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STANDARDI ZA OBEZBEĐIVANJE LIKVIDNOSTI PREMA BAZELU III

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Rezime

U ovom radu predstavljena su dva nova standarda za obezbeđivanje likvidnosti prema najnovijem okviru Bazela III: racio pokrivenosti likvidnosti i racio neto stabilnog finansiranja. Date su osnove za njihovo izračunavanje, zajedno sa elementima koji ulaze u obračun, kao i raspored postepenog uvođenja Bazela III. Novi standardi u pogledu likvidnosti su, pored strožijeg tumačenja zahteva za kapitalom, uvođenja kontracikličnog i zaštitnog bafera, najznačajnije novine koje donosi novi set pravila. U dosadašnjim dokumentima Bazelskog komiteta, likvidnost nije iskazivana kroz brojčane veličine, tako da nije postojao konkretan okvir za njihovo izračunavanje.

Iako je trenutno gotovo nemoguće kvantifikovati koliko će nova pravila zahtevati dodatnog kapitala i koliki će biti njihov uticaj na kretanje bruto domaćeg proizvoda, dat je pregled nekoliko radova iz ove oblasti koji su za cilj imali da predvide troškove implementacije i mogući uticaj na BDP. I pored neizbežnih troškova do kojih će doći, primena 2 nova standarda za obezbeđivanje likvidnosti trebala bi u budućnosti da spreči pojavu novih kriza, odnosno da smanji verovatnoću njihovog nastanka.

Ključne reči: Bazel III, likvidnost, kriza, racio pokrivenosti likvidnosti, racio neto stabilnog finansiranja

JEL klasifikacija: E42, E50

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Summary

This paper presents two new standards for maintaining liquidity according to the latest Basle III Accord: liquidity coverage ratio and net stable funding ratio. The paper features the basics for their calculation, together with the elements of calculation, and the phase-in arrangements of Basle III. The new standards in terms of liquidity are, in addition to the stricter interpretation of capital charges, introduction of countercyclical and conservation buffers, the most significant changes to be introduced by the new set of rules. In the Basle Committee documents so far, liquidity has not been expressed through numerical values, so that there was no concrete framework for their calculation.

Although at the moment it is almost impossible to quantify additional capital that the new rules would require, and the impact they will exert on the movements of gross domestic product, the papers provides a list of several papers in this field aimed at forecasting the costs of implementation and potential impact on GDP. Despite the inevitable costs, however, the implementation of the two new liquidity standards should prevent the occurrence of the new crises in the future, i.e. reduce the possibility of their occurrence.

Key words: Basle III, liquidity, crisis, liquidity coverage ratio, net stable funding ratio

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BASLE III LIQUIDITY STANDARDS

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Likvidnost, problemi vezani za njenu kontrolu i efikasno upravljanje, kao i sam rizik likvidnosti su predmet interesovanja i opservacije Bazelskog komiteta još od samog njegovog osnivanja. To nije slučajno, imajući u vidu ogroman značaj koji likvidnost ima u svakodnevnom bankarskom poslovanju i brojne propasti banaka širom sveta upravo zbog svoje nelikvidnosti. U početku akcenat je bio na razvijanju boljeg razumevanja načina na koji banke upravljaju likvidnošću na globalnoj, konsolidovanoj osnovi i kako se to upravljanje može poboljšati.

Bazelski Komitet za superviziju banaka je nakon izbijanja krize krenuo sa izradom novih pravila i standarda, čija bi dosledna primena u budućnosti trebala da izbegne pojavu ovakvih i sličnih kriza, odnosno da smanji na minimum verovatnoću da se one ponove. Rezultat rada Komiteta je objavljivanje skupa pravila i standarda, poznatih pod nazivom Bazel III. Cilj reformi je da se poboljša i unapredi pouzdanost i sposobnost bankarskog sektora da na adekvatan način apsorbuje i ublaži šokove koji proizilaze iz finansijskih i ekonomskih stresova, bez obzira na izvor, čime bi se znatno smanjio rizik preliivanja krize iz finansijskog sektora u realnu ekonomiju.

