

BANKARSKI RIZIK 11

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BAZELSKI SPORAZUM O KAPITALU (BAZELSKI SPORAZUM I)

Ozbiljni poremećaji na bankarskim tržištima sedamdesetih godina dvadesetog veka, posebno deviznim, usmerili su pažnju stručne javnosti na rizik piramidalnog efekta u urušavanju bankarskih industrija, obzirom da su neke velike i ugledne banke morale da obustave dalji rad.

Ovakav razvoj događaja, stavio je u fokus pitanje adekvatnosti kapitala banaka u odnosu na izloženost rizicima i potrebu uvođenja međunarodnih standarda na planu kalkulacije kapitalnih troškova. Snažnu potporu ovim razmišljanjima dao je i razvoj događaja na finansijskim tržištima u narednih nekoliko godina. Problemi na planu adekvatnosti kapitala velikih, međunarodno aktivnih banaka, postali su centralno pitanje 80-tih godina prošlog veka, obzirom na izloženosti ovih banaka u odnosu na relativno veliki broj prezaduženih zemalja u svetu.

Bazelski komitet za bankarsku superviziju uz podršku guvernera zemalja članica grupe G-10, odlučio je da zaustavi dalju eroziju kapitalnih standarda u tim zemljama. Svest o potrebi za međunarodnim sporazumom kojim bi se omogućila veća stabilnost međunarodnog bankarskog sistema i otklonili izvori konkurentne nelojalnosti koja nastaje iz razlike u nacionalnim zahtevima za kapitalom, dobila je punu podršku i saglasnost zemalja članica Komiteta.

BANKING RISK 11

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BASEL CAPITAL ACCORD (BASEL ACCORD I)

Serious deterioration on banking markets at the beginning of the 70-th of XX century, especially on the foreign exchange markets, has drawn the attention of the professional circles to the risk of banking sector pyramidal effect pulling down, in view of some big and sound banks institutions bankrupt.

These developments, have focused the question of banks capital adequacy regarding the risk exposure and the necessity of the international capital measurement standards introducing. Due to the strong support to these considerations, the developments on the financial markets in a few following years were evident. The capital adequacy issues of the big, internationally active banks, became the central issue of the last century 80-ties, in view of these banks exposure to the relatively big number of over debt countries all over the world.

The Basel Committee on Banking Supervision, with the central bank Governors of the Group of Ten countries (G-10), has decided to stop the further capital standards erode in these countries. Consciousness about the necessity of the International Accord which would make the higher level of international banking system stability possible, and which would remove the sources of unfair competition, raising from the different national capital requirement, has got the full consensus and support of the Committee member countries.

Godine 1987. Bazelski komitet je odlučio da uvede zajednički sistem merenja kapitala pod nazivom Bazelski sporazum o kapitalu (Bazelski sporazum I). Ovaj Sporazum usvojili su svi guverneri zemalja članica grupe G-10 i zvanično ga objavili 1988.godine. Reč je o dokumentu koji je bio od izuzetnog značaja za preventivnu superviziju banaka i stabilnost bankarskih sistema, obzirom da njegovu suštinu čini:

- obaveza merenja kapitalne adekvatnosti banke primenom predloženih standarda, čime se eliminišu razlike u pogledu različitih zahteva za kapitalom između jurisdikcija i nelokalna konkurencija,
- uvođenje standarda minimalne adekvatnosti kapitala od 8%, kojim je ujednačena početna pozicija banaka na finansijskom tržištu, ali je i onemogućeno da banke povećavaju obime svojih poslova i izloženosti riziku a da to ne prati odgovarajući rast kapitalne adekvatnosti, kao i
- uvođenje najvišeg stepena obuhvatnosti kada su u pitanju banke unutar jurisdikcija, u smislu da su sve obavezne da primenjuju ove standarde, ukoliko ih konkretne jurisdikcije prihvate i ugrade u regulativu.

Iako Bazelski komitet nema formalna nadnacionalna kontrolna ovlašćenja, njegovi standardi iz Bazelskog sporazuma I, kao preporuka iz najbolje bankarske prakse, prihvaćeni su u preko 100 zemalja sveta. Tako je ovaj dokument postao svetski standard u oblasti preventivnog nadzora nad poslovanjem banaka.

Prva verzija Sporazuma o kapitalu bavi se samo izloženostima prema kreditnom riziku i ima tri dela.

