuslovnu vjerovatnoću nastanka krize, koja u ovom modelu iznosi 15.8% (npr. 246 mjeseci od ukupno 1550 su bili mjeseci za koje je kriza očekivana u sljedećih 12 mjeseci).



Iako je ovaj model koristio sličnu metodologiju kao i većina drugih modela, pokazao je bolje performanse, što znači da su varijable koje su koristili autori ovog modela pouzdanije, i/ili da su uzorak zemalja i vremenski period bili pogodniji.

Dosadašnja upotreba sistema ranog upozorenja pokazala je relativno dobre rezultate, ali ipak se oni mogu znatno poboljšati. Dakle, potrebno je raditi na stalnom usavršavanju sistema ranog upozorenja bankarskih kriza. Uočavanje slabosti u bilansima banaka na vrijeme glavni je ključ za preventivu bankarskog sistema od kriza. Supervizija banaka ima izuzetno važan zadatak nadzora aktivnosti banaka i u skladu s tim, donošenja preventivnih mjera poput ograničavanja kreditnih aktivnosti i drugih. Ključ uspješnog upravljanja bankarskom krizom je koordinacija strategije bankarskog poslovanja sa ukupnom makroekonomskom politikom. Upravljanje krizama često zahtijeva prilagođavanja u mnogim aspektima ekonomske politike.

Bankarski sistem je srce ekonomije jedne zemlje. On daje novac koji je ekonomiji potreban, za rast i razvoj privrede. Ovo je posebno značajno za zemlje koje su u razvoju jer one nemaju razvijena tržišta kapitala, tako da bankarski krediti predstavljaju najznačajnije izvore finansiranja, pogotovo za mala preduzeća. Stoga je uticaj bankarskih kriza gotovo poguban za zemlje u tranziciji.

Međutim, uvjerali smo se da ni najrazvijenije privrede nijesu pošteđene finansijskih kriza. U savremenim uslovima poslovanja, gdje postoji izražena povezanost i međuzavisnost finansijskih tržišta, posljedice teško da mogu ostati samo u okviru granica zemlje koju je zahvatila finansijska kriza. To je više nego dovoljan razlog zbog čega je potrebno mnogo više pažnje posvetiti upravljanju bankarskim krizama, a pogotovo njihovom predviđanju ■

5 Pored GARCH modela, postoji i SWARCH model (Hamilton and Susmel, 1994) ali koji je mnogo manje fleksibilan.

Hence, the second type of this model the GARCH (1.1) is much better than the Markov switching model (Gray, 1996).⁵

$$\begin{aligned}
 \text{IMMP}_t &= \mu_{i,t} + \varepsilon_{i,t} = \alpha_i + \beta_i \text{IMMP}_{t-1} + \varepsilon_{i,t}, \quad i=1,2 \\
 \varepsilon_{i,t} &= \sqrt{h_{i,t}} z_t, \quad z_t \sim i.i.d.(0,1) \\
 h_{i,t} &= w_i + \alpha_i \varepsilon_{i,t-1}^2 + b_i h_{i,t-1} \\
 h_t &= E[\text{IMMP}_t^2 | \Phi_{t-1}] - E[\text{IMMP}_t | \Phi_{t-1}]^2 \\
 \varepsilon_t &= \text{IMMP}_t - E[\text{IMMP}_t | \Phi_{t-1}]
 \end{aligned}$$

In case of econometric models for prediction of banking crises particular attention should be dedicated to the selection of the adequate vulnerability threshold. This means that it is necessary to assess relative importance of the error of the Type 1 in respect of the errors of the Type 2. In general terms, errors of the Type 2 may be less concerning from the perspective of the policy advocates, for two reasons. First, the errors of the Type 2 have tendency to be less expensive from the aspect of the prosperity from errors of the Type 1. Price of errors of the Type 2 may be the price of undertaking precaution measures. On the other hand, absence of signals that the crisis will occur often has higher price. For example, high costs of financial crisis were demonstrated in the form of enormous contractions of the output, increased unemployment and poverty rate across numerous affected emerging markets during 1990's. Secondly, errors of the Type 2 do not occur always as a result of wrong prediction of the model, but simply reflect the fact that economic bases were actually vulnerable, but adequate policy measure were undertaken in order to improve resistance of the economy and prevention of the crisis.

It is necessary to define a cut-off or threshold probability above which the predicted probability can be interpreted as sending a signal of an arising crisis. The key issue that should be resolved is the optimal threshold level. The lower the chosen level is the model will send more signals, but will also increase the number of wrong signals (errors of the Type 2). On the other hand, increasing the threshold level results in reduction of the number of wrong signals, but it creates increase the number of missing signals for crisis, for example the absence of a signal when a crisis actually occurred within 12 months (errors of the Type 1). Table 6 shows the trade-off problem.

	$S_{i,t} = 0$: No signal was issued	$S_{i,t} = 1$: Signal was issued
$Y_{i,t} = 0$: No crisis within next 12 months	A Correct signal for no crisis	B Type 2 error - Wrong signal
$Y_{i,t} = 1$: Crisis will occur within next 12 months	C Type 1 error - Missing signal	D Correct signal for crisis

Table 6: Trade-off problem when choosing an optimal threshold
Source: M. Bussière and M. Fratzscher, "Towards a New Early Warning System of Financial Crises", 2002

One of the best known econometric models for prediction of banking crisis, logit BF Model, developed by the



Bussière and Fratzscher (2002) with selected 20 countries, has better performance than IMF-DCSD model, Kaminsky-Lizondo-Reinhart model, as well as from the private sector model Goldman-Sachs and model of the Credit Suisse First Boston. Logit BF model has accurately signaled 84.1% of observations (highest amount when compared to other models) and produced the least amount of false signals. Conditional probability of crisis occurring if there is a signal is 50%, which is much higher than in case of other models. This percentage may not seem significant, but is still high when compared to unconditional probability for crisis to occur, which for this model amounts to 15.8% (for example 246 months out of 1,550 months were the months in which the crisis was expected within next 12 months). Even though this model uses similar methodology as majority of other models, it has shown better performances, which means that the variables used by the authors of this model are more reliable and/or the sample of countries and time span were more appropriate.

The use of the early warning system up to date has indicated relatively good results; hence, those could be significantly improved. Therefore, permanent improvement of early warning systems of banking crisis should be undertaken. The most important key for prevention of crises in banking system is noticing weaknesses in bank's balances on time. Bank supervision has exceptionally important task to oversee bank activities and accordingly to adopt preventive measures such as limiting credit activities and the like. The key for successful management of banking crises is the coordination of the bank operation strategy with the overall macroeconomic policy. Crisis management often requires adjusting to many aspects of the economic policy.

Banking system is the heart of the economy of a given country. It provides money that the economy needs for growth and development of the economy. This is particularly important for developing countries since they do not have developed capital markets, therefore the bank loans represent the most significant sources of financing, especially for small enterprises. Therefore, the impact of banking crises is almost disastrous for countries in transition.

However, we have seen that even the most developed economies are not spared from financial crises. In a contemporary way of doing business, where there is a pronounced connection and interdependency of financial markets, the consequences could hardly be retained within the limits of the country affected by the financial crisis. That is more than a sufficient reason for much more attention to be paid to banking crisis management, in particular to their prediction ■

5 Pored GARCH modela, postoji i SWARCH model (Hamilton and Susmel, 1994) ali koji je mnogo manje fleksibilan.



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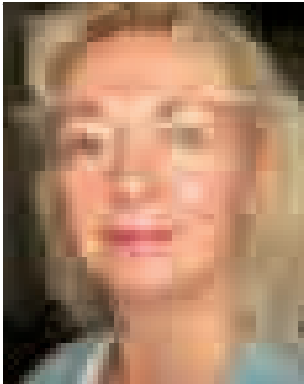
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Privilegovana informacija kao poslovna tajna

Krajem septembra, u jeku vijesti vezanih za finansijsku krizu u SAD i njenog uticaja u Evropi, objavljena je vijest da će bankarska belgijsko-holandska grupacija Fortis biti djelimično nacionalizovana. Savjet ministara Belgije je odobrio plan spašavanja banke nakon sastanka na najvišem nivou u kome su učestvovali vrhovni politički i bankarski autoriteti, uključujući i Žan-Klod Trisea, predsjednika Centralne Evropske Banke. Vlade Belgije, Holandije i Luksemburga su "ubrizgale" 11 miliona Eura u ovaj bankarsko-osiguravajući kolos.

Početkom oktobra, Komisija za banke Belgije je otvorila istragu za insajder trejding nad Ministrom spoljnih poslova, Karlom de Guhtom, u vezi trgovine akcijama Fortisa. Naime, supruga ministra je 3. oktobra prodala akcije Fortisa za 500.000 €. Nekoliko sati nakon ove trgovine, tri prijatelja ministra su izvršili sličnu operaciju u istoj filijali Fortisa. Tog istog dana, kad su berze već bile zatvorene, Vlade Belgije, Holandije i Luksemburga su postigle sporazum o prestanku holandskih aktivnosti u banci.

I u događajima definisanim kao prevara stoljeća, a koji su u januaru ove godine zadesili Societè General, se govori o insajder trejdingu. Jedan član odbora direktora ove banke je prodao 90 miliona Eura akcija banke nekoliko dana prije nego što se desila velika prevara i trgovina od strane Žeroma Kervuela. Pariski advokati su uložili tužbu za insajder trejding i manipulaciju sa cijenama na berzi

Dr. Zorica Vasović

Konvencija o insajder trejdingu od 20. aprila 1989.g. definiše insajder trejding kao neregularne operacije koje vrši:

- Lice koje je u svojstvu direktora preduzeća, člana odbora direktora ili drugog administrativnog ili nadzornog organa, ovlašćeni agent, izdavalac hartija od vrijednosti, preduzelo ili prouzrokovalo izvršenje neke operacije na berzi svjesno koristeći informaciju koja još nije javno objavljena a čije objavljivanje bi moglo da ima značajan uticaj na operacije na berzi ostvarujući tako finansijsku, materijalnu i drugu prednost za sebe ili neko, njemu blisko, lice;
- Lice koje je ušlo u izvršenje transakcije svjesno koristeći još neobjavljenu informaciju prenetu mu od nekih od lica navedenih pod a).

Izraz insajder trejding (*insider trading*) u doslovnom prevodu sa engleskog jezika znači "trgovina koju neko obavlja iznutra". Izraz je ostao nepreveden iz engleskog jezika i koristi se u veoma širokom smislu, odnoseći se na prenos bilo koje informacije koja je stečena u toku vršenja radnih dužnosti i koja bi se mogla iskoristiti u lične svrhe. Tako na primjer, bivši Generalni Sekretar OUN-a, Butros Butros Gali, govori o insajder trejdingu u svom dopisu¹ upućenom svim agencijama OUN-a u kojem apeluje na sve funkcionere i zaposlene u OUN-u da "ne prenose na druga lica informacije koje su stekli u vršenju svojih radnih dužnosti a koja nije objavljena osim po ovlašćenju Generalnog Sekretara. Takođe funkcioneri OUN-a ne smiju da iskorišćavaju informaciju u cilju ostvarenja lične koristi". Insajder trejding ne treba miješati sa pojmom manipulacije na tržištu. Manipulacija se za razliku od insajder trejdinga sastoji u svjesnom uticanju na tok transakcija na tržištu putem širenja lažnih informacija. U slučaju insajder trejdinga se iskorišćavaju istinite informacije od strane jednog lica u odgovarajućoj transakciji u kojoj druga strana ne posjeduje odgovarajuće informacije, što omogućava prvome da stekne finansijsku, materijalnu i drugu prednost u preduzimanju raznih operacija na tržištu. Dakle, razlika između insajder trejdinga i manipulacije je suštinska, iako postoje sličnosti koje se manifestuju kroz označavanje neefikasnosti tržišta kao i na praktičnom planu, nekorektnom i neetičkom ponašanju na tržištu.

Insajder trejding predstavlja simptom nefunkcionisanja tržišta, tj. njegove neefikasnosti na informativnom planu. U striktno ekonomskom smislu, insajder trejdingom jedna strana stiče relativnu prednost u odnosu na drugu stranu ili apsolutnu prednost u odnosu na javnost u cjelini.

Insajder trejding je veoma kompleksna materija koja je postala predmet izučavanja teorije prava, ekonomije, menadž-

¹ Un Staff Report, Septembar 1994.g., str. 2.

Privileged Information as a Business Secret

At the end of September, at the height of news related to the financial crisis in the USA and its effects in Europe, the news about partial nationalisation of the banking Belgian-Dutch group Fortis was also announced. The Council of Minister of Belgium endorsed the rescue plan for the Bank after holding a meeting at the highest level which was attended by top political and banking authorities, including Jean-Claude Trise, President of European Central Bank. The Governments of Belgium, Holland and Luxembourg injected 11 million Euros into this banking-insurance giant.

At the beginning of October the Belgian Bank Commission opened an investigation into insider trading against Foreign Minister Karel de Gucht regarding trade in Fortis shares. Actually, the Minister's wife sold Fortis shares for 500.000 € on October 3rd. A few hours after this transaction, the three Minister's friends carried out similar operation in the same Fortis branch. On that same day, after stock exchanges were already closed the Governments of Belgium, Holland and Luxembourg reached an agreement to terminate Dutch activities in the Bank.

Events defined as the fraud of the century which took place in January this year in Societe General are also brought to connection with insider trading. One member of the Board sold 90 million Euros worth bank shares a few days before a big fraud and trade was committed by Jerome Kerviel. Parisian attorneys pressed charges for insider trading and price manipulation on the stock exchange.

Zorica Vasović, PhD

The Convention on Insider Trading of April 20th 1989 defines insider trading as irregular operations carried out by a person:

- a) who is the director of a company, or a member of a board of directors or other administrative or supervisory organ, or is the authorised agent or issuer of securities, and has effected or caused to be effected an operation on an organised stock market knowingly using information not yet disclosed to the public, the possession of which he obtained by reason of his occupation and the disclosure of which was likely to have a significant influence on the stock market, with a view to securing financial, material or some other kin of advantage for himself or some other person close to him;
- b) who has entered into the transactions described above knowingly using not yet disclosed information communicated to him by one of the persons mentioned in a above.

The term insider trading literally translated means a trade carried out by someone inside. This English term is not translated and is used quite broadly as it refers to the transfer of any information obtained in performance of duties which might be used for personal interests. For instance, former OUN Secretary General Mr. Butros Butros Gali refers to insider trading in his official letter submitted to all OUN agencies where he urges all officials and staff in the OUN not to transfer any information they obtained in performance of duties to other persons if they have not been disclosed, except when authorised by the Secretary General to do so. Additionally, OUN officials may not use information to generate personal interest. Insider trading is not to be confused with market manipulation. Unlike insider trading, market manipulation means deliberate influencing on the course of transactions on the market by disseminating false information. In insider trading, accurate information are used by a person in a specific transaction where the other party is not in the possession of appropriate information which enables the first one to acquire financial, material or some other advantage by carrying out various operations on the market. Therefore, there is a critical difference between insider trading and manipulation, even though there are some similarities manifested through labeling inefficiency of the market and in practical terms incorrect, unethical behavior on the market.

Insider trading represents the symptom of a dysfunctional market, i.e. its inefficiency in informative terms. Strictly economically speaking, insider trading allows one side to acquire relative advantage with a view to another side or absolute advantage with a view to the general public.

Insider trading is quite complex matter that became subject of study in the theory of law, economy, management, ethics and sociology. "Owing" to insider trading, Ethics as a subject was for the first time introduced in the Business

1 UN Staff Report, September 1994, p.2

menta, etike i sociologije. "Zahvaljujući" insajder trejdingu, na Fakultetu poslovne administracije i menadžmenta Univerziteta Harvard po prvi put je uveden predmet etike, a ovom Univerzitetu je dodijeljeno 20 miliona dolara u cilju sprovođenja studija etike insajder trejdinga. U Milanu je 2. oktobra održan kongres posvećen etici u ekonomskom sistemu. Kongres je organizovan od strane NVO Milano Young, čiji potpredsjednik je Barbara Berlusconi, kćerka premijera Italije, Silvija Berlusconi.

UČESNICI INSAJDER TREJINGA

Akteri insajder trejdinga su insajderi. U Francuskoj, prema odredbi Pravila Komisije za operacije na berzi, insajderi su lica koja posjeduju insajd informaciju koju stiču po prirodi svog članstva u administrativnim organima preduzeća, menadžmentu, odboru direktora izdavaoca hartija od vrijednosti, ili u vezi sa izvršenjem svoje profesionalne aktivnosti. Ova lica se definišu kao primarni insajderi. U širem smislu, menadžeri, direktori i članovi nadzornih organa preduzeća i njihovi bračni drugovi se definišu insajderima i nigdje se čak ni eksplicitno ne zahtijeva njihovo aktuelno poznavanje insajd informacije. Pretpostavlja se da ova lica znaju insajd informaciju te se mogu smatrati odgovornim za insajder trejding čim je operacija izvršena na tržištu.

Zahtjev iz definicije za obavljanjem profesionalne aktivnosti je postao predmet sudskog tumačenja u Francuskoj. Tako je, na primjer, novinar koji je izvršio transakciju na berzi na bazi informacije koju je saznao u toku pravljenja intervjua za svoj časopis, proglašen za insajdera obzirom da je informaciju primio na osnovu vršenja svoje profesije. Slično ovom slučaju, jedan arhitekta, koji je čekajući u predkabinetu svog klijenta (inače direktora jednog preduzeća), vidjevši predsjednika drugog velikog preduzeća kako izlazi iz kabineta ovog prvog, zaključio da je sklopljen ugovor o saradnji između dva preduzeća, proglašen je odgovornim za insajder trejding kada je kupio paket akcija jednog od ova dva preduzeća i ostvario veliki profit. Sud je u ovom slučaju presudio da arhitekt nije stekao informaciju slučajno već uslijed svog profesionalnog odnosa sa klijentom².

Smatra se da je prvi zabilježeni slučaj trgovinskog insajdera bio neki trgovac žitom koji je otplovio sa svojim brodom na Rodos gdje je vladala velika glad, prestižući nekoliko drugih brodova koji su takođe nosili

žito. Stigavši sa svojim tovarom prvi i ne otkrivši stanovništvu skori dolazak drugih brodova sa žitom, trgovac je na taj način uspio da proda svoj tovar prije dolaska ostalih trgovaca i ostvari dobit za sebe³.

U istoriji, najpoznatiji slučaj insajder trejdinga na akcionarskom tržištu zabilježen je 1814.g, kada je porodica Rotšilds znatno uvećala svoje bogatstvo i položila temelje materijalne dobrobiti za naredna pokoljenja porodice. Naime, glas o pobjedi Velingtona kod Waterlooa nad Napoleonom je određenim kanalima prije dospio do Rotšildsovih nego do ostalih u Londonu, na osnovu čega su Rotšildsovi brzo prodali svoje akcije iskorišćavajući neznanje drugih učesnika na berzi o važnim činjenicama⁴.

Bogatstvo formi u kojima se manifestuje fenomen insajder trejdinga ne sprečava da se identifikuje zajednički imenitelj - iskorišćavanje odnosno zloupotreba informativne asimetrije, dakle informacija koje su poznate samo nekim učesnicima na tržištu. U osnovi fenomena je dakle funkcionalna zloupotreba, iskorišćavanje privatnih, tzv. privilegovanih kanala, i sopstvenog položaja u cilju sticanja odgovarajućih informacija.

U cilju jedne iscrpne i korektno analize nameće se potreba da se insajder trejdingu priđe na način širi od onoga koji nameće doslovan izraz. Sama disciplina u pravnom smislu se proširila van svojih originalnih granica, a još uvijek nedostaje jedna objedinjavajuća teorija koja bi obradila sve elemente fenomena kao i adekvatne kriterijume za rješenje nekih, još uvijek neriješenih dilema.

PREDMET INSAJDER TREJINGA

Ključni elemenat insajder trejdinga je insajd informacija. Definisanje insajd informacije predstavlja najproblematičniji aspekt u postupku regulisanja insajder trejdinga.

Krivični zakon Velike Britanije⁵ iz 1993.g. predviđa da bi se informacija mogla smatrati insajd informacijom mora da zadovolji svaki od četiri sledeća elementa:

- 1) Da se odnosi na posebnu hartiju od vrijednosti ili na posebnu izdavaoca hartija od vrijednosti ili na posebne izdavaoce hartija od vrijednosti odnosno izdavaoce u opštem smislu;
- 2) Da je precizna i specifična;
- 3) Da nije objavljena;
- 4) Da je bila objavljena mogla bi da ima značajan uticaj na cijene hartija od vrijednosti.