Kao ključni prodori Bazela III mogu se izdvojiti (Hannoun, 2010):

- važan detalj u vezi sa brojiocem u kapitalnoj jednačini je fokus na zajednički akcionarski kapital, najkvalitetniju komponentu kapitala banke, i samim tim, komponentu sa najvećom sposobnošću da apsorbuje gubitke,
- potrebno je iskoreniti nedostatke koji se javljaju u knjigama trgovanja, odnosno eliminisati mogućnost regulatorne arbitraže između bankarskih i trgovačkih knjiga,
- kada se razmatra strože definisanje kapitala i poboljšanje pokrića rizika, to zahteva sedmostruko povećanje zahteva za zajednički akcionarski kapital za međunarodno aktivne banke,
- banke više neće moći da slede politike alociranja koje su u suprotnosti sa principima zdravog očuvanja kapitala,
- Basel III je okvir koji i dalje ostaje baziran na riziku ali sada uključuje - kroz leveridž ratio - pristup zaštitne mreže koji takođe snima

rizike koji dolaze od ukupnih sredstava. Baziranost na riziku i racia leveridža pojačavaju jedan drugog,

- uvođenje kontracikličnog kapitala zaduženog za smanjenje cikličnosti zbog prekomernog rasta kreditiranja,
- sistemski važnim finansijskim institucijama je potrebna veća sposobnost da apsorbuju gubitke, a ta sposobnost je potrebna zbog većih rizika koji oni predstavljaju za globalni finansijski sistem. Dodatni sistemski kapital je najjednostavniji, ali ne i jedini način da se to postigne,
- kreditna izloženost druge strane u trgovini derivatima prema centralnim klirinškim kućama i dalje će imati tretman preferencijalnog kapitala, što pokazuje da je takva izloženost niskorizična i zahteva mali (ali veći od nule) ponder (od 1% do 3%), umesto dosadašnje situacije u kojoj nije bilo kapitalnih zahteva,
- supervizori treba da izbegavaju preveliko oslanjanje na interne modele banaka i njihov nadzor treba da bude više usmeren u pravcu kako bi se osiguralo da sistemski rizik i vanredni događaji budu adekvatno uključeni u risk modele banaka i stres testove.

Tretman likvidnosti u dosadašnjim dokumentima Bazelskog komiteta

Iako je likvidnost (zajedno sa rizikom likvidnosti) u fokusu istraživanja Bazelskog Komiteta duži niz godina, tek se u septembru 1992. godine pojavljuje dokument koji odvojeno tretira likvidnost, njeno merenje i upravljanje - A Framework for Measuring and Managing Liquidity. U njemu se okvir za merenje i upravljanje likvidnosti banaka posmatra kroz tri dimenzije:

- merenje i upravljanje zahtevima za neto finansiranjem,
- upravljanje pristupa tržištu i
- kontingentno planiranje

bez navođenja parametara i brojčanih vrednosti.

Bazelski komitet za superviziju banaka je u svom dokumentu Sound Practices for Liquidity Management in Banking Organisations iz februara 2000. godine dao 14 ključnih principa za upravljanje likvidnošću, ali ni u jednom od

Liquidity, the problems related to liquidity control and efficient management, alongside the liquidity risk itself, have been in the focus of interest and observation by the Basel Committee since its very establishment. This is not a mere chance, bearing in mind the huge significance liquidity has in everyday banking business, and the numerous bankruptcies of banks all over the world due to their illiquidity. At the beginning, the focus was on the development of a better understanding of the ways in which banks manage liquidity on the global, consolidated basis, and the ways in which this management could be improved.

After the outbreak of the crisis, the Basle Committee for Banking Supervision started with the preparation of the new rules and standards, whose consistent implementation in the future should help avoid the occurrence of such and similar crises, i.e. reduce the possibility of their re-occurrence. The result of the Committee's work is the publication of a set of rules and standards, known under the name of Basle III. The objective of reforms is to improve and upgrade the reliability and capability of the banking sector to adequately absorb and mitigate the shocks caused by the financial and economic crunches, regardless of their source, which would considerably reduce the risk of the crisis spilling over from the financial sector into real economy.

As the key breakthroughs of Basle III we hereby highlight the following (Hannoun, 2010):

- The important detail concerning the numerator in the capital equation is the focus on common equity, the highest quality capital component of a bank, and thus the component with the highest loss-absorption capability;
- It is necessary to eradicate the shortcomings occurring in the trading books, i.e. to eradicate the possibility of regulatory arbitrage between the banking and trading books;
- When considering a stricter definition of capital and improved risk coverage, this requires the seven times higher common equity charges for internationally active banks;
- Banks will no longer be able to follow the policies of allocation contradicting the

principles of healthy capital conservation;

