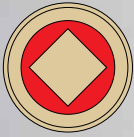


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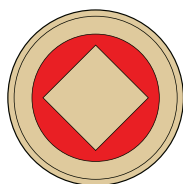


UDRUŽENJE BANAKA  
CRNE GORE  
ASSOCIATION OF  
MONTENEGRIN BANKS

# Bankar

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UDRUŽENJE BANAKA  
CRNE GORE

ASSOCIATION OF  
MONTENEGRIN BANKS

Addiko Bank AD Podgorica  
Crnogorska komercijalna banka AD Podgorica  
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UDRUŽENI  
OKO ZAJEDNIČKOG  
CILJA



## Uvodna riječ glavnog urednika

Poštovani čitaoci,

*Sigurni smo da i ovaj broj časopisa Bankar može da vam pruži ugođaj kvalitetnih autorskih tekstova koji ukazuju na trendove koji se odražavaju na ekonomska kretanja, a prevashodno u bankarskom sektoru. Sa zadovoljstvom predstavljamo intervju sa direktorom kancelarije EBRD-a u Crnoj Gori, g-dinom Jaap Sprey koji je dao svoj stav o izazovima sa kojim se srijeće naše društvo i uloge EBRD-a u cilju podrške ekonomske tranzicije Crne Gore.*

*Potrudili smo se da prezentujemo viđenje Brexit-a na evropski finansijski sistem kroz stav g-dina Hubertus Vāth-a, izvršnog direktora Frankfurt Main Finance. Na fonu novih tehnologija i budućnosti bankarstva imamo stav Ádám Kerény-ija, istraživača na Institutu za svjetsku ekonomiju u Akademiji nauka Mađarske - János Müller-a, glavnog savjetnika u Udruženju banaka Mađarske i član Odbora direktora Banke Kine. Od Sanja Kočović Direktora odeljenja za finansijske institucije i usluge KPMG d.o.o. Beograd predstavljamo nove regulatorne zahtjeve EU za problematične kredite. Dajemo uvid kroz pregled Evropske Centralne banke u vezi trenda racionalizacije koja se desila u bankarskom sektoru Evropske unije, uz ocjenu strukture i doprinosa bankarskog sektora ekonomiji. Obraden je i proces implementacije Bazela tri koji se nametnuo i kroz harmonizaciju regulative bankarkse sa EU direktivama, koji ukazuje na potrebu daljeg snaženja kapitala, postavlja nove standarde za snaženje pozicije likvidnosti. Ukazujemo na nešto što očekuje i bankarsktvo Crne Gore u skoroj budućnosti, a to je otvoreno bankarstvo, PSD2 – Evropska direktiva koja će otvoriti nov aspekt pristupa poslovanju, pokrenuti inovacije, povećati konkurenciju, omogućiti nove proizvode i usluge za krajnje korisnike. U ovom segmentu se već vidi ulaz na velika vrata tržišta digitalnih transakcija novih FinTech (finansijsko tehnoloških) kompanija. Naravno i u ovom broju kroz tekstove našeg saradnika Miodraga Kirsanova imamo kvalitetan uvid u istorijat novca, ovog puta od 1965-1968.god.*

*U skladu sa tradiciojom objavljujemo i nagrađene diplomske radove od strane CBCG. Prvi sa temom, Ocjene kredibiliteta monetarne politike u režimu valutnog odbora, dok je drugi obradio mikroekonomski pristup Bankarskom tržištu Crne Gore.*

*S poštovanjem,  
Generalni sekretar UBCG  
mr Bratislav Pejaković*

## Foreword of the Secretary General

*Dear Readers,*

*We are very pleased to present this issue of the Bankar, which contains numerous articles indicating the trends that reflect on economic developments primarily in the banking sector. It is our pleasure to present an interview with Mr Jaap Sprey, Head of the EBRD Office in Montenegro on challenges our society is facing and the role of the EBRD aimed at supporting economic transition of Montenegro.*

*We have been committed to present the view of Brexit on the European financial system through the position of Hubertus Văth, the Executive Director of Frankfurt Main Finance. In the area of new technologies and the future of banking, this issue contains the paper written by Ádám Kerényi, a researcher at the Institute for World Economy at the Academy of Sciences of Hungary and János Müller, chief advisor to the Hungarian Banking Association and a member of the Board of Directors of the Bank of China Hungary. Sanja Kočović, Director of Financial Institutions and Services Department in the KPMG d.o.o. Belgrade introduces the views on new EU regulatory requirements for problematic loans. There is also an overview of the European Central Bank on the rationalization trend that has taken place in the banking sector of the European Union, with an assessment of the structure and contribution of the banking sector to the economy. The Basel III implementation process has been elaborated as well as the alignment of banking regulations with EU Directives, indicating the need for further strengthening of capital, and setting up of new standards for strengthening the liquidity position. This issue of the Bankar also contains the paper that elaborates the topic on what Montenegrin banking sector is expecting in the near future, namely open banking and the implementation of the PSD2 - a European directive that will allow new access to business, initiate innovation, increase competition, enable new products and services for end users. This segment already sees big entry of the markets of digital transactions provided by FinTech start-ups. Miodrag Kirsanov brings us back to the past with his article on the history of money, in period between 1965 and 1968.*

*In accordance with the tradition, this issue contains articles on two annual awards awarded by the CBCG for the best bachelor theses: The assessment of monetary policy credibility in the currency board regime, and The macroeconomic approach to the banking market in Montenegro.*

*Sincerely,*

*UBCG, Secretary General  
Bratislav Pejaković, M.Sc.*

# BANKAR

Broj 45 / jun 2019.

## IZDAVAČ

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Novaka Miloševa bb/3 Podgorica  
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- reklame po normativima UBCG na e-mail: [latkovic@gmail.com](mailto:latkovic@gmail.com)



## BANKAR

Časopis Udruženja banaka Crne Gore  
Broj 45 / jun 2019.

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# Investitorima potrebne snažne institucije i jednaki uslovi na tržištu

## **▣** Možete li našim čitaocima ukratko približiti ulogu i rad EBRD-a u Crnoj Gori?

EBRD ima odličnu saradnju sa Crnom Gorom. Mi smo otvorili kancelariju u Podgorici odmah nakon što je Crna Gora postala nezavisna, i zaključili smo oko 60 projekata uz ukupni investicioni obim od blizu 570 miliona eura za ukupne investicije od preko milijardu eura.

Energetski sektor, sektor saobraćaja i infrastrukture, i privatni sektor glavne su oblasti u koje ulažemo. Mi želimo da podržavamo Crnu Goru u njenim naporima da učini privatni sektor konkurentnijim, privredu zelenijom i integrisanijom u region i Evropu. Mi takođe podržavamo napore koje Vlada ulaže na podsticanju odgovornog upravljanja, kao i napore koji se ulažu da investiciona i poslovna klima budu još privlačnije.

## **▣** Kakvi su planovi EBRD-a u narednom periodu? Kako ocjenjujete stanje u crnogorskoj privredi, a kako u bankarskom sektoru?

Pokazalo se da je rast u 2018. godini bio bolji od očekivanog za blizu 5 procenata, a podržan je izgradnjom autoputa, nekim turističkim projektima sa nekretninama, i rekordnom turističkom sezonom. S druge strane, snažna investiciona aktivnost i posljedično veći uvoz doveli su do visokog deficita tekućeg računa od preko 17 procenata BDP-a.

Kao dobar znak, postepena fiskalna konsolidacija je počela da donosi rezultate uz fiskalni deficit koji se

Crnoj Gori je potrebno da izgradi kapacitete i da poboljša vještine u javnim institucijama, kao i da izvrši reformu velikih i neefikasnih državnih preduzeća. Potrebno je uložiti više napora u borbi protiv velike sive ekonomije (oko jedna trećina BDP-a) i dalje poboljšati vladavinu prava, kazao je u intervjuu za Bankar direktor kancelarije EBRD u Podgorici Jaap Sprey

smanjio na 3,5 procenata BDP-a u 2018. godini, i javni dug u iznosu od 71 procenat BDP-a na kraju 2018. godine za koji se očekuje da će početi da se smanjuje ove godine, pomogli su da prestane potrošnja povezana sa izgradnjom autoputa. Međutim, nepredviđene obaveze i prekoračenje potrošnje mogu ugroziti rezultate koji su postignuti do sada.

Stopa nezaposlenosti je i dalje visoka i iznosi 15 procenata, naročito kod mladih (otprilike dvostruko veća od nacionalne stope). Sa završetkom velikih investicionih projekata i kontinuiranom fiskalnom konsolidacijom, očekuje se da će rast biti značajno umjeren, do 2,8 procenata u 2019. godini i 2,6 procenata u 2020. godini. Rizici za ove projekcije imaju trend smanjenja i uglavnom se odnose na slabiji rast u EU, moguće dalje prekoračenje troškova autoputa i domaću političku nesigurnost.

Čini se da je bankarski sektor stabilan, uprkos nedavnim problemima sa dvije lokalne banke. Fond za zaštitu depozita ima dovoljno sopstvenih sredstava da isplati deponente ove dvije problematične banke. Nekvalitetni krediti su nastavili da se smanjuju, dostižući 6,9 procenata na kraju 2018. godine.

# Investors need strong institutions and a level playing field

Montenegro needs capacity building and skills improvement at public institutions as well as reforming large and inefficient state-owned enterprises. More effort is needed to fight the large informal economy (at about one third of GDP) and further improve the rule of law, said in an interview for the magazine the Bankar Jaap Sprey, Head of the EBRD Office in Podgorica

## **B** Could you please tell our readers about the role and the work of the EBRD in Montenegro?

EBRD has an excellent cooperation with Montenegro. We opened an office in Podgorica right after Montenegro became independent and have signed some 60 projects with a cumulative investment volume of near €570 million for total investments of over €1 billion.

Energy, transport & infrastructure and private sector are the main areas that we have invested in. We are keen to support Montenegro in making its private sector more competitive, its economy more green and integrated in the region and Europe. We also support the efforts of the Government to further promote governance and make the investment and business climate even more attractive.

## **B** What are the EBRD plans in the forthcoming period? How do you assess the situation in Montenegrin economy and in the banking sector of Montenegro?

Growth in 2018 turned out to be higher than expected at close to 5 per cent, supported by the highway construction, some touristic real estate projects and a record tourist season. On the other hand, strong investment activity and consequently higher imports resulted in high current account deficit at over 17 per cent of GDP.

As a good sign, the gradual fiscal consolidation has started to yield results with the budget deficit narrowing to 3.5 per cent of GDP in 2018 and the public debt, at 71 per cent of GDP at end-2018, is expected to start declining

this year, also helped by the highway-related spending coming to an end. However, contingent liabilities and spending overruns may threaten the results so far.

The unemployment rate remained high at 15 per cent, especially that of youth (about double the national rate). With the completion of large investment projects and ongoing fiscal consolidation, growth is expected to moderate significantly, to 2.8 per cent in 2019 and 2.6 per cent in 2020. The risks to the projections are on the downside and mainly relate to weaker growth in the EU, possible further motorway cost overruns and domestic political uncertainty.

The banking sector seems to be stable, despite recent problems with two local banks. The Deposit Protection Fund has sufficient reserves of its own to reimburse depositors of the two problem banks. NPLs have continued to fall, reaching 6.9 per cent at end-2018.

## **B** What is a five-year strategy for Montenegro and how much funds the EBRD has invested so far in our country?

Our role is to support Montenegro's economic transition. We want to build on the country's strengths and to address the challenges it faces.

We see considerable potential in tourism and have an attractive offer with our new sustainable tourism framework.

At the same time one of the most needs is infrastructure development, also in light with regional integration and EU approximation

**B Kakva je petogodišnja strategija za Crnu Goru, i koliko je sredstava EBRD do sada uložio u našu zemlju?**

Naša uloga je da podržimo ekonomsku tranziciju Crne Gore. Mi želimo da koristimo prednosti države i riješimo izazove sa kojima se ona suočava.

Mi vidimo značajan potencijal u sektoru turizma i imamo primamljivu ponudu sa našim novim okvirom za održivi turizam.

Istovremeno, razvoj infrastrukture je jedna od najvećih potreba takođe u svijetlu regionalne integracije i približavanja EU.

Privreda države počiva na uspješnom privatnom sektoru, tako da podržavamo i ovaj sektor.

U skladu sa Tranzicijom ka zelenoj ekonomiji (GET), mi podržavamo ulaganja u obnovljive izvore energije i energetske efikasnost.

Kao što smo ranije napomenuli, zaključili smo oko 60 projekata uz ukupan investicioni obim od blizu 570 miliona EUR-a za ukupne investicije od preko 1 milijardu EUR-a.

**B Na koji način EBRD pomaže u pokušaju da se unaprijedi ambijent za biznis i investiranje u Crnoj Gori?**

Ovim pitanjem ste dotakli glavnu temu. Naše iskustvo i istraživanje pokazuju da je kvalitet poslovnog ambijenta apsolutno ključan za uspješan ekonomski razvoj. Investitorima su potrebne - i oni to očekuju - snažne institucije, transparentni procesi i jednaki uslovi tržišne konkurencije za sve.

Zbog toga smo pokrenuli Inicijativu za investicionu klimu i odgovorno upravljanje, i danas sarađujemo sa vladama, institucijama i kompanijama u mnogim državama na kvalitetan način. Kada je u pitanju Crna Gora, EBRD podržava Savjet za konkurentnost države finansirajući njegov sekretarijat. Savjet obezbjeđuje platformu za javno-privatni dijalog o reformi poslovnog ambijenta, i očekuje se da će on doprinijeti poboljšanju poslovnog ambijenta.

Mi takođe radimo na izgradnji kapaciteta zajedno sa Agencijom za zaštitu konkurencije kako bi implementirali i sproveli zakon o zaštiti konkurencije. Mi smo takođe nedavno započeli saradnju sa Ministarstvom finansija na izradi zakona o javno privatnom partnerstvu i koncijama, jer bi nacrt zakona rebalo da se dostavi Skupštini na dalju proceduri. Takođe ćemo podržati Ministarstvo ekonomije da dalje unaprijedi poslovni ambijent za mala i srednja preduzeća.