Slično, u Francuskoj, po članu 1. Propisa Komisije⁶ za operacije na berzi, insajd informacija je bilo koja neobjavljena, precizna informacija koja se odnosi na jednog ili više izdavaoca, jednu ili više prenosivih hartija od vrijednosti i koja je, da je bila objavljena, mogla da utiče na cijene odnosnih hartija od vrijednosti.

Španski Zakon o tržištu kapitala iz 1991.⁷ govori o privilegovanoj⁸ informaciji pod kojom podrazumijeva konkretnu informaciju koja se odnosi na jednu ili više hartija od vrijednosti koja je još uvijek nepoznata široj javnosti, i u slučaju da je takva informacija bila i objavljena, imala bi ozbiljan uticaj na kretanje cijena hartija od vrijednosti.

U Direktivi EEZ se kaže da je privilegovana ona informacija koja je precizne prirode, koja se odnosi na jednog ili više izdavalaca hartija od vrijednosti ili jednu ili više hartija od vrijednosti, koja nije objavljena a koja, da je bila objavljena, mogla je da utiče na cijene paketa akcija.

Zakon Irske⁹ sadrži sličnu definiciju kada govori o materijalnoj insajd informaciji. Aspekt materijalnosti informacije, dakle određenje onog nivoa sa kojeg sadržina informacije suštinski djeluje na učesnike na tržištu, je veoma delikatan. Da bi se mogla odrediti materijalnost, elementi se moraju cijeliti prema objektivnim kriterijumima. Kao model za vršenje takve procjene u anglosaksonskom pravu služi tzv. razumni učesnik na tržištu (reasonable man) kao personifikacija idealnog učesnika na tržištu. To je standard koji se odnosi na hipotetičkog učesnika na tržištu koji svoje aktivnosti izvršava sa dužnom pažnjom i razumno, kvalitete koje društvo u cjelini zahtijeva od svojih članova u cilju zaštite sopstvenih interesa i interesa drugih. Ovaj standard predstavlja normu - vodiča za one koji kao npr. bankari, brokери, upravitelji nekretninama ili pak izvršioци testamenta, imaju odgovornost u smislu investicija njihovih klijenata. To su dakle ona lica od kojih se očekuje da sprovede svoje aktivnosti sa dužnom pažnjom i odgovornošću i da sa diskreциjom prate interese kapitala izbjegavajući spekulantske radnje i investicije.

Ono što je posebno značajno uočiti u perspektivi regulisanja insajder trejdinga je informativni jaz koji insajder iskorišćava.

Imajući sve to u vidu, neka osnovna pitanja vezana za regulisanje insajder trejdinga i koja se posebno tiču potpunijeg

2 Tribunal de grande instance, Paris, 12. maj 1976.g. JCP 18496/19767

3 Tullio Cicerone, De Officinalis, II knjiga, str. 37, Milano, De Agostini, 1978.g.

4 Idem, str. 45

5 Criminal Justice Act 1993, član 57, st. 1

6 Regulation de Commissionne des Opérations de Bourse (COB), član 1.

7 Capital Markets Act, CMA, 1991

8 Za potrebe našeg rada izraze privilegovana, insajd, osjetljiva ili materijalna informacija ćemo koristiti kao sinonime bez pravljenja funkcionalne razlike u terminima.

9 Companies Act, 1980., član 107, Dio V

Administration and Management School at Harvard University and this University received 20 million dollars to offer insider trading study programme. On October 2nd a congress devoted to ethics in economic system was held in Milan. The congress was organised by an NGO Milano Young, the President of which is Barbara Berlusconi, daughter of the Prime Minister of Italy, Silvio Berlusconi.

PARTICIPANTS IN INSIDER TRADING

Actors of insider trading are insiders. Under the provision of the Rulebook of the Stock Exchange Operations Commission in France, insiders are persons who are in the possession of an inside information which they obtain due to their membership in administrative bodies of a company, management, board of directors, issuers of securities, or in relation with performance of their professional tasks. Such persons are defined as primary insiders. More generally, managers, directors and members of supervisory bodies in companies and their spouses are defined as insiders and their actual knowledge about inside information is nowhere explicitly required. It is assumed that these persons are in the possession of inside information which is why they may be deemed accountable for inside trading as soon as the operation was carried out on the market.

The requirement in the definition related to the performance of professional tasks has become the subject of judicial interpretation in France. So, for instance, a journalist who executed stock exchange transaction based on information he found out in conducting an interview for his magazine was declared insider since he received information in exercise of his profession. In another case similar to this one, an architect who was waiting in the lobby of his client's office (who was director of a company) and seeing the president of the other big company leaving the office of the first one concluded that the companies concluded a memorandum of understanding and he was declared insider after he bought shares package of one of these two companies and generated enormous profit. The court decided in this case that the architect had not obtained information by chance, but in his professional relation with the client.²

It is believed that the first recorded insider trading case was that of some wheat trader who sailed to hunger struck Rhodes

on his ship, overtaking several other ships that also had wheat on board. Having arrived first with his cargo and without disclosing information about upcoming arrival of other ships to the population, the trader managed to sell his cargo before arrival of the other traders and to generate profit for himself.³

The most famous historical case of insider trading was recorded in 1814 when the Rothschild family significantly increased its fortune and laid foundations for financial well-being of the future generations of the family. In fact, the news of the Wellington's victory over Napoleon in Waterloo reached the Rothschilds through some channels faster than the others in London, which is why the Rothschilds quickly sold their shares thus taking advantage of the lack of knowledge of their fellow participants on the stock exchange in terms of these important facts.⁴

Abundance of forms through which insider trading is manifested does not impede identification of the common denominator – taking advantage or misuse of informative asymmetry, that is information familiar only to some of the market participants. Therefore, the basis of the phenomenon is functional abuse, misuse of private so-called privileged channels and one's own position with the aim of obtaining relevant information.

Detailed and adequate analysis requires the need to approach insider trading in a manner which is broader than that imposed by literal term. The discipline itself has in legal terms expanded beyond its original boundaries, but a unifying theory that would cover all elements of the phenomenon and adequate criteria for resolution of some are still missing, unresolved dilemmas still exist.

THE SCOPE OF INSIDER TRADING

The key element in insider trading is inside information. Definition of inside information is the most problematic aspect in an attempt to regulate insider trading.

The Great Britain⁵ Criminal Justice Act from 1993 prescribes that in order for an information to be deemed inside information it must meet the following four requirements:

1. It must be related to the specific security or specific issuer of securities or specific issuers of securities, that is issuers in general;

2. It must be precise and specific;
3. It was not disclosed;
4. If it had been disclosed it might have had significant influence on securities prices.

Similarly, in France under Article 1 of the Commission Regulation⁶ on Stock Exchange Operations, inside information is any undisclosed, precise information that relates to one or more issuers, one or more negotiable securities and which, had it been disclosed, could have affected prices of the securities concerned.

The Spanish Capital Market Acts from 1991⁷ mentions privileged⁸ information which means specific information related to one or more securities which is still undisclosed to the general public, and had that information been disclosed it would have had serious effect on the development of the price of the securities.

The EEC Directive states that privileged information is the one of precise nature which refers to one or more issuers of securities or one or more securities, which has not been disclosed but, had it been disclosed it would have affected prices of the shares package.

Irish Act⁹ contains similar definition of material inside information. The aspect of materiality of the situation, that is determination of the level from which the contents of the information actually affects market participants is quite delicate. In order to establish materiality, elements must be assessed on the basis of objective criteria. The model for such assessment in Common Law is the so-called reasonable man which is a personification of an ideal market participant. This standard relates to a hypothetical market participant who performs activities with due attention and reasonably, as well as qualities that the society in general requires from its members in order to protect personal interest and interests of the others. This standard represents a norm – a guideline for those who, like for instance bankers, brokers, real estate managers or administrators of the will, are responsible for their clients' investments. Therefore, these are persons who are expected to perform their activities with due attention and accountability and to look after the interests of the capital with discretion by avoiding speculative activities and investments.

From the aspect of regulation of insider trading it is very important to perceive informative gap abused by insider.

2 Tribunal de Grande Instance, Paris, May 12th 1976, JCCP 18496/19767

3 Tuillio Cicerone, De Officinalis, Volume II, p.37, Milan, De Agostini, 1978

4 Idem, p. 45

5 Criminal Justice Act, 1993, Article 57, paragraph 1

6 Regulation de Commissionne des Operations de Bourse (COB), Article 1

7 Capital Markets Act, CMA, 1991

8 For the purpose of our paper, the terms privileged, sensitive or material information will be used as synonyms without making functional distinction among the terms.

9 Companies Act, 1980 Article 108, Section V

definisanja insajd informacije mogu se identifikovati na sljedeći način:

- a) U kojoj mjeri je dopušteno učesnicima na tržištu da saznaju informacije koje se odnose na poslovanje određenog preduzeća, odnosno institucija u globalu, bilo putem lansiranja novih informacija, bilo pružanjem ili otkrivanjem već postojećih informacija ili pak i jednog i drugog?
- b) U kojoj mjeri je dopušteno jednom subjektu koji je u posjedu privilegovane a u javnosti neobjavljene informacije da je koristi bilo lično, bilo da je prenese drugom licu i na taj način ostvari profit i postigne neki cilj?
- c) Da li postoje ograničenja (zlo)upotrebe službenog položaja i, ako postoje, u kojoj se formi javljaju: da li kroz obavezu uzdržavanja od iskorišćavanja informacija u lične svrhe ili kroz obavezu objavljivanja drugoj strani ili široj javnosti, ili pak obavezu vraćanja profita stečenog putem zloupotrebe i sl.?
- d) U kojoj mjeri je bila dostupna odgovarajuća informacija licima koja bi takođe ostvarila profit da je došlo do blagovremene objave informacije?

ZAKONSKO REGULISANJE INSAJDER TREJDINGA

Da bi se odgovorilo na ova pitanja potrebno je podjednako baviti se, kako u teoriji tako i u praksi kroz zakone, informacijom, načinima sticanja, upotrebom i prenosom, kao i ponašanjem određenih lica na osnovu informacije i njihovog odnosa sa drugima.

Sve do 1970.g. insajder trejding nije potpadao pod zakonsko regulisanje te stoga, osim u SAD, nigdje nije ni smatran nezakonitim. Od 1970.g. a posebno krajem '80-ih i početkom '90-ih, uslijed učestalih pojava insajder trejdina, sve zemlje u kojima funkcioniše akcionarsko tržište su uvidjele potrebu za donošenjem zakona o insajder trejdingu. U svim ovim zemljama insajder trejding se represivno reguliše.

U SAD, insajder trejding je regulisan bogatom zakonskom regulativom koja počiva na zakonima iz 1933. i 1934.g. a zakonska regulativa je posebno pooštrena u toku '80-ih.

U Evropi je insajder trejding postao predmet regulisanja mnogo kasnije: u Francuskoj je krivično regulisan zakonom iz 1974.g. s tim što je ova zemlja ojačala svoje pravo zakonima o insajder trejdingu iz 1983.g., 1988.g., 1989.g. i 1990.g. U Velikoj Britaniji krivična zabrana insajder trejdina je prvobitno bila sadržana u Zakonu o hartijama od vrijednosti (Companies Securities Act), koji je donijet 1980.g. i Zakonu o insajder poslovanju (Insider Dealing Act), iz 1985.,

a novi zakon o insajder trejdingu je stupio na snagu 1. marta 1994.g.

U Danskoj je Zakon o insajder trejdingu donijet 1987.g. u Grčkoj 1988.g. u Holandiji i Belgiji 1989.g. Irskoj 1990.g. Španiji, Portugaliji, Luksemburgu i Italiji 1991.g.

Donoseći zakone o insajder trejdingu, neke od zemalja članica Evropske Unije su preduhitrile a neke postupile po Direktivi EEZ koju je usvojio Savjet EEZ 13. novembra 1989.g. a odnosi se na obavezu regulisanja insajder radnji.

Njemačka je posljednja članica EU koja je svoj Zakon o insajder trejdingu donijela 8. jula 1994.g. čime je u ovoj zemlji insajder trejding postao krivično djelo kažnjivo zatvorom do pet godina.

Većina ostalih zemalja Evrope je takođe usvojila slične propise: Norveška i Švedska 1985.g. Švajcarska i Finska 1988.g. Austrija 1989.g. Čak i krivični zakon Lihtenštajna sadrži odredbu o zloupotrebi poslovnih informacija u smislu insajder trejdina.

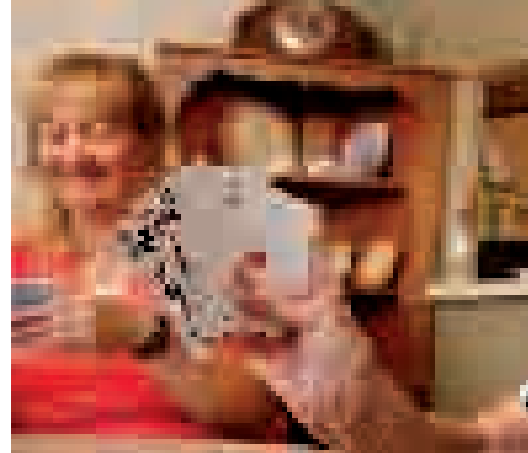
Van Evrope, nekoliko zemalja, uključujući Japan, je donijelo ili izmijenilo postojeću regulativu o insajder trejdingu. U Kini su skandali vezani za insajder trejding i manipulacije sa cijenama akcija doveli do pobuna u Senzenu 1992.g. Neposredno poslije ovih događaja kineska vlada je osnovala agenciju čiji je zadatak nadzor nad poslovanjem na tržištu hartija od vrijednosti.

Uporedo sa ovim, dramatično brzom regulisanjem insajder trejdina, uvidjela se potreba za užom saradnjom među organima kojima je povjeren nadzor nad trgovinom hartijama od vrijednosti i ona sve više dobija na značaju. Među članicama Evropske Unije saradnja je predviđena već pomenutom Direktivom iz 1989.g. kojom se zahtijeva da svaka zemlja članica predvidi administrativne organe nadležne da vrše nadzor nad eventualnim radnjama insajder trejdina i da predviđa saradnju među ovim organima.

ZAKONSKO REGULISANJE INSAJDER TREJDINGA U NAŠOJ ZEMLJI

U našoj zemlji ne postoji specifična normativa koja reguliše insajder trejding u preventivnom i represivnom smislu. Tome je svakako doprinio specifičan istorijski, pravni, ekonomski i privredni razvoj naše zemlje i posljedično nedostatak iskustava i znanja u nekim oblastima i pojavama. Materija o insajder trejdingu je stoga, u teoriji, za naše uslove sasvim nova.

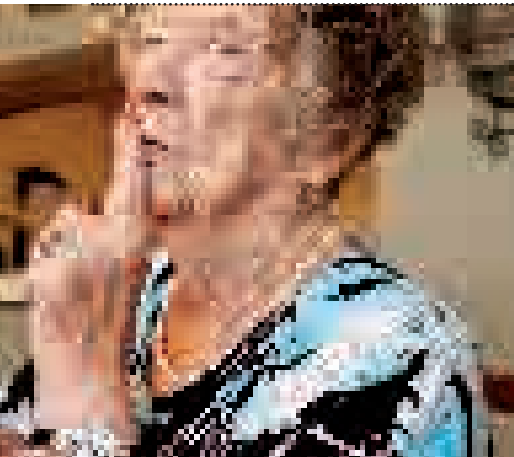
Zbog stremljenja naše zemlje ka tržišnoj privredi, realno je očekivati u bliskoj budućnosti jos savremenije i efikasnije funkcionisanje akcionarskog tržišta. U cilju omogućavanja jednom savremenom i or-



ganizovanom tržištu da vrši svoju ulogu efikasno, moraju se predvidjeti sve mjere u cilju garancije njegovog neometanog funkcionisanja. Pravilno funkcionisanje tržišta zavisi u velikoj mjeri od povjerenja koje ono uliva učesnicima. Ono se zasniva prije svega na činjenici da se učesnicima na tržištu garantuje jednakost i zaštita od protivpravnog i nepoštenog korišćenja tzv. privilegovane informacije u lične svrhe od strane lica koja su tu informaciju stekla u vršenju svoje funkcije. Operacije izvršene od strane lica na berzi korišćenjem privilegovane informacije i sticanje prednosti jednog učesnika na tržištu u odnosu na druge mogu samo da kompromituju tržište i škode pravilnom funkcionisanju tržišta.

U ovom momentu kod nas postoji jedno pluralističko akcionarsko tržište, na kojem učestvuje veliki broj pojedinačnih preduzeća. Savremeni, a posebno budući razvoj akcionarskog tržišta u našoj zemlji nameće potrebu za jednim ozbiljnim zakonskim regulisanjem insajder trejdina, posebno u domenu pružanja efikasnih i cjelovitih informacija svim zainteresovanim učesnicima na tržištu i investitorima, kao i u pogledu prevencije zloupotrebe privilegovanih lica (direktora, menadžera, i sl.). Norme o insajder trejdingu moraju imati u vidu realnost, specifičnost i karakteristike postojećeg tržišta, kao i sposobnost da predvide razvoj i kretanja tržišta u bliskoj budućnosti. Sadašnje neregulisanje cjelovite zakonske regulative o insajder trejdingu, kao i rizici koji su prisutni u tom smislu, nameću urgentnu potrebu bavljenja ovom materijom.

Treba imati u vidu da motivi za manipulacije na tržištu i insajder trejding leže u uslovima koji su "pruženi" malverzantima samim tim što ne postoji regulisano finansijsko tržište. U nedostatku sopstvenih iskustava moramo se učiti na iskustvima razvijanih zemalja, posebno onih koji imaju razrađen sistem pravnih normi kojim regulišu insajder trejding ■



Having that in mind, some basic questions related to the regulation of insider trading and which are particularly concerned with the more complete definition of inside information may be identified as follows:

- a) To what extent is it allowed to market participants to find out information related to the operation of a certain company, that is institutions in general, either by launching new information, or provision or discovery of already existing information or both?
- b) To what extent is it allowed to one person who is in the possession of privileged information that is still undisclosed to the public to use it either personally, or to transfer it to the other person and generate profit and reach some goal?
- c) Are there any limitations to the (mis)use of office and, if there are, what is their form: is it the obligation to sustain from using the information for personal interests or obligation to disclose it to the other party or general public, or the obligation to return profit generated through misuse etc.?
- d) To what extent was relevant information available to the persons that would also generate profit if the information was timely disclosed?

LEGAL REGULATION OF INSIDER TRADING

In order to answer these questions, it is necessary to equally deal with the information, manner of obtaining, use and transmission, as well as behavior of certain persons driven by such information and their relation with others in both, theory and practice through law.

Until 1970 insider trading was not regulated by law which is why it was not considered illegal anywhere but in the USA. From 1970, particularly at the end of the eighties and at the beginning of the nineties all countries with functional stock market

realized that they need to adopt the insider trading act due to increasingly frequent insider trading. In all these countries insider trading is repressively regulated.

In the USA, insider trading is governed by abundant legislation based on acts from 1933 and 1934, while legislation particularly became strict during the eighties.

In Europe, insider trading has become governed much later: it was criminally governed by the 1974 act in France but this country reinforced its legislation with insider trading acts from 1983, 1988, 1989 and 1990. Criminal prohibition of insider trading in Great Britain was originally contained in the Companies Securities Acts passed in 1980 and Insider Dealing Act from 1985, while new Insider Trading Act entered into force on March 1st 1994.

The Insider Training Act in Denmark was passed in 1987, in Greece in 1988, in Holland and Belgium in 1989, in Ireland in 1990, in Spain, Portugal, Luxembourg and Italy in 1991.

By adopting insider trading acts some of the European Union countries anticipated the EEC Community Directive of November 13th 1989 which coordinates regulations on insider trading.

Germany is the last EU member country to pass the Insider Trading Act on July 8th 1994 when in this country insider trading became a criminal act punishable with up to five years imprisonment sentence.

The majority of other countries passed similar regulations as well: Norway and Sweden in 1985, Switzerland and Finland in 1988, Austria in 1989. Even the criminal law in Lichtenstein contains provision on misuse of business information in terms of insider trading.