U prvom delu Dokumenta, Bazelski komitet identifikuje ključnu ulogu kapitala u odnosu na procenju izloženost kreditnom riziku i standardizuje pojam kapitala u smislu njegove definicije.

Kapital definiše kao glavnu branu u odnosu na potencijalnu izloženost banke riziku ostvarivanja

prihoda, a kao posledicu izloženosti kreditnom i drugim rizicima. Konstitutivni elementi kapitala banke po Bazelskom sporazumu I su:

- **Nivo 1 - Osnovni kapital:** akcijski kapital i rezerve iz dobiti (odražava značaj koji Komitet daje zaštiti odgovarajućeg kvaliteta i nivoa kapitalnih izvora koji banke održavaju)
- **Nivo 2 - Dopunski kapital:** opšte rezerve za procenjene gubitke, revalorizacione rezerve, hibridni instrumenti dužničkog kapitala, subordinirane obaveze i
- **Nivo 3 -** Kratkoročne subordinirane obaveze, kao pokriće izloženosti banke tržišnim rizicima.

Drugi deo Bazelskog sporazuma I predlaže pristup za merenje izloženosti riziku i kalkulaciju kapitalnih troškova, pod nazivom **Pristup pondera rizika (Risk-Weight Approach)**. Komitet naglašava da predloženi pristup ne znači da drugi pristupi za kalkulaciju kapitalnih troškova nisu prihvatljivi, ali da oni mogu biti samo dopuna Pristupu pondera rizika. Suština ovog pristupa je u portfolio pristupu: na različite kategorije aktive primenjuju se odgovarajući ponderi rizika. Okvir pondera rizika pojednostavljen je i poznaje samo pet pondera: 0%, 10%, 20%, 50% i 100%. Komitet takođe u Dokumentu daje:

- predlog kategorizacije aktive i odgovarajućih pondera rizika, ali i ukazuje na
- diskreciono pravo nacionalnih supervizora da zahtevaju od banaka da osim kreditnog rizika, koji je obuhvaćen ovim Dokumentom, procenjuju i druge rizike kojima su izložene, kao što su transferni rizik zemlje ili devizni rizik.

Portfolio pristup - Bazelski sporazum I

Ponderi rizika →	0%	10%	20%	50%	100%
Kategorije aktive →	<ul style="list-style-type: none"> ➢ Gotovina i zlato ➢ Svi suvereni (potr. u nac. valuti) ➢ Suvereni OECD (dr. potraživanja) ➢ Potraživanja pokrivena zalogom - HoV - emitent suvereni OECD 	<ul style="list-style-type: none"> ➢ Javni sektor ➢ Po diskreciji nacionalnih spupervizora od 10% do 50% 	<ul style="list-style-type: none"> ➢ Međunarodne razvojne banke ➢ Banke OECD ➢ Banke van OECD sa garancijom banaka iz OECD ➢ Firme - HoV - iz OECD ➢ Drugo 	<ul style="list-style-type: none"> ➢ Krediti obezbeđeni hipotekom za stambenu izgradnju 	<ul style="list-style-type: none"> ➢ Privatni sektor ➢ Banke van OECD ➢ Suvereni van OECD u stranoj valuti ➢ Komercijalne firme ➢ Drugo
Kreditni konverzioni faktori →	0%	20%	50%	100%	
Kategorije vanbilansne aktive →	<ul style="list-style-type: none"> ➢ Obaveze sa originalnim dospećem do 1 godine koje su bezuslovno otkazive 	<ul style="list-style-type: none"> ➢ Kratkoročni dokumentovani akreditivi sa zalogom 	<ul style="list-style-type: none"> ➢ Garancije za dobro izvršenje posla ➢ NIF i RUF ➢ Druge obaveze sa originalnim dospećem preko 1 godine 	<ul style="list-style-type: none"> ➢ Opšte platne garancije ➢ Akcepti ➢ Sporazumi o prodaji i reotkupu ➢ Terminalske kupovine aktive 	

In 1987 the Basel Committee decided to introduce capital measurement system, commonly referred to as the Basel Capital Accord (Basel Accord I). This Accord had been adopted by the Governors of the Group of Ten countries (G-10) with consensus and officially published in 1988. It was a document of enormous importance for prudential supervision of banks and the stability of banking systems, in view that its substance consists of:

- the bank obligation of capital adequacy measurement by the proposed standards implementation, to eliminate differences in capital requirement between jurisdictions, as well as, anloyal competition,
- the minimum capital adequacy standard of 8% implementation , to make the initial position of the banks at the financial market equal, but also to make banks impossible to increase the volumes of their businesses and risk exposures and not to be followed by the adequate increase of capital adequacy, as well as
- introducing the highest level of covering banks in the jurisdiction, in the sense that all of them were obliged to implement those standards, if the concrete jurisdictions had accepted them and had adopted them in the national regulation.