**O FINANSIRANJU DRUGE DIONICE AUTOPUTA NAKON STUDIJE IZVODLJIVOSTI**

**B EBRD uglavnom ulaže u finansijski i korporativni sektor. Da li je tačna informacija da ćete uložiti sredstva u dio autoputa Bar-Boljare?**

U pogledu autoputa Bar-Boljare, Banka je već podržala pripremu idejnih rješenja za dvije dionice (Mateševo – Andrijeвица i zaobilaznica kod Podgorice), kao i studiju izvodljivosti cjelokupnog autoputa.

Banka je spremna da razmotri sufinansiranje dionice Mateševo - Andrijeвица, ali konačnu odluku možemo donijeti jedino nakon što se završi idejno rješenje i studija izvodljivosti. Svako finansiranje će svakako zavisiti od fiskalnog prostora Crne Gore.

Što se tiče regiona, mi bismo željeli da proširimo naš uspješan regionalni portal o registrima kompanija BIFIDEX na Crnu Goru.

Naravno, kada investiramo, često poboljšavamo i investicionu klimu, bilo davanjem savjeta ili predstavljajući drugim investitorima da je određena oblast ili sektor vrijedan ulaganja.

**B Koje su po Vama šanse i prednosti Crne Gore, a koje pak prepreke i nedostaci na putu ka učlanjenju u Evropsku uniju?**

Crna Gora je država sa izuzetnim turističkim mogućnostima, ali je potrebno poboljšanje u kvalitetu pružanja usluga i diversifikacija sa primorskih oblasti na druge oblasti kako bi se postigao njen puni potencijal. Postoje takođe mogućnosti u nekim proizvodnim sektorima kao što je aluminijumska proizvodnja i farmaceutski proizvodi. S obzirom na njenu malu veličinu i jasan pravac prema učlanjenju u EU, implementacija reformi može biti lakša nego u ostalim državama u regionu, što se objašnjava relativno dobrim napretkom u otvaranju pregovaračkih poglavlja sa EU.

Ipak, Crnoj Gori je potrebno da izgradi kapacitete i da poboljša vještine u javnim institucijama, kao i da izvrši reformu velikih i neefikasnih državnih preduzeća. Potrebno je uložiti više napora u borbi protiv velike sive ekonomije (oko jedna trećina BDP-a) i dalje poboljšati vladavinu prava.

Takođe, privatni sektor bi imao koristi od mjera uvedениh za dalje poboljšanje poslovnog ambijenta, jer se, na primjer, država rangira relativno nisko kada je u pitanju osnivanje kompanija ili dobijanje električne energije po istraživanju Svjetske banke Lakoća poslovanja. Poboljšana konkurentnost privatnog sektora bi povećala izvoznu osnovicu i pomogla da se smanji visoki deficit tekućeg računa.



The country's economy rests on a successful private sector, so we are supporting that too.

In line with our Green Economy Transition (GET) approach we support investments in renewables and energy efficiency.

As mentioned before, we have signed some 60 projects with a cumulative investment volume of near €570 million for total investments of over €1 billion.

**B In what way the EBRD is assisting in the effort to improve the business environment and investments in Montenegro?**

You are touching upon a crucial point here. Our experience and research show that the quality of the business environment is absolutely crucial for successful economic development. Investors need – and expect – strong institutions, transparent processes and a level playing field.

This is why we have launched our Investment Climate and Governance Initiative and today we are working with governments, institutions and businesses in many countries in a structured way. In the case of Montenegro the EBRD is supporting the country's Competitiveness Council by funding its secretariat. The Council provides a platform for public-private dialogue on business environment reforms, and is expected to contribute to improving the business environment.

We also build capacity with the Competition Authority to implement and enforce anti-monopoly legislation. And recently we started to work with the Ministry of Finance on Public-Private Partnerships and Concessions as a draft law is about to be forwarded to the Parliament. And we are about to support the Ministry of Economy to further improve the business environment for Small and Medium Enterprises.

On the regional level, we would like to expand our successful Regional Business Registries Portal BIFIDEX to Montenegro.

Of course when we invest we often also improve the investment climate, either through advice or by showing other investors that the pertaining area or sector is worth to invest in.

**B In your opinion, what are the opportunities and advantages of Montenegro and what are the obstacles and deficiencies in Montenegro's path towards EU accession?**

Montenegro is a country with exceptional touristic opportunities but it needs improvement in the service quality and diversification from the coastal to other areas in order to reach its full potential. There are also investment opportunities in some manufacturing sectors like aluminum or pharmaceuticals. Given its small size and clear direction towards EU membership, implementation of reforms might be easier than in other countries of the region explaining relatively good progress with opening EU negotiation chapters.

Still, Montenegro needs capacity building and skills improvement at public institutions as well as reforming large and inefficient state-owned enterprises. More effort is needed to fight the large informal economy (at about one third of GDP) and further improve the rule of law.

Also the private sector would benefit from measures to further improve the business environment as for instance

the country ranks relatively low in starting a business or getting electricity in the World Bank's Doing Business survey. Improved private sector competitiveness would increase the export base and help reduce large current account deficit.

**ON FINANCING OF THE SECOND SECTION AFTER FEASIBILITY STUDY**

**B The EBRD mainly invests in financial and corporate sector. Is it true that the EBRD will invest in the section of the highway Bar-Boljare?**

With respect to the Bar-Boljare highway, the Bank has already supported preliminary design preparation for two sections (Mateshevo – Andrijevic and the Podgorica by-pass) as well as a feasibility study of the whole highway.

The Bank is ready to consider co-financing Mateshevo - Andrijevic section, but we can make the final decision only after the preliminary design and feasibility study of the highway are done. Any financing will of course also depend on Montenegro's fiscal space.



Hubertus Väh  
Izvršni direktor  
Frankfurt Main Finance

# Finansijski sektor Londona gubi zbog Bregzita

Iskusnim posmatračima političkih prilika u Evropi nije iznenađujuće što 29. marta nije došlo do očekivanog izlaska Ujedinjenog Kraljevstva iz Evropske unije - popularno nazvnog Bregzit - i što je od tada dvaput odlagan. Ostaje nejasno da li, odnosno kada će biti prihvaćen Sporazum o povlačenju. Pored toga, još uvijek treba da se vidi na koji bi se način, ako bude potrebno, mogao modifikovati Sporazum o povlačenju u slučaju da bude prihvaćen. Učešće

Ujedinjenog Kraljevstva (UK) na izborima za Evropski parlament 23. maja 2019. godine predstavlja očiglednu mogućnost. Nakon 46 godina, UK je i dalje formalno članica Evropske unije ali je takođe zarobljena u stanju neizvjesnosti. Politički proces koji je doveo do ove situacije je ozbiljno ugrozio kredibilitet institucija Ujedinjenog Kraljevstva istovremeno odvlačeći pažnju kapaciteta Evropske unije na štetu ekonomske snage regiona. Pored toga, proces je podijelio britansko društvo, i oslabio je i oslabiće globalnu poziciju Evrope. Buduća svjetska trgovina robom i uslugama sa Ujedinjenim Kraljevstvom može postati predmet novih pravila. Ne može se garantovati nesmetana tranzicija. Napuštanjem Jedinственog tržišta, a time gubljenjem takozvanih prava u okviru sistema „pasoša“, finansijski sektor Londona gubi pravo na obavljanje poslova u bilo kojoj drugoj državi članici EU. Mnoge sadašnje aktivnosti pružanja finansijskih usluga u Londonu koje su povezane sa EU su rizične i vjerovatno moraju biti premještene u neku drugu državu članicu EU. Finansijski centar Frankfurt se pojavio kao vodeći finansijski centar za „EU bez UK“.

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# London's Financial Industry Loses due to Brexit

Hubertus Vãth  
Frankfurt Main Finance CEO

Not surprising to seasoned observers of European politics, on March 29, the United Kingdom's expected exit from the European Union – commonly called “Brexit” – did not happen and has since been postponed twice. It remains unclear if or when the Withdrawal Agreement will be accepted. Furthermore, it is yet to be seen what adjustments, if any, could be made to the Withdrawal Agreement, in case it is accepted. UK participation in EU Parliament elections on May 23, 2019, is a distinct possibility. After 46 years, the UK is still formally a member of the EU but also trapped in a state of limbo. The political process that led to this situation has seriously damaged credibility of UK institutions while preoccupying the EU's capacity to the detriment of the region's economic vigour. In addition, the process has split the British society and it has and will weaken Europe's global position. Future trading of goods and services from all over the world, with the UK could become subject to new rules. A seamless transition cannot be guaranteed. By leaving the Single Market, and thus, losing so-called passporting rights,

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London's financial industry loses the right to conduct business in any other EU member state. Much of London's current financial services activity related to the EU is at risk and likely must be relocated to an EU member state. The Financial Centre Frankfurt has emerged as the leading Financial Centre for the “EU-sans-UK”.

## **BREXIT - A GLOBAL PERSPECTIVE**

On June 23, 2016, 17.4 million British people, or 51.9 percent of those voting, favoured the United Kingdom leaving the European Union. On March

**BREGZIT - GLOBALNA PERSPEKTIVA**

Dana 23. juna 2016. godine, Britanci, njih 17,4 miliona ili 51.9 procenata glasačkih prava, su izglasali da Ujedinjeno Kraljevstvo napusti Evropsku uniju. Premijerka Tereza Mej je sprovela član 50 Ugovora o Evropskoj uniji 29. marta 2017. godine, kojim se propisuje da država članica napusti Uniju u roku od dvije godine od datuma sprovođenja, sa ili bez potpisivanja sporazuma o napuštanju. S obzirom na složenost pitanja i nepovoljan proces u skladu sa članom 50, parlament Ujedinjenog Kraljevstva nije izglasao sporazum o napuštanju koji je pregovaran između UK i EU u 3 takozvana relevantna glasanja. U prvom glasanju, 15. januara 2019. godine, premijerka Mej je pretrpjela najteži parlamentarni poraz u istoriji britanske demokratije kada je tražena većina.

*„Dauning strit i većina Vestminstera izgleda da je ravnodušna u vezi posledica koje će Bregzit nesumnjivo imati na Ujedinjeno Kraljevstvo i EU*

Gotovo tri godine poslije referenduma, budući odnos između Ujedinjenog Kraljevstva i EU je još uvijek nejasan. Zbog toga i nije iznenađenje iskusnim posmatračima političkih prilika u Evropi što 29. marta nije došlo do očekivanog Bregzita i što je od tada odlagan dvaput. Na Samitu EU 10. aprila 2019. godine dogovoreno je drugo produženje do 31. oktobra 2019. godine.

Ostaje nejasno da li, odnosno kada će biti prihvaćen Sporazum o povlačenju. Pored toga, još uvijek treba da se vidi na koji bi se način, ako bude potrebno, mogao izmijeniti Sporazum o povlačenju u slučaju da bude prihvaćen. Učešće Ujedinjenog Kraljevstva na izborima za Evropski parlament 23. maja 2019. godine predstavlja očiglednu mogućnost, što je trebalo inicijalno svakako izbjeći jer bi se izabranim članovima iz UK u novom Evropskom parlamentu povjerile odluke koje su relevantne za EU poslije Bregzita.

**UZDRMANA BRITANIJA**

Perspektiva je vrlo različita u Ujedinjenom Kraljevstvu. Mnogi međunarodni mediji su to nazvali „Haos u Londonu“. Uvaženi Times je imao naslov „Uzdrmana Britanija“, dok je The Economist na naslovnici dao tekst „Budalasta Ostrva“.

Britanija se suočava sa ustavnom krizom. Najuspješniji politički sistem na čelu sa najuspješnijom političkom partijom dobio je samo seriju negativnih odgovora u parlamentu i postao podijeljen kao nikad do sada u cijeloj istoriji. Jaz unutar vladajuće partije Torijevaca, pa čak i unutar opozicije na čijem čelu su Laburisti, spriječio je postizanje kompromisa unutar i između partija. Čak i između četiri konstitutivne nacije - Engleske, Velsa, Škotske i Sjeverne Irske - postoji razdvajanje. Da i ne pominjemo razlike između Londona sa njegovim globalnim izgledima i sela ili industrijskog pojasa sa njegovim relevantnim nedaćama. Različiti interesi finansijskog sektora i sektora ribarstva, uzmimo ih za primjer, su još jednom izloženi i treba da se ponovo pobune i ponovo izmire.

Očekuje se da će dvije nove političke stranke – „Bregzit stranka“ i stranka „Promijenimo UK“ - učestvovati na predstojećim izborima. Postojeća situacija bi mogla da fatalno oslabi tradicionalne stranke.

Ovaj jaz je postao očigledan u anketama istraživačkog instituta YouGov. Početkom aprila 2019. godine, 47 procenata ljudi je smatralo da je pogrešno glasati za napuštanje Evropske unije, ali samo 37 procenata je dalo prednost novom referendumu i ostalo kao sledeći korak. 23% je bilo za neku vrstu dogovora i scenario „mekog“ istupanja iz EU, 26% uopšte nije bilo za dogovor i za scenario „tvrdog“ istupanja iz EU, dok je 13% bilo ravnodušno. Istovremeno, 69 procenata je smatralo da novi izbori vjerovatno ne bi riješili pitanje oko istupanja UK iz EU.

**PRIMAT POLITIKE**

Uprkos pat poziciji u vladi i parlamentu, britanska borba pokazuje primat politike nad ekonomijom. To objašnjava zašto je istraživanje troškova i poremećaj lanca potražnje pokazalo da je većina biračkog tijela ravnodušna.

Čini se da su Dauning strit i većina Vestminstera ravnodušni u vezi posljedica koje će Bregzit nesumnjivo

29, 2017, Prime Minister Theresa May enacted Article 50 of the Treaty on European Union, which provides for the withdrawal of any Member State from the EU with or without a withdrawal agreement within two years of enactment. Given the complexity of the matter and unfavourable process under Article 50, the withdrawal agreement negotiated between the UK and EU was cast down by the UK Parliament in three so called meaningful votes. At the first vote, on January 15, 2019, Prime Minister May suffered the heaviest parliamentary defeat in living memory of British democracy when seeking a majority.