Several countries outside Europe, including Japan, passed or amended the existing regulations on insider trading. In China, scandals caused by insider trading and manipulation of prices resulted in riots in Shenzhen in 1992. Immediately after these events the Chinese Government founded the agency which is tasked with the supervision of operations on the securities market.

At the same time, dramatically fast regulating of insider trading pointed to the need of closer cooperation among bodies entrusted with supervision over securities which becomes increasingly important. Cooperation between European Union members was already envisaged in the mentioned 1989 Directive which requires from each member country to envisage administrative bodies responsible to conduct supervision over potential insider trading operations and to envisage cooperation with these bodies.

LEGAL REGULATIONS ON INSIDER TRADING IN OUR COUNTRY

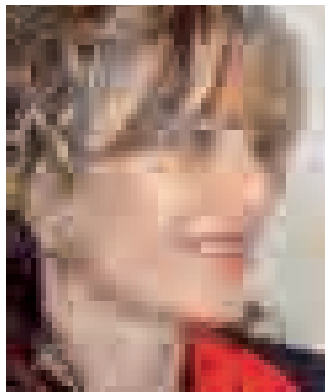
There are no specific regulations governing insider trading in our country in both, preventive and repressive terms. This is certainly the result of specific historical, legal, economic and business development of our country and consequently the lack of experiences and knowledge about some areas and phenomena. Therefore, insider trading matter is theoretically quite new for our conditions.

Our country seeks to become market economy which is why it seems realistic to expect more modernized and efficient functioning stock market in the near future. In order to enable a modernized and organized market to efficiently play its role, all the measures guaranteeing unhindered functioning should be envisaged. Regular market operation largely depends on the confidence it gives to the participants. It is primarily based on the fact that market participants are guaranteed equality and protection against illegal and unfair use of the so-called privileged information for personal interests by a person who obtained such information in performance of their tasks. Operations carried out on the stock market by the person using privileged information and one participants' achieving advantage with a view to the others may just discredit the market and harm regular market operation.

We currently have a pluralist stock market where a great number of individual companies operate. Modernized and particularly future development of stock market in our country imposes the need to seriously regulate insider trading especially in the area of the provision of efficient and complete information to all interested market participants and investors, as well as in terms of prevention of misuses by privileged persons (directors, managers etc.). Insider trading regulations must take into account the reality, specificity and characteristics of the existing market, together with the capacity to anticipate progress and development of the market in foreseeable future. Current lack of compete insider trading legal regulation and accompanied risks force urgent need to deal with this matter.

One should bear in mind that motives for market manipulations and insider trading may be found in the circumstances provided to speculators because of the lack of regulated financial market. As we lack our own experiences we must learn from experiences of other developed countries, particularly those that worked out legal regulations governing insider trading ■

„Dobri“ i „loši“ procjenitelji



U crnogorskoj praksi procjenjivač vrijednosti nekretnina je obično osoba sa tehničkim i stručnim bekgraundom (diplomirani inženjer građevinarstva/arhitekture), sa završenom obukom i ovlaštenjem/licencom u oblasti procjene nepokretnosti

mr Sanja Radović

Ovlašćeni procjenjivač, DREAMY D.O.O.

Aktivnosti koje prethode plasiranju slobodnih bančnih sredstava (kredita), između ostalog, povlače i obavezu njihovog obezbjeđenja. Jedan od najčešće korišćenih vidova obezbjeđenja je polaganje prava hipoteke ili fiducije na nepokretnost (nekretnine) od strane banaka. Zbog heterogene prirode nepokretnosti, kao i činjenice da ne postoji bazični tržišni mehanizam utvrđivanja njene vrijednosti (kao npr. tržište akcija), nameće se potreba za angažovanjem stručnjaka - ovlašćenog procjenjivača za nekretnine. Njegova je uloga da izvrši procjenu vrijednosti nepokretnosti na osnovu podataka sa tržišta, poštujući osnovna načela i principe struke i bez ikakvih interesa u pogledu imovine koja se procjenjuje.

Postavlja se pitanje koliko se u tom, za banke i njihove klijente značajnom poslu, primenjuju standardi, metode i principi koji obezbjeđuju validnu osnovu za donošenje poslovnih odluka i pokretanje aktivnosti, budući da u Crnoj Gori ne postoje propisi koji decidno regulišu ovu materiju¹, niti se procjenjivačima pruža adekvatna obuka iz ove oblasti. Procjenitelji su uglavnom prepušteni sami sebi, a njihova profesionalnost zavisi od samoedukacije, iskustva i sopstvenih etičkih vrijednosti. Kao rezultat u praksi se često javlja velika raznolikost u nivou i kvalitetu ponude ove vrste usluga.

Nije rijetkost da se procjena svede na pisani izvještaj, na jednom listu papira, koji sadrži kratak opis nepokretnosti, nakon čega slijedi rečenica: „Mišljenja sam da ova nekretnina vrijedi...“. Na taj način, za istu nepokretnost se dobijaju procjene čije se vrijednosti mogu međusobno razlikovati i preko 50 odsto.

Kom procjenitelju onda pokloniti povjerenje? Kako znati kojim su podacima raspolagali i kojim su se kriterijumima rukovodili? Najzad, koji je od njih „dobar“ a koji „loš“ procjenitelj?

Čest je slučaj da procjenitelj dobije status „dobar procjenitelj“ kada odredi tržišnu vrijednost približnu onoj koju naručilac očekuje. U suprotnom, on je „loš“.

Na ovaj način se stvara slobodan prostor raznim vidovima improvizacije, a često i špekulacije i obmane.

STANDARDI, PROCEDURE

Da bi se ovakva praksa svela na najmanju moguću mjeru, a rad procjenjivača harmonizovao, u velikom broju zemalja se koriste ustaljeni standardi i procedure koje obezbjeđuju pouzdanost i validnost procjenjivačkog rada (International Valuation Standards, European Valuation Standards, Uniform Standards of Professional Appraisal Practice...). Prihvaćeni u velikom broju zemalja, ovi standardi i procedure su shvaćeni i kao potreba proizašla iz globalizacije svjetskog tržišta, čijom primjenom promet nekretnina zauzima sve veće učešće u okviru drugih alternativnih investiranja².

Standardi se koriste kao jedna vrsta vodiča kroz složeni proces procjenjivanja. Njima se identifikuju i definišu ključni pojmovi koji se koriste u procjenjivanju, određuju obim i sadržaj izvještaja o procjeni, definišu načela i principi procjenjivanja i daju osnovni metodološki pristupi po kojima procjena treba da se vrši.

Zbog složene prirode vrijednosti imovine, koja se ogleda u miksu subjektivne i objektivne percepcije učesnika o ovom poslu, veoma je važno znati koju vrijednost nepokretnosti želite dobiti od procjenitelja. Najčešće procjenjivana vrijednost je tržišna (fer) vrijednost³. Ona je uglavnom osnov za odobravanje kreditnih aranžmana od strane banaka.

Najrasprostranjenija definicija *tržišnu (fer) vrijednost* označava kao najvjerovatniju cijenu koju imovina može postići na konkurentnom i otvorenom tržištu, pod uslovima fer prodaje, gdje se prodavac i kupac ponašaju promišljeno, znalački i bez prisile. To podrazumijeva da se kupoprodaja vrši u tačno određenom vremenskom presjeku i pod sljedećim uslovima: da su kupac i prodavac motivisani, dobro informisani i savjetovani i da se ponašaju u svom najboljem interesu, da je vrijeme izloženosti nekretnine na tržištu bilo razumno (60 do 120 dana), te da se plaćanje vrši u novcu i da cijena podrazumijeva normalnu nadoknadu za pro-

¹ Postoji Uredba o bližim kriterijumima i metodologiji za određivanje vrijednosti nekretnine („Sl.list RCG“, br. 23/03 i br. 26/04) i Upustvo o načinu i postupku revalorizacije iznosa duga bivšeg vlasnika („Sl.list RCG“, br. 66/04)

² Samo u Crnoj Gori u 2007. godini, ostvareno je preko milijardu eura stranih direktnih investicija, od čega je investiranje u nekretnine iznosilo 51 %.

³ U zavisnosti od svrhe procjene standardima su definisane još i vrijednosti kao što su: investiciona, knjigovodstvena, likvidaciona, zamjenska, osiguravajuća...

'Good' and 'bad' Appraisers

In Montenegrin practice, appraiser of property value is usually a person with technical and professional background (graduated civil/architecture engineer) who completed training and possesses authorization/license in the area of property appraisal

Sanja Radović, M.Sc

Licensed Appraiser, DREAMY D.O.O.

Activities undertaken prior to the release of free bank funds (loans), among other things, impose the obligation to secure them. One of the most frequent types of security is mortgage or fiduciary right of the bank over a property (properties). Heterogeneous nature of property and non-existence of the basic market mechanism for establishing its value (such as, for instance, stock market) impose the need to engage an expert - licensed property appraiser. His role is to conduct appraisal of the property value based on market data by following fundamental rudiments and principles of the profession and without any interest in property that is subject of the appraisal.

The question is to what extent standards, methods and principles that guarantee valid grounds for making business decisions and launching of activities are applied in this activity which is important for banks and clients, since in Montenegro there exist no regulations governing this matter¹, neither are appraisers provided adequate training in this area. Appraisers are mainly left to their own devices, while their professionalism depends on self-education, experience and their own ethic values. Consequently, a significant difference is encountered in practice between the level and quality of offers for this type of services.

Appraisal is often reduced solely to a report in writing on one piece of paper which contains a brief description of the property followed by a sentence: In my opinion, the property value is... Therefore, appraisals for the same property may differ one from another by over 50%.

Which appraiser should deserve the confidence? How is it possible to know what data they had and what criteria they followed? Finally, which one of them is a good, and which one is a bad appraiser?

Frequently appraiser earns the reputation of a good appraiser if he establishes market value which is close to that expected by the client? Otherwise, he is bad. This creates sufficient room for various types of improvisations, often speculations and frauds.

STANDARDS, PROCEDURES

Uniform standards and procedures which guarantee reliability and validity of appraisal are applied in many countries in order to reduce such practices to the minimum and harmonize work of appraisers (International Valuation Standards, Uniform Standards of Professional Appraisal Practice). Being accepted in many countries, such standards and procedures are also considered as a need arising from globalization of the world market whose application results in increasingly greater share of trade in property in the framework of other alternative investments.²

Standards are applied as a kind of guidelines through the complex appraisal process. They identify and define key terminology used in appraisal, determine the scope and contents of appraisal reports, define appraisal rudiments and principles and provide basic methodological principles which appraisal should follow.

Due to the complex nature of the property value in terms of a mix of subjective and objective perception of participants in this activity, it is very important to know what kind of property value you want to obtain from appraiser. The most frequently appraised value is market (fair) value.³ It is mainly the basis for approval of loan arrangements by the banks.

The most frequent definition defines *market (fair) value* as the most likely price that the property may achieve on a competitive and open market under the conditions of fair sale where buyer and seller act cautiously, knowingly and without any force imposed. This means that the sale and purchase are carried out in precisely defined time frame and under the following conditions: buyers and sellers are motivated, well informed and advised and they act in their own best interest, the time of exposure of property on the market was reasonable (between 60 and 120 days), payment is executed in money and the price means usual compensation for sold property, wit-

¹ Decree on Closer Criteria and Methodology for Appraisal of the Property Value (Official Gazette of the Republic of Montenegro, no. 23/03 and no. 26/04) and Instruction on the Manner and Procedure of Revalorisation of the Outstanding Debt of Previous Owner (Official Gazette of the Republic of Montenegro, no. 66/04) are in force.

² Only in Montenegro foreign direct investments amounted to 1 billion euro, of which investment into properties equaled 51%.

³ Depending on the type of appraisal, the standards also define some other values such as: investment, book, liquidation, replacement, insurance values...

datu imovinu, bez uticaja alternativnih vrsta finansiranja ili prodaje za koju su odobreni posebni ustupci od strane učesnika u prometu.

Za razliku od tržišne vrijednosti, po pojmom *cijena* se podrazumjeva postignuta vrijednost u prometu nekretnina. Cijena može ali ne mora da reflektuje tržišnu fer vrijednost. Razlog je u tome što cijena ne podrazumijeva uvijek postojanje uslova iz navedene definicije i može da bude rezultat prometa pod pritiskom (emocionalnim, poslovnim, vremenskim...), prometa unutar zatvorenog kruga učesnika (između srodnika, između krovne firme i njenih afilijacija...), prometa u cilju špekulantskih radnji i slično.

Šta utiče na tržišnu vrijednost jedne nepokretnosti? Osim njenih tehničkih, lokacijskih i upotrebnih karakteristika, veoma važnu ulogu igraju pozitivni propisi (planovi, zakoni o građenju, planiranju, katastru, svojini...), društvena kretanja (migracije stanovništva, rast populacije, struktura porodice, kultura i običaji...), kao i ekonomski faktori na lokalnom i globalnom nivou (od kupovne moći stanovništva i uslova podizanje kredita do makroekonomskih pokazatelja na nivou države). Stoga je izuzetno važno da procjenitelj, osim osnovnog znanja iz svoje struke, u potpunosti razumije i prati ekonomske, društvene i zakonodavne uticaje koji pokreću učesnike na tržištu nekretnina, da bi njegov vrijednosni sud bio pouzdan i kompetentan.

VRSTE IZVJEŠTAJA I NJIHOVA SADRŽINA

U zavisnosti od predmeta procjenjivanja i namjera naručio-oca posla, važno je da se na samom početku definiše vrsta i forma izvještaja. Standardi predviđaju tri osnovne vrste izvještaja: Cjeloviti izvještaj (Self-contained Appraisal Report), Sumarni izvještaj (Summary Appraisal Report) i Izvještaj ograničene upotrebe (Restricted Use Appraisal Report), i tri osnovne forme izvještaja: Pismo (Letter Report), Formular (Form Report) i Elaborat (Narrative Report).

Izbor bi trebalo da se bazira na namjeravanoj upotrebi (svrsi) procjene, znanju korisnika, značaju i kompleksnosti imovine koja se procjenjuje i stepenu dostupnosti podataka sa kojima se baratalo u procjeni. Za bankarske potrebe se najčešće koristi Sumarni izvještaj (Summary Appraisal Report) i forma formulara ili elaborata (detaljni izvještaj se kod nas rjeđe koristi).

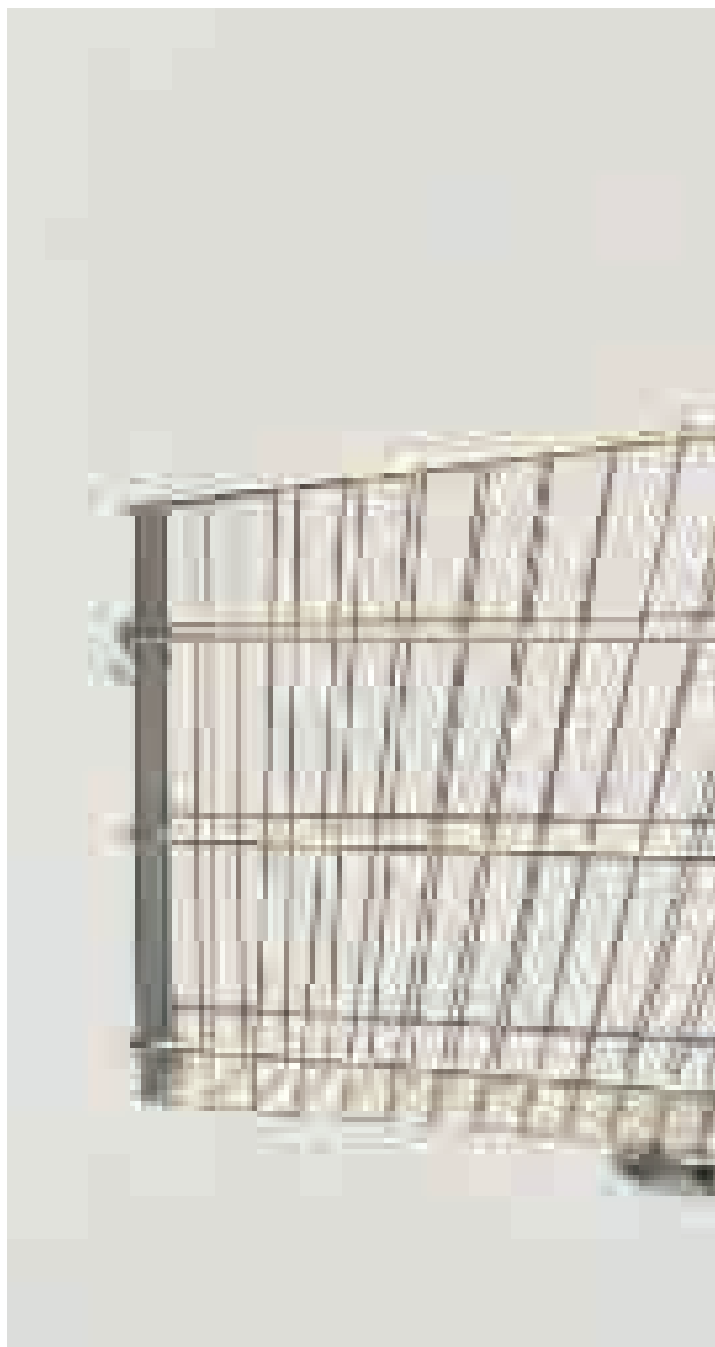
Šta jedan ovakav izvještaj mora sadržati? Prije svega, jasno definisan predmet i svrhu procjene, vlasnički i zakonski status nepokretnosti, opis lokacije i tehničke karakteristike nepokretnosti, metode procjene uz kratak opis analize tržišta i pretpostavki od kojih se pošlo i, konačno, zaključak o visini vrijednosti procjenjene nepokretnosti. Na kraju izvještaja poželjno je priložiti fotodokumentaciju vezanu za nepokretnost i kopije dokumentacije koja je korišćena (list nepokretnosti, kopija plana, izvod iz planske dokumentacije, ugovori i sl.). Ovakva struktura izvještaja o procjeni omogućava i banci i klijentu da se upoznaju sa načinom razmišljanja procjenitelja, principima kojima se rukovodio, pretpostavkama od kojih je pošao i konkretnim činjenicama na osnovu kojih je izveo svoj zaključak.

Jasno definisanje predmeta i svrhe procjene, osim ostvarivanja uvida šta se i zbog čega procjenjuje, značajno je i sa stanovišta odabira odgovarajuće metode procjenjivanja. Svojniski status, zakonska i planska regulativa su značajne sa stanovišta definisanja polja rada u okviru kojeg treba smjestiti

procjenu. Lokacijske i tehničke karakteristike nepokretnosti daju jasan uvid u prirodu predmeta procjene, njenih prednosti i mana, na osnovu kojih se usvajaju polazni elementi za primjenu odgovarajućih metoda procjenjivanja.

NAČELA - TEMELJ PROCJENE

Prije odabira metodološkog pristupa, uputno je naznačiti određena načela na kojima se temelji procjena. Uglavnom se koriste načela koja su utvrdili američki procjenitelji, kao što su: predviđanje, promjene, ponuda i potražnja, konkurencija, supstitucija, usklađenost, rekonstrukcije, uticaji, optimalna upotreba i ostatak dobiti. Predviđanje podrazumjeva razmatranje i uzimanje u obzir uticaja koji se mogu pojaviti u budućnosti. Naime, procjenitelj treba da prati sve promjene u sferi zakonodavstva, društvenih kretanja, socijalne politike i dr. Svi ti uticaji utiču na ponudu i potražnju gdje je bitan faktor kupovna moć, razvijen bankarski sistem i slobodno tržište. Kod slobodne konkurencije na tržištu prodaće se one nekretnine koje imaju nižu cijenu, a jednaka svojstva.



hout influence of alternative types of financing or sale for which special trade offs have been approved by participants in trade.

Unlike market value, the term *price* means value achieved in trade in property. The price may, but does not have to reflect market fair value. It is so because the price does not at all times imply existence of the conditions stated in the above definition and may result from trade under pressure (emotional, business, time pressures...), trade within a closed circle of participants (between relatives, between mother company and its affiliates), trade aimed at speculative actions and similar.