- Basle III is a framework which is still based on risks, but it now includes - through leverage ratio - the protective network approach which also detects the risks arising from total assets. Being based on risks and leverage ratios are mutually reinforcing;
- Introduction of the countercyclical capital aimed to reduce the cyclicity due to excessive growth of lending activities;
- Systemically important financial institutions need a higher loss-absorption ability, which is needed due to higher risks they entail for the global financial system. Additional systemic capital is the simplest, but not the only way to achieve this;
- Credit exposure of the counterparty in derivatives trading towards the central clearing houses will still be treated as preferential capital, which indicates that such exposure entails low risk and requires a small (but higher than zero) weight (from 1% to 3%), instead of the situation so far when there were no capital charges whatsoever;
- Supervisors should avoid excessive leaning on internal models of banks and their supervision should be more directed towards the insurance of systemic risk and emergency events being adequately integrated into the banks' risk models and stress tests.

Liquidity Treatment in the Basle Committee Documents So Far

Although liquidity (and liquidity risk) has been in the focus of Basel Committee research for some years now, it was only in September 1992 that a document was published which separately treated liquidity, its measurement and management - A Framework for Measuring and Managing Liquidity. This document presented a framework for measuring and managing liquidity of banks through three dimensions:

- Measuring and managing net funding requirements;
- Market approach management; and
- Contingent planning.

without stating any parameters or numerical values.

njih nije konkretno kvantifikovao likvidnost, odnosno propisao određene standarde i referentne vrednosti, kojih se banke moraju pridržavati i koje moraju poštovati u svom radu. Takođe, ni u 17 principa objavljenih u dokumentu iz septembra 2008. godine (nakon početka svetske ekonomske krize) pod nazivom Principles for Sound Liquidity Risk Management and Supervision nema jasnih i preciznih instrukcija u pogledu minimuma potrebne likvidnosti, njenog merenja ili kontrole. U oba dokumenta su date uopštene preporuke i saveti, a bankama ostavljeno da same sprovedu pravila likvidnosti u skladu sa nacionalnim zakonodavstvom.

Nakon pojave krize postalo je jasno da se likvidnost mora posmatrati na jedan novi - drugačiji način, kao i da se njom mora upravljati mnogo efikasnije nego što se radilo do tada, pošto se shvatilo da je nelikvidnost (uz ostale povezane faktore) jedan od glavnih generatora krize.

Novi standardi u pogledu likvidnosti

Kao svoj odgovor na krizu, Komitet je još više ojačao svoj okvir likvidnosti razvijajući dva minimalna standarda za obezbeđivanje likvidnosti (Basel Committee on Banking Supervision, Basel III: International framework for liquidity risk measurement, standards and monitoring, 2010). Ovi standardi su razvijeni da postignu dva različita, ali komplementarna

cilja. Prvi cilj je da se promoviše kratkoročna otpornost banke na rizike likvidnosti, tako što će se osigurati da postoje dovoljno kvalitetna likvidna sredstva da bi se preživeo značajniji stres scenario u trajanju od mesec dana. Odbor je razvio racio pokrivenosti likvidnosti (liquidity coverage ratio) za postizanje ovog cilja.

Drugi cilj je da se promoviše otpornost tokom dužeg vremenskog perioda kroz stvaranje dodatnih podsticaja za banke da finansiraju svoje aktivnosti sa više stabilnih izvora finansiranja na stalnoj osnovi. Racio neto stabilnog finansiranja (net stable funding ratio) ima vremenski horizont od jedne godine i razvijen je da obezbedi održivu strukturu ročnosti aktive i pasive.

Komitet će insistirati na rigoroznijim izveštavanjima za praćenje standarda u toku perioda posmatranja i nastaviće da analizira implikacije ovih standarda na finansijska tržišta, kreditne poslove i ekonomski rast, beležeći neželjene posledice ukoliko se pojave. Oba racia - i racio pokrivenosti likvidnosti i racio neto stabilnog finansiranja će biti predmet posmatranja i sadržaće klauzulu o reviziji kako bi se ispravile eventualne neželjene posledice. Nakon početka perioda posmatranja (1. januar 2011. godine), racio pokrivenosti likvidnosti, uključujući sve revizije, biće uveden 1. januara 2015. Racio neto stabilnog finansiranja, uključujući sve revizije, postaće minimalni standard do 1. januara 2018. (slika 1).