Almost three years after the referendum, the future relationship between the UK and the EU is still unclear. As a result, and unsurprising to seasoned observers of European politics, on March 29, the expected Brexit did not happen and has since been postponed twice. On April 10, 2019, an EU summit

*„Downing Street and most of Westminster appear unmoved by the consequences which Brexit will undoubtedly have for the UK and the EU*

agreed on a second extension until October 31, 2019.

It remains unclear if or when the Withdrawal Agreement will be accepted. Furthermore, it is yet to be seen what adjustments, if any, could be made to the Withdrawal Agreement, in case it is accepted. UK participation in EU Parliament elections on May 23, 2019, is a distinct possibility, which should initially be avoided by all means as elected UK members of the new EU Parliament would be entrusted with decisions relevant for post-Brexit EU.

#### **BROKEN BRITAIN**

In the United Kingdom, the perspective is very different. Many international media titled “Chaos in London”. The venerable Times ran the headline “Broken Britain”, while The Economist cover read “The Silly Isles”.

Britain faces a constitutional crisis. The most successful political system with the most successful political party in the driving seat has reached only a series of Noes in a parliament as divided as never in living memory. The chasms within the ruling Tories and even within the Labour-led opposition prevent a compromise within and across parties. Even amongst the four constituent nations – England, Wales, Scotland and Northern Ireland – there is disunity. Not to mention the differences between London with its global outlook and the countryside or the industrial belt with their respective grievances. The differing interests of the financial and fishing industry, to use an illustrative example, are once again in the open and need to be refought and resettled.

It is expected that two new political parties – the “Brexit party” and a party named “Change UK” – will participate in forthcoming elections. The current situation has the potential to leave the traditional parties fatally wounded.

This gap has also become apparent in polls of the YouGov Research Institute. At the beginning of April 2019, 47 percent of the people felt that it was wrong to vote to leave the European Union, but only 37 percent preferred a new referendum and to remain as a next step. 23 percent favoured some sort of a deal and a soft Brexit, 26 percent no deal at all and a hard Brexit while 13 percent were indifferent. At the same time, 69 percent thought holding new elections would probably not resolve the Brexit issue.

#### **PRIMACY OF POLITICS**

Despite the stalemate in government and parliament, the British wrestling demonstrates the primacy of politics over economics. It explains why research on costs and disruption to supply chains leave most of the electorate unmoved.

Downing Street and most of Westminster appear unmoved by the consequences which Brexit will undoubtedly have for the UK and the EU. A softer Brexit with limited friction is still the most likely, but by no means only, scenario. For this reason,

## *„MMF je procijenio da će scenario „tvrđog“ istupanja iz EU negativno uticati na BDP Ujedinjenog Kraljevstva za 3,5 procenata do 2021.*

imati na Ujedinjeno Kraljevstvo i EU. Ipak je najvjerojatniji scenario „mekog“ istupanja iz EU sa ograničenim nesuglasicama, ali to je nesumnjivo samo scenario. Zbog toga, mudre kompanije i institucije na koje je uticao Bregzit treba da se pripreme za scenario „tvrđog“ istupanja i nastave da se nadaju da neće doći ni do jednog od njih.

### **PROMJENE U GLOBALNOJ EKONOMIJI**

Bez obzira na to koji će se scenario istupanja dogoditi, oslabiće globalni značaj ekonomije Evropske unije: SAD i Kina su ostvarili bruto domaći proizvod (BDP) u iznosima od 17,2 i 10,8 biliona EUR u 2017. godini. Evropska unija se našla na drugom mjestu: sa Ujedinjenim Kraljevstvom kao članicom, BDP je iznosio 13,0 biliona EUR. Razlika je značajna, jer bi se vođstvo SAD povećalo sa 12 na 32 procenta, dok bi se vođstvo EU u odnosu na Kinu smanjilo sa 42 na 20 procenata.

Međunarodni monetarni fond (MMF) je u svom posljednjem izdanju Svjetskog ekonomskog izgleda (World Economic Outlook) objavljenom sredinom aprila, procijenio da će scenario „tvrđog“ istupanja iz EU negativno uticati na BDP Ujedinjenog Kraljevstva za 3,5 procenata do 2021. godine u odnosu na osnovicu MMF-a koja pretpostavlja postepeni prelazak na novi režim. Evropska unija će se suočiti sa dugoročnim padom proizvodnje za 0,3 procenta, a svijet za 0,1 procenat.

### **SPORAZUMI O SLOBODNOJ TRGOVINI, CARINSKA UNIJA ILI JEDINSTVENO TRŽIŠTE?**

Bregzit će sigurno uticati na poslovanje azijskih kompanija, ali na koji način? Proizvodi, usluge, procesi i rutine se moraju prilagoditi novom režimu.

Pristup tržištu je u nedoumici. Možda će postojati dva posebna tržišta sa manje - više različitim pravilima i propisima. Iako bi se trgovina i usluge sa „EU bez UK“ mogli nastaviti sa lakoćom, trgovanje sa Ujedinjenim Kraljevstvom zavisi od konačnih pravila za Bregzit koja tek treba da se utvrde. Najpoželjnija ruta za većinu azijskih država koje dobijaju pristup velikom tržištu preko engleskog govornog Ujedinjenog Kraljevstva će biti osporena.

Prema postojećem Sporazumu o povlačenju, UK bi ostala u okviru Carinske unije i Jedinstvenog tržišta sa prelaznim periodom do kraja 2020. godine uz mogućnost produženja. Ovo znači da bi se postojeća pravila primijenila najmanje za taj period uključujući države van EU.

Najznačajniji razlog za ovaj dogovor je ostrvo Irske, sa Sjevernom Irskom Ujedinjenog Kraljevstva na sjeveru i Republikom Irskom na jugu. Britanija je vjekovima vladala Irskom što je dovelo do neprestanih etnoloških i religioznih konflikata koji su jedino mogli da budu ugušeni prije nekih dvadeset godina potpisivanjem Sporazuma na Veliki petak. Stoga, i UK i EU strahuju da bi čvrsta granica sa fizičkim provjerama između Republike Irske i Sjeverne Irske mogla da ponovo rasplamsa stare konflikte. Zaštitni mehanizam, kako je postao poznat, trebao bi da osigura održavanje prekogranične saradnje, ali EU i razne grupe unutar UK su izrazile fundamentalno različite stavove o ovom pitanju. Tu naročito prednjače parlamentarci iz Demokratske partije ujedinjenja Sjeverne Irske (DUP) i euroskeptici Torijevci koji tvrde da bi zaštitni mehanizam stvorio zauvijek čvrste veze između UK i EU.

Pored irskog pitanja, prelazni period dozvoljava UK da stupi u nove odnose sa svim trgovinskim partnerima i dopusti kompanijama da se unaprijed pobrinu o svim novim pravilima i prodorima na tržište.

Ako se postojeći odnosi sa EU smatraju modelima, spektar potencijalnih šema postaje ogroman. Oni se razlikuju, na primjer, u primjenljivosti zakona EU, nadležnosti sudova EU ili doprinosima u budžetu EU.

Norveška je dio Jedinstvenog tržišta ali ne i Carinske unije. Turska je dio Carinske unije ali ne i Jedinstvenog tržišta. Kanada je zaključila Sveobuhvatni ekonomski i trgovinski sporazum, CETA. Švajcarska je zaključila više od 120 bilateralnih ugovora. Ukrajina, sa velikom i širokom trgovačkom oblasti, ima gotovo potpun

prudent companies and institutions affected by Brexit should prepare for a hard Brexit and continue to hope for none.

## SHIFTS IN THE GLOBAL ECONOMY

Regardless of which Brexit scenario will occur, it will weaken the EU's global economic relevance. In 2017, the U.S. and China had a gross domestic product (GDP) of 17.2 and 10.8 trillion euros, respectively. The EU ranked second: with the UK being a member with a GDP of 15.3 trillion euros; excluding UK with a GDP of 13.0 trillion euros. The difference is significant as the U.S. lead would increase from 12 to 32 percent, while the EU's lead on China declines from 42 to 20 percent.

In its recent World Economic Outlook, published mid-April, the International Monetary Fund (IMF) has estimated that a hard Brexit will negatively affect UK's GDP by 3.5 percent by 2021 when compared to the IMF baseline, which assumes a gradual transition to a new regime. The European Union will face a long-term decline in output by 0.3 percent and the world by 0.1 percent.

## FREE TRADE AGREEMENTS, CUSTOMS UNION OR SINGLE MARKET?

Businesses in Asia will certainly be affected, but how? Products, services, processes and routines must be adapted. Market access is in doubt. There might be two separate markets with more or less different rules and regulations. While trade and services with the "EU-sans-UK" could continue seamlessly, trading with the UK depends on the final, yet to be determined rules for Brexit. The likeliest preferred route for most Asian countries gaining access to a large market via the English-speaking UK will be challenged.

According to the existing Withdrawal Agreement, the UK would stay within the Customs Union and Single Market for a transition period until the end of 2020 with an option to extend. This means the existing rules would apply at least for this period, including for countries outside the EU.

The most significant reason for this accord is the Irish island, with the UK's Northern Ireland to the north and the Republic of Ireland in the south. For many centuries, Ireland was ruled by Britain, expressed in a continuous ethnological and religious conflict which could only be quelled just twenty years ago with the Good Friday Agreement. Therefore, both the UK and EU fear that a hard border with physical checks between the Republic of Ireland and Northern Ireland could reignite old conflicts. The backstop, as it has become known, should ensure that cross-border cooperation is maintained, but the EU and various groups within the UK have expressed fundamentally different views on the issue. Especially parliamentarians from Northern Ireland's Democratic Unionist Party (DUP) and Eurosceptic Tories claim the backstop would lock the UK into close ties with the EU in perpetuity.

In addition to the Irish issue, the transition period should allow the UK to enter new relationships with all trade partners and allow business to take care of any new rules and preparations in advance.

If the current EU relationships are considered as models, the spectrum of potential schemes is enormous. They differ, for example, regarding the applicability of EU law, the competence of EU courts or budgetary contributions to the EU.

Norway is part of the Single Market, but not the Customs Union. Turkey is part of the Customs Union, but not the Single Market. Canada has entered a comprehensive economic and trade agreement, CETA. Switzerland has concluded

more than 120 bilateral deals. The Ukraine, with its deep and broad trade area, has near-full access to the Single Market in preparation for an EU membership. In addition, Norway, Switzerland, Iceland, and Liechtenstein form the European Free Trade Association (EFTA),

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pristup Jedinostvenom tržištu u pripremi za članstvo u EU. Pored toga, Norveška, Švajcarska, Island i Lihtenštajn obrazuju Evropsko udruženje slobodne trgovine (EFTA), koje zajedno sa EU čini Evropski ekonomski prostor (EEP). Ciljevi UK nisu fiksni bilo da se odnose na EU ili druge države.

Tereza Mej je u svom govoru u Lankasteru 2017. godine objavila da će UK napustiti Carinsku uniju i Jedinostveno tržište kako bi „ponovo otkrila svoju ulogu velike, globalne, trgovačke nacije“. Takođe je dodala da UK treba da dogovori sopstvene trgovačke spoazume.

Prema izvještaju BBC, UK je do aprila 2019. godine dogovorila devet sporazuma - sa Švajcarskom i Lihtenštajnom, Norveškom i Islandom, Čileom, ESA (države južne i istočne Afrike), Izraelom, Palenstinskom vladom, Farskim ostrvima, Karipskim državama i Pacifičkim ostrvima. U očekivanju sporazuma sa drugim državama, kao što su sporazumi sa SAD, Kinom, Indijom ili Japanom, moraju se usvojiti prelazna pravila ili standardna pravila Svjetske trgovinske organizacije (STO) u slučajevima kada nisu uspostavljeni ugovoreni sporazumi o slobodnoj trgovini. Obično je potrebno nekoliko godina za ove sporazume o slobodnoj trgovini.

Suprotno tome, Laburistička partija prihvata da ostane u Carinskoj uniji i Jedinostvenom tržištu tokom prelaznog perioda. Prema Laburistima, to bi omogućilo kompanijama i institucijama da se pažljivo pripreme za „najbolje sporazume o slobodnoj trgovini i investicijama koji uklanjaju trgovinske barijere i promovišu stručna radna mjesta i visoke standarde“, uključujući novu Carinsku uniju između UK i EU.

Nastavak Jedinostvenog tržišta koji uključuje UK, možda savršen svijet sa stanovišta država koje ne pripadaju EU, izgleda gotovo nezamislivo. Jedinostveno tržište oslobođeno netarifnih barijera, kao različiti propisi obezbjednosti, standardima, ambalaži i mnogi drugi, kroz pažljivo usaglašena pravila i propise u cijeloj oblasti, pripadaće prošlosti. Prema osnovnim principima EU, Jedinostveno tržište uključuje nedjeljivost četiri slobode - sloboda kretanja roba, usluga, kapitala i ljudi. S jedne strane, EU neće prihvatiti bilo koji drugačiji nivo primjene ove četiri osnovne slobode, dok na drugoj strani stavljanjem ograničenja na imigraciju, UK je tokom referenduma dala odlučujući argument za napuštanje EU.

## FINANSIJSKI SEKTOR U POKRETU

Čak i u slučaju „mekog“ Bregzita, isključivanje iz Jedinostvenog tržišta bi dovelo do toga da sektor pružanja finansijskih usluga postane najstaknutija žrtva Bregzita, uprkos tome što je London jedan od nekoliko istinskih globalnih finansijskih centara sa učešćem od 7,2 procenta u ekonomskoj proizvodnji UK i 11 pocenata u prihodima od poreza UK, po izvještaju Londonske berze (LSE).

Ako UK napusti Jedinostveno tržište, firme koje pružaju finansijske usluge će izgubiti privilegiju da nude usluge u drugim državama članicama iz svog pravnog subjekta sa sjedištem u Londonu putem tzv. prava slobode pružanja usluga. Nadalje, nadležni organi EU su insistirali da se aktivnosti kliringa i poravnanja u eurima sprovode ili u EU ili da budu predmet proširene supervizije koja bi bukvalno dala ovlaštenje EU nad subjektima iz UK. Ovo bi ozbiljno uticalo na kliring finansijskih derivata u eurima, kao što su svopovi kamatnih stopa, u Londonu.