What influences market value of a property? In addition to its technical, site and operational characteristics, valid regulations also have an important role to play (plans, laws on construction, planning, land registry, ownership...), social developments (migrations of the population, population growth, family structure, culture and customs...), as well as economic factors locally and globally



(starting from purchasing power of the population and lending conditions up to macroeconomic indicators on the country level). Therefore, not only is it quite important for the appraiser to have basic knowledge about his profession, but he also needs to fully understand and observe economic, social and legislative effects which drive market players in order for his decision on appraisal to be reliable and competent.

TYPES OF REPORTS AND THEIR CONTENTS

Depending on the subject of appraisal and intentions of the client, it is very important to define the type and form of the report at the very beginning. Standards provide three main types of reports: Self-Contained Appraisal Report, Summary Appraisal Report and Restricted Use Appraisal Report and three main forms of reports: Letter Report, Form Report and Narrative Report.

The source should be based on intended use (purpose) of appraisal, knowledge of the user and degree of availability of data used in the appraisal. Summary Appraisal Report, Form Report and Narrative Report are most often used to meet the needs of the bank (Self-Contained Report is rarely used in our country).

What does a report like this need to contain? First of all, clearly defined subject and purpose of appraisal, ownership and legal status of the property, site description and technical details of the property, appraisal methods with brief description of the market analysis, initial assumptions and finally, the conclusion of the appraised property value. It is recommended that photographic documentation regarding the property and copy of used documentation (land registry excerpt, copy of the plan, excerpt from planning documents, contracts and similar) be attached at the end of the report. Such structure of the appraisal report enables the bank and the client to get familiar with the appraiser's point of view, principles he followed, initial assumptions and specific facts based on which he drew a conclusion.

Clear definition of the subject and purpose of appraisal is, in addition to gaining insight into what and why it is appraised, also important from the aspect of selection of an appropriate appraisal method. Ownership status, legal and planning regulations are important from the aspect of defining the field of work where the framework appraisal should be placed. Site and technical characteristics of the property provide clear insight into the nature of the appraised property, its advantages and disadvantages, based on which initial elements for application of appropriate methods are adopted.

PRINCIPLES - BASIS OF APPRAISAL

Prior to selecting methodological approach, it is recommended that certain principles that serve as a basis for appraisal be specified. Principles established by American appraisers are mainly applied, such as: anticipation, changes, supply and demand, competition, substitution, balance, reconstructions, influences, highest and best use and residual income. Anticipation means consideration and taking into account of some influences that might appear in the future. To be more precise, appraiser needs to observe all the changes in the area of legislation, so-

Najveću će vrijednost postići nekretnina koja je usklađena sa potrebama na određenom području, odnosno ako je baš to nekretnina za kojom postoji i potreba i potražnja. Kod rekonstrukcije treba procijeniti odnos uloženog novca i novca koji će investicija vratiti. Uticaji okoline na vrijednost nekretnine su jasni po sebi. Optimalna upotreba se veže za ostatak dobiti, ali i uz ostala načela. Važno je pravilno procijeniti da li je funkcionalnost nekretnine za datu namjenu takva da stvara realan osnov za postizanje najveće dobiti u određenom vremenskom periodu. Nakon ovako utvrđenih načela, pristupa se procjeni nepokretnosti kroz primjenu jedne ili više metoda procjene.

Standardi daju tri bazične metode za procjenu vrijednosti nepokretnosti:

1. Troškovna metoda, metoda utvrđivanja stvarne vrijednosti, ili statička metoda.
2. Tržišna metoda, ili metoda upoređivanja vrijednosti.
3. Kapitalizacija dobiti, tj. metoda vrednovanja prinosa, ili dinamička metoda.

Troškovna metoda je bazirana na obračunu troškova gradnje. Polazi se od pretpostavke da kupac neće nikada platiti nekretninu više nego što bi ga koštala izgradnja iste takve nekretnine na istoj lokaciji. Treba razlikovati obračun vrijednosti zamjenske i reprodukcijске nekretnine. Razlika je u tome što su reprodukcijски troškovi potrebni za izgradnju potpuno iste građevine u materijalima i tehnologiji, dok su zamjenski troškovi potrebni za izgradnju slične građevine, po današnjim standardima gradnje i jednake upotrebljivosti. Ukupna vrijednost nekretnine se izvodi tako što se od troškova građenja odbija iznos amortizacije, a dodaje se cijena pripadajućeg zemljišta, odnosno troškovi naknade za korišćenje građevinskog zemljišta, zatim troškovi naknade za uređenje građevinskog zemljišta i ostali troškovi (troškovi priključaka, porezi...). Ova metoda je pogodna za slučajeve gdje ne postoje podaci o cijenama postignutim kod kupoprodaje sličnih nekretnina, ili za nekretnine za koje je teže vrednovati prinos.

Tržišna metoda se sastoji iz analize tržišta nepokretnosti i upoređivanja nekretnine koja se procjenjuje sa nekretninama koje su bile prodane na istom području u bliskom vremenskom razdoblju. Vrlo je pogodna za zemlje sa organizovanim tržištem nekretnina i tamo gdje postoji vjerodostojna baza podataka o sprovedenim kupoprodajama.

Kod nas se ova metoda najviše koristi, ali nažalost sa mnogim ograničenjima i manjkavostima upravo zbog nedostatka validene i transparentne evidencije o postignutim cijenama u prometu. Zato što ne postoji zvanična statistika kretanja cijena na ovom tržištu, uglavnom se barata sa vrijednostima iz ponude koje procjenjivač koriguje shodno iskustvu, saznanju i eventualno bazi podataka koju sam vodi. Kvalitativni pomak na ovom polju je uradila Centralna banka Crne Gore koja je u 2007. godini počela sa praćenjem cijena stambenog prostora u Podgorici, Budvi, Tivtu i Herceg Novom, primjenom hedoničkog indeksa.

Metoda vrednovanja prinosa vrijednost građevinskih objekata određuje u zavisnosti od kapitalizovane neto zakupnine, koja se za identične ili uporedive objekte formira na tržištu. Radi se o tržišnoj zakupnini, umanjenoj za porez koji vlasnik plaća na nepokretnost ili prihod od zakupa umanjen za tekuće i investiciono održavanje objekta,

kao i za njegovu amortizaciju. Ukoliko se stvarno postignuti prihodi ne mogu utvrditi uslijed nedostatka podataka, tada se polazi od prihoda koji su se realno mogli postići u toku redovnog poslovanja, uključujući i prateće troškove koji bi proizišli iz ovog poslovanja. Za ovo se mogu koristiti i prihodi uporedivih nekretnina ili opšte prihvaćeni statistički podaci. Kod primjene ove metode od velikog je značaja određivanje visine stope kapitalizacije. Jedan od kriterijuma za odabir stope kapitalizacije je rizik kojem je izložen prihod iz realnog posjeda. Porodične kuće i nekretnine podliježu manjem riziku od poslovnih ili industrijskih objekata. Kao i u bankarstvu, ovdje vrijedi pravilo: mali rizik - niska kamata, veliki rizik - visoka kamata. Ova se metoda najčešće primjenjuje prilikom procjene vrijednosti nepokretnosti tipa hotela, poslovnih prostora koji se rentiraju, odnosno svih onih nepokretnosti koje stavljanjem u funkciju mogu da ostvare prihod. Njena primjena od procjenjivača zahtijeva viši nivo poznavanja ekonomskih principa i pravila.

U procjenama za potrebe banaka, najčešće se koriste prve dvije metode, od kojih se jedna usvoji kao mjerodavna, a druga kao kontrolna. Pravilnim ponderisanjem rezultata dobijenih korišćenjem ovih metoda, procjenitelj izvodi vrijednost (tržišnu, investicionu, zamjensku...) nepokretnosti i zaključak o procjeni daje na bazi svog iskustva i umijeća da pravilno protumači i interpretira elemente koji na nju utiču.

Osim ovih metoda, u praksi se koriste i metode koje su iz njih izvedene i iskustveno nadograđene od strane pojedinca ili grupacije koja ih koristi.

Šta će od svega ovoga banke tražiti od svojih procjenitelja - to ostaje na njima. U svakom poslu, važno je imati mogućnost izbora, a to banke zasigurno imaju ■



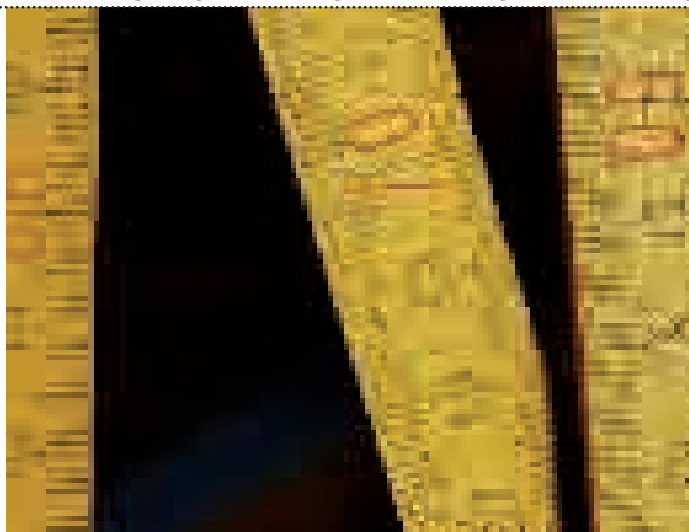
cial developments, social policy etc. All these influences affect supply and demand where purchasing power, developed banking system and free market constitute an important factor. With free market competition, those properties that have lower price and equal attributes will be sold. The property that is harmonized with these needs of certain area will reach the highest value if supply and demand for such property exist. In terms of reconstruction, there is a need to assess the ratio between invested money and money to be returned with that investment. Influences of environment on property value are inherently clear. Highest and best use is related with the residual income and other principles as well. It is important to correctly assess whether functionality of the property for a given purpose creates realistic grounds for reaching the maximum income in a specific period of time. After principles are defined, property appraisal is undertaken by using one or more appraisal methods.

Standards provide three basic methods for property appraisal:

1. The Cost Method, the method for establishing real value, or static method.
2. The Market Method, or the sales comparison method
3. The Income Capitalization Method, that is method for the valuation of returns, or dynamic method.

The Cost Method is based on accrual of the construction costs. It starts from the assumption that a buyer will never pay for a property more than it would be the cost of building that same property on the same location. There is a distinction between calculation of the value of replacement and reproduction property. They are different as the reproduction costs are needed for the construction of exactly the same building in terms of materials and technology, while replacement costs are necessary for the construction of the similar building in line with today's standards of construction and equal use. Total property value is calculated on the basis of the construction costs, less depreciation, plus the price of accompanying land, that is costs of fees for the use of the construction land, then costs of fees for the construction site management and other costs (connection to the networks, taxes...). This method is suitable when there are no data about prices reached in sale of similar properties or for properties whose return is more difficult to appraise.

The Market Method consists of the analysis of the properties market and comparison of appraised property with properties that were sold in the same region not so long ago. It is quite convenient for the countries with organized properties market and those that have a reliable data base about executed sales. This is the method that we apply most frequently, but unfortunately with many limitations and shortcomings caused by the lack of valid and transparent records of prices range in trade. Due to the non-existence of official statistics about prices range in this market, the data used are mainly values in the offer which appraiser adjusts based on experience, findings and potentially data base that he creates himself. Qualitative progress in this area has been made by the Central Bank of Montenegro as in 2007 it began to mo-



nitor prices of residential facilities in Podgorica, Budva, Tivat and Herceg-Novi by applying hedonic index.

The Income Capitalization Method establishes value of building facilities depending on the capitalized net rental value which is formed on the market for identical and comparable facilities. It is about market rental value, less taxes payable by the owner for the property or income generated through the property less current and investment maintenance of the facility and depreciation. If it is impossible to establish real income due to the lack of data, then starting point become incomes that could have been realistically achieved in regular operations, including related costs that would be incurred in such operations. Incomes of comparable properties or generally accepted statistical data may also be used for that. In this method it is quite important to establish the amount of the capitalization rate. One of the criteria for selection of capitalization rate is the risk that the income generated from the real property is exposed to. Family houses and properties run lower risk than business and industrial facilities. The banking rule applies here as well: low risk – low interest rate, high risk – high interest rate. This method is most frequently applied in property appraisal of the hotels, business premises for rent, that is all the properties that may generate income once they become functional. Its application requires from the appraiser to have substantial knowledge of economic principles and rules.

It is most often the case that the first two methods are applied in appraisals for the banks, whereby the first is adopted as a prevailing one, and the second as a controlling one. With correct weighting of the results reached by using these methods the appraiser calculates the value (market, investment, replacement values...) of the property and draws appraisal conclusion based on experience and competence to correctly construe and interpret elements affecting it.

In addition to these methods, in practice there are some methods arising from them which are upgraded based on experience of an individual or a group applying them.

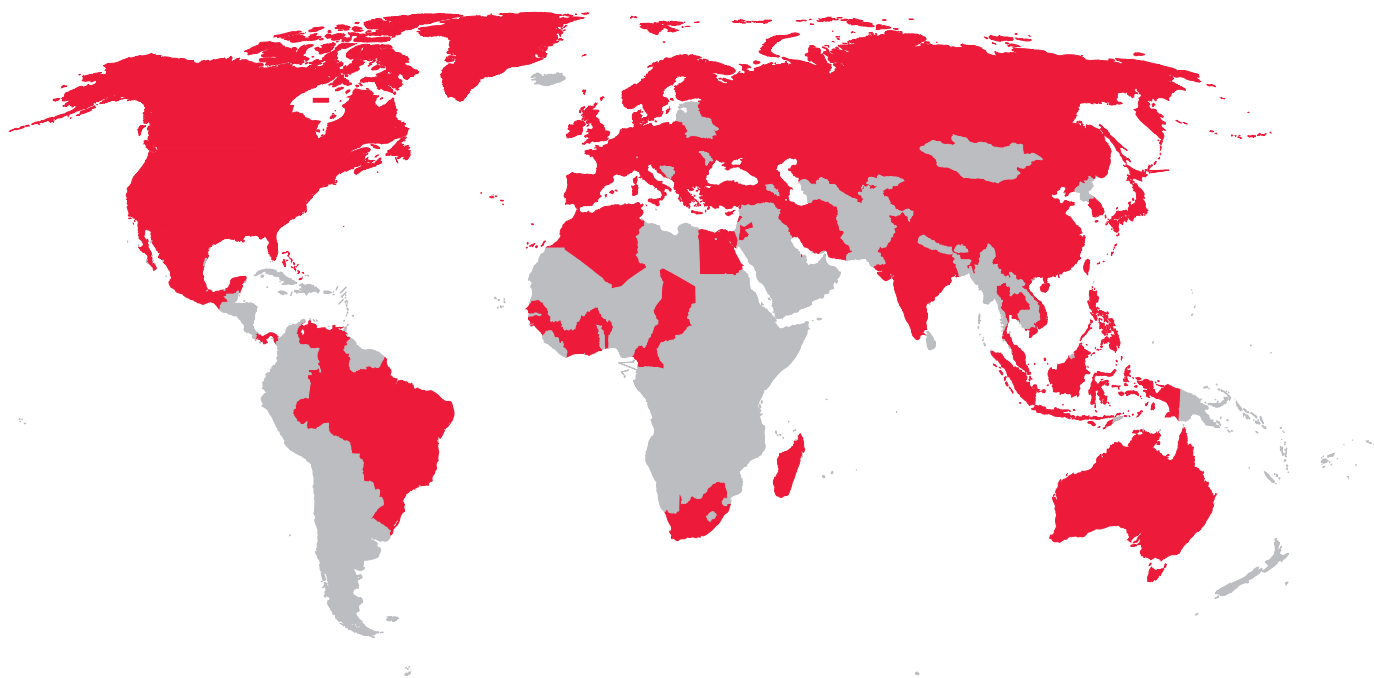
What will the banks require from their appraisers from all this- it is up to them. Like in every other business, it is important to have the possibility to make choices, and banks certainly have it ■

82
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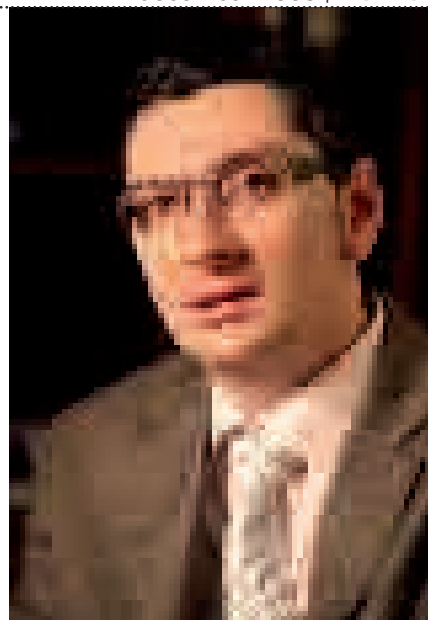
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Kreiranje novih finansijskih proizvoda

Globalizacija, deregulacija, informacione tehnologije i komunikacije uticali su na dalji tok razvoja finansijskih tržišta. U poslednjoj deceniji je prisutan trend kontinuiranog uvođenja inovacija koje, ne samo da olakšavaju, već i ubrzavaju i pojednostavljaju način poslovanja na finansijskim tržištima

Velibor Milošević



Finansijske usluge, a posebno investicione usluge poslednjih decenija prolaze kroz rapidne promjene na globalnim finansijskim tržištima. U tom smislu u prvi plan dolaze promjene u sferi bankarskih investicionih usluga, koje se sve više terminološki označavaju kao industrija investicionih usluga. Osnovne funkcije i ulogu investicionog bankarstva čine aktivnosti na:

- primarnom tržištu (posrednici koji preuzimaju i plasiraju nove emisije hartija od vrijednosti),
- sekundarnom tržištu (kroz svoje brokersko-dilerske aktivnosti učestvuju u alociranju aktive na finansijskim tržištima),
- poslovima vezanim za restrukturiranje kompanija (spajanje i preuzimanje M&A),
- finansijskom inženjeringu i upravljanju aktivom (finansijskim instrumentima) - fondovima.

Pri tome savremena finansijska tržišta predstavljaju globalno elektronsko tržište na kojem se trguje aktivom, tj. finansijskim instrumentima. Na ovim tržištima kao finansijski posrednici javljaju se ne samo oni specijalizovani posrednici poput brokera i dilera, već i investicione banke, pa čak i depozitne institucije (banke, štedionice, kreditne zadruge), nedepozitne institucije, institucionalni investitori (penzioni fondovi, osiguravajuće kompanije, investicioni fondovi) te ostale finansijske institucije (finansijske kompanije).

„KUPovina NA JEDNOM MJESTU“

Rano investiciono bankarstvo bilo je vezano za poslove preuzimanja i plasiranja hartija od vrijednosti (od pokroviteljstva, sponzorstva do potpisnika emisije). Sadašnji trend razvoja investicionog bankarstva vezan je za kreiranje novih finansijskih proizvoda. Koncentrisanje klasičnih i novih proizvoda dovelo je do formiranja politike „kupovine na jednom mjestu“ (one stop shopping). To znači da klijenti danas na jednom mjestu mogu da dobiju čitav niz finansijskih usluga („finansijski supermarket“). Otud se aktivnosti savremenih investicionih banaka mogu svesti na nekoliko grupa. U prvu grupu spadaju aktivnosti preuzimanja i plasiranja hartija od vrijednosti, privatni plasmani, spajanja i preuzimanja, restrukturiranja, refinansiranja i strategijsko planiranje. U drugu grupu spadaju aktivnosti trgovine hartijama od vrijednosti na primarnom i sekundarnom tržištu za sopstvene i potrebe klijenata. U treću grupu spada upravljanje penzionim i investicionim fondovima, te specijalnim portfeljima kroz formiranje posebnih društava za upravljanje. U četvrtu grupu spadaju računovodstvene i knjigovodstvene aktivnosti, uključujući kastodi, kliring, saldiranje („back office“). U petu grupu spadaju istraživanje i strateško savjetovanje. I, na kraju, u šestu grupu spadaju trgovinsko bankarstvo, osiguranje, rizični kapitali (V.C.) i nekretnine (REIT).