Basle Committee for Banking Supervision, in its document Sound Practices for Liquidity Management in Banking Organizations, as of February 2000, provided 14 key principles for liquidity management, but none of them quantified liquidity in concrete terms, or prescribed the defined standards and benchmark values that the banks have to follow in their operations. Likewise, the 17 principles published in the document from September 2008 (after the outbreak of the global economic crisis), under the title Principles for Sound Liquidity Risk Management and Supervision, do not provide clear and precise instructions as to the minimum required liquidity, its measurement or control. Both documents provided generalized recommendations and suggestions, and the banks were left to implement the liquidity-related rules themselves, pursuant to their national legislation.

After the outbreak of the crisis, however, it has become clear that liquidity has to be viewed in a new, different manner, and that it has to be managed in a much more efficient way than so far, given the conclusion that illiquidity (alongside other related factors) is one of the main generators of the crisis.

New Liquidity Standards

As a response to the crisis, the Committee additionally reinforced its liquidity framework by developing two minimum standards for maintaining liquidity (Basel Committee on Banking Supervision, Basel III: International

framework for liquidity risk measurement, standards and monitoring, 2010). These standards have been developed to achieve two different, but complementary goals. The first goal is to promote short-term resilience of banks to liquidity risks, by ensuring that there are enough liquid assets of sufficient quality for the purpose of surviving a significantly severe liquidity stress scenario lasting for one month. The Committee developed liquidity coverage ratio to achieve this goal.

The second goal is to promote the resilience over a longer time horizon through the creation of additional incentives for banks to finance their activities by means of several stable sources of funding at the permanent basis. Net stable funding ratio has a one-year time horizon and has been developed to ensure a sustainable maturity structure of assets and liabilities.

The Committee will insist on the more rigorous reporting for the purpose of standards monitoring during the observation period and will continue to analyse the implications of these standards on financial markets, lending operations and economic growth, by recording the side effects, if any. Both liquidity coverage ratio and net stable funding ratio will be subject to observation and will contain a revision clause so that potential side effects could be rectified. After the commencement of the observation period (1 January 2011), liquidity coverage ratio, including all revisions, will come into effect as of 1 January 2015. Net stable funding ratio, including all revisions, will become the minimum standard as of 1 January 2018 (Figure 1).

Slika 1. Raspored postepenog uvođenja Basela III (osenačena polja predstavljaju prelazne periode)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Leveridž racio	Nadgledanje		Uporedo korišćenje 1 Jan 2013 - 1 Jan 2017 Objavljivanje počinje 1 Jan 2015					Prelazak na Stub 1	
Minimalan nivo akcionarskog zajedničkog kapitala			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Bafer za zaštitu kapitala						0.625%	1.25%	1.875%	2.50%
Minimalan nivo zajedničkog akcionarskog kapitala plus bafer za zaštitu kapitala			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Postepeno uvođenje odbitaka od zajedničkog kapitala (uključujući iznose koji prekoračuju granicu za odložena poreska sredstva, hipotekarna prava i finansije)				20%	40%	60%	80%	100%	100%
Minimalan nivo kapitala I klase			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimalan nivo ukupnog kapitala			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimalan nivo ukupnog kapitala plus bafer za zaštitu kapitala			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Kapitalni instrumenti koji više ne spadaju u kapital I i II klase	Postepeno ukidanje u periodu od 10 godina, sa početkom u 2013								
Racio pokrivenosti likvidnosti	Početak perioda posmatranja				Uvođenje minimuma standarda				
Racio neto stabilnog finansiranja		Početak perioda posmatranja						Uvođenje minimuma standarda	

Izvor: Basel Committee on Banking Supervision, Basel III: A global regulatory framework for more resilient banks and banking systems

Racio pokrivenosti likvidnosti kao standard ima za cilj da obezbedi da banka održava odgovarajući nivo neopterećenih, visokokvalitetnih sredstava koja se mogu pretvoriti u gotovinu, kako bi banka zadovoljila svoje potrebe za likvidnošću u vremenskom periodu od 30 dana pod znatno težim stres scenarijom likvidnosti određenim od strane supervizora. Minimalan zahtev je da raspoloživa visokolikvidna sredstva treba da omoguće banci da preživi do 30 dana po stres scenariju, do kada se pretpostavlja da će odgovarajuće korektivne mere biti preduzete od strane rukovodstva i/ili supervizora.