Veliki dio poslovanja je rizičan. Oko 40 procenata prekograničnih pozicija banaka u Londonu odnosi se na partnere iz EU. U 2016. godini, 54 procenta evropskog trgovanja hartijama od vrijednosti, 77 procenata derivatnih transakcija u eurima, 78 procenata evropskog deviznog trgovanja i 50 procenata aktivnosti upravljanja evropskim fondovima putem imovine se desio u Londonu.

Čak su i britanski ekonomisti bili iznenađeni time da je britanska Vlada omalovažila prioritete finansijskog sektora. Budući odnos „prijeti da ostavi Grad London da se oslanja na postojeći i uglavnom parcijalni režim koji je ekvivalentan trećoj zemlji, dopuštajući ograničen pristup tržištu na izuzetno diskrecionoj osnovi“, napisali su u svom nedavnom članku Tomas Voren, Skot Džejsms i Husein Karim.

London će zadržati vodeću globalnu poziciju u vremenskim zonama Evrope, Afrike i Mediterana i nastaviti čvrste veze sa EU. Iako mnoge banke i dalje nestrpljivo očekuju oblik i datum Bregzita, promjene su postepeno počele. Prema tome, trenutne cifre potcjenjuju realne promjene. Jedino se vrh ledenog brijega može vidjeti. Od decembra 2018. godine, EY konsultanti su već povećali procjenu kretanja imovine van Londona sa 1,0 na 1,2 biliona eura. Dodatno,





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## *„Finansijski centri euro zone se aktivno takmiče za kompanije koje napuštaju London*

gubitak kompanija EU bi mogao da dovede do toga da se poslovanje djelimično prenese na Njujork ili azijske finansijske centre.

Finansijski centri euro zone se aktivno takmiče za kompanije koje napuštaju London. Poslednji Z/Yenov Indeks globalnih finansijskih centara koji je objavljen u martu 2019. u saradnji sa Institutom za razvoj Kine, pokazuje da se finansijski centar u Frankfurtu nalazi na 10. mjestu na globalnom nivou. Ostali evropski finansijski centri kao što su Pariz (27), Luksemburg (30), Madrid (37), Dablin (38), Amsterdam (41), i Milano (45) se nalaze iza njega.

Finansijski centar u Frankfurtu osvaja snagom njemačke ekonomije, veličinom i raznolikošću banaka, berzi i društava za osiguranje. Ovaj centar je dom Evropskoj centralnoj banci (ECB), Evropskom regulatornom organu za osiguranje i profesionalne penzije (EIOPA), Evropskom odboru za sistemski rizik (ESRB) i drugim EU regulatorima, kao i njemačkom Federalnom nadležnom organu za finansijsku superviziju (BaFin). Profil Frankfurta je zaokružen stabilnim pravnim okvirom i pouzdanošću infrastrukture.

Gotovo 50 finansijskih institucija se već prijavilo njemačkom regulatoru, BaFin-u, za dobijanje nove dozvole za rad. Od tog broja, 30 institucija, uglavnom iz Azije, SAD i Evrope van EU su odlučile da premjeste svoja evropska sjedišta u Frankfurt. Frankfurt Main Finance očekuje da će se imovina u iznosu od 750 do 800 milijardi eura prenijeti iz Londona u Frankfurt do datuma Bregzita, od čega je do kraja marta 2019. godine trećina već bila prenijeta.

Kada je riječ o kliringu, dramatične promjene su se dogodile u samo nekoliko sedmica. Na 15. mart 2019., prosječni dnevni obimi kamatnih derivata su obračunati u Frankfurtu u iznosu od 133 milijarde eura, što je iznosilo 131 procent više u odnosu na prosjek iz 2018. godine. Nominalni neisplaćeni iznos je bio 13 biliona eura, što je predstavljalo povećanje od 64 procenta od kraja 2018. godine. U stvari, dnevni obimi kliringa Eurex Clearing-a i nominalni neisplaćeni tržišni udio povećali su se na 8,7 i 12,8 procenata. Ovo povećanje je pokrenuto dvocifrenim rastom broja klirinških članova i klijenata, ali i uparivanjem cijena, spredova i veličina.

Frankfurt ima opravdanu težnju da postane vodeći finansijski centar Evropske unije nakon Bregzita, iako će posao biti više raspostranjen u euro zoni, gubeći na ekonomiji obima. Ovo nije ružičasta perspektiva za sektor koji pati od zatezanja margina. Konukrenti sa različitim profilima su gradovi kao Amsterdam (mjesto trgovanja, neke banke), Dablin (upravljanje imovinom, brokери-dileri), Luksemburg (lica koja upravljaju imovinom, osiguravači, holding kompanije), i na kraju, ne manje važan, Pariz sa velikim opsegom ponude. Bliske željezničke veze sa Londonom zajedno sa nekim poreskim olakšicama i olakšicama socijalnog osiguranja su povećale kapital Francuske. Suprotno prethodnim kretanjima, sektor će se usitniti. Nakon prelaznog perioda i nekih povlastica i posebnih beneficija, nove primjene se mogu pojaviti u obliku konsolidacija unutar sektora. Međutim, za to će biti sigurno potrebna cijela dekada.

### **OBLIKOVANJE BUDUĆNOSTI EVROPE**

Članstvo Ujedinjenog Kraljevstva u Evropskoj uniji dugo 46 godina će se vjerovatno završiti sa tačnim detaljima koje još treba dogovoriti. Bregzit ima i imaće uticaj na gotovo svaki aspekt ekonomskog života u Evropi. On će oblikovati percepciju UK i budućnost Evrope.

*„Bregzit ima i imaće uticaj na gotovo svaki aspekt ekonomskog života u Evropi. On će oblikovati percepciju UK i budućnost Evrope*

which together with the EU forms the European Economic Area (EEA). The objectives of the UK neither regarding the EU or other countries are fixed.

In 2017, Theresa May announced at her Lancaster House speech that the UK will leave the Customs Union and the Single Market in order to “rediscover its role as a great, global, trading nation.” The UK should negotiate its own comprehensive trade deals, she added.

By April 2019, as reported by BBC, the UK has agreed to nine agreements – with Switzerland and Liechtenstein, Norway and Iceland, Chile, ESA (Eastern and Southern Africa States), Israel, Palestinian Authority, Faroe Islands, the Caribbean countries, and Pacific Islands. While agreements with other states, like the U.S., China, India or Japan are still pending, either the transitional rules or the standard World Trading Organisation (WTO) rules must be adopted in cases where bespoke free trade agreements are not in place. Typically, these free trade agreements take some years.

In contrast, the Labour party accepts to remain in the Customs Union and the Single Market for the transition period. According to Labour, it would allow companies and institutions to carefully prepare for the “best-in-class free trade and investment agreements that remove trade barriers and promote skilled jobs and high standards,” including a new UK-EU Customs Union.

The continuation of the Single Market including the UK, perhaps the perfect world from a non-EU perspective, appears almost beyond imagination. A Single Market freed from non-tariff barriers, like dissimilar regulations concerning safety, standards, packaging and many others, through carefully aligned rules and regulations across the area, will be a thing of the past. According to the basic principles of the EU, the Single Market is inalienable from the Four Freedoms – the free movement of goods, services, capital, and people. On one hand, the EU will not accept any different level of application of these four fundamental freedoms, on the other, in the UK placing restrictions on immigration formed a decisive argument for leaving the EU during the referendum campaign.

## FINANCIAL INDUSTRY ON THE MOVE

Even in a soft-Brexit scenario, exclusion from the Single Market could cause the financial services industry to become Brexit’s most prominent victim, despite London being one of few truly global financial centres and contributing 7.2 percent to UK economic output and 11 percent to UK tax revenues, as reported by London Stock Exchange (LSE).

If the UK leaves the Single Market, financial services firms will lose their privilege to offer services in other member states from their London legal entity via so-called passporting rights. Furthermore, EU authorities have insisted on euro-denominated clearing and settlement activities to be either conducted in the EU or to fall under extended supervision which would literally grant the EU power over UK entities. This would severely affect the clearing of euro-denominated derivatives, like interest rate swaps, in London.

A great deal of business is at risk. About 40 percent of the cross-border positions of banks in London refer to counterparties in the EU. In 2016, 54 percent of the European equity trading, 77 percent of euro-denominated derivatives transactions, 78 percent of European FX trading and 50 percent of European fund management activities by assets took place in London.

Even British economists were surprised that the preferences of the financial sector have been downplayed by the British government. The future relationship “threatens to leave the City of London reliant on the EU’s existing and largely piecemeal third country equivalence regime, permitting more limited market access on a highly discretionary basis,” as Thomas Warren, Scott James, and Hussein Karim wrote in a recent article.

The City will maintain its leading global position in the European, African and Mediterranean time zones with continued close links to the EU. While many banks still anxiously await the exact form and date of Brexit, shifts have gradually started. Therefore, current numbers underestimate the real shift. Only the top of the iceberg can be seen. Since December 2018, EY consultants have already increased their estimate on asset moves out of London from 1.0 to 1.2 trillion euros. Additionally, the loss of EU business could result in remaining business being partially shifted to New York City or to Asian financial centres.

MJESEČNO  
ODRŽAVANJE

**3,50**  
EUR

# AKTIVIRAJ DOBRE STVARI

# Aktive

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Održavanje transakcionog računa • Debitna kartica • SMS servis  
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dokumenata, ključeva stana ili vozila • Kreditna kartica (opciono)  
Trajni nalog • Dozvoljeno prekoračenje po transakcionom računu (opciono)



**KOMERCIJALNA BANKA**

Meni najbliža

## *„Eurozone financial centres are actively competing for the business leaving London*

Eurozone financial centres are actively competing for the business leaving London. Z/Yen's latest Global Financial Centres Index, published in March 2019 in collaboration with the China Development Institute, shows that the Financial Centre Frankfurt is placed on rank 10 globally. Other European financial centres like (Paris (27), Luxembourg (30), Madrid (37), Dublin (38), Amsterdam (41), and Milan (45) are placed behind.

The Financial Centre Frankfurt scores with the strength of the German economy, the size and diversity of banks, stock exchanges and insurance companies. It is the home of the European Central Bank (ECB), European Insurance and Occupational Pensions Authority (EIOPA), European Systemic Risk Board (ESRB) and other EU regulators, the Deutsche Bundesbank as well as the German Federal Financial Supervisory Authority (BaFin). Frankfurt's profile is rounded up by a sound legal framework, the reliability of the infrastructure.

About 50 financial institutions have already applied for an extension or a new licence with the German regulator, BaFin. About 30 of these institutions, mostly coming from Asia, the U.S. and Europe outside the EU, have decided to relocate their EU headquarters to Frankfurt. Frankfurt Main Finance expects that 750 to 800 billion euros in assets will move from London to Frankfurt by the Brexit date, a third of which has already been transferred by the end of March 2019.

Concerning clearing, a dramatic shift has taken place within just a few weeks. As of March 15, 2019, the average daily volumes of interest rate derivatives

cleared in Frankfurt amounted to 133 billion euros, 131 percent higher compared to average 2018. The notional outstanding amounted to 13.0 trillion euros, a 64 percent jump from the end of 2018.

In fact, Eurex Clearing's daily clearing volumes and notional outstanding market share has grown to 8.7 and 12.8 percent, respectively. This increase has been triggered by a two-digit growth of the number of clearing members and clients, but also by matching prices, spreads and sizes.

Frankfurt has the legitimate aspiration to become the EU's leading financial centre post-Brexit, although business will be more distributed across the eurozone, losing out on economies of scale. This is not a rosy perspective for an industry suffering tightening margins. Competitors with different profiles are cities such as Amsterdam (trading venues, some banks), Dublin (asset management; broker-dealers), Luxembourg (asset managers, insurers, holding companies), and last but not least, Paris with the whole range on offer. Close rail ties to London combined with some tax and social insurance privileges have boosted the French capital. In contrast to past developments, the industry will fragment. After an interim period and the expiration of some perks and special benefits, a new shift might emerge towards consolidation within the industry. However, that would certainly be almost a decade down the road.

### **SHAPING THE FUTURE OF EUROPE**

The United Kingdom's 46-year membership in the EU will probably come to an end with the exact details still open. Brexit has – and will have – an impact on almost every aspect of economic life in Europe. It will shape the perception of the UK and the future of Europe.

*„Brexit has – and will have – an impact on almost every aspect of economic life in Europe. It will shape the perception of the UK and the future of Europe*

# Vrli novi digitalni svijet? – Finansijska tehnologija i moć informacija

U ovom članku se fokusiramo na razvoju FinTech-a, kako se on ocjenjuje i kako se njime upravlja u odabranim oblastima, u Evropskoj uniji, Kini i Mađarskoj. Neka od značajnih pitanja u ovoj oblasti su: Kako regulatori mogu da prate brz tempo razvoja? Mogu li se propisi zasnivati na preciznoj definiciji i da li se mogu obezbijediti isti uslovi za tradicionalne banke i novoosnovane FinTech kompanije? Koji su rizici? Kako ih mogu rješavati supervizori i regulatori? Možemo zaključiti da je FinTech na početnoj fazi „revolucionarnog“ procesa, a definicija ovog fenomena je široka i stalno se mijenja. Regulatori i supervizori moraju uticati na uslove tako da pravila i procjena rizika treba da bud ista za tradicionalne banke i FinTech kompanije. Svi učesnici imaju odgovornost, uključujući centralne banke, regulatore, supervizore, postojeće banke, klijente i FinTech kompanije. Informacija je moć, a neki ekonomisti tvrde da je digitalna informacija nova normala. U našem članku mi djelimično opravdavamo prvi dio rečenice, dok drugi dio rečenice dajemo u obliku pitanja.

## NOVA RUNDA TEHNOLOŠKE I DIGITALNE REVOLUCIJE KUCA NA VRATA

Jedan od najzujbudljivijih fenomena u svijetu je trenutno razvoj digitalizacije. Prostor, pojava i socijalni efekti ovog razvoja su toliko brzi i toliko duboki da se smatraju dijelom četvrte industrijske revolucije. Jedan manji dio ovog fenomena je prodor u finansijski i bankarski sektor, koji se uglavnom naziva

FinTech hipotezom, zbog njegove važne uloge.