Vremenom se mijenjala regulativa i stroga pravila koja su razdvajala investiciono i komercijalno bankarstvo. Stoga su danas razvijene ne samo komercijalne i investicione banke, već i univerzalne banke koje obavljaju klasične depozitno-kreditne poslove i poslove operacije sa hartijama od vrijednosti. Po obimu kapitala investicione banke danas spadaju u najsnažnije i najmoćnije učesnike na tržištu kapitala. One posjeduju veliki kapital koji je često dominantan u strukturi finansiranja u odnosu na depozite. Ovakve banke u principu imaju mali broj ili uopšte nemaju filijale. U posljednje vrijeme prisutna je tendencija spajanja investicionih banaka sa drugim finansijskim firmama ili komercijalnim bankama. U savremenom bankarstvu javljaju se i tzv. „butik“ investicione banke („boutique investment banks“) koje su specijalizovane samo za određene aktivnosti (neke su specijalizovane samo za M&A, druge za određene sektore, treće za finansijske institucije, itd...). Investicione banke imaju aktivnu ulogu ne samo prilikom emitovanja akcija već i svih vrsta obveznica, kao što su korporativne HOV, komercijalni papiri, državne obveznice (kratkoročne ili dugoročne), kao i obveznice lokalnih samouprava (opština, gradova, teritorijalnih jedinica i sl.).

MERĐŽERI I AKVIZICIJE

„Srce“ investicionog bankarstva predstavljaju merđžeri i akvizicije. U pitanju

Creation of New Financial Products

Globalization, deregulation, information technologies and communications influenced further course of development of the financial markets. Over the last decade there has emerged the trend of continued introduction of innovations which not only facilitate but also accelerate and simplify the ways of operations on the financial markets

Velibor Milošević

Financial services, and particularly investment services, have over the last decades undergone rapid changes on global financial markets. Therefore, changes in the field of banking investment services have come forward which are increasingly termed as investment services industry. The main functions and role of investment banking include activities on the:

- primary market (intermediaries who take over and issue new securities)
- secondary market (through their broker and dealer activities they participate in allocation of assets on the financial markets)
- operations regarding restructuring of companies (mergers and acquisitions, M & A)
- financial engineering and assets (financial instruments) - funds management

Therefore, modern financial markets represent global electronic market for trade in assets, i.e. financial instruments. Financial intermediaries on such markets are not only those specialized intermediaries like brokers and dealers, but also investment banks, even depository institutions (banks, savings banks, credit cooperatives), non-depository institutions, institutional investors (pension funds, insurance companies, investment funds) and other financial institutions (financial companies).

ONE STOP SHOPPING

Early investment banking was related with takeover and issuance of securities

(from auspices, sponsorship to signatories of issuance). The current development trend in investment banking is related with the creation of new financial products. Concentration of traditional and new products has resulted in creation of the one stop shopping policy. This means that nowadays clients may receive a wide range of financial services at one place (financial supermarket). Consequently, the activities of modern investment banks may be reduced to several groups. The first group includes activities of takeover and issuance of securities, private placements, mergers and acquisitions, restructurings, refinancing and strategic planning. The second group includes trade activities with securities on the primary and secondary market for their own and clients' needs. The third group includes pension and investment funds management, special portfolios management by establishing special management companies. The fourth group includes accounting and book-keeping activities, including custody, clearing, back office. The fifth group includes research and strategic advice. And finally, the sixth group includes merchant banking, insurance, venture capital (V.C.) and real estates (REIT).

Regulations and strict rules separating investment banking from commercial one were changing in the course of time. That is why in addition to the commercial and investment banks,

universal banks that carry out traditional depository and credit operations and operations with securities have also developed. The scope of capital has made investment banks nowadays the strongest and most powerful players on the capital market. They own enormous capital which is often dominant in the financing structure with a view to deposits. These banks generally either have few or no branches at all. Recently there has emerged the tendency to merge investment banks with other financial firms or commercial banks. Modern banking has seen emerging of the so-called boutique investment banks specialized only in some activities (some are specialized only for M & A, others for particular sectors, the third for financial institutions etc.). Investment banks play an active role not only in issuance of securities but also of all types of bonds, such as corporate securities, commercial papers, Government bonds (short-term and long-term), as well as local governments bonds (municipalities, cities, territorial units etc.)

MERGERS AND ACQUISITIONS

Mergers and acquisitions are the heart of investment banking. These are operations related to merging and acquiring of companies that generate substantial revenues for investment banks in the form of compensations. The investment bank provides various pieces of advice

su poslovi spajanja i preuzimanja kompanija, koji generišu u formi nadoknada značajne prihode za investicione banke. Investiciona banka pruža različite savjete pri spajanju i preuzimanju počevši od strateških preporuka klijentima, odabira cijne kompanije, taktičkih sugestija po kojoj cijeni kupiti, pa do toga kako treba strukturirati cio postupak. Ciljne kompanije koriste usluge investicionih banaka da bi: postigle što bolju cijenu, odbranile se od neprijateljskog preuzimanja itd.

Merdžerom dolazi do spajanja dvije ili više kompanije u jednu i najčešće po pravilu veća kompanija preuzima manju, mada može biti i obratno. Merdžer karakteriše dobrovoljnost i spajanje se vrši kombinovanjem aktiva firmi koje se spajaju. Vršiti se zamjena akcija kompanije koja je preuzeta akcijama kompanije koja preuzima, pri čemu odnos razmjene zavisi od tržišnih cijena akcija obje kompanije.

Za razliku od merdžera imamo konsolidaciju, koja podrazumijeva udruživanje dvije ili više, približno iste ekonomske snage, kompanija u potpuno novu. Akcije dvije ili više kompanije koje se udružuju zamjenjuju se akcijama novonastale kompanije.

Akvizicija je transakcija kojom jedna kompanija kupuje i stiče kontrolu nad drugom kompanijom. Kompanija koja preuzima je ponuđač (acquiring firm) i kupuje ciljnu kompaniju (target firm). Cijena koju je ponuđač spreman da plati za akciju nosi određeni iznos premije u odnosu na tržišnu cijenu akcija targeta (good will). Ciljna funkcija preuzimanja je maksimiziranje vrijednosti za akcionare.

Investicione banke dobijaju procenat od prodajne cijene za savjetodavne i druge poslovne involviranosti. Investiciona banka pomaže ponuđaču da razvije određenu strategiju u cilju uspješnog preuzimanja. Postoji veći broj potencijalnih strategija za preuzimanje. Ona može biti u obliku javne ponude („tender offer“) za otkup akcija, pri čemu se nudi cijena otkupa akcija koja je iznad tržišne. Strategija ponude za pripajanje („merger bid“) upućuje se menadžerima ciljane kompanije. Strategija zagrljaja medveda („bearhug“) se sastoji u tome da se daje brza ponuda upravi i menadžerima. Ukoliko nema pozitivnog odgovora ide se na javnu ponudu. Investicione banke mogu savjetovati i

ciljane banke tako da se mogu braniti od neprijateljskih preuzimanja. U tu svrhu mogu se koristiti brojne strategije kao što su:

- strategija zamke za ajkulu („shark repellents“), koja se odnosi na utvrđivanje super-većinske saglasnosti („supermajority provisions“),
- strategija otrovne pilule („poison pills“) koja se sastoji u uspostavljanju prava akcionara da u slučaju neprijateljskog preuzimanja mogu dobiti dodatan broj akcija ili da kompanija može emitovati dužničke hartije od vrijednosti i time povećati zaduženost kompanije;
- strategija promjene kapitalizacije („capitalisation changes“) koju čini emitovanje različitih klasa akcija, uvođenje klasa sa superiornim pravom glasa i dr.;
- strategija zlatnog padobrana („golden parachutes“) koja se sastoji od garantovanja menadžerima visoke kompenzacije ukoliko dođe do neprijateljskog preuzimanja;
- strategija bijelog viteza („white knight“) podrazumijeva da prijateljska kompanija nudi veću cijenu bez namjere da uvodi značajne promjene u upravljačkoj strukturi;
- strategija otkupa akcija uz premiju („premium buy-back grenmail“) je strategija ponude target kompanije da otkupi nazad svoje akcije uz određenu premiju. Akviziter se istovremeno odriče i prava na kupovinu ovih akcija u nekom određenom budućem periodu (standstill agreement).
- „Pac-man“ strategija sadrži ekstremne mjere odbrane, to jest target kompanija daje kontra ponudu za otkup akcija akvizitera.

Izvjesno je da je investiciono bankarstvo, kao i instrumenti na ovom tržištu, predmet radikalnih promjena posljednjih godina. Globalna finansijska kriza će predstavljati veliki izazov za ovaj segment finansijskog tržišta. Izazovi će biti dvostruki. Sa jedne strane kao posledica likvidnosnih problema i rastućih gubitaka smanjiće se broj učesnika na ovom tržištu. Sa druge strane, Globalna finansijska kriza će uticati da će veći broj firmi biti „ranjiv“ te stoga pogodan za merdžere, akvizicije i preuzimanja. Bez obzira na tekuća dešavanja realno je očekivati da će ovaj segment finansijskog tržišta nastaviti da se rapidno razvija u budućnosti sa brojnim daljim inovacijama ■



Bankar B

Savršeno tržište - Termin koji se koristi u ekonomskoj teoriji za tržište gdje postoje takve karakteristike trgovanja i uspostavljanja cijena, bez poremećaja, uz održavanje realnih (fer) nivoa tržišnih cijena. Više teorijski koncept, nego realan. Povezan je sa pitanjem savršene konkurencije i zahtijeva veliki broj apriornih pretpostavki, od kojih su neke: postojanje dovoljnog broja kupaca i prodavaca, homogenost robe ili usluga, odsustvo diskriminacija, potpuna mobilnost svih resursa, kompletna sloboda ulaska i izlaska, itd. U vezi rada berzi, vrlo značajna grupa faktora se odnosi na informisanost svih učesnika i brzinu protoka i reagovanja na sve relevantne informacije. U praksi, mnogi od ovih uslova ne mogu biti ispunjeni.

„Mrtvo“ tržište - Tržište na kome se očekuje pad cijena. Investitori koji prodaju već trpe gubitke, a potencijalni investitori oklijevaju sa kupovinom dok se situacija ne raščisti. Oni koji su unutra ne mogu napolje, a oni koji su napolju ne žele unutra, što objašnjava engleski termin grave yard (grobilje).

Tržišni, sistematski rizik - Dio ukupnog rizika neke hartije od vrijednosti. Ovaj rizik je povezan sa tržišnim zbivanjima i zajednički je za sve hartije iste vrste (akcije, obveznice). Povezan je sa vjerovatnoćom povećanja ili smanjenja vrijednosti tržišnog portfolija hartija od vrijednosti. Ne može se ibjeći diversifikacijom plasmana. Za akcije, najpoznatija mjera ovog rizika je beta koeficijent.

Crni ponedjeljak - Jedan od dva ponedjeljka kada su se desili najveći berzanski krahovi u ovom vijeku. Prvi je ponedjeljak 28. oktobar 1929. kada je DJIA pao za 13%. Drugi je ponedjeljak 19. oktobar 1987 kada je DJIA pao za 23%. U oba slučaja crni ponedjeljak u SAD izazvao je talas berzanskih lomova širom svijeta. Crni ponedjeljak iz 1929. bio je početak velike ekonomske krize 1929-33.



Banker B

Perfect market – The term is used in economical theory for the market where there are such characteristics of trading and determining of prices, without deficiencies, with maintenance of real (fair) levels of market prices. It is more a theoretical concept, than a real one. It is linked with the issue of perfect competition and requires numerous apriori assumptions, including but not limiting to: existence of sufficient number of buyers and sellers, homogeneity of goods and services, absence of discrimination, full mobility of all resources, full freedom of entry and exit, etc. With regard to stock exchange operations, a very significant group of factors is related to information that participants have available, the velocity of flow and responding to all relevant information. In practice, many of these conditions may not be fulfilled.

“Dead” market – The market where the decline of prices is expected. The selling investors already suffer losses, and potential investors are hesitant with purchase until the situation has been cleared. Those who are in cannot get out; those who are out do not want to get in, which explains the term grave yard.

Market, systemic risk – A part of total risk of a security. This risk is related to market events and is common for all securities of the kind (shares, bonds). It is related to the probability of increase or decline of the value of the market portfolio of securities. It may not be avoided by diversification of placements. For shares, beta coefficient is the most famous measure against this risk.

Black Monday – One of the two Mondays when the largest stock exchange crashes happened in this century. The first Monday 28th October 1929 when DJIA declined by 13%. The other Monday 19th October 1987 when DJIA declined by 23%. In both cases the black Monday in the USA caused the wave of stock exchange crashes around the world. Black Monday from 1929 was the beginning of the large economic crisis 1929-33.

in merger and acquisition operations starting from strategic recommendations to the clients, selection of target firm, tactical suggestions as to the price of purchase, and on how to structure the entire procedure. Target companies use services of investment banks in order to: achieve the best price possible, defend themselves from unfriendly takeover etc.

Merger results in merging of the two or more companies into one and it is most frequently the case that bigger company takes over the smaller one, though it may be the other way around. Merger is characterized by voluntary action while merging takes place by combining the assets of the merging companies. Shares of the company which is taken over are replaced by shares of the company which is taking over, whereby the exchange ratio is dependant on the market prices of the shares of both companies.

Unlike merger we have a consolidation which means blending of the two or more companies with approximately the same economic power into the completely new one. Shares of the two or more companies blending are replaced by shares of newly established company.

Acquisition is transaction where one company buys and gains control over another company. The company which acquires in acquiring firm and it buys the target firm. The price the acquiring firm is ready to pay for shares includes a certain amount of premium with a view to the target firm’s market price of shares (good will). Target function of acquisition is to maximize the value for shareholders.

Investment banks receive percentage from the sale price for advisory and other operating involvement. The investment bank helps the acquiring firm to develop a certain strategy aimed at successful acquisition. There is a significant number of potential acquisition strategies. It may take the form of the tender offer for the purchase of shares where offered price for the purchase of shares is higher than the market price. The Merger Bid Strategy is addressed to the target firm managers. The Bear Hug Strategy means providing quick offer to the management and managers. If no affirmative response is received, the tender offer is the next step. Investment banks may

also advise target banks which protect them against unfriendly acquisitions. Numerous strategies may be used for that purpose such as:

- Shark Repellents Strategy – which refers to the supermajority provisions
- Poison Pills Strategy – which includes establishing the right of the shareholders to receive additional number of shares in the event of unfriendly acquisition or of the company to be able to issue debt securities which will increase the company’s indebtedness
- Capitalisation Changes Strategy – which includes issuance of various classes of shares, introduction of classes with superior voting right etc.
- Golden Parachutes Strategy– which includes guaranteeing of high compensation to the managers in the event of unfriendly acquisition
- White Knight Strategy– means that friendly company offers higher price without intending to introduce significant changes in the management structure
- Premium Buy-Back Greenmail Strategy– is the strategy of the target firm offering to purchase back its shares at a certain premium. The acquirer at the same time renounces the right to purchase these shares for some specific period of time in the future (the Standstill Agreement).
- The Pac-man Strategy contains extreme defence measures, that is target firm gives counteroffer for the purchase of shares of the acquirer.

Investment banking has certainly been subject to radical changes during the last years, together with the instruments on this market. *Global financial crisis will pose serious challenge for this segment of the financial market. The challenges will be dual. On one side, the number of participants on this market will reduce as a result of the consequences of liquidation problems and increasing losses. On the other hand, Global Financial Crisis will affect the majority of firms becoming vulnerable which is why it is convenient for mergers, acquisitions and takeovers. Regardless of the current developments it is realistic to expect that this segment of financial market will continue to rapidly develop in the future with numerous further innovations* ■

Nova dimenzija tržišta kapitala

Prije nego što je internet preuzeo presudnu ulogu u svijetu komunikacija, trgovina hartijama od vrijednosti ograničavala se na prostor hala svjetskih berzi ili trgovinu preko brokera, dilera i investicionih menadžera koji su naplaćivali visoke provizije za izvršavanje naloga za pojedine transakcije ili za upravljanje portfolijom. Sve ovo se u međuvremenu promijenilo; danas milioni pojedinaca širom svijeta kupuju i prodaju hartije od vrijednosti na berzama, i to posredstvom interneta

Mr Anđelka Laković

Online dnevno trgovanje u svijetu predstavlja nosan biznis. Biznismeni koji osnivaju online kompanije inače dostižu visoke profite; često na osnovu članarina i naknada za usluge. Ljudi koji počinju sa online trgovinom hartijama od vrijednosti, ukoliko znaju da kupuju odnosno prodaju prave hartije, takođe prave visoke profite.

Međutim, da bi se neko bavio ovim poslom, neophodno je da posjeduje znanje o samoj trgovini hartijama od vrijednosti, posebno kako da obavlja online trgovanje. Što bi bile prednosti ovog vida trgovanja?

PROVIZIJE Jedna od najvećih, ako ne i najveća, prednost online trgovanja hartijama od vrijednosti, jesu manje provizije koje se plaćaju brokerima za ovu uslugu. Štaviše, ukoliko se trguje dovoljno velikim obimom, provizije su uglavnom predmet sporazuma, tako da mogu dostići ekstremno niske vrijednosti

KONTROLA Ukoliko se radi o korišćenju brokerskih usluga u realnom svijetu, može se desiti da ne dođe do izvršenja naloga, iz razloga kao što su davanje prioriteta drugim klijentima itd. Ukoliko se trguje hartijama od vrijednosti putem online-a, ovo više ne predstavlja problem.

INFORMACIJA Korišćenjem posebnih softverskih rješenja, pruža se mogućnost korišćenja čartova hartija od vrijednosti, tehničkih indikatora, kao i cijena hartija u realnom vremenu kao pomoć investitoru u donošenju investicionih odluka.

VRIJEME Jedan od presudnih elemenata trgovanja hartijama od vrijednosti pred-

stavlja vrijeme potrebno za izvršenje naloga, što može biti značajno kod postizanja poslovnog rezultata. U stvarnom svijetu prvi korak kod trgovine predstavlja kontaktiranje brokera i davanje naloga za kupovinu/prodaju. Zatim broker dobija informaciju o cijeni i daje povratnu informaciju klijentu, koji odlučuje da li da se obavlja trgovina ili ne. Kod online trgovanja, jednim klikom na kupovinu/prodaju obavlja se trgovina, dakle na mnogo brži način.

OBIM Trgovina hartijama putem interneta skoro da predstavlja koncept one-stop shop-a. Kao što je pomenuto, većina online brokera koristi kvote u realnom vremenu, čartove, predviđanja, programe za tehničku analizu, kao i dostupna istraživanja. Ovo je otvorilo vrata individualnim on line trejderima da samostalno donose odluke o trgovini, kao i da primjenjuju sopstvene strategije trgovanja, što im u prethodnom sistemu trgovanja hartijama od vrijednosti nije bilo dostupno.

OPASNOSTI PRI ONLINE TRGOVANJU HARTIJAMA OD VRIJEDNOSTI

Nema savjetovanja. Ne postoji niko ko nadgleda trgovinu i pruža savjetodavne usluge. Većina ljudi koji su početnici u ovom poslu, na samom početku naprave manje greške koje ih ipak ne koštaju mnogo novca. Međutim, konsultacije sa iskusnim investicionim menadžerom smanjiće vjerovatnoću pravljenja grešaka, a ovakav način trgovine će opet biti jeftiniji nego putem klasičnih brokerskih usluga.

Kao i kod svakog novog poduhvata, savjetodavne usluge mogu biti od neprocjenjive

važnosti. Samom mogućnošću postavljanja pitanja i dobijanja pravog odgovora u kratkom roku, može se uštedjeti višečasovno vrijeme provedeno u samostalnom istraživanju. Mnogi trejderi zapravo nemaju predstave koliko su mogli da nauče od svojih brokera i koliko su im ovi uštedjeli vremena i truda.

Koncept online trgovanja, dakle, daje mogućnost svakom učesniku u trgovini da samostalno daje naloge za trgovinu, kao i da direktno raspolaže svojim sredstvima. Banke koje predstavljaju najsigurnije i najefikasnije institucije za ovaj vid trgovanja, uglavnom pružaju sljedeće usluge:

- brz i pravovremen unos naloga za kupovinu i prodaju hartija od vrijednosti;
- pregled naloga i uvid u trenutni status naloga (u pripremi, aktivan, izvršen);
- portfelj HOV u posjedu - pregled portfelja hartija od vrijednosti investitora;
- promet HOV-a, pregled prometa hartijama od vrijednosti;
- uvid u stanje novčanog računa;
- promet na novčanom računu;
- uvid u kursnu listu berze na kojoj se trguje u realnom vremenu - klijentu se omogućava dobijanje pravovremene informacije o kretanjima na berzi;
- komunikacija sa brokerom (broker je u svakom trenutku trgovanja dostupan klijentu).