Racio pokrivenosti likvidnosti = Skup visokokvalitetnih likvidnih sredstava / Ukupni neto odlivi gotovine u roku od 30 dana ≥ 100%

Sredstva se smatraju likvidnim i visokokvalitetnim ukoliko se mogu lako i brzo pretvoriti u gotovinu sa malo ili bez ikakvog gubitka vrednosti. Likvidnost sredstava zavisi od osnovnog stres scenarija, njihovog obima i vremenskog perioda. Ipak, postoje određena sredstva za koje je više verovatno da će generisati gotovinu bez velikih gubitaka zbog hitne prodaje, čak i u stresnim vremenima.

Termin ukupni neto odlivi gotovine je definisan kao ukupni očekivani odlivi gotovine minus ukupni novčani prilivi u navedenom

stres scenariju za narednih 30 kalendarskih dana. Ukupni očekivani odlivi gotovine se izračunavaju množenjem stanja različitih kategorija ili vrsta obaveza i vanbilansnih obaveza sa stopama po kojima se od njih očekuje da se potroše ili povuku. Ukupni očekivani prilivi izračunavaju se množenjem stanja različitih kategorija ugovornih potraživanja sa stopama po kojima se od njih očekuje da se kreću u okviru scenarija do agregatnog nivoa od 75% od ukupno očekivanih novčanih odliva.

Ukupni neto odlivi gotovine u narednih 30 kalendarskih dana = odlivi - Min {prilivi, 75% odlivi}

Kako bi više promovisao srednje i dugoročno finansiranje sredstava i aktivnosti bankarskih organizacija, Komitet je razvio racio neto stabilnog finansiranja. Ova mera uspostavlja minimalno prihvatljiv iznos stabilnog finansiranja na osnovu karakteristika likvidnosti sredstava i aktivnosti institucija tokom vremenskog horizonta od jedne godine. Ovaj standard je dizajniran da deluje kao mehanizam za dopunu racia pokrivenosti likvidnosti i jačanju drugih napora supervizora, promovišući strukturne promene u profilima rizika likvidnosti institucija od problematičnog kratkoročnog finansiranja prema stabilnijem, dugoročnom finansiranju sredstava i poslovnih aktivnosti.

Figure 1. Phase-in Basle III Arrangements (shading indicates transition periods)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Leverage ratio	Supervisory monitoring		Parallel run 1 Jan 2013 - 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum common equity capital ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital conservation buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity capital ratio plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum total capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum total capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital	Phased out over 10 year horizon beginning 2013								
Liquidity coverage ratio	Observation period begins				Introduce minimum standards				
Net stable funding ratio		Observation period begins						Introduce minimum standards	

Source: Basel Committee on Banking Supervision, Basel III: A global regulatory framework for more resilient banks and banking systems

Liquidity coverage ratio aims to ensure that a bank maintains an adequate level of unencumbered, high-quality assets that can be converted into cash to meet its liquidity need for a 30 calendar day time horizon under a significantly severe liquidity stress scenario specified by supervisors. At a minimum, the stock of available highly liquid assets should enable the bank to survive 30 days under the stress scenario, by which time it is assumed that appropriate corrective actions can be taken by management and/or supervisors.

Liquidity coverage ratio = Stock of high-quality liquid assets / Total net cash outflows over the next 30 calendar days ≥ 100%

Assets are considered to be high-quality liquid assets if they can be easily and immediately converted into cash at little or no loss of value. The liquidity of an asset depends on the underlying stress scenario, its volume and the relevant timeframe. Nevertheless, there are certain assets that are more likely to generate funds without incurring large discounts due to fire-sales, even in times of stress.

The term total net cash outflows is defined as the total expected cash outflows minus total expected cash inflows in the specified stress scenario for the subsequent 30 calendar days. Total expected cash outflows are calculated by multiplying the outstanding balances of various

categories or types of liabilities and off-balance sheet commitments by the rates at which they are expected to run off or be drawn down. Total expected cash inflows are calculated by multiplying the outstanding balances of various categories of contractual receivables by the rates at which they are expected to flow in under the scenario up to an aggregate cap of 75% of total expected cash outflows.

Total net cash outflows over the next 30 calendar days = outflows - Min {inflows; 75% outflows}

To promote the medium and long-term funding of the assets and activities of banking organizations, the Committee has developed the net stable funding ratio. This metric established a minimum acceptable amount of stable funding based on the liquidity characteristics of an institution’s assets and activities over a one year horizon. This standard is designed to act as a minimum enforcement mechanism to complement the liquidity coverage ratio and reinforce other supervisory efforts by promoting structural changes in the liquidity risk profiles of institutions away from short-term funding mismatches and toward more stable, longer-term funding of assets and business activities.