Kako bi što bolje razumjeli ovaj razvoj, kratko ćemo dati ishod druge i treće industrijske revolucije i fokusirati se na tri oblasti - Evropsku uniju, Kinu i Mađarsku - kako bi proučili sadašnji status i pristup FinTech hipotezi. Razlog koji leži iz izbora za naše istraživanje je to da Evropska unija igra veoma važnu ulogu ne samo u razvoju finansijske tehnologije



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(FinTech), već i njena definicija, regulisanje i aspekti supervizije. Kineski pristup je takođe bitan, jer iskustvo pokazuje da se Kina suočava sa istim ili sličnim izazovima u superviziji i regulativi, dok je sa druge strane podrška finansijskoj tehnologiji veoma jaka. Zbog toga predstavljamo poslednje podatke o investiranju u finansijsku tehnologiju u Aziji i Evropi. Grafikon i slike podržavaju dva važna zaključka: ulaganja u finansijsku tehnologiju rastu i dostižu sve veće nivoe u Aziji i Evropi (vidjeti Slike 1 i 2). Takođe se vidi da je za sada razvoj u Evropi veći od onog u Aziji. Međutim, moramo biti pažljivi kod ovog poređenja jer linija koja označava u grafikonu Aziju odražava cjelokupni region Azije, a nemamo ekvivalentne podatke za Kinu kako bi napravili poređenje tog razvoja između Kine i Evrope.

*“Neki ekonomisti tvrde da je digitalni svijet „nova normala“. U ovom periodu ubrzanih promjena, mi ne znamo kakav će konačan oblik poprimiti „nova normala“*

# Brave New Digital World? – Financial Technology and the Power of Information

In this paper we focus on the development of FinTech, how is it evaluated and managed in selected areas, in the European Union, in China and in Hungary. Some of the pertinent questions in this field are the following: How can regulators keep up with the rapid pace of development? Can regulation be based on a precise definition and can a level playing field be ensured between traditional banks and FinTech start-ups? What are the risks? How can they be handled by supervision and regulation? We can conclude that FinTech is in the initial phase of a “revolutionary” process, and the definition of this phenomenon is broad and changing. Regulators and supervisors must influence the conditions in a way that a level playing field and risk assessment should be the same for traditional banks and FinTech companies. All of the actors have responsibility, including central banks, regulators, supervisors, incumbent banks, consumers and FinTech companies. Information is power, and several economists claim that digital is the new normal. In our paper we partly justify the first part of the sentence and we put a question mark at the end of the second part.

## A NEW ROUND OF TECHNOLOGICAL AND DIGITAL REVOLUTION IS KNOCKING ON THE DOOR

One of the most exciting phenomenon in the world right now is the development of digitalisation. The space, emergence and social effects of this development are so rapid and so deep, that it is considered to be part of the 4th industrial revolution. One minor part of this phenomenon is the penetration of the financial

and banking sector, which is mostly referred to as the FinTech hype, because of its important role.

In order to better understand this development we briefly review the outcome of the second and third industrial revolutions and then focus on three areas – the European Union, China and Hungary – to study the present status and approach of the FinTech hype. The reason behind our research selection is that

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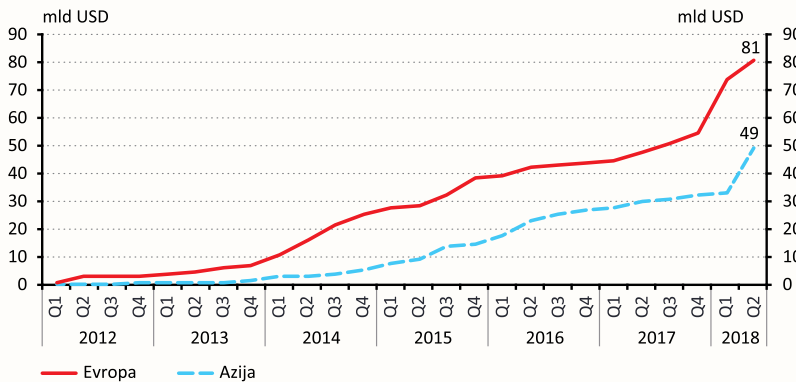
the European Union is playing a very important role not only in the development of FinTech, but also in the definition, its regulation and supervision aspects. The Chinese approach is also important since experience shows that China is facing the same or similar challenges in supervision and regulation, and on the other hand the support of FinTech development is strong. This is

why we present the recent data on FinTech investment in Asia and in Europe below. The charts and figures support two important conclusions: FinTech investments are growing and reaching higher and higher levels both in Asia and in Europe (see Figure 1 and 2). It can also be seen that for the time being the European development is higher than in Asia. However, one must be careful making this comparison because the Asia line

in the chart reflects the whole Asian region and we do not have equivalent data for China to compare the Chinese and European development in this respect.

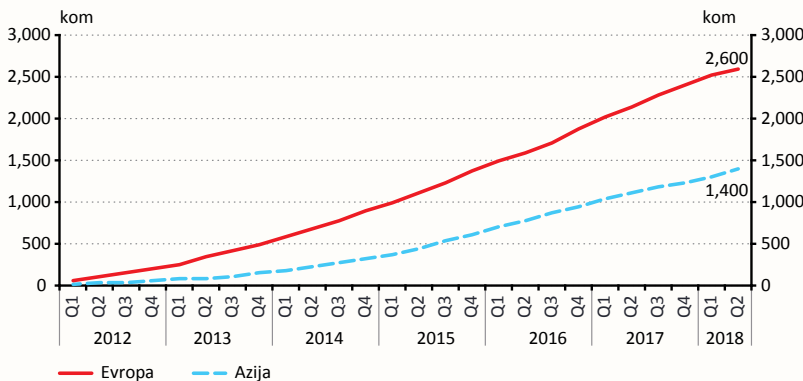
*“Several economists claim that digital is the new normal. In this period of rapid changes, we do not know what the final shape of “the new normal” will be*

**Slika 1**  
Kumulativne FinTech investicije u Aziji i Evropi  
(2012–2018)



Izvor: KPMG (2018, str.34, str. 47)

**Slika 2**  
Kumulativni zaključeni poslovi FinTech u Aziji i Evropi  
(2012–2018)



Izvor: KPMG (2018, sgr.34, str. 47)

U tekstu ćemo dalje predstaviti i razvoj u Mađarskoj, gdje je iz nekoliko razloga razvoj finansijske tehnologije počeo sa zakašnjenjem, ali je u prethodnim godinama napredovao kako bi dostigao međunarodni nivo.

Od početka 21. vijeka, svjedoci smo digitalne transformacije - promjena koje su povezane sa inovacijama u

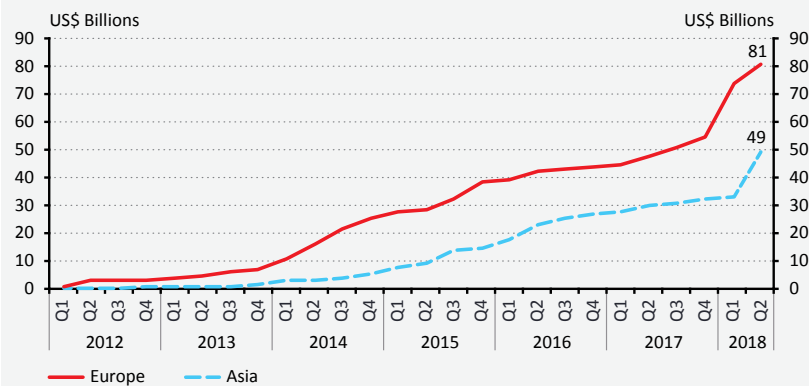
oblasti digitalne tehnologije u svim aspektima društva i ekonomije. Četvrta industrijska revolucija je već u toku. Sektor 4.0 će biti odgovoran na buduće izazove. Neki ekonomisti tvrde da je digitalni svijet „nova normala“. Mi ukazujemo da se ipak treba zapitati nad ovom izjavom. U ovom periodu ubrzanih promjena, mi ne znamo kakav će konačan

oblik poprimiti „nova normala“. „U dnevnoj štampi finansijska tehnologija se opisuje kao „rušilačka“, „revolucionarna“ tehnologija, koja je naoružana „digitalnim oružjem“ koje će „srušiti“ sve barijere i tradicionalne finansijske institucije“ (Svjetski ekonomski forum 2017). Ovaj revolucionarni fenomen neumoljivo zaokuplja sve više i više prostora u svakodnevnim životima. Ove promjene - neke revolucionarne a druge shvaćene kao takve - su, prirodno, došle do bankarskog i finansijskog sektora. Finansijska tehnologija (FinTech) je širok koncept. Koje su glavne zabrinutosti evropskih zakonodavaca i supervizora kada je riječ o njoj? Prije svega, razvoj digitalne finansijske tehnologije je veoma brz. Ona se toliko brzo razvija da je upravo iz tog razloga teško dati tačnu definiciju fenomena finansijske tehnologije. Ako je definicija široka i uglavnom predstavlja krovni koncept, onda je teško objasniti pravni okvir i odgovarajuću superviziju i to ne može biti dovoljno. Supervizori nijesu ispred razvoja, već više zaostaju iza njih. Za sada, princip „isti rizik, isti propisi“ ne može se primijeniti. U vezi sa problemom definisanja ovog fenomena, primjeri finansijske tehnologije uključuju digitalnu tehnologiju vođenja evidencije transakcija, robotizovano savjetovanje, regulatornu tehnologiju (RegTech - tehnologije koje se mogu koristiti za zahtjeve za usklađenosti sa propisima i izvještavanje) i virtuelne valute. Cilj ovog rada je da omogući bolje

*“Supervizori nijesu ispred razvoja, već više zaostaju iza njih. Za sada, princip „isti rizik, isti propisi“ ne može se primijeniti*

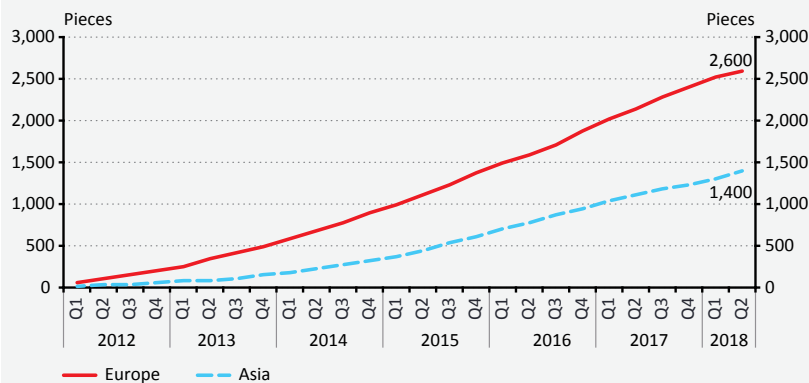


**Figure 1**  
Cumulative FinTech investment in Asia and in Europe  
(2012–2018)



Source: KPMG (2018, p.34, p. 47)

**Figure 2**  
Cumulative FinTech closed deals in Asia and in Europe  
(2012–2018)



Source: KPMG (2018, p.34, p. 47)

Later, we also present the Hungarian case, where for several reasons FinTech development started with some delay, but in recent years has progressed a good bit to catch up with the international level.

Since the beginning of the 21st century, we have been experiencing a digital transformation – changes associated with innovation in the field of digital technology in all aspects of society and the economy. The 4th industrial revolution is already underway. Industry 4.0 will be an answer to the challenges lying ahead. Several economists claim

that digital is the new normal. We suggest putting a question mark at the end of this statement. In this period of rapid changes, we do not know what the final shape of “the new normal” will be. “In the news, financial technology is described as ‘disruptive’, ‘revolutionary’, and armed with ‘digital weapons’

*“Supervisors are not ahead of the developments, but rather trailing behind them. For the time being, the principle of “same risk, same regulation” cannot be enforced*

that will ‘tear down’ barriers and traditional financial institutions” (World Economic Forum 2017). This revolutionary phenomenon is inexorably occupying more and more space in our everyday lives. Naturally, these changes – some revolutionary and others perceived as such – have also reached the financial and banking sector. Financial technology (‘FinTech’) is a broad concept. What are the main concerns of the European legislators and supervisors? First of all, the development of digital financial technology is very rapid. So rapid indeed that even the exact definition of the FinTech phenomenon is difficult. If the definition is broad and mostly an umbrella concept, then elaborating the legal framework and proper supervision is also difficult and cannot be sufficient. Supervisors are not ahead of the developments, but rather trailing behind them. For the time being, the principle of “same risk, same regulation” cannot be enforced.

Referring to the definition problem, examples of FinTech include digital ledger technology, robo-advice, RegTech (technologies that can be used for compliance and reporting requirements) and virtual currencies. This paper focuses on facilitating a better understanding

## “Finansijska tehnologija iz temelja mijenja način na koji posluju kompanije koje se bave pružanjem finansijskih usluga

razumijevanje fenomena finansijske tehnologije i mogućih odnosa između tradicionalnih banaka i novoosnovanih kompanija koja se bave finansijskim tehnologijama.

Finansijska tehnologija<sup>1</sup> je jedna od najinovativnijih, izuzetno važnih i potencijalno najbržih promjena u pružanju finansijskih usluga i iz temelja mijenja način na koji posluju kompanije koje se bave pružanjem finansijskih usluga. Ona transformiše tržišta dužničkih hartija od vrijednosti i kapitala, plaćanja, procjenu kredita, usklađenost sa propisima, lične finansijske i mnoge druge aspekte finansijskih usluga. Iako neki smatraju da je FinTech samo još jedna „zvučna riječ“, mi vjerujemo da tehnologija kreira mogućnost da se dramatično preoblikuju finansijske usluge koje danas poznajemo. Digitalizacija se dešava u svim oblastima poslovanja i života, transformišući usluge i kreirajući nove usluge koje ubrzavaju nove

FinTech kompanijama (Deloitte2016). Zlatno doba FinTech je došlo, prema propovjedačima finansijske tehnologije, ali s druge strane trenutna hipoteza o finansijskoj tehnologiji nije zbog navodnog revolucionarnog karaktera tehnologija, već zbog njihove bolje vidljivosti. Ne dovodeći u pitanje opipljive pozitivne rezultate, željeli bismo da se fokusiramo na trenutnu situaciju fenomena FinTech i njegovu međunarodnu procjenu, teškoće koje su uključene u predviđanje njegovih budućih izgleda i neophodnost pomjeranja paradigme tradicionalnog bankarskog sistema. U čvrstoj vezi sa tradicionalnim bankarskim sistemom, mi smo istražili očekivani razvoj odnosa između banaka, FinTech kompanija i - ne manje važnih - njihovih postojećih i budućih klijenata. Na kraju, važno pitanje je da li postoje rizici koji su povezani sa upotrebom usluga koje pruža finansijska tehnologija. Ako postoje, kako bi nove regulatorne i supervizorske mjere ublažile ili popravile te rizike? Jedno od prvih pitanja na koje treba odgovoriti je gdje se mi nalazimo u procesu digitalne tehnologije? Da li smo na početku ili smo stigli do uravnotežene, mirne faze kontinuiranog razvoja? Gdje je mjesto tradicionalnih banaka u ovom procesu? Po našem mišljenju, kratak i tačan odgovor je: mi tačno ne znamo. Analiziranje iskustva iz prošlosti bi moglo da pomogne u odgovoru na ovo pitanje.