Usluga online trgovanja nudi se kroz korišćenje platforme putem koje korisnik može realizovati naloge za trgovanje u realnom vremenu, i to sa bilo kog mjesta na svijetu. Ovakva mogućnost čini tržište kapitala dostupnim manjim investitorima iz inostranstva i samim tim povećava šanse za ulazak stranog kapitala na odnosno tržište ■





New Dimension of the Stock Market

Before the power of internet emerged, stock trading was limited to the halls of stock exchanges or dealing with brokers and investment managers who charge expensive commissions to make transactions and manage a portfolio. All of this has changed; millions of people nowadays buy and sell stocks online all over the world markets

Anđelka Laković, M.Sc

Online day trading in the world is a huge business. A lot of people who are setting up online companies are making big money; often through sign-up and service fees. The people that get into online stock trading can make a real profit when they buy and sell the right kinds of stock.

However, to do this one need to obviously have knowledge on how to buy and sell stocks, especially when taking part in online stock trading. So, what would be main advantages of this type of trading?

COMMISSIONS One of the biggest, if not the biggest, benefit of trading stocks online is the reduced stock broker commissions expected to pay. However, if one trades in sufficiently large enough volume, it is possible for you to negotiate with your broker so that these brokers' fees can be extremely low.

CONTROL When you use a broker in the real world you may find that your broker will not execute a trade, for reasons such as giving priority to other orders... When you trade stock online this is no longer a problem.

INFORMATION With the use of computer software programs, you can use stock charts, technical indicators and real time stock prices to help an investor to make the investment decision.

TIME One of the essential elements about trading stock is the time it takes

to execute the trade, as this can mean the difference between making a profit and making a loss. In the real world you have to phone your broker and ask him to sell/buy the stock. The broker then phones the trader, who gives the broker the price. The broker then tells you the price and you either agree to buy/sell or not to. Online you push your mouse over a cursor and press buy/sell. A much quicker sell!

VOLUME Trading stocks online is almost a one-stop shop. As mentioned above, most online brokers will have real time quotes, charts, futures news, technical analysis programs and research available for their clients. This has opened the door for online traders to make more of their own trading decisions and implement trading strategies that once were not available to the average retail trader.

DANGERS OF ONLINE TRADING

No Mentor. There is a problem that you don't have someone watching over your shoulder and to help you with your trades. Many new traders will make several foolish mistakes that will likely cost them money. Having an experienced invest manager with whom you can discuss trading strategies will likely keep you out of trouble and more than make up for the commission savings of online trading.

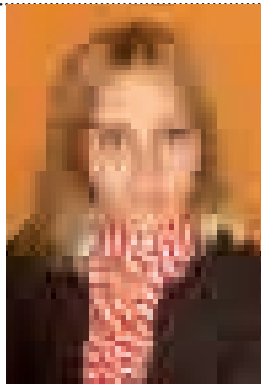
As with any new venture, having a mentor can prove invaluable. Just being able to a trading question and receive a

good answer in a few minutes can save you many hours or days of researching on your own. Many traders take for granted how much they actually learn from their brokers and how much time and effort they have saved.

The online trading concept offers a possibility to all trading participants to put the orders in a completely independent way, as well as a direct disposal of his own assets. Banks, as institution with the most safe and efficient institutions that offer this type of service, usually provide their clients with:

- Timely and fast entry of buy/sell order;
- Review of all orders and access to the current status of an order (if it's preparing, active or executed);
- Portfolio – review of portfolio of investor equities;
- Equities turnover - review;
- Access to the cash account position;
- Cash account turnover;
- Access to the stock exchange real time price list – a timely information on stock exchange;
- Communication with a broker (who is available at each moment of trading).

Online trading service is being provided through a platform, as a tool for a user to realize the real-time trading orders, from any place in the world. This possibility makes a stock market available to international smaller investors, increasing opportunities to entry of foreign investments to the related stock market ■



Suviše vrijedna mogućnost da bi se ignorisala

Elektronski račun ili elektronska faktura (e-račun, e-invoce) je moderan, pouzdan elektronski dokument koji sadrži informacije o transakciji u elektronskom formatu i kojim se može elektronski rukovati. U pitanju je najrasprostranjeniji elektronski dokument u svijetu. Iako pokriva samo jedan segment u lancu nabavke, e-račun ima glavnu ulogu u razvoju elektronskog poslovanja. Široka rasprostranjenost i primjena internet bankarstva temelj je za brzo postizanje maksimalnih efekata od uvođenja e-računa. E-računi su dobar primjer horizontalnog povezivanja unutar elektronskog poslovanja i od interesa su kako za velika i mala preduzeća, tako i za državu i pojedince

Milena Pavićević

Uvođenje e-računa predstavlja jednu od najjasnijih mogućnosti redukovanja troškova u današnjem poslovanju. Pošiljaoci mogu uštedjeti i do 80% sredstava uobičajeno potrebnih za kreiranje i slanje računa/faktura u papirnom obliku. Velika ušteda se postiže i za primaoca elektronskih računa. Prema nekim istraživanjima, za zapadnoevropske prilike, od 15 eura po računu, pa naviše. Najbolji primjer je primjena e-računa u Danskoj, u kojoj je, zahvaljujući obavezi primjene u javnom sektoru, u kratkom vremenu postignuta masovnost i ostvarena uštede od 100 do 134 miliona eura godišnje (European e-Invoicing Final Report, July 2007, EEI-3.2). Prema istom izvoru Evropska Unija procjenjuje uštedu od 243 milijarde € primjenom e-računa u cijeloj Evropi. Po zvaničnim procjenama račun košta oko 25 € (prodavca i kupca zajedno). Potencijalnu uštedu po računu od oko 20 €, treba podijeliti među učesnicima u lancu nabavke. Kupac je u prednosti i mogao bi uštedjeti do oko 18 €, ako je softverski dobro opremljen. Prodavac ostvaruje uštedu od 2 € u prvoj godini kada uspije uključiti 12-15% svojih kupaca po broju faktura (UN/ECE - United Nations Economic Commission for Europe, april 2005). U skladu sa izvještajem Managing Credit, Receivables and Collections, Gartner Group report, septembar 2003., prema kome je prosječna cijena papirnog računa 5\$ naspram 2\$ za elektronski račun, ukupni troškovi kreiranja i slanja računa/faktura u papirnom obliku su oko 125 milijardi \$ za Evropu i Sjevernu Ameriku. E-računi mogu redukovati ove troškove za 40%. Pored toga ovo istraživanje pokazuje da se 35% računa „izgubi u pošti“. Nameće se pitanje zašto onda papirni računici čine preko 95% svih računa u Evropi i SAD-u?

UŠTEDE, TAČNOST, KONTROLA

Osim uštede koja se postiže zato što je račun dematerializovan i što se njime ne mora fizički rukovati, štedi se

i na troškovima slanja poštom i arhiviranja dokumenata. Pored novčanih ušteda predviđa se korist od ubrzavanja ostalih poslovnih procesa i pokretanja poslovnih inovacija. Povećava se tačnost podataka, a država ostvaruje bolju kontrolu poreza i ostvaruje bolje rezultate u borbi protiv sive ekonomije. E-račun u sebi sadrži važne podatke za obračun PDV-a pa njihova primjena ima poseban značaj za sprovođenje fiskalne politike. Upotrebom e-računa kompanije eliminišu manuelno unošenje podataka, obezbjeđuju brže plaćanje i jednostavnije prate i arhiviraju račune. Zahvaljujući platformi elektronskog bankarstva, račun koji se primi u elektronskoj standardizovanoj formi, može se, nakon potvrde prijema, automatski prevesti u odgovarajući nalog za plaćanje. Takođe, ukoliko postoji uvezanost sa računovodstvenim programom, e-račun se može automatski proknjžiti i arhivirati. Postupci slanja/primanja računa, njihovog plaćanja i računovodstvene obrade bi se izuzetno skratili. Pojedinaac bi, takođe putem svog elektronskog bankarstva, mogao plaćati račune primljene u elektronskom obliku, potpisujući uplate svojim autorizovanim elektronskim potpisom koji je već prilično u upotrebi.

UČESNICI I STANDARDI

Učesnici u procesu upotrebe e-računa su izdavalac računa i njegova banka, kao i primalac računa i njegova banka. Proces bi uglavnom izgledao ovako: izdavalac priprema račun u elektronskom obliku i uvodi ga u svoje elektronsko bankarstvo. Zatim ga šalje u svoju banku. Banka izdavaoca prosljeđuje račun banki primaoca, a ova dalje u elektronsko bankarstvo primaoca, koji dalje elektronski arhivira račun.

Osim potrebe razvoja upotrebe e-računa za plaćanja u nacionalnim granicama, današnjica nosi potrebu inter-



Too Valuable Possibility to be Ignored

Electronic bill or electronic invoice (e-bill, e-invoice) is a modernized, reliable electronic document that contains information in electronic format about the transaction which may be electronically managed. This is the most widely spread electronic document worldwide. Though it covers only one segment in the supply chain, e-invoice plays a major role in the development of electronic operations. Widely spread presence and use of internet banking are foundations for rapid achievement of maximum effects of the introduction of e-invoice. E-invoices are a good example of horizontal connection inside electronic banking and they benefits large and small enterprises and the country and individuals as well

Milena Pavićević

Introduction of e-invoice represents one of the clearest options to cut costs in operations nowadays. Suppliers may save up to 80% of funds usually needed for creating and sending bills/invoices in paper form. Recipients of e-invoices also run major savings. According to some researches, it equals 15 euros or even more per invoice in the countries of Western Europe. The best example is demonstrated by the use of e-invoices in Denmark where mandatory use in public sector alone generated widely spread use in a short period of time with savings ranging from 100 up to 134 million euros per annum (European e-Invoicing Final Report, July 2007, EEI-3.2). According to the same source, European Union estimates that the use of e-invoice across entire Europe would save 243 billion euros. Official estimates reveal that the cost of invoicing amounts to around 25 euros (the costs of buyer and seller together). Potential saving per invoice of around 20 euros should be shared among participants in the supply chain. Buyers are at advantage if they are well equipped with software and they might save up to around 18 euros. Sellers generate saving of 2 euros in the first year when they manage to include 12-15% of their buyers per number of invoices (UN/ECE – United Nations Economic Commission for Europe, April 2005). According to the Managing Credit, Receivables and Collections, Gartner Group Report, September 2003, the average cost of paper invoice is 5\$ against 2\$ for electronic invoice, total costs of creating and sending of bills/invoices in paper form amount to around 125 billion \$ in Europe and North America. E-invoices may reduce these costs by 40%. Additionally, this research reveals that 35% of invoices get lost during mail delivery. The question: why do paper invoices account for over 95% of all invoices in Europe and the USA?

SAVINGS, ACCURACY, CONTROL

In addition to saving generated by dematerialization of invoice and the fact that it does not to be physically handled,

the saving is also incurred in terms on mail costs and documents archiving. Apart from money saving, there is an envisaged benefit of acceleration of the other business processes and start up of business innovations. Data accuracy increases, while country exercises better control over taxes and generates better results in combating grey economy. E-invoice contains important data for VAT calculation which is why their use is particularly important in implementation of fiscal policy. By using e-invoices companies eliminate manual data entry, ensure faster payments and monitor and register invoices in a more simplified manner. Owing to the electronic banking platform, upon confirmation of the receipt the invoice received in standardized electronic form may automatically be modified into the payment order. Additionally, if there is a network link with the accounting programme, e-invoice may automatically be entered and recorded. That would significantly reduce the time for the invoice send/receive procedure, their payment and accounting processing. Electronic banking would enable an individual to pay invoices received electronically by signing payments with authorised electronic signature which has been in use substantially.

PARTICIPANTS AND STANDARDS

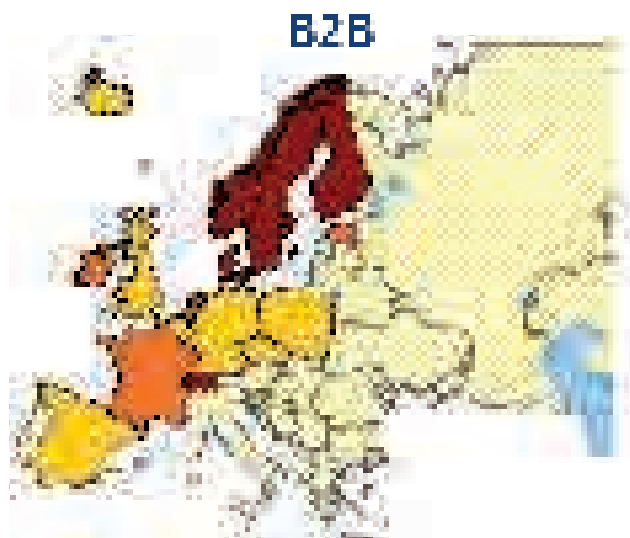
The participants of the e-invoice process are issuer of invoice and his bank and receiver of invoice and his bank. The process would mainly look as follows: issuer prepares electronic invoice and enters it into his electronic banking. Afterwards, he sends it to his bank. Issuer's bank forwards invoice to the recipient's bank, which forwards it further to the recipient's electronic banking that further records that invoice electronically.

In addition to the need to develop use of e-invoices for payments within national borders, nowadays there is also a

nacionalizacije upotrebe e-računa. Uprkos očiglednoj i velikoj koristi od uvođenja e-računa, mnoge kompanije koje funkcioniraju u okviru Evropske Unije nailaze na kompleksne izazove u zakonskim regulativama pojedinih zemalja. Glavni razlog za to je nedostatak međunarodnih standarda za razmjenu ovog tipa podataka. Na desetom Forumu u Dublinu UN/CEFACT (UN Centre For Trade Facilitation and Electronic Business 2007.) ukazano je na potrebu uvođenja standarda međuindustrijskih e-računa (CII- Cross Industry electronic Invoice). CII može koristiti npr. industrija čelika, automobila, maloprodaje, elektronska industrija i državna administracija. Ovi standardi također pokrivaju zahtjeve u vezi poreza na dodatu vrijednost u članicama EU.

Izuzev Slovenije, u kojoj se računi mogu izdavati u elektronskom obliku i kao takvi su validan dokument, u našem okruženju upotreba e-računa uglavnom još uvijek nije zaživjela. U Hrvatskoj su pojedine banke krenule sa realizacijom ovog rješenja, ali postoje prepreke popularizaciji e-računa. Naime, pravna regulativa ne dozvoljava dematerijalizaciju računa u skladu sa hrvatskim Pravilnikom o PDV-u, pa se isti računi moraju dostavljati i arhivirati i u papirnom obliku. Takođe, ne postoje odgovarajući standardi i norme, a elektronski potpis nije dovoljno rasprostranjen.

Regulativa u Crnoj Gori, zakonom o PDV-u propisuje: "Poreski obveznik može izdati račun u nematerijalizovanom obliku, ukoliko od poreskog organa ima dozvolu za takav oblik izdavanja. Poreski obveznik, koji primi račun



Tržišni udio 2008
(udio elektronskog poslovanja u ukupnom obimu od 30 milijardi)

u nematerijalizovanom obliku, mora također imati dozvolu poreskog organa, inače se smatra da račun nije izdat radi odbitka ulaznog PDV.", dok je Zakonom o elektronskom potpisu, kojim će se potpisivati e-računi, uređena upotreba elektronskog potpisa u pravnom prometu ■

MARKETING U BANKARSTVU

Ono što je različito – to je šalterski službenik

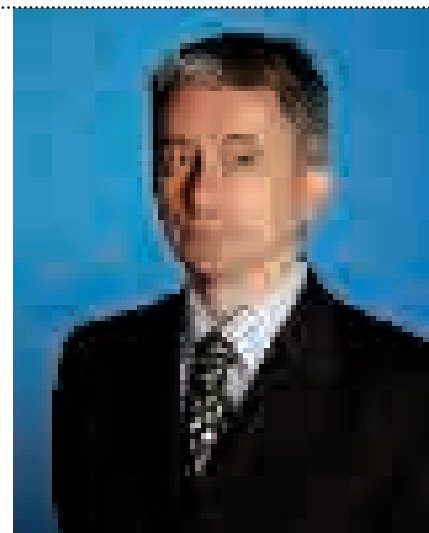
Marketing nije samo reklamiranje, advertajzing, organizacija tzv. event-a ili najava u medijima novih proizvoda, ili dostignuća iz historijata poslovanja banke, već i istraživanje i analiziranje tržišta. Marketing u bankarstvu posjeduje univerzalna svojstva marketinga, ali svakako u sebi sadrži i neke specifičnosti koje bankarstvo kao industrija u sebi ima

mr Bratislav Pejaković

Polazeći od činjenice da je banka prilikom osnivanja utvrdila misiju i svrhu, a time i definisala poslovne ciljeve i zadatke, kod formulisanja tekućih marketing ciljeva, politike i strategije poslovne banke, marketing treba da se prihvata kao poslovna funkcija koja daje inpute za usvajanje poslovne koncepcije od strane njenog menadžmenta. Prihvatanje mar-

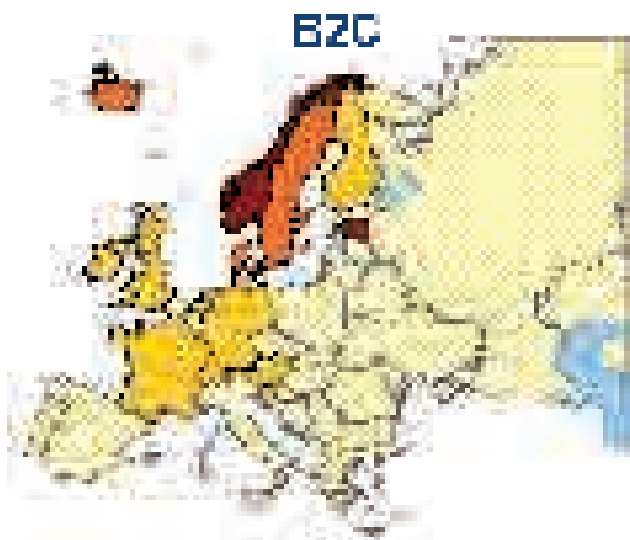
keting koncepta u banci nosi sa sobom jednu ozbiljnu karakteristiku - bankarski marketing ne dopušta improvizaciju u planiranju i vođenju poslovne politike banke.

Generalno, marketing mix čine proizvod, cijena, distribucija i promocija. Proceduralno, nameće se osmišljavanje proizvoda, oglašavanje brenda, logotip



i elementi koji ga čine prepoznatljivim. Nakon istraživanja tržišta, potencijala same firme i konkurencije utvrđuje se politika cijena. Sljedeći korak je distribucija do konzumenata te promocija.

U marketingu, najbitnije je razumijevanje klijenata, posmatranje trendova i promjena kako ekonomskih tako i socioloških, uz predviđanje i anticipativno dje-



Market penetration 2008 (electronic share of total volume of 30 billion)
Bruno Koch, Billentis October 10th 2008

need to use e-invoice internationally. Despite obvious and major advantage of the introduction of e-invoice, many companies operating in European Union encounter complex challenges in legal regulations of some countries. Main reason is the lack of international standards for exchange of

this type of data. The tenth UN/CEFACT Forum in Dublin (UN Centre for Trade Facilitation and Electronic Business 2007) emphasised the need to introduce standards of cross industry electronic invoices (CII – Cross Industry Electronic Invoice). CII may be used in, for instance, steel industry, car industry, retail, electronic industry and public administration. These standards also cover Value Added Tax requirements in EU member countries.

The use of e-invoices has still not come to life in our neighboring countries, except in Slovenia where it is possible to issue invoices electronically and such invoices are considered valid documents. Some banks in Croatia undertook to introduce this arrangement, but there are obstacles in popularization of e-invoices. In fact, legal regulations prohibit dematerialization of invoices under the Croatian VAT Rulebook, therefore they must be submitted and recorded in paper form. In addition, there exist no adequate standards and norms and electronic signature is still not widely spread.