In particular, the net stable funding ratio is structured to ensure that long-term assets are funded with at least a minimum amount of

Konkretno, racio neto stabilnog finansiranja je strukturiran tako da osigura da se dugoročna sredstva finansiraju bar sa minimalnim iznosom stabilnih obaveza u odnosu na njihove profile rizika likvidnosti. Racio ima za cilj da se ograniči preterano oslanjanje na kratkoročno finansiranje u vreme dinamičnijeg tržišta likvidnosti i podstakne bolju procenu rizika likvidnosti na svim bilansnim i vanbilansnim stavkama.

$$\text{Racio neto stabilnog finansiranja} = \frac{\text{Raspoloživi iznos za stabilno finansiranje}}{\text{Potreban iznos za stabilno finansiranje}} > 100\%$$

Raspoloživo stabilno finansiranje se definiše kao ukupan iznos bančinog:

- kapitala,
- preferencijalnih akcija sa rokom dospeća koji je jednak ili duži od godinu dana,
- obaveza sa efektivnim rokom dospeća od godinu dana ili duže,
- dela nedospelih depozita i/ili oročenih depozita sa dospećem za manje od godinu dana za koje se očekuje da ostanu u instituciji duži vremenski period i pored stresnih događaja,
- deo sredstava za finansiranje sa dospećem kraćim od godinu dana za koje se očekuje da ostanu u instituciji duži vremenski period i pored stresnih događaja.

Potreban iznos za stabilno finansiranje se meri putem pretpostavki supervizora o karakteristikama profila rizika likvidnosti sredstava institucije, vanbilansnih izloženosti i drugih izabраниh aktivnosti. Ovaj iznos se računa kao zbir vrednosti sredstava koje institucija drži i finansira, pomnožen određenim faktorom za stabilno finansiranje koji je dodeljen svakom pojedinačnom tipu sredstava i dodato iznosu vanbilansne aktivnosti pomnoženim pripadajućem faktoru. Faktor za stabilno finansiranje koji će se dodeljivati svakom sredstvu ili vanbilansnoj izloženosti je deo te stavke za koju supervizori veruju da treba da bude podržana stabilnim finansiranjem. U datim okolnostima (a u stresnom okruženju), sredstva koja su likvidnija i više raspoloživa kao izvor dodatne likvidnosti imaju manji faktor (i zahtevaju manje sredstava za stabilno finansiranje) od sredstava manje likvidnosti (koje zahtevaju veći iznos za stabilno finansiranje).

Nova pravila i standardi koje donosi Bazel III pojačavaju postojeće zahteve za minimalnim kapitalom (Stub 1 Bazela II), tako da se može reći da Stub 1 Bazela III sada obuhvata pojačane zahteve za minimalnim kapitalom i likvidnošću (umesto samo zahteva za kapitalom, kao što je bilo do sada).

Implikacije uvođenja novih standarda

Teško je u ovom trenutku i okvirno definisati i izračunati troškove implementacije novih standarda Bazela III, tako da se naučna i stručna javnost za sada bave samo predviđanjima koliko bi novi propisi i pravila mogli da utiču na bankarski sektor i realnu ekonomiju, odnosno koliki će biti troškovi.

Kada se govori o efektima uvođenja novih standarda, dve stvari su u primarnom fokusu: obim dodatnog kapitala koji će biti potreban da bi se standardi ispunili i uticaj standarda na bruto domaći proizvod.

Neke procene (Härle et al, 2010) govore da će glavni efekat biti manjak kapitala od oko 700 milijardi eura, odnosno da se Tier 1 kapital evropskog bankarskog sistema mora povećati za 40%. Iako je manjak u finansiranju teže proceniti, veruje se da će evropske banke morati da prikupe između 3,5 i 5 biliona eura dodatnih dugoročnih izvora finansiranja, kao i da održavaju još 2 biliona u visoko likvidnim sredstvima. Novi troškovi za dodatnim kapitalom i finansiranjem mogu smanjiti prinos na kapital u 2012. godini za 5%.

Dejstvo novih standarda na bruto domaći proizvod ogleda se u padu BDP od 0,00% do 0,33% za svaki procenat povećanja racia kapitala u vremenskom periodu od 8 godina (Locarno, 2011). Do maksimalnog pada BDP moglo bi doći za oko 9 godina od početka tranzicionog perioda. Nakon ovog vremenskog horizonta povećanje racia kapitala ne bi više imalo značajniji uticaj na kretanje BDP.