Kada istražujemo mogući ishod i uticaj razvoja digitalne tehnologije, vještačke inteligencije i finansijske tehnologije na ljudske i socijalne

odnose, gotovo je očigledno da treba uporediti posljedice treće industrijske revolucije sa sadašnjom četvrtom jer ona uključuje tzv. digitalno doba. Zapadna civilizacija je već bila svjedok tri industrijske revolucije, koje bi se mogle opisati kao radikalni skokovi u industrijskim procesima koji su doveli do značajno veće produktivnosti. Prva je poboljšala efikasnost kroz upotrebu hidroelektrana, značajnu upotrebu termoelektrana i razvoj mašinskih alata. Druga je donijela električnu energiju i masovnu proizvodnju (montažne trake), a treća i najskorija je dalje ubrzala automatizaciju upotrebom elektronike i informacione tehnologije. Četvrta industrijska revolucija je već u toku.

Poznate su nam posljedice prve tri revolucije, ali nam još uvijek nije poznat mogući ishod četvrte revolucije (Li2017).

Iako ćemo u nekim oblastima vidjeti brze i radikalne promjene, ostale oblasti će se mijenjati polako i stabilno, po „evolucionarnijem“ koraku. U svako slučaju, nema povratka nazad. U ovoj revoluciji, fizički objekti se neprimjetno integrišu u informacionu mrežu. Internet se kombinuje sa inteligentnim mašinama, proizvodnim sistemima i procesima da obrazuje sofisticiranu mrežu. Realan svijet se pretvara u ogroman informacioni sistem. Zbog toga se fokusiramo na ulogu finansijskog sektora u ovoj novoj revolucionarnoj fazi.

Nekoliko dekada nakon početka treće industrijske revolucije, filozofi

<sup>1</sup> Grupa istraživača definiše fenomen finansijske tehnologije kao finansijska rješenja koja je omogućila tehnologije (Arner et al.2015). Po njima, FinTech fenomen nije ograničen na određene bankarske usluge (npr. finansiranje) ili poslovne modele (npr. uzajamno kreditiranje, aplikacije), ali obuhvata vrste proizvoda i usluga koje su tradicionalno pružale banke svojim klijentima. Drugi istraživači (Kerényi–Molnár2017, Kerényi–Molnár–Müller2018, McAuley2015, Kimetal.2016) šire tumače ovaj fenomen, definišući ga kao ekonomski sektor koji se sastoji od kompanija koje koriste tehnologiju kako bi učinili finansijske sisteme efikasnijim. Stav ECB-a je da “FinTech” predstavlja krovni termin koji obuhvata širok spektar poslovnih modela. U skladu sa odgovornostima ECB-a, pripremljene su smjernice koje se odnose na bankarske proizvode i usluge koje podržava tehnologija (ECB2017)

of the FinTech phenomenon and the possible relations between traditional banks and FinTech start-ups.

Financial technology<sup>1</sup> is one of the most innovative, increasingly important and potentially the most rapid change in financial services, and is revolutionising the way financial services firms operate. It is transforming debt and equity markets, payments, credit assessment, regulatory compliance, personal finance and many other facets of financial services. Although some may think that FinTech is just another “buzzword”, we believe that technology creates the possibility to dramatically reshape finance as we know it. Digitisation is taking place in all areas of business and life, transforming services, and creating new ones accelerated by new FinTech companies (Deloitte 2016). The Golden Age of FinTech has come according to FinTech evangelists, but on the other hand the current hype about FinTech is not due to the allegedly revolutionary character of the technologies, but to their better visibility. Without questioning the tangible positive results, we would like to focus on the current situation of the FinTech phenomenon and its international assessment, the difficulties involved in forecasting its future prospects, and the necessity of a paradigm shift in the traditional banking system. In close relation to the latter, we review the expected evolution of the relationship between banks, FinTech companies and – last but not least – their current and future customers. Finally, the important question

is whether or not there are risks related to the use of the FinTech services. If there are, how should these risks be mitigated or remedied by new regulatory and supervisory measures? One of the first questions to be answered is where do we stand in the digital technology process? Are we at the beginning or have we arrived at a balanced, calm phase of continuous development? Where is the place of the traditional banks in this process? In our opinion, the short and correct answer is: we do not know exactly. Answering this question could be helped by reviewing the lessons of the past.

When we investigate the possible outcome and impact of digital, AI and FinTech developments on human and social relations it is almost self-evident to compare the consequences of the third industrial revolution with the present fourth one since the latter involves the so-called digital age. Western civilisation has already witnessed three industrial revolutions, which could also be described as disruptive leaps in industrial processes resulting in significantly higher productivity. The first improved efficiency through the use of hydropower, the increasing use of steam power and the development of machine tools. The second brought electricity and mass production (assembly lines), and the third and most recent further accelerated automation using electronics and IT. The fourth industrial revolution is already underway.

## *“Financial technology is revolutionising the way financial services firms operate*

We know the consequences of the first three revolutions, but we do not yet know the possible outcome of the fourth one (Li 2017).

While some areas will see fast and disruptive changes, others will change slowly and steadily, at a more “evolutionary” pace. In either case, there is no going back. In this revolution, physical objects are being seamlessly integrated into the information network. The internet is combining with intelligent machines, production systems and processes to form a sophisticated network. The real world is turning into a huge information system. This is the reason why we focus on the financial sector’s role in this new revolutionary phase.

Several decades after the beginning of the third industrial revolution philosophers were still trying to summarise the relation between machines and human beings and to depict their views on the impact of

<sup>1</sup> A group of researchers define the FinTech phenomenon as technology-enabled financial solutions (Arner et al. 2015). In their reading, the FinTech phenomenon is not limited to certain banking activities (e.g. financing) or business models (e.g. peer-to-peer lending, applications), but encompasses the kinds of products and services that have traditionally been provided by banks to their customers. Others (Kerényi – Molnár 2017, Kerényi – Molnár – Müller 2018, McAuley 2015, Kim et al. 2016) interpret the phenomenon more broadly, defining it as an economic industry composed of companies that use technology to make financial systems more efficient. The ECB’s position is that “FinTech” is an umbrella term encompassing a wide variety of business models. In line with the ECB’s responsibilities, a guide has been produced relating to technology-supported banking products and services (ECB 2017)

## *“Realan svijet se pretvara u ogroman informacioni sistem. Zbog toga se fokusiramo na ulogu finansijskog sektora u ovoj novoj revolucionarnoj fazi*

su i dalje pokušavali da ukratko prikažu odnos između mašina i ljudskih bića i opišu svoje stavove o uticaju doba mašina na razmišljanje i ponašanje ljudi. Mi smatramo da su ova pitanja opravdana ili se mogu opravdati u dobu digitalne tranzicije, kao i da su validna prilikom procjene metamorfoze tradicionalnih banaka i njihovih klijenata.

Tehnički napredak se ubrzava. Empirijska posmatranja koja su poznata kao Murov zakon navode da se tehnički razvoj ili određeni djelimični procesi u okviru njega mogu opisati visokom eksponencijalnom putanjom rasta (Brock 2006, Kurzweil 2006). Digitalna transformacija finansijskih usluga je danas zajednička tema istraživanja i analize finansijskog sistema i bankarskog sektora. Finansijska konferencija danas ne bi ispunila očekivanja javnosti ukoliko ne bi na dnevnom redu imala i temu koja sadrži riječ „FinTech“. Nova mišljenja i nalazi se slažu u mnogim aspektima: pozdravljanje

*“Sve više eksperata govori da je došlo vrijeme za dramatične promjene stavova postojećih banaka*

pridošlica, poboljšanje efikasnosti i povećanje standarda potrošačkih usluga, ubrzanje i sprovođenje konkurencije. Nema nikakve sumnje da su sve ove promjene dobro dodošle. One predstavljaju, međutim, mnoge aspekte razvoja i trendova koji su već u toku, kada na postoje tako veliki dogovori i zajedničko razumijevanje, i kada nijesu formulisana važna pitanja koja su povezana sa finansijskom tehnologijom (Taylor2017).

Međutim, pored osnivanja finansijskih organizacija, postojeće banke su takođe podložne strukturalnoj inerciji koja ograničava njihovu sposobnost da se prilagode promjenama u okruženju (Buenstorf 2016). Novoosnovane kompanije imaju određene prednosti u odnosu na finansijske gigante. Zakonski zahtjevi za izdvajanjem kapitala za njihovo osnivanje, njihova mala veličina, slaba kultura, tehnološki napredak, i sposobnost da privuku najbolje talente daje im konkurentnu prednost koja je uključena u samu njihovu kulturu. Nove, pogodnije usluge u čijem centru su klijenti mijenjaju okruženje. Sve više eksperata govori da je došlo vrijeme za dramatične promjene stavova postojećih banaka. Glavni razlozi za ovu promjenu su sledeći:

- Veliki prodor mobilnih uređaja,
- rastući broj klijenata „djeece digitalnog doba“ (takozvani Milenijalci),
- uporno nepovjerenje u banke, neka to bude stvarno ili pretpostavljeno,
- klijenti generalno postaju zahtjevniji,
- rastuća nejednakost - potreba za smanjivanjem finansijske nepismenosti i stimulisanje finansijske inkluzije,

- popularnost centara finansijske tehnologije, laboratorija, akceleratora od strane nacionalnih i lokalnih političara i finansijskih institucija.

### **IZAZOV DOLAZEĆE FINANSIJSKE TEHNOLOGIJE**

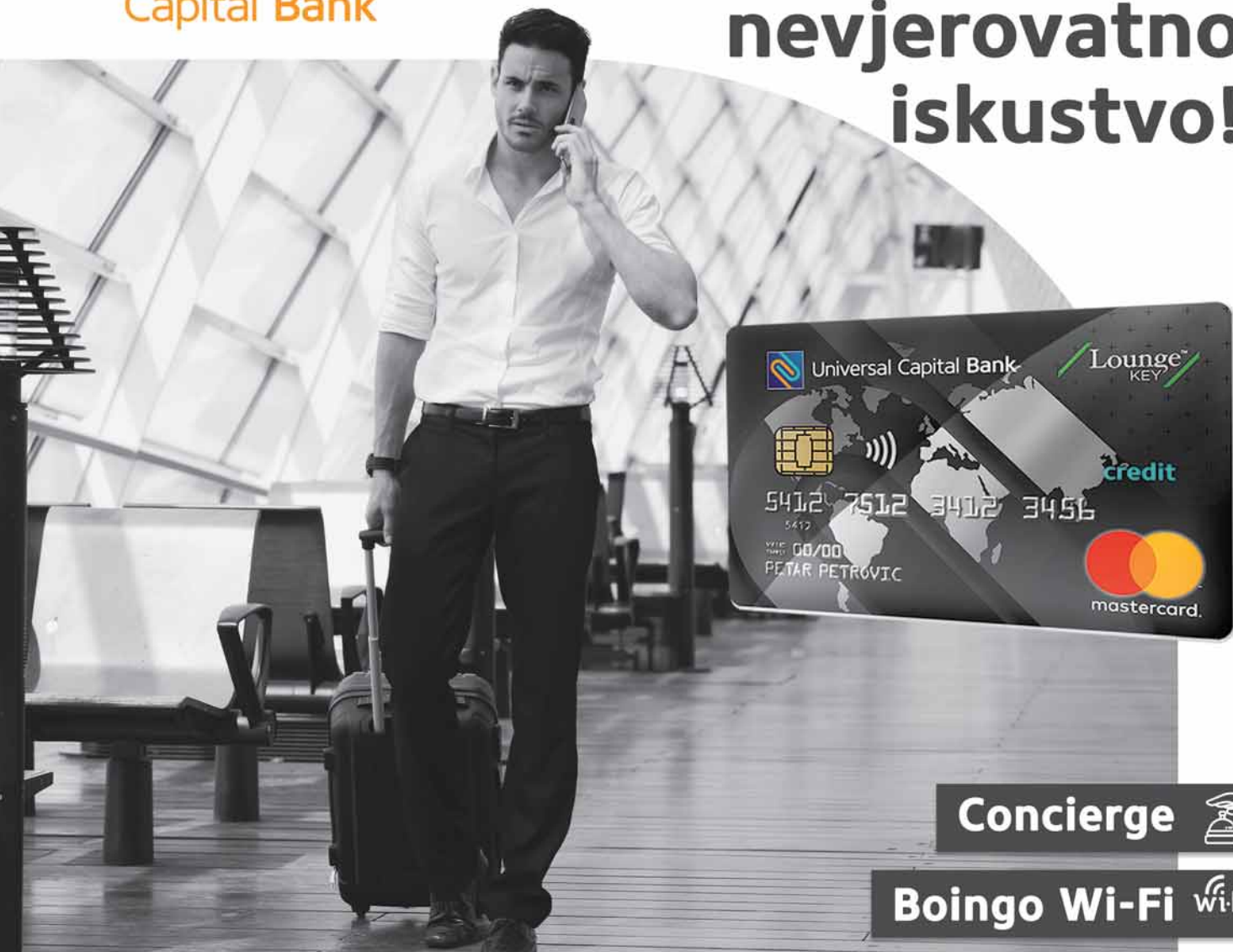
Ne postoji široko prihvaćena definicija finansijske tehnologije (FinTech) u akademskoj ekonomskoj literaturi. Bazelski komitet za superviziju banaka (BCBS) je odlučio da koristi radnu definiciju FinTech-a koju je dao Odbor za finansijsku stabilnost definišući je kao „tehnološki omogućenu finansijsku inovaciju koja može dovesti do novih poslovnih modela, aplikacija, procesa ili proizvoda uz materijalni efekat na finansijska tržišta i institucije i pružanje finansijskih usluga“. BCBS smatra ovu široku definiciju pragmatičnom u svijetlu trenutnog protoka razvoja finansijske tehnologije. U tim okolnostima, analize i implikacije ove studije fokusiraju se na efektie FinTech-a koji su naročito relevantni za banke, supervizore banaka i na kraju za njihove klijente. Vrijedno je takođe napomenuti da se termin FinTech ovdje koristi da opiše široki spektar inovacija koje koriste postojeće banke i učesnici na tržištu bilo da su to novoosnovane kompanije ili veće tehnološke firme.