Regulations in Montenegro, through the Law on VAT prescribe the following: *Taxpayer may issue the invoice in non-material form, provided that the taxpayer has permission from the tax authorities to issue invoices in this form. A taxpayer who receives an invoice in a non-material form shall also have to have permission from the tax authorities; otherwise it shall be deemed that the invoice was not issued for the purposes of deducting input VAT*, whereas the Law on Electronic Signature which will be used in signing invoices governs the use of electronic signature in legal operations ■

MARKETING IN BANKING

What Makes a Difference – it is the Counter Officer

Marketing is not all about branding, advertising, organization of the so-called events or announcement of new products or achievements from the history of bank operations in the media, it is also a research and analysis of the market. Marketing in banking features universal attributes of marketing, but it also definitely incorporates some specificities inherent to the banking industry

Bratislav Pejaković, M.Sc

Starting from the fact that the bank has defined its mission and purpose, together with business objectives and tasks at the time when it was founded, marketing needs to be accepted as an operational function that generates inputs for adoption of operational policy by its management in terms of setting current marketing objectives, policy and strategy of a commercial

bank. Acceptance of marketing concept in the bank also features another serious characteristic – banking marketing allows no improvisation in planning and conducting of operational policy of the bank.

Generally, marketing mix consists of a product, price, distribution and promotion. In procedural terms, it also includes design of the product, brand advertising, logo and

elements that render it recognizable. The price policy is established after research of the market, potential of a company and competition. The next step is distribution to consumers and promotion.

In marketing, it is of utmost importance to understand the client, observe trends and economic and social changes, together with projection and anticipative

lovanje u skladu sa dešavanjem na tržištu. Proces podrazumijeva istraživanje tržišta, usvajanje i primjenu novih usluga, s ciljem kvalitetnijeg i profitabilnijeg poslovanja u odnosu na konkurenciju.

Ključne tačke definisanja marketinga tiču se planiranja efikasne marketinške strategije za svaki novi proizvod, gdje treba odgovoriti na pitanja:

- Koje je to tržište za vaš novi proizvod?
- Koje su to vaše prednosti, a koji nedostaci?
- Ko su vaši klijenti?
- Kakva je konkurencija?
- Koju marketinšku taktiku primijeniti?

Marketing planiranje u banci podrazumijeva da marketing plan bude osnov za izradu drugih planova u banci. Kvalitetne, obrađene informacije treba da budu okosnica cjelokupnog planiranja i vođenja poslovanja banke. Ciljevi i zadaci banke treba da predstavljaju realan izraz njenih resursa (materijalnih, kadrovskih kao i organizacionih mogućnosti), a mogu biti kvalitativni, kvantitativni i kombinacija ove dvije karakteristike. Moramo imati u vidu vremensku dimenziju - da bi se realizovao jedan dugoročni cilj neophodno je prvobitno ostvariti kratkoročne i srednjoročne. Zato kratkoročni i ne predstavljaju u suštini ciljeve po sebi, već su to etape (tercijalni ciljevi) u ostvarenju srednjoročnih (sekundarnih ciljeva) a ovi su etapa u ostvarenju dugoročnih (primarnih ciljeva). Određivanje vremenskih dimenzija marketing ciljeva smatra se jednim od najsloženijih problema sa aspekta balansa i međusobnog konflikta.

Bez obzira na trenutno možda i dobru tržišnu poziciju, kvalitetni menadžment ne dozvoljava neaktivnost, odnosno ne može je priuštiti u vremenu čestih promjena. Politika pozitivnog poslovanja jeste živ proces koji se kreće u skladu sa promjenama, ili u optimalnom slučaju postavlja nove standarde.

Strategijski plan banke treba da inicira menadžment banke. Poenta strategijskog planiranja je u odluci o kursu razvoja danas, koji će dovesti banku tamo gdje ona želi da bude sutra. Strategijskim planom treba da budu nagoviještene promjene, poput promjene u sistemu kanala distribucije proizvoda i usluga banke, promjena u politici kreditiranja, cijenama itd. Postoji više područja aktivnosti u kojima banka može da utvrdi marketing ciljeve, kao što su: da se banka pripremi za budući rast i razvoj u područjima u kojima

sada ne vrši usluge; da postavi dugoročne zahtjeve za ostvarivanje rentabilnosti, zadržati po akciji, tržišnu poziciju i nivo svoje konkurentske sposobnosti; da zahtijeva obnovljeno isticanje svoje društvene odgovornosti, veće učesće zajednice, porast zaposlenosti i obogaćivanje tehničko-stručne obučenosti; da popravi linije komunikacije i izvrši pripreme za veću decentralizaciju donošenja marketing odluka; da ohrabruje inovacije i produktivnost marketinga kroz veću sinergiju kao rezultat saradnje menadžmenta i zaposlenih.

LJUDE NE ZANIMAJU FINANSIJE, ALI IH INTERESUJE NOVAC

Marketing finansijskih usluga je specifičan, jer se posluje sa posebnom vrstom usluga, ili proizvoda. Jednostavno rečeno, sve se u finansijama svodi na pozajmljivanje od nekoga ili nekome. Banke posluju sa privrednim subjektima, državom i fizičkim licima. Bez obzira o kojoj kategoriji klijenata se radi, svi žele da posluju sa bankom koja će im usluge pružiti na najbolji način. Šta to znači? Klijenti očekuju jasno predstavljene usluge, brzinu u realizaciji, a bitan segment je naravno i cijena usluge. Kada je riječ o finansijskim uslugama, nije lako komunicirati sa ljudima na jednostavan i razumljiv način. Isti je problem i u razvijenim i manje razvijenim zemljama, jer većinu ljudi ne zanimaju finansije, ali ih interesuje novac. Postoji određena inercija koja otežava podsticanje ljudi na razmišljanje o finansijskim proizvodima. Kada govorimo o štednji, penzionim fondovima ili investicijama, zapravo od ljudi tražimo da dio raspoloživog dohotka uzmu i stave negdje drugo. Finansijski proizvod nije lako opisati i prodati, zaključak je stručnjaka sa najrazvijenijih tržišta.

Praksa i teorija bankarskog, ali i uopšte poslovanja, jeste da se potrošačima jednostavnom terminologijom objasni šta je u stvari proizvod koji im se nudi. Loše je ukoliko postoji određena količina arogancije (a može se primjetiti kod nekih finansijskih kompanija), jer potrošač mora doći kod njih i tražiti pare. Tako neki misle da se banci daje autoritet. Potrebno je obostrano poštovanje, kao jedna od prvih stvari koje treba uspostaviti. Mistifikovanje poslovanja i grandioznost prostora banke je možda imalo svojih efekata u prošlosti, ali danas se traži mnogo ličniji odnos pružaoca i korisnika usluge. Kvalitet je objasniti koristi finansijske usluge, a da pritom nikog ne zbunite, ili da se neko ne osjeća iskorištenim. Vrlo je važno biti otvoren prema klijentima i objasniti im sve što trebaju znati

vezano za uslugu, ali bez suvišnih informacija koje ga svojim obiljem mogu zbuniti. Kada imate međusobno poštovanje sa klijentima, imate partnerstvo, a onda i klijenta zauvijek. Američki autor S. Markus slikovito je prikazao da su dolarske nov-



čanice koje klijent dobija od blagajnika na šalterima u četiri banke iste, a ono što je različito to su šalterski službenici. Kvalitet usluge određuje nivo zadovoljstva i lojalnosti komitenta.

Jedan od većih problema u marketingu finansijskih usluga prepoznat je i u diferencijaciji i prepoznatljivosti među markama. Ovdje se prevashodno misli na kupovine i akvizicije u finansijskom sektoru, pri čemu kupac promijeni ime banke koju je kupio, odnosno kupljena banka gubi identitet, što u većini slučajeva nije dobro. Pozitivne slučajeve u crnogorskom bankarstvu novijeg datuma imamo dolaskom kroz kupovinu postojećih banaka, kao npr. Crnogorske Komercijalne Banke od strane OTP grupacije ili Montenegro banke i Podgoričke banke od strane Nove Ljubljanske Banke iz Slovenije odnosno Societe General, francuske Banke. Naime, u skladu sa svjetskim trendovima i pozitivnim iskustvima zadržana su imena kupljenih banaka uz čija su imena dodate oznake kojoj strateškoj grupaciji pripadaju. Ulaskom velikih banaka i na tržište Crne Gore za očekivati je da će se marketingu kao segmentu poslovanja banaka i kod nas sve više posvećivati dužna pažnja, jer to je nešto što tržište nameće ■

action in line with market developments. The process includes market research, adoption and implementation of new services in order to operate in higher quality and profitable manner with a view to the competition.

The critical points in defining of marketing are related with planning of an efficient marketing strategy for each new product, whereby the following questions need to be answered:

- What is the market for your new product?
- What are your strengths and weaknesses?
- Who are your clients?
- What is the competition like?
- What marketing tactics is to be applied?

Marketing planning in the bank means that marketing plan should form a basis for development of other plans in the bank. High quality and processed information need to be the pillar of an entire planning and operation of the bank. Objectives and tasks of the bank need to reflect a realistic capacities of its resources (material and human ones and organizational capacities) and they may be qualitative, quantitative and a combination of both these attributes. We also have to bear in mind the time dimension – in order for a long-term objective to be achieved, short-term and medium-term ones need to be accomplished first. That is why short-term ones are not inherently objectives; they are rather stages (tertiary objectives) in accomplishment of the medium-term ones (secondary objectives) which make the phase in accomplishment of the long-term (primary) objectives. Identification of time dimensions of marketing objectives is considered to be one of the most complex problems from the aspect of balance and mutual conflict.

Regardless of the current possibly good market position, high quality management does not leave room for inactivity, in fact it may not afford it in the period of frequ-

ent changes. The policy of positive operation is a living process that develops in line with changes, or even sets new standards in the best case.

The Strategy Plan of the bank needs to come from the bank management. The aim of strategic planning is to take a decision on the course of development today that will bring the bank to where it wishes to be tomorrow. Strategic plan needs to anticipate changes, like those in the network of the distribution channels of bank products and services, changes in lending policy, prices etc. There are several areas of activities where the bank may define marketing objectives, such as: preparation of the bank for the future growth and development in areas where it currently does not provide services; setting long-term requirements for accomplishment of profitability, profit per share, market position and the level of its competitive capacity; to require renewed emphasis of its social responsibility, larger participation of community, employment growth and increase in its technical and professional capacity, to enhance communication lines and carry out preparations for greater decentralization of decision making in marketing; to encourage innovations and productivity of marketing by means of greater synergy resulting from cooperation of the management and employees.

PEOPLE ARE NOT INTERESTED IN FINANCES, HOWEVER THEY ARE INTERESTED IN MONEY

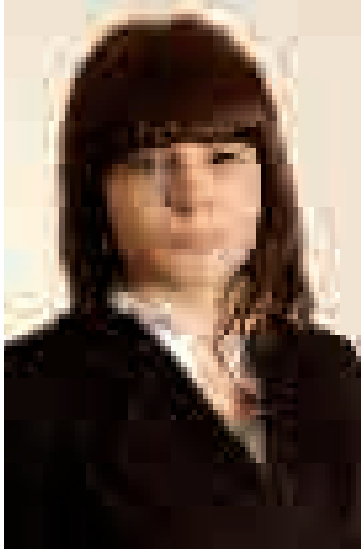
Marketing of financial services is unique as it operates with a particular type of services or products. To put it simply, in financing it is all about lending to someone or borrowing from someone. Banks work with legal persons, the state and physical persons. Regardless of the client category, everyone wants to work with the bank that will provide them services in the best way. What does that mean? Clients expect clearly presented services, quick action, while price of the service also constitutes an important element. In terms of financial services, it is not easy to communicate with people in a simple and understandable manner. Problem is the same in both, developed and less developed countries, as the majority of people are not interested in finances, but in money. There is a certain inertia that makes it difficult to encourage people to think about financial products. In terms of savings, pension funds or investments we actually ask people to take a part of their disposable income and put it

someplace else. According to the conclusions drawn by experts from the most developed markets, it is not easy to describe and sell the financial product

The practice and theory of banking operation, and operation in general, is to explain consumers by using clear terminology what the offered product actually is. Certain degree of arrogance (which is noticeable in some financial companies) is bad since the consumer must come to them and ask for money. Some believe that this grants authority to the bank. One of the first things to be developed is mutual respect. Mystifying of operations and grandiosity of the bank premises may have had its effects in the past, but nowadays it is much more personal relation between the provider and beneficiary of services that is in demand. Explaining the benefits of financial services without confusing anyone or making someone feel as if they have been taken advantage of is the quality. It is of utmost importance to be open with clients and explain to them everything they need to know about the service, but without surplus information whose abundance might confuse them. If you build mutual respect with clients, you have a partnership and the client for good. American author S. Markus suggested that dollar banknotes received by the client at the counters in four banks are the same, but it is the counter officers who are different. The quality of service determines the level of satisfaction and loyalty of the client.

One of the biggest problems in marketing of financial services has been identified in differentiation and level of recognition among brands. This primarily refers to purchases and acquisitions in financial sector whereby a buyer changes the name of the bank he purchased, that is purchased bank loses its identity which in most of the cases is not good. The most recent positive examples in Montenegrin banking is arrival through purchase of the existing banks, such as Crnogorska komercijalna bank bought by OTP Group or Montenegro bank and Podgorička bank bought from Nova Ljubljanska Bank from Slovenia and French bank Societe Generale, respectively. In fact, in line with the world trends and positive practice the names of purchased banks were kept, while labels were added to their names in order to describe the strategic group they belong to. Entry of large banks into the market of Montenegro means that marketing, as an element of bank operations, will increasingly be paid due attention since that is a market requirement ■





MFI, KU, KGF

Pored banaka koje su dominantne finansijske institucije u poslednjih nekoliko godina razvijaju se i mikrokreditne institucije koje predstavljaju nedepozitne finansijske institucije koje se bave odobravanjem kredita stanovništvu, malim preduzetnicima i domaćinstvima za obavljanje postojeće ili započinjanje nove poslovne djelatnosti. Postoji i zakonski okvir za formiranje Kreditnih unija, kao i za lica koja se bave kreditno-grantnim poslovima.

Zdenka Bulatović

Osnivanje, upravljanje i cjelokupno poslovanje mikrokreditnih institucija u Crnoj Gori regulisano je Zakonom o bankama. Centralna banka izdaje dozvolu za rad mikrokreditnim finansijskim institucijama u vidu Rješenja. Prema ovom zakonu mikrokreditne finansijske institucije osnivaju se kao akcionarska društva ili društva sa ograničenom odgovornošću. Minimalni novčani iznos za osnivanje ovih institucija iznosi 100.000 eura. U skladu sa zakonom ove institucije obavljaju sledeće vrste poslova:

- odobravaju iz sopstvenih sredstava i sredstava pribavljenih na tržištu novca namjenske kredite za realizaciju projekata razvoja privrednih društava, kredite za unapređenje djelatnosti preduzetnika i namjenske kredite fizičkim licima,
- investiraju u kratkoročne HOV koje emituje Vlada CG i u druge visokokvalitetne kratkoročne instrumente finansijskog tržišta,
- pružaju usluge finansijskog lizinga i
- pružaju konsalting usluge.

Prve mikrokreditne institucije u Crnoj Gori bile su osnovane kao NVO, a neke od njih su bile prethodnica danas uspješnih banaka, u koje su transformisane kroz proces dokapitalizacije. Krajem 2005. godine CBCG je uručila prvu dozvolu za rad mikrokreditnoj finansijskoj instituciji u našoj zemlji.

Ove institucije su uspjele da ostvare finansijsku samoodrživost i značajne poslovne rezultate. Prema zvaničnim podacima CBCG ukupna aktiva ovih institucija na kraju juna 2008. godine iznosila je 69,4 miliona € što je za 49,8% više u odnosu na isti period prošle godine. Na kraju juna, ukupni krediti MFI iznosili su 65,8 miliona eura, što je za 24,3% više u odnosu na kraj 2007. godine, dok je godišnji rast iznosio 53,1%. Što se tiče kreditnog portfolija po djelatnostima, dominantno je učešće kredita za poljoprivredu (58,3% na kraju juna

2008. godine). Ako se sagleda ročna struktura, dominiraju dugoročni krediti (92,3%).

U Crnoj Gori trenutno posluje pet mikrokreditnih institucija. Sredstva mikrokreditnih institucija obezbjeđuju uglavnom vlasnici iz sopstvenih sredstava ili povlačenjem kredita od domaćih ili inostranih banaka.

Ove institucije daju ljudima šansu da zaštite svoje porodice od finansijskog rizika i da investiraju u nove ili postojeće ekonomske djelatnosti. Takođe, pored brzih kredita koje odobravaju svojim klijentima, poslovanje ovih institucija upotpunjuje finansijski sektor u našoj zemlji.

CBCG izdaje dozvolu za rad i kreditnim unijama, takođe u vidu Rješenja. Prema Zakonu o bankama, Kreditna unija se definiše kao finansijska institucija u vlasništvu članova Unije a koja je organizovana na principima dobrovoljnosti udruživanja, povezanosti, uzajamnosti i ravnopravnosti članova Unije, koja prvenstveno iz sopstvenih sredstava i depozita članova Unije odobrava kredite i pruža druge finansijske usluge članovima Unije. Minimalni novčani iznos osnivačkog kapitala unije iznosi 10.000 eura, a može je osnovati najmanje 30 poslovno sposobnih fizičkih lica ili preduzetnika koji su povezani po osnovu obavljanja iste poslovne djelatnosti, pripadnosti istom udruženju, teritorijalne pripadnosti, zaposlenost kod istog poslodavca, itd. Pored depozita koje prima od članova Unije ona odobrava kredite svojim članovima iz sopstvenih sredstava, depozita članova ili sredstava pribavljenih na tržištu novca. Unija može da izdaje garancije i preuzima druge slične obaveze za svoje članove; obavlja usluge platnog prometa u zemlji za članove; investira slobodna sredstva u kratkoročne HOV koje emituje Vlada CG, ili u druge visokokvalitetne kratkoročne instrumente tržišta novca i vrši usluge finansijskog lizinga za članove Unije.

MFI, KU, KG

In addition to the banks which have been dominant financial institutions over the last several years, micro credit institutions have also been developing as non-depository financial institutions engaged in giving loans to the population, small entrepreneurs and households for performance of the existing or starting of the new business activities. There is a legal framework for establishment of Credit Unions and for persons engaged in credit and guarantee affairs.

Zdenka Bulatović

Establishment, management and entire operation of micro credit institutions in Montenegro are governed by the Law on Banks. The Central Bank issues operational licence to the micro credit financial institutions in the form of a Decision. Under this Law, micro credit financial institutions are established as stock companies or limited liability companies. The minimum amount of money to establish these institutions is 100.000 Euros. Under the Law, these institutions perform the following types of affairs:

- Give specific purpose loans from their own funds or funds acquired on the money market for implementation of the companies development projects, loans for advancement of entrepreneur activities, and specific purpose loans to physical persons
- Invest in short-term securities issued by the Government of Montenegro and other high quality instruments of the financial market
- Provide financial leasing services and
- Provide consulting services

The first micro credit institutions in Montenegro were established as NGOs, while some of them were predecessors of today's successful banks into which they transformed in the recapitalization process. At the end of 2005 the CBCG granted the first operational licence to a micro credit financial institution in our country.

These institutions succeeded in reaching financial self-sustainability and significant operations results. According to the CBCG official data, the total assets of these institutions at the end of June 2008 amounted to 69.4 million Euros which is higher by 49.8% than in the same period last year. At the end of June, the total MFI loans equaled 65.8 million Euros, which is higher by 24.3% than at the end of 2007, while annual growth amounted to 53.1%. As regards credit portfolio by activities, agriculture loans are dominant (58.3% at the end of June 2008). As regards the term of the loans, they are mainly long-term (92.3%).



Five micro credit institutions currently operate in Montenegro. Funds of micro credit institutions are mainly provided by owners of equity capital or loans from national and international banks.

These institutions provide citizens the opportunity to protect their families against financial risks and to invest in new or existent business activities. In addition, apart from fast loans given to their clients, operations of these institutions supplements financial sector in Montenegro.

The CBCG also issues operational licence to Credit Unions in form of the Decision. Under the Law on Banks,

Iako je poslovanje ovih institucija kod nas zakonski regulirano, još uvijek u Crnoj Gori ne postoji ni jedna Kreditna unija. I pored nastojanja da se forsira i takav oblik “alternativne” banke, nije se maklo dalje od pokušaja. Razloge za to trebalo bi istražiti, ali, sve to ipak upućuje na dvojak zaključak - ili da su svi “zadovoljeni” od poslovnih banaka, ili da kod naših preduzetnika još uvijek nije proradio sistem međusobnog finansiranja i korporativnog upravljanja. Jer, i pored svega ne može da se priča o nedostatku sredstava u privatnom sektoru ili kod fizičkih lica.