Although the Basel Committee does not possess any formal overnational supervisory authority, its standards from Basel Accord I, as the best banking practice recommendation, have been implemented in more than 100 countries worldwide. That is how this document has become the world standard in

the field of prudential supervision of banks business operations.

The first version of the Capital Accord deal only with credit risk exposures and consists of three parts.

In the first part of the Document, Basel Committee identifies the key role of capital regarding the proceeded credit risk exposure and standardizes the notion of the capital in the sense of its definition.

It defines capital as the main dam regarding the potential risk exposure of the bank to the income risk realization, as a consequence of credit and other risks exposure. The constitutive elements of the capital, regarding the Basel Accord I, are:

- **Level 1 - Basic capital:** equity capital and disclosed reserves (reflects the importance that Committee attaches to securing an appropriate quality, and the level, of the total capital resources maintained by the banks),
- **Level 2 - Supplementary capital:** general provisions/general loan - loss reserves, revaluation reserves, hybrid debt capital instruments, subordinated term debts and
- **Level 3 - Short term subordinated debts** covering bank market risk exposure

The second part of the Basel Accord I proposes an approach of risk exposure measurement and capital charges calculation, named **Risk-Weight Approach**. The Committee points out that other capital charges calculation approaches are acceptable as well, but they can only be the supplementary to the proposed one. The essence of that approach is portfolio approach: different assets classes are risk

weighted suitable. The risk weight frame has been simplified and it recognizes five grades: 0%, 10%, 20%, 50% and 100%. The Document suggests:

- assets classification and risk weights to be applied, but it points out also
- the national supervisors discretion to ask from the banks

Portfolio Approach - Basel Accord I					
Risk weights →	0%	10%	20%	50%	100%
Assets classes →	<ul style="list-style-type: none"> > Cash and gold > All sovereigns (claims in domestic currency) > Sovereigns OECD (other claims) > Claims secured by pledge - securities issued by OECD sovereigns 	Public sector entities ↓ At national supervisors' discretion from 10% to 50%	<ul style="list-style-type: none"> > MDBs > OECD banks > Banks out of OECD with the guarantee from the OECD bank > Corporates - securities issued by OECD emittes > Other 	<ul style="list-style-type: none"> > Credit claims secured by residential property 	<ul style="list-style-type: none"> > Private sector > Banks out of OECD > Sovereigns out of OECD (foreign currency) > Commercial firms > Other
Credit conversion factors →	0%	20%	50%	100%	
Off balance assets classes →	<ul style="list-style-type: none"> > Commitments with original maturity up to one year 	<ul style="list-style-type: none"> > Short term letters of credit secured by pledge 	<ul style="list-style-type: none"> > Guarantees (letters of credit as guarantees are included) > NIF and RUF > Other commitments with original maturity over one year 	<ul style="list-style-type: none"> > General performance guarantees > Acceptance > Agreements about sales and repurchase > Term assets buying 	

Vanbilansna aktiva, po Dokumentu takođe podleže kategorizaciji, a na svaku kategoriju primenjuje se odgovarajući kreditni konverzioni faktor. Množenjem glavnice vanbilansnog potraživanja odgovarajućim konverzionim faktorom dobijaju se kreditni ekvivalenti na koje se potom primenjuju odgovarajući ponderi kreditnog rizika.

Treći deo Bazelskog sporazuma I govori o standardima vezano za koeficijent adekvatnosti kapitala i sugerise minimalni standard kada je ovaj racio u pitanju. Koeficijent adekvatnosti kapitala po ovom dokumentu definiše se kao odnos kapitala i rizikom ponderisane aktive. Ovaj odnos po Bazelskom sporazumu I ne bi smeo biti niži od propisanog donjeg praga koji iznosi 8%.

Bazelski sporazum I, koji je u prvoj verziji bavio standardizacijom merenja potrebnog kapitala za izloženosti kreditnom riziku, dopunjen je 1996. godine zahtevom za kapitalom i za izloženosti banaka prema tržišnim rizicima.