Neki autori (Cosimano i Sakura, 2011) smatraju da će velike banke u proseku trebati da povećaju svoj racio kapital - imovina za 1,3 procentna poena, što se može odraziti na povećanje kamatne stope na kredite za 16 baznih poena, uzrokujući smanjenje rasta kredita od 1,3% na duže staze. Odgovori banaka na nove

stable liabilities in relation to their liquidity risk profiles. The ratio aims to limit over-reliance on short-term wholesale funding during times of buoyant market liquidity and encourage better assessment of liquidity risk across all on- and off-balance sheet items.

Net stable funding ratio = Available amount of stable funding/Required amount of stable funding > 100%

Available stable funding is defined as the total amount of a bank's:

- capital;
- preferred stock with maturity of equal to or greater than one year;
- liabilities with effective maturities of one year or greater;
- that portion of non-maturity deposits and/or term deposits with maturities of less than one year that would be expected to stay with the institution for an extended period in an idiosyncratic stress event; and
- that portion of wholesale funding with maturities of less than one year that is expected to stay with the institution for an extended period in an idiosyncratic stress event.

The amount of stable funding required by supervisors is to be measured using supervisory assumptions on the broad characteristics of the liquidity risk profiles of an institution's assets, off-balance sheet exposures and other selected activities. The required amount of stable funding is calculated as the sum of the value of the assets held and funded by the institution, multiplied by a specific required stable funding factor assigned to each particular asset type, added to the amount of off-balance sheet activity multiplied by its associated RSF factor. The RSF factor applied to the reported value of each asset or off-balance sheet exposure is the amount of that item that supervisors believe should be supported with stable funding. Assets that are more liquid and more readily available to act as a source of extended liquidity in the stressed environment identified above receive lower RSD factors (and require less stable funding) than assets considered less liquid in such circumstances and, therefore, require more stable funding.

The new rules and standards prescribed by the Basel III reinforce the existing minimum

capital requirements (Pillar 1 of the Basel II), so that one can say that Pillar 1 of the Basel III now incorporates the reinforced minimum capital and liquidity requirements (instead of just capital requirements, as was the case so far).

Implication of New Standards Introduction

At this point it is rather difficult to define and even roughly calculate the costs of implementation of new Basel III standards, so that the scientific and professional circles are for now only dealing with forecasts as to how the new regulations and rules might impact the banking sector and real economy, i.e. how high the costs are going to be.

When speaking about the effects of the new standards' introduction, there are two things to focus on: the volume of additional capital required for the standards to get implemented, and the impact of the standards on the gross domestic product.

According to some assessments (Härle et al, 2010), the main effect will be a shortage of capital in the amount of about 700 billion EUR, meaning that the Tier 1 capital of the European banking system has to be increased by 40%. Although the shortage in financing is more difficult to assess, it is believed that the European banks will have to collect between 3.5 and 5 billion EUR of additional long-term sources of finance, and to maintain 2 billion EUR more in high-quality, liquid assets. The new costs of raising additional capital and finance might reduce the return on capital in 2012 by 5%.

The effect of the new standards on gross domestic product is reflected in the drop of GDP by 0.00% to 0.33% for each percent of increase of the capital ratio in the 8-year time horizon (Locarno, 2011). The maximum drop of GDP might occur in about 9 years from the commencement of the transition period. After this period, the increase of the capital ratio would have no further considerable impact on the GDP trends.

Some authors (Cosimaro and Sakura, 2011) claim that big banks will, on average, need to increase their capital-to-asset ratio by 1.3 percentage points, which might, in turn, cause the increase of interest rates on loans by 16 basis

propise značajno će se razlikovati od jedne napredne ekonomije do druge (relativno veliki uticaj će biti na rast kredita u Japanu i Danskoj i relativno manji uticaj u SAD).

Prema prognozama Instituta za međunarodne finansije (2010), potpuna implementacija reformi u zemljama Evrope, SAD i Japana dovela bi do smanjenja proseka realnog rasta BDP za oko 0,6 procentnih poena u periodu 2011 - 2015 godina i za oko 0,3 procentnih poena u vremenskom intervalu 2011 - 2020. Uticaj je snažniji u prvih pet godina, jer je ovo period u kojem bi najveći deo reformi trebalo da bude adekvatno sproveden. Procene Instituta su da će banke morati da uvećaju kapital za 0,7 triliona dolara i da se zaduže 5,4 biliona dolara u periodu 2010 - 2015 kako bi zadovoljile zahteve za kapitalom i likvidnošću.