Zakonodavac je stvorio i pravni okvir za formiranje tzv. “lica koja se bave kreditno - garantnim poslovima” (čl. 164. Zakona o bankama - Sl. list Crne Gore, broj 17, od 11. marta 2008. godine).

Postoji i zakonski okvir za formiranje Kreditnih unija, kao i za lica koja se bave kreditno-garantnim poslovima.

BANKAR €

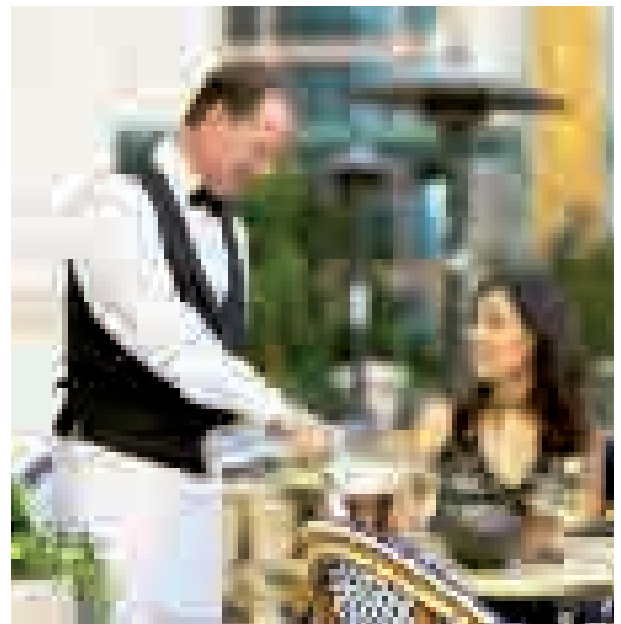
Od davnina se kaže da je istina prva žrtva rata, ali bi prioritet trebalo i morao da ima - novac. Novac je, dakle, prva žrtva rata - zar ne?

Nesreća se ponekad može pretvoriti u sreću, ako su ljudi dovoljno pametni da utvrde prave uzroke nesreće.

U svim ekonomskim panikama postoje izvjesne prepoznatljive konstante. Prvo nastaje ekspanzija privrednih aktivnosti. Nakon nekog vremena ekspanzija ustukne pred špekulacijom (špekulaciju kad uspijeva nazivamo preduzetništvom, a opakim činom samo kad ne uspije). Ne treba posebno napominjati da su banke bile izvor novca koji je finansirao špekulacije, i, po pravilu se radilo o malim bankama, a onda nastupa sljedeća konstanta - bankrot takvih banaka. I onda nastaje jasna akcija - intervencija države.

Džon Kenet Galbrajt
-Novac-

Garancijski fondovi su pobliže definisani Odlukom Savjeta Centralne banke Crne Gore (“Službeni list RCG, brt. 42, od 11. jula 2008. godine). Prema toj Odluci “kreditno-garancijski poslovi su poslovi izdavanja garancija za uredno izvršavanja obaveza korisnika kredita”. Garancijski fond se osniva kao akcionarsko društvo koje, kao jedinu djelatnost, obavlja kreditno-grancijske poslove, uz minimalni novčani osnivački kapital od milion eura, s tim što se kapital ne može tretirati kao osnivački kapital. Naravno sve to uz postupak izdavanja odobrenja za obavljanje kreditno-garancijskih poslova (propisan je postupak i procedura podnošenja zahtjeva), a predvižena je i mogućnost odbijanja takvog zahtjeva, između ostalog i zbog više od 5% učešća u kapitalu fonda, odnosno ako nije moguće utvrditi porijeklo novca koji se ulaže kao osnivački kapital. Donaciji od međunarodnih organizacija



do drugih lica, s tim što se donirani kapital uključuje u regulatorni kapital najviše do visine nominalnog iznosa akcionarskog kapitala garancijskog fonda. Jednom korisniku kredita (ili grupi povezanih korisnika) garantovani iznos ne može prelaziti 5% regulatornog kapitala, niti iznositi više od 100.000 eura. Garantni fond je dužan da prati i kontroliše sve rizike u poslovanju. Fond može da plasira slobodna sredstva u “državne” obveznice i u hartije od vrijednosti, uslovno i u takve finansijske instrumente banaka i drugih pravnih lica, kao i bankarske depozite. Garancijski fond je “dužan da u svakom trenutku održava usklađenost računa struktura potraživanja i obaveza, uključujući i potencijalne vanbilansne obaveze”. Kontrolu Garancijskih fondova obavlja Centralna banka uz preduzimanje mjera prema njima (pismo upozorenja, zaključivanje pisanog sporazuma o otklanjanju nepravilnosti, nalog rješenjem da otklone nedostatke i usklade poslovanje sa propisima, uključujući i povećanje regulatornog kapitala, smanjivanje ili privremeno obustavljanje izdavanja garancija, kao i smanjenje koeficijenta multiplikacije). Centralna banka, naravno, može u izuzetnim slučajevima oduzeti odobrenje za obavljanje kreditno-garantnih poslova.

a Credit Union is defined as a financial institution owned by the Union members organized on the voluntary association principle, connection, mutuality and equality of the Union members which gives loans and provides other financial services to the Union members primarily from its own funds and deposits of the Union Members. The minimum founding capital amounts to 10.000 Euros and it may be founded by at least 30 physical persons or entrepreneurs of working capacity who are connected on the basis of the performance of the same business activity, membership in the same association, territorial affiliation, employment by the same employer etc. In addition to the deposit received by the Union members, it gives loans to its members from its own funds, deposits of the members or funds acquired at the money market. The Union may issue guarantees and assume other similar commitments for its members; provides payment transactions services in the country for the members; invests free assets in short-term securities issued by the Government of Montenegro or in other high quality short-term instruments of the money market and provides financial leasing services to the Union members.

Even though operation of these institutions is governed by the law, there is still not even one Credit Union established in Montenegro. Despite efforts to encourage this type of alternative banking, progress has not been made since the first attempt. Reasons for that should be investigated, but everything leads to only two conclusions: either everyone is happy with regular banks or our entrepreneurs still do not operate the mutual finance or corporate governance system. Despite everything, one cannot say that the private sector or physical persons lack funds.

Lawmaker created legal framework for establishment of the so-called person involved in credit and guarantee affairs (Article 164 of the Law on Banks, Official Gazette of Montenegro, no. 17, March 11 2008).

There is a legal framework for establishment of Credit Unions and for persons engaged in credit and guarantee affairs.

The guarantee funds are more closely defined in the Resolution of the Council of the Central Bank of Montenegro (Official Gazette of the Republic of Montenegro no. 42, July 11th 2008). Under the Resolution, credit and guarantee affairs are those of issuance of guarantees for due execution of obligations of credit beneficiaries. The guarantee fund is established as a stock company whose only activity is to perform credit and guarantee affairs, with minimum monetary founding capital in the amount of one million euro whereby the capital may not be treated as founding capital. Naturally, all that is accompanied by the procedure of issuance of license for performance of credit and guarantee affairs (the procedure and method of the submission of applications are prescribed), and there is also a possibility to dismiss such application due to, among other things, more than 5% share in the fund equity, that is if it is impossible to establish the origin of money invested as founding capital. Donation from international organizations to other persons, whereby donated capital becomes included in the regulatory capital maximally in the amount of nominal value of share capital of the guarantee fund. Guaranteed amount for one credit beneficiary (or group of related beneficiaries) may not exceed 5% of regulatory capital, neither can it amount to more than 100.000 euros. Guarantee fund has the obli-

gation to monitor and control all the risks in the operation. The fund may invest free funds into state bonds and securities, conditionally and in such financial instruments of the banks and other legal entities, as well as in bank deposits. The guarantee fund shall at all times maintain balance of the accounts of receivables and payables structures, including potential off-balance payables. Control of the guarantee funds is exercised by the Central Bank which undertakes necessary measures against them (warning letter, concluding agreement in writing on elimination of irregularities, order based on decision to eliminate shortcomings and harmonize operations with regulations, including increase in regulatory capital, decrease or temporary suspension of issuance of guarantees, as well as reduction of the multiplication coefficient). Exceptionally, the Central Bank naturally may revoke license for performance of credit and guarantee affairs ■

BANKAR €

Since the old times it has been said that truth is the first victim of war, but the priority should and must be given to – money. Money is therefore the first victim of war – isn't it?

Misfortune may sometimes be transformed into fortune, if people are clever enough to identify the true causes of the misfortune.

In all economic panics there are certain recognizable constants. The expansion of economic activities occurs first. After some time the expansion gives way to the speculation (when successful the speculation is called an entrepreneurship and only when it fails is called an evil undertaking). It should not be specifically mentioned that banks used to be the source of money for financing speculations, and, by rule, these were small banks, and then the next constant occurs – the bankruptcy of such banks. And then a clear action follows – the intervention of the State.

John Kenneth Galbraith
-Money-

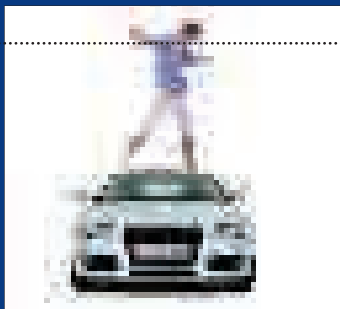
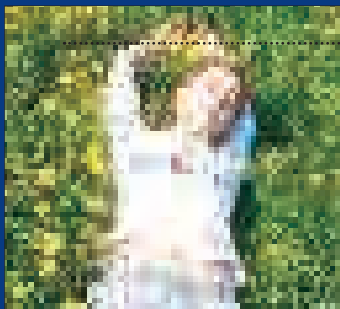
Visa Revolving kartica

30%

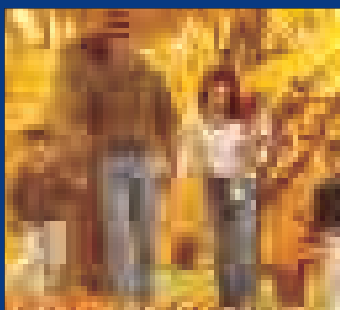
otplate
minimalnog
mjesečnog
duga

**SIGURNA,
PLASTIČNA,
ELASTIČNA,
FANTASTIČNA!**

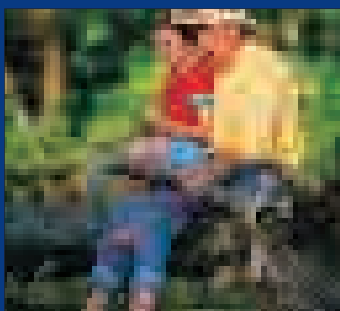
Prilikom odobrenja 100% Visa
kreditnog limita do 120
milijuna kuna, a
za 100% osiguranje
i 100% osiguranje
kreditnog limita
osiguranje od 100%



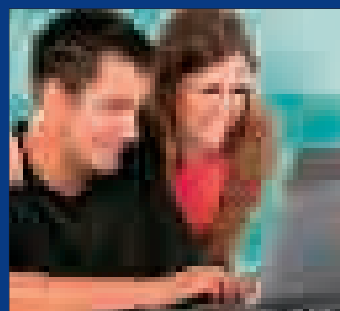
Turistički krediti
Poljoprivredni krediti
Studentski krediti
Relax krediti
Penzionerski krediti
Auto krediti



Gotovinski nenamjenski krediti
Potrošački krediti
Krediti za pravna lica
Krediti za mala i srednja preduzeća
VISA i Master kartice



Računi
SMS upiti
Štednja
E-banking
Sefovi
Mjenjački poslovi



BANKARSKI POJMOVNIK

(prema dr Ivu Perišinu)

AUTONOMNO STVARANJE KREDITA - sposobnost banke da odobri više kredita od sume kredita koji je sama uzela. Ali banka po pravilu odobrava kredit samo u svojim knjigama, koji u njima figurira isto kao i realni depozit na osnovu kojeg je banka odobrila kredit, dok gotovina ostaje u banci. Zbog toga je banci u normalnim uslovima dovoljno samo desetak procenata rezervi likvidnosti da bi udovoljila svojim obavezama plaćanja i može odobriti više kredita od sume koju je primila. Ta sposobnost banke koja je pretvara od posrednika u stvaraoca novca poslužila je kao osnova brojnih teorija o autonomnom stvaranju kredita, među kojima je posebno interesantna teorija kreditne ekspanzije.

EMISIJA KREDITA - banke u principu odobravaju kredite svojim komitentima na osnovu raspoloživih sredstava; to bi, jednostavno rečeno, bila emisija kredita. Međutim, ako banke odobravaju kredite iznad iznosa raspoloživih sredstava - kaže se da banke kreiraju kredit. U stvari, u pitanju je kreiranje depozitnog (žiralnog) novca odobravanjem kredita, i to ili na osnovu raspoloživih sredstava, ili iznad sredstava koja su im na raspolaganju. Tako dolazi do pojave koja se u monetarnoj teoriji naziva multiplikacija depozita. Zbog te pojave, monetarnim se vlastima stavlja i zadatak da regulišu i mogućnost te multiplikacije, a one to postižu sistemom obaveznih rezervi i kvantitativnim ograničavanjem kredita.

MMF - Međunarodni monetarni fond osnovan u decembru 1945. na osnovu sporazuma postignutog na međunarodnoj finansijskoj i monetarnoj konferenciji između prisutnih zemalja, u julu 1944. u Bretton Woodsu (SAD). Zadaci Fonda koje sadržava njegov statut jesu: da Fond radi na saniranju i unapreženju valutnih sistema, odnosno međunarodnih platnih odnosa ili međunarodnog monetarnog sistema i time potpomogne razvoj multilateralne slobodne svjetske trgovine; da utiče na stabilizaciju vrijednosti valuta ili intervalutarnih kurseva zemalja članica; da radi na ukidanju deviznih restrikcija i sprječava valutni dumping i uvođenje višestrukih i fluktuirajućih kurseva; da radi na uvođenju konvertibilnosti valuta za tekuće transakcije.

MORATORIJUM - odlaganje plaćanja dugova zbog teškoća nastalih u privredi, elementarnih katastrofa ili rata, i sl. Do odlaganja plaćanja dolazi bez prethodne saglasnosti između dužnika i povjerioca (a ponekad ide i na štetu povjerioca).

Moratorijum se proglašava aktom državne vlasti, a može se odnositi na jedinog dužnika, na privredne grupe ili sve stanovnike nekog područja ili države na odriješeno ili neodriješeno vrijeme. Može se odnositi i na dugove u zemlji i na dugove van zemlje.

NEW DEAL - antikrizna ekonomska politika predsjednika SAD F.D. Ruzvelta kojom je želio savladati posljedice ekonomske krize 1929/32. godine. ND je sa sistemom mjera koje su tada preduzete, otvorio eru državne intervencionističke politike širih razmjera, koja se otad sistematski primjenjuje da regulišu ciklična kolebanja konjunktura. Osnova je te intervencionističke politike u finansijskoj politici. Inflatorno finansiranje privrednog razvoja, politika jeftinog novca, kreditnih i poreskih olakšica, uz ostale mjere, a u prvom redu politiku javnog duga i stvaranja tržišta tamo gdje ga nema putem finansiranja nove potražnje, ima za cilj oživljenje konjunktura. Finansijska politika, koja se u takvim prilikama primjenjuje sa širokim arsenalom mjera, dopunjava se mjerama na sektoru socijalnog osiguranja, politikom javnih radova i mjerama u nizu drugih oblasti privrednog i društvenog života. (M.N.)

FIDUCIJA - Institut poznat još u Rimskom pravu, kao najsigurniji oblik založnog prava (u izvjesnom smislu sličan hipoteci), nije, eto, našao svoje mjesto u Finansijskom leksikonu dr Iva Perišina iz 1967. godine. Fiducija kod nas se u tim vremenima nije koristila, a danas...

GLOSSARY OF BANKING TERMS

(According to Ivo Perišin, PhD)

AUTONOMOUS CREATION OF LOANS - ability of a bank to extend several loans from the sum of credits that it took itself. But the bank, by rule, approves the loan only in its books, which plays its role in them just like a real deposit based on which the bank approved the loan, while the cash remains in the bank. Therefore, under normal circumstances only ten percent of liquidity reserves are enough for the bank to meet all its payment obligations and to be able to approve several loans from the sum it received. This ability of the bank which transforms it from an intermediary into a creator of the money served as the base of various theories on autonomous creation of loans, among which the theory of loan expansion is particularly interesting.

ISSUE OF LOANS - banks in principle approve loans to their clients based on available funds; this would be, simply put, an issue of loans. However, if banks approve loans above the amounts of available funds - it is said that banks create loans. In fact, it is about the creation of deposit (giro) money through approval of loans, relying either on available funds, or on more funds than available. This is how it comes to an occurrence that is in monetary theory called multiplication of deposits. Because of that occurrence, monetary authorities are tasked to regulate the possibility of such multiplication, and they achieve it through the system of reserve requirements and quantitative limitations of loans.

IMF - International Monetary Fund was founded in December 1945 based on the agreement achieved at the international financial and monetary conference among the attending countries, in July 1944 in Bretton Woods (USA). The tasks of the Fund included in its Statute are as follows: the Fund is to work on rehabilitation and improvement of currency systems, or international payment relations or international monetary system and thereby support the development of multilateral free world trade; to influence the stabilization of the value of currencies and intercurrency exchange rates of the member countries; to work on abolishing of FX restrictions and prevent currency dumping and introduction of multiple and variable exchange rates; to work on introduction of convertibility of currencies for the current transactions.

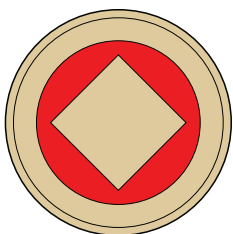
MORATORIUM - delay in payments of debts due to difficulties in the economy, elemental disasters or war and like. Delay of payments takes place without the prior agreement between debtors and creditors (and sometimes also at the detriment of creditors). Moratorium is declared by the act of the state authority, and may refer to an individual debtor, economic sectors or entire population in a given area or state for a defined or an open-ending period. It may refer to both debts in the country and those outside of the country.

NEW DEAL - anti-crisis economic policy of the USA President F.D. Roosevelt having as objective a recovery from consequences of the economic crisis in 1929-1932. ND has opened an era of state interventionist policy of broad dimensions, with the system of measures undertaken at the time, which are applied since then in a systemic manner to regulate cyclical market fluctuations. Base for such interventionist policy lays in the financial policy. Inflation-driven financing of the economic development, cheap money policy, credit and tax relieves, along with other measures, primarily the public debt policy and creation of market in places where it does not exist though financing of new demand, have as an objective revival of the economic cycle. Financial policy, applied in such circumstances with wide range of measures, is supplemented with measures in the social security sector, public works policy and measures in many other areas of economic and social life.

FIDUCIARY - Institute known from the Roman law, as the safest form of pledge law (to certain extent similar with the mortgage); however it was not recorded in the Financial Lexicon of PhD Ivo Perišin from 1967. Fiduciary relations were not used in those time here, but today...



UDRUŽENI OKO ZAJEDNIČKOG CILJA



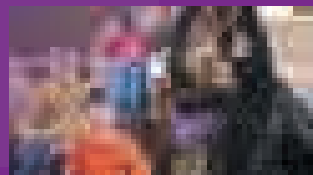
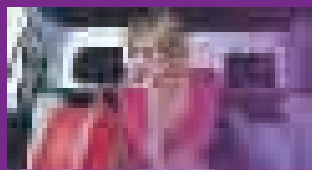
UDRUŽENJE BANAKA
CRNE GORE

ASSOCIATION OF
MONTENEGRIN BANKS

Atlasmont Banka AD Podgorica
Crnogorska komercijalna banka AD Podgorica
First Financial Bank AD Podgorica
Hipotekarna Banka AD Podgorica
Hypo-Alpe-Adria Bank AD Podgorica
Invest Banka Montenegro AD Podgorica
Komercijalna Banka AD Budva
NLB Montenegro banka
Opportunity bank AD Podgorica
Podgorička banka AD Podgorica
Prva banka Crne Gore 1901.



KOMERCIJALNA BANKA AD BUDVA



Sigurnih 15 godina sa Vama