Iz gore navedenog se takođe može vidjeti da definicije centralnih banaka i Bazelskog komiteta imaju zajedničku karakteristiku: da se FinTech (finansijske usluge) generalno tumače i definišu tako da dozvoljavaju neprestane promjene i proširenja.



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## *“Dok se FinTech kompanije bore za uspon na tržištu, banke stupaju u brojna partnerstva sa njima, a nekoliko njih je već uspjelo u tome*

Termin FinTech takođe uključuje razvoj digitalnih usluga i poslovne modele zasnovane na tehnološkom razvoju, koji su se već pojavili na finansijskom tržištu. Širenje sektora finansijske tehnologije je globalni fenomen: masovno osnivanje novih učesnika van bankarskog sektora i novoosnovanih kompanija je opaženo na razvijenim tržištima (npr. SAD, UK) i dinamičkim tržištima u nastajanju (Indija, Kina). Pružaoci usluga koji nude FinTech rješenja pojavljuju se u mnogim bankarskim oblastima, najčešće za pružanje usluga u platnom prometu, odobravanju kredita i davanje savjeta u pogledu investicija.

Po prirodi stvari, gore navedena dozvoljena i široka definicija ima ozbiljnih posljedica. S obzirom da definicija ne identifikuje precizno sadržaj i opseg usluga koje pružaju kompanije koje se bave pružanjem usluga finansijske tehnologije, stvaraju se teškoće kod uspostavljanja zakonskog okvira za označavanje granica supervizorskih kontrola i obezbjeđivanje jednakih pravilaza tradicionalne banke i FinTech kompanije.

FinTech kompanije utiču na način na koji su finansijske usluge strukturisane, pružene ili upotrijebljene, ali nijesu se uspješno

uspostavile kao dominantni akteri.

Inovacije su u usponu. Dok se FinTech kompanije bore za uspon na tržištu, banke stupaju u brojna partnerstva sa njima, a nekoliko njih je već uspjelo u tome. Banke puno ulažu kako bi zadovoljile zahtjeve svojih klijenata, i mnoge banke stvaraju primamljivo iskustvo koje će ispuniti potrebe klijenata kao nikada do tada. Pored toga, brojne institucije efikasno izgrađuju nove kulture, nastavljajući dalje nakon razočaravajućeg iskustva iz prethodnih deset godina (McKinsey2018).

Mnoge FinTech kompanije su nastale sa ciljem preuzimanja postojećih pružaoca usluga kao novi dominantni igrači u pružanju finansijskih usluga, ali su se preusmjerile izgrađivanje partnerstva jer su se borile za uspjeh i usvajanje od strane klijenata. Iako FinTech kompanije nijesu uspjele da naruše konkurentno okruženje, postavile su osnove za to narušavanje u budućnosti. Neke finansijske institucije su preokrenule prijetnju FinTech kompanija u mogućnosti (WEF 2017). Prihvatajući inovativni značaj FinTech kompanija, jedno ključno pitanje je kako će supervizorske i regulatorne institucije odgovoriti na ovaj izazov.

Kao što je gore pomenuto, fenomen finansijske tehnologije se pojavio u prvoj fazi četvrte industrijske revolucije. Nakon međunarodne finansijske krize iz 2007.-2008., primarni zadatak tradicionalnih banaka je bio da riješe posljedice krize: one su bile primorane da očiste svoje bilanse stanja, osnaže osnovicu kapitala i smanje stope nekvalitetnih kredita. Banke su morale da se prilagode strogim i

ponekad previše jakim regulatornim uslovima nastalim kao posljedica krize. One su morale da značajno smanje svoje troškove. Zbog toga, tradicionalne banke su jedino mogle da se skoncentrišu na Internet usluge i digitalne razvoje sa zakašnjenjem, u poslednje vrijeme. Njihov primarni fokus je bio da se oporave i ojačaju pouzdanje i povjerenje klijenata u bankarski sektor. U ovoj situaciji s pojavom stvarne tržišne tražnje, otvorio se tržišni prostor za FinTech kompanije. Za osnivanje novih FinTech kompanija je bilo potrebno manje kapitala, dok je njihov razvoj finansijske tehnologije u oblasti pružanja platnih usluga bio brz. Pored toga, neke tradicionalne banke su bile otvorene za eksternalizaciju finansijskih usluga<sup>2</sup> i digitalne razvoje. Regulisanje i supervizija FinTech usluga uglavnom je pratila događaje koji se brzo mijenjaju, pa je kao posljedica toga, regulisanje treće strane kao pružaoca usluga plaćanja (TPP) bilo manje strožije u odnosu na ono koje se primjenjuje za postojeće banke.

Tokom sledećih deset godina, bankarski sektor će doživjeti veći stepen promjene u odnosu na one koje su se desile vjerovatno u posljednjih 100 godina. Na tržišnim učesnicima je da se suoče sa tim izazovom. Naročito, banke treba da ponovo razmisle o svojim poslovnim modelima i treba da posmatraju novi talas inovacija kao mogućnost da dođu do novih klijenata, povećaju efikasnost i poboljšaju svoje poslovne modele.

<sup>2</sup> U ovom smislu, Fintech usluge i proizvodi se mogu smatrati tehnologijom za specijalizovana tržišta („NicheTech“)

the machine age on human thinking and behaviour. In our view, these questions are or could be justified in the age of digital transition and are also valid when assessing the metamorphosis of traditional banks and their clients.

Technical progress is accelerating. The empirical observation known as Moore's Law states that technical development, or certain partial processes within it, can be described by a high exponential growth path (Brock 2006, Kurzweil 2006). Nowadays, the digital transformation of financial services is a common topic in the investigation and analysis of the financial system and the banking sector. Today, a financial conference would not meet the expectations of the mainstream if it missed an item on the agenda as the word "FinTech" was not present. In many respects, the emerging opinions and findings agree: welcome the newcomer, the improving efficiency, the rising standard of consumer services, the acceleration and enforcement of competition. All of these unquestionable changes are warmly welcomed. There are, however, many aspects of the already ongoing developments

and tendencies where the agreement and common understanding is not so great, and that is where important FinTech-related issues are not formulated (Taylor 2017).

However, in addition to established financial organisations, incumbent banks are also subject to structural inertia that limits their capacity to adapt to environmental change (Buenstorf 2016). Start-ups have certain advantages over financial behemoths. The legal capital requirements for their establishment, their small size, lean culture, technological progress, and ability to attract top talents give them a competitive advantage that is inherent in their very nature. New, more convenient, customer-centred services are changing the landscape. More and more experts are thus saying that the time has come to dramatically change the incumbent banks' attitudes. The main reasons for this change are the following:

- High penetration of mobile devices,
- Growing number of digitally native customers (so-called Millennials),
- Persistent distrust towards banks, let it be real or presumed,
- Customers in general are becoming more demanding,
- Growing inequality – the need to reduce financial illiteracy, and financial inclusion stimulus,
- The popularity of FinTech hubs, labs, accelerators by local and national politicians and financial institutions.

*“The real world is turning into a huge information system. This is the reason why we focus on the financial sector’s role in this new revolutionary phase*

*“More and more experts are thus saying that the time has come to dramatically change the incumbent banks’ attitudes*

## THE CHALLENGE OF APPROACHING FINTECH

There is no widely accepted definition of FinTech (financial technology) in the academic economic literature. The Basel Committee of Banking Supervision (BCBS) has opted to use the Financial Stability Board's (FSB) working definition for FinTech as “technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services”. This broad definition is considered pragmatic by the BCBS in the light of the current fluidity of FinTech developments. That being so, the focus of the analysis and implications of this paper is on the effects of FinTech that are particularly relevant for banks, bank supervisors and – at the end of the day – their consumers. It is also worth noting that the term FinTech is used here to describe a wide array of innovations both by incumbent banks and entrants, be they start-ups or larger technology firms.

From the above it can be seen that the definitions of both the central banks and the Basel Committee have a common feature: that FinTech (financial services) are widely interpreted and defined in a way that permits continuous change and expansion.

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The term FinTech also includes digital services and technological development-based business models that have already emerged in the financial market. The spread of the FinTech sector is a global phenomenon: the mass launch of new, non-bank participants and start-ups is being observed both in the developed markets (e.g. United States, United Kingdom) and in the dynamically developing markets (e.g. India, China). Service providers offering FinTech solutions have appeared in many banking fields, most frequently in payments, lending and investment advice.

As a matter of course, the permissive and broad definition outlined above has serious consequences. Since the definition does not precisely identify the content and scope of FinTech services, it creates difficulties in establishing a legislative framework to indicate the boundaries of supervisory controls, and in maintaining equal conditions for competition between traditional banks and FinTech companies.

FinTechs have an influence on how financial services are structured, provided and consumed, but have not successfully established themselves as dominant players.

Innovation is on the rise. As FinTechs have struggled to scale, banks have entered into a number of partnerships with them, and several are already bearing fruit. Banks have invested heavily for the satisfaction of their customers, and many are building compelling experiences that will meet customers' needs as never before. Furthermore, a number of institutions are effectively building new cultures, turning the

page on disappointing experiences over the past decade (McKinsey 2018).

Many FinTechs came into existence with the goal of overtaking incumbents as the new dominant players in financial services, but they have shifted more towards building partnerships since they struggle with scale and customer adoption. Although FinTechs have failed to disrupt the competitive landscape, they have laid the foundation for future disruption. Some financial institutions have turned the threat of FinTechs into an opportunity (WEF 2017). Accepting the innovative importance of FinTechs, one key question is how the supervisory and regulatory institutions will approach this challenge.

As mentioned above, the FinTech phenomenon has emerged in the first phase of the fourth industrial revolution. Following the 2007–2008 international financial crisis, the primary task of traditional banks was to overcome the consequences of the crisis: they were forced to clean up their balance sheets, strengthen their capital base and cut NPL rates. They had to adapt to the strict and sometimes overly-eager regulatory conditions resulting from the crisis. They had to make significant cost reductions. As a result, traditional banks were only able to concentrate on internet services and digital developments with a delay, in recent years. Their primary focus was to recover and strengthen trust and confidence. In this situation, a market gap opened up for

*“As FinTechs have struggled to scale, banks have entered into a number of partnerships with them, and several are already bearing fruit*

FinTech companies, as real market demand emerged. Less capital was needed to launch the operation of FinTech start-ups, and their development of financial technology in the field of payment services was fast. Furthermore, some traditional banks were open to outsourcing certain financial services<sup>2</sup> and digital developments. Regulation and supervision of FinTech services mostly followed the rapid, changing events, consequently the regulation of third party payment (TPP) services was less strict than that of the incumbent banks.

Over the next ten years, banking will experience a higher degree of change than probably in the last 100 years. It is up to market incumbents to face this challenge. In particular, banks should rethink their business models and should look at the new wave of innovation as an opportunity to reach out to new customers, to increase efficiency, and to upgrade their business models.

However, there is a risk that the FinTech phenomenon could follow the already known pattern of shadow banking.

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<sup>2</sup> In this sense, Fintech services and products might be considered as nichetech solutions

## *“Tokom sledećih deset godina, bankarski sektor će doživjeti veći stepen promjene u odnosu na one koje su se desile vjerovatno u posljednjih 100 godina*

Međutim, postoji rizik da bi FinTech fenomen mogao da prati već poznati šablon bankarstva u sjeni.

Govoreći o budućnosti bankarstva, Hatami (2015) uzima u obzir pet scenarija.

1. Scenario - Bolja banka. Digitalna revolucija ide svojim tokom i gotovo svi klijenti vide digitalizaciju kao glavni način angažovanja sa bankom. Postojeće velike banke su uvidjele ovu mogućnost i preoblikovale svoje poslovanje kako bi ispunile nove zahtjeve za digitalizacijom. One su restrukturirale svoje IT platforme i procese, interno i kroz partnerstva dostavile nove prijedloge, ali najvažnije je da su one napravile većinu ključnih sredstava. One su bile u mogućnosti da zadrže većinu svojih klijenata i ponovo obučile svoje zaposlene da postanu digitalno pismeniji.
2. Scenario - Nova banka. Postojeći pružaoci usluga nijesu bili u mogućnosti da prežive digitalne prekide. Oni nijesu mogli da zadovolje potrebe svojih klijenata. Ti klijenti su bili prisiljeni da traže usluge od novih konkurentnih banaka. To su nove banke, koje nude pune usluge izgrađene za novo doba. Te banke pružaju usluge koje su slične uslugama koje nude stare banke, ali za razliku od

starih banaka one to rade brže, jeftinije i bolje.