Troškovi pribavljanja višeg kapitala u cilju ispunjenja zahteva za likvidnošću su mali ako se uporede sa koristima do kojih može doći izbegavanjem ovakvih i sličnih kriza u budućnosti. Pored toga, dodatnim kapitalom se osnažuje bankarski sistem i čini otpornijim na moguće sistemske krize u budućnosti. Sigurno je da će banke svoj odgovor na strožije regulatorne zahteve potražiti prebacivanjem troškova za dodatna sredstva na svoje klijente, podizanjem kreditne stope, smanjenjem rizičnih plasmana u svom portfoliju i daljim uštedama u operativnom poslovanju.

Zaključak

Na osnovu dosadašnjih iskustava, sigurno je da će banke svoj odgovor na strožije regulatorne zahteve potražiti prebacivanjem troškova za dodatnim sredstvima na svoje klijente, podizanjem kreditne stope, smanjenjem rizičnih plasmana u svom portfoliju i daljim uštedama u operativnom poslovanju. Ovo će voditi opreznijem pristupu i većem poklanjanju pažnje pravilnoj segmentaciji klijenata - postojećih i novih.

Smatra se da će adekvatna i dosledna primena 2 nova standarda za obezbeđivanje likvidnosti, zajedno sa kontracikličnim i zaštitnim baferom, kao i strožijim tumačenjima zahteva za kapitalom, sprečiti u budućnosti pojavu kriza, odnosno da će smanjiti verovatnoću da do njih dođe. Naravno, praktična primena će pokazati ima li mesta korekcijama i nadgradnji (i gde ih treba sprovesti) u cilju postizanja što otpornijeg i sigurnijeg bankarskog sektora, koji bi bio spreman da odgovori svim krizama i izazovima koji se mogu pojaviti.

I pored pojedinih zamerki koje su upućene u pogledu „strogosti“ donetih pravila i troškova njihove implementacije, nova pravila se moraju sprovesti u delo, bez odlaganja i probijanja definisanih rokova. Kao i do sada, veliku ulogu će imati i odgovarajući monitoring, u prvom redu nacionalnih banaka a zatim i ostalih regulacionih tela.

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points, causing the growth of loans to slow down by 1.3% in the long run. The banks' responses to the new regulations will significantly differ from one developed economy to another (the impact will be relatively huge on the growth of loans in Japan and Denmark, and relatively smaller in the USA).

According to the forecasts of the Institute of International Finance (2010), full implementation of reforms in Europe, the USA and Japan would result in the reduction of the average real growth of GDP by about 0.6 percentage points in the period 2011-2015, and by about 0.3 percentage points in the period 2011-2020. The impact will be stronger in the first five years, given that this is the period in which the largest section of reforms should get adequately implemented. The Institute assesses that the banks would have to increase their capital by 0.7 trillion USD, and borrow 5.4 billion USD in the period 2010-2015 in order to meet their needs for capital and liquidity.

However, the costs of acquiring more capital in order to meet the needs for liquidity are low compared to the benefits that might be achieved by avoiding such and similar crises in the future. Moreover, the additional capital reinforces the banking system, making it more resilient to the potential systemic crises in the future. The banks will certainly respond to the stricter regulatory requests by transferring costs of additional funds to their clients, increasing the loan rates, reducing the risky placements in their portfolio and introducing further cost reductions in their daily operations.

Conclusion

Based on the experiences so far, the banks will certainly respond to the stricter regulatory requests by transferring costs of additional funds to their clients, increasing the loan rates, reducing the risky placements in their portfolio and introducing further cost reductions in their daily operations. This will result in a more prudential approach and greater attention devoted to the proper segmentation of clients, both the existing and the future ones.

It is believed that adequate and consistent implementation of two new standards for maintaining liquidity, together with the countercyclical and conservation buffers, and stricter interpretations of capital requirements, will prevent the potential crises in the future, i.e. lower the possibility of their occurrence. Of course, the practical implementation will show if there is room for correction and upgrading (and where they are to be conducted), in order to achieve as resilient and safe banking sector as possible, which would be ready to face all potential crises and challenges.

Despite certain objections concerning the "rigidity" of the adopted rules and the costs of their implementation, the new rules have to be implemented, without delay and within the set deadlines. Just like before, a huge role will be played by the appropriate monitoring, first and foremost by the national banks, but also by the other regulatory bodies.

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