Standardizacijom kompletnog pristupa kapitalnoj adekvatnosti banke (pojmovi kapitala, predloženog pristupa za kalkulaciju kapitala, uvođenjem donjeg praga adekvatnosti kapitala od 8%), Bazelski sporazum o kapitalu, postavio je kvalitativno novu osnovu za procenu sigurnosti poslovanja banaka. U tom smislu, njegovi dometi su revolucionarni i to objašnjava zašto je on postao svetski standard

u oblasti preventivne supervizije banaka.

Ovaj dokument međutim, imao je i nedostatke, koji su vremenom postajali sve uočljiviji:

- jednostavan portfolio pristup uz linearno terećenje kapitala od 8%, brzo je rezultirao izmeštanjem aktive visokog kvaliteta iz bilansa banaka (sekjuritizacija), smanjujući prosečan kvalitet bankarskih portfolija,
- neuvažavanje tehnika za ublažavanje izloženosti kreditnom riziku, ozbiljno je ugrožavalo preciznost u merenju potrebnog kapitala, ali i
- nagli razvoj finansijskih tržišta i izloženosti rizicima, koji je rezultirao naporima velikih međunarodnih banaka da razvijaju interne pristupe izloženosti riziku i kalkulaciji potrebnog kapitala, daleko sofisticiranije

i primerenije rizičnom profilu pojedine banke, nego što je bio jednostavni Pristup pondera rizika.

Dogodila se stvarnost u kojoj su Bazelski komitet i najstručnija javnost (supervizori i

bankari) počeli da razmišljaju o izradi novog dokumenta, međunarodnog okvira za merenje kapitala i kapitalnu adekvatnost, koji bi ponudio širi koncept izloženosti (osim kreditnog i tržišnih, uključenje i drugih rizika), kao i daleko sofisticiranije pristupe kalkulaciji potrebnih kapitalnih troškova. Počele su pripreme na izradi Bazelskog sporazuma II, o kome će biti reči u narednom broju Bankarstva.

Koeficijent adekvatnosti kapitala - Bazelski sporazum I

$$\text{Koeficijent AK} = \frac{\text{Kapital}}{\text{Kreditnim rizikom ponderisana aktiva} + \text{zahtev za kapitalom za izloženosti prema tržišnim rizicima (od 1996.)}} \times 100 = \text{min } 8\%$$

to evaluate not credit risk only, which has already been the focus of the Document, but also the other risk exposures, as transfer risk and foreign exchange risk.

Off balance assets has to be classified regarding the Document also and an appropriate conversion factor implemented. Multiplying these two elements, off balance assets items will be converted into credit exposure equivalents, which will be suitable risk weighted after that.

The third part of the Basel Accord I is about the capital adequacy ratio standard and it suggests this quantitative standard as minimum. Capital adequacy ratio regarding the Document is defined as a relation between capital and credit risk weighted assets. This relation should not be lower than the proposed threshold of 8%.

The first version of the Basel Accord I had been focused on the credit risk exposure only, but it was amended in 1996, and market risk exposures were covered too.

Standardizing the capital adequacy of the bank in a whole (notions of the capital, recommended approach of capital measurement, introducing the threshold of capital adequacy ratio), Basel Capital Accord has founded qualitatively new base for the bank operations security estimation. In that sense, its approaches are revolutionary, explaining why it has become a world standard in the field of banks prudential supervision.

This Document has some lacks which has become an obstacle for its implementation:

- simple portfolio approach and line capital calculation approach have resulted by the high quality assets transfer from the banks balance sheets
- (securitization), decreasing the average quality level of the bank portfolios,
- credit risk mitigations have not been taken into consideration, reducing the preciseness of capital measurement, and
- fast development of financial markets and risks exposures has been followed by the efforts of the big, internationally active banks, to develop their internal approaches of risk exposure measurement and capital charges calculation, more sophisticated and more appropriate to the risk profile of the

bank, than the Risk-Weight Approach could.

The reality had happened and Basel Committee, as well as the most professional circles (supervisors and bankers), started to think about the

new document, international frame for capital measurement and capital adequacy, which would offer a broader concept of exposure (besides credit and market risks, to include other risks), as well as, more sophisticated approaches to capital charges calculations. The preparations on the Basel Accord II had already been started, and we should talk about them in the next issue of Bankarstvo.

Capital adequacy ratio - Basel Accord I

$$\text{CA Ratio} = \frac{\text{Capital}}{\text{Credit risk weighted assets} + \text{requirements for market risks exposures (from 1996)}} \times 100 = \text{min } 8\%$$