3. Scenario - Decentralizovana banka. Kako je FinTech revolucija napredovala, veliki broj novih kompanija je nastao za pružanje boljih bankarskih usluga klijentima. One nijesu pokušale da postanu univerzalne banke koje posluju sa stanovništvom - one se jednostavno fokusiraju na izuzetno dobro pružanje specifičnih proizvoda. One su se u početku fokusirale na plaćanja, odobravanje kredita, štedne proizvode, devizno poslovanje, ali su se polako preusmjeravale na poslove sa hipotekama, investicijama, penzijama i slično.
4. Scenario - Degradirana banka. U ovom scenariju banke su postale pružaoci usluga podrške za platforme koje služe za direktno poslovanje sa klijentima, pri čemu banke izdaju neophodne dozvole za rad, obezbjeđuju pristup mrežama plaćanja i drže depozite i obezbjeđuju pristup finansiranju. Postoji rizik da će banke i supervizori banaka imati ograničenu sposobnost da prate cjelokupne transakcije i sistemski rizik. Gubitak odnosa sa klijentima i zavisnost od tih novih platformi koje kanališu finansijske proizvode mogu imati nepovoljne posljedice na jedinice za upravljanje rizikom i tok prihoda (prihodi bi se dijelili sa novim posrednicima).
5. Scenario - Banka „bez posrednika“. Kako klijenti postaju sve razočaraniji u banke, sve više im odgovara da pretražuju omiljene društvenih mreže ili pružaoce hardver usluga kako bi kupili finansijske usluge. To obično počinje sa pružanjem usluga

plaćanja, zatim finansiranja prodaje, pružanje savjeta za ulaganje, davanje kredita i deponovanje štednje, sve do trenutka kada ti pružaoci usluga mogu da pristupe svim bankarskim proizvodima. Klijenti su smatrali da korišćenje pružaoca koga oni vole i kome vjeruju je garancija da neće biti iskorišćeni, a to je onaj isti osjećaj koji su imali i kod banaka (Hatami 2015, BCBS2018).

Tradicionalne banke se trenutno suočavaju sa izazovom u pogledu ljudskih resursa. Kako zatvoriti digitalni jaz koji postoji između njihovog pružanja usluga i usluga koje pružaju FinTech kompanije?

Nedostatak digitalnih vještina stvara takmičenje između kompanija u borbi za popunjavanje pozicija u analitici podataka, dizajnu korisničkog iskustva, vještačke inteligencije, sajber bezbjednosti i ostalim oblastima. Naredni period je težak ili veoma težak za polovinu bankarskih institucija da ispuni ovaj zadatak.

Kompanija McKinsey je prikazala jedan novi aspekt istog pitanja u godišnjim bankarskim izvještajima. Godišnji izvještaji za 2015. godinu su dokumentovali mogućnost da će FinTech kompanije i digitalne platforme urušiti bankarske marže. Međutim, prema njenom posljednjem izvještaju, banke su nedavno napravile dosta novina. Jedna oblast u kojoj je kompanija McKinsey uočila radikalni pritisak su doznake - profitni centar za banke širom svijeta. Nove firme kao što su Azimo, TransferWise i TransferGo izgradile su superiornu tehnologiju i mogu da odrede cijenu svojim uslugama nižu za 78% nego što to rade postojeći pružaoci usluga. U borbi sa konkurencijom, marže postojećih

Speaking about the future of banking, Hatami (2015) considers five scenarios.

1. Scenario — The better bank. The digital revolution has run its course and almost all customers see digital as their main engagement mode with their bank. The incumbent big banks perceived the opportunity and reshaped their businesses to meet the new digital requirements. They restructured their IT platforms and processes, delivered new propositions internally and through partnerships, but most importantly they made the most of their key assets. They were able to retain most of their customers and retrained their people to become more digitally literate.
2. Scenario — The new bank. Incumbents were unable to survive the digital disruption. They were not able to meet the needs of their customers. These left in droves to go to the new challenger banks. These are new, full service banks built for the digital age. They provide services similar to those of the old banks, but they do it faster, cheaper and better than they ever could.
3. Scenario — The distributed bank. As the FinTech revolution progressed, large numbers of new businesses emerged to provide customers with better banking services. They did not attempt to be universal retail banks – they simply focused on providing specific products extremely well. They initially

*“Over the next ten years, banking will experience a higher degree of change than probably in the last 100 years*

- focused on payments, loans, savings products, forex, but slowly they moved into mortgages, investments, pensions and more.
4. Scenario - The relegated bank. In this scenario, banks become a back office service provider for front office customer-facing platforms, with banks providing the necessary licenses, access to payment networks and maintaining deposits and access to funding. There is a risk that banks and bank supervisors will have limited ability to monitor end-to-end transactions and systemic risk. The loss of the customer relationship and the dependence on these new platforms that channel financial products may have adverse consequences for risk management functions and revenue streams (revenues would need to be shared with the new intermediaries).
  5. Scenario — The disintermediated bank. As customers became increasingly disenchanted with their bank, they became increasingly comfortable with going through their favourite social network or hardware provider to buy financial services. It started with payments, followed by

sales finance, then investment advice, loans and savings products, until eventually all of the banks' products could be accessed by these providers. Customers felt that going through a provider they love and trust was a guarantee that they wouldn't be taken advantage of, like they felt they had by the banks (Hatami 2015,

BCBS 2018).

For the traditional banks, there is also a present challenge on the human side. How do they close the digital gap in their services and also in relation to FinTech service providers?

The shortage of digital skills pits company against company in the fight to fill positions in data analytics, user experience design, artificial intelligence, cybersecurity and other areas. Half of banking institutions have a difficult or very difficult time accomplishing that task.

One new aspect of the same question is revealed in the annual banking reports of McKinsey. In 2015, they documented the potential for FinTechs and digital platform companies to erode banks' margins. However, according to their last report banks have made a lot of good news for themselves recently. One area where McKinsey is seeing radical compression is in remittances — a profit centre for banks worldwide. New firms such as Azimo, TransferWise and TransferGo have built superior technology and are able to price their services as much as 78 per cent below incumbents. As they struggle

pružalaca usluga podnose udarce. Tokom poslednje dvije godine, digitalni novi učesnici i nove analitičke firme su našle uporište na tržištima širom svijeta, pri čemu su se marže banaka zaista smanjile - uprkos njihovim ogromnim naporima da smanje troškove.

Učesnici u oblasti digitalne tehnologije se takođe mijenjaju. Uz većinu malih kompanija (osim investicionih) koje su već u potpunosti iskorištene, barem za sada, FinTech kompanije se kreću ka komercijalnom i korporativnom bankarstvu. Baza podataka Panorama FinTech kompanije Mckinsey, koja prati preko 1.000 finansijskih novoosnovanih kompanija, pokazuje da je rješenje platnog prometa za velike kompanije jedan od najbrže rastućih segmenata. Mnoštvo saveza i kupovina između banaka koje posluju sa stanovništvom i FinTech kompanija je pomoglo da se učvrstne znanje da je završeno sa otimanjem zemljišta. FinTech kompanije takođe napreduju na tržištima kapitala i u oblasti investicionog bankarstva, naročito u oblasti pružanja savjeta - iako je ovdje naglasak više na omogućavanju tradicionalnih poslovnih procesa, a ne na njihovom narušavanju. Prijetnja od platformskih kompanija je stvarna i mora se riješiti. Analitičari McKinsey kompanije, međutim, ne smatraju da je to bitno za globalnu bankarsku industriju. Duga istorija bankarstva snažno ukazuje da će uvijek postojati potreba za finansijskim posredovanjem, i za profitom koji će se stvoriti pružanjem kapitala drugima, iako će možda biti potrebno mnogo godina kako bi sektor povratio profitabilnost u globalnoj ekonomiji koja prolazi kroz značajne

promjene. Kao prvi korak, banke mogu iskoristiti prednost velikog opsega aktivnosti tokom sledećih tri do pet godina, kako bi povratile pravo vlasništva u odnosima sa klijentima, poboljšale produktivnost i industrijalizovale svoje poslovanje korišćenjem digitalnih alata. U suštini, banke mogu angažovati nešto od istih tehnologija koje digitalne kompanije koriste protiv njih. Ovi koraci mogu povećati prihode, poboljšati korišćenje kapitala, i naročito, smanjiti troškove (McKinsey2018).

### PRISTUP FINANSIJSKOJ TEHNOLOGIJI U EVROPSKOJ UNIJI

Evropska unija je shvatila značaj digitalne tehnologije, i ona se smatra pitanjem od izuzetnog strateškog, ekonomskog i društvenog značaja. Evropska komisija je objavila da će nova digitalna tehnologija biti ključni element u budućoj konkurentnoj prednosti EU.

Kao posljedica tog razvoja, Evropska unija je od maja 2015. godine dostavila ambicioznu i sve obuhvatnu Strategiju za jedinstveno digitalno tržište koja je bila postignuta do 2017. Strategija za jedinstveno digitalno tržište je pripremljena za poboljšanje pristupa robi, uslugama i sadržaju, stvarajući odgovarajući pravni okvir za digitalne mreže i usluge, i donoseći korist ekonomiji zasnovanoj na podacima.

Procjenjuje se da bi Strategija mogla doprinijeti ekonomiji Evropske unije godišnje u iznosu od oko 415 milijardi eura, i kreirati hiljade novih radnih mjesta. Stoga, bilo bi teško potcijeniti značaj njene blagovremene implementacije (Evropska komisija 2017).

U strateškom cilju izgradnje konkurentnijeg, inovativnijeg finansijskog tržišta, Evropska komisija je u martu 2018. godine otkrila Akcioni plan za finansijsku tehnologiju koji je usredsrijeđen na iskorištavanje mogućnosti koje pružaju finansijske usluge zasnovane na tehnološkim inovacijama (FinTech).

„Evropa bi trebalo da postane globalni centar za finansijsku tehnologiju, uz kompanije i investitore iz EU koji mogu da najviše iskoriste ono što nudi Jedinствeno tržište u ovom sektoru koji se brzo razvija. Kao prvi rezultat, Komisija predstavlja nova pravila koja će pomoći platformama za grupno finansiranje da se razvijaju na cijelom jedinstvenom tržištu Evropske unije. Akcioni plan predviđa mogućnost da finansijski sektor koristi brze prednosti novih tehnologija, kao što je blokčejn, vještačka inteligencija i usluge „u oblaku“. Istovremeno, plan nastoji da učini tržište sigurnijim i lakšim za pristup novih učesnika. To će koristiti klijentima, investitorima, i bankama, kao i novim tržišnim učesnicima. Pored toga, Komisija predlaže panevropske oznake za platforme, tako da platforma koja je dobila dozvolu u jednoj državi može poslovati u cijeloj EU. Akcioni plan je dio napora koje Komisija ulaže za izgradnju Unije tržišta kapitala (CMU) i istinskog jedinstvenog tržišta za klijente finansijskih usluga. Plan je takođe dio njenog smjera za kreiranje Jedinственоg digitalnog tržišta. Cilj Komisije je da pravila EU budu više orijentisana ka budućnosti i usaglašena sa ubrzanim napredovanjem tehnološkog razvoja“ (Evropska komisija 2018).

to compete, incumbents' margins are taking a pounding. Over the past two years, in markets around the world, digital entrants and new analytical firms have gained a foothold, and banks' margins are indeed falling — despite their massive cost-cutting efforts.

The digital entrants are changing too. With most retail businesses (except investing) already fully explored, at least for now, FinTechs are moving into commercial and corporate banking. McKinsey's Panorama FinTech database, which tracks over 1,000 financial start-ups, shows that one of the fastest-growing segments is payments solutions for large companies. The spate of alliances and acquisitions between retail banks and FinTechs has helped to solidify the notion that the land grab is over. FinTechs are also making strides in capital markets and investment banking, especially advisory — although here, the emphasis is more on enabling traditional business processes, rather than disrupting them. The threat from platform companies is real and must be addressed. McKinsey's analysts do not think, however, that it is existential for the global banking industry. The long history of banking strongly suggests that there will always be a need for financial intermediation and a profit to be made by providing capital to others, although it may take many years for the industry to return to profitability in a global economy that is undergoing profound changes. As a first step, banks can take advantage of a range of actions over the next three to five years to reclaim their rightful ownership of the customer

relationship, improve productivity and industrialise their operations using digital tools. In essence, banks can deploy some of the same technologies that digital companies are using against them. These steps can lift revenues, improve capital usage, and, especially, cut costs (McKinsey 2018).

### **THE APPROACH TO FINTECH IN THE EUROPEAN UNION**

In the European Union, the importance of digital technology has been realised and it is considered an issue of paramount strategic, economic and social importance. The European Commission declared that the new digital technology will be a key element in the future competitive edge of the EU.

As a consequence of this development, since May 2015 the European Union has been delivering on an ambitious and comprehensive Digital Single Market Strategy which was accomplished by 2017. The SDM Strategy is built around improving access to goods, services and content, creating the appropriate legal framework for digital networks and services, and reaping the benefits of a data-based economy.

It has been estimated that the Strategy could contribute €415 billion per year to the EU economy and create hundreds of thousands of new jobs. Thus, it would be hard to understate the importance of timely implementation (European Commission 2017).

With the strategic aim of building a more competitive, innovative financial market, in March 2018 the European Commission unveiled a FinTech Action Plan focused

on harnessing the opportunities presented by technology-enabled innovation in financial services (FinTech).

“Europe should become a global hub for FinTech, with EU businesses and investors able to make most of the advantages offered by the Single Market in this fast-moving sector. As a first major deliverable, the Commission is also putting forward new rules that will help crowdfunding platforms to grow across the EU's single market. The Action Plan envisages to enable the financial sector to make use of the rapid advances in new technologies, such as blockchain, artificial intelligence and cloud services. At the same time, it seeks to make markets safer and easier to access for new players. This will benefit consumers, investors, banks and new market players alike. In addition, the Commission is proposing a pan-European label for platforms, so that a platform licensed in one country can operate across the EU. The Action Plan is part of the Commission's efforts to build a Capital Markets Union (CMU) and a true single market for consumer financial services. It is also part of its drive to create a Digital Single Market. The Commission aims to make EU rules more future-oriented and aligned with the rapid advance of technological development” (European Commission 2018).

This strong intent of the European Union to support and motivate FinTech development is confirmed by the data below, where we can see an immense growth after 2017, when the SDM concept was accepted (see Figure 3).

Ova snažna namjera Evropske unije koja ima za cilj da podrži i motiviše razvoj finansijske tehnologije je potvrđena podacima koji su dati u tabeli dalje u tekstu, u kojoj možemo vidjeti ogroman rast poslije 2017. godine kada je koncept Jedinstvenog digitalnog tržišta bio prihvaćen (Slika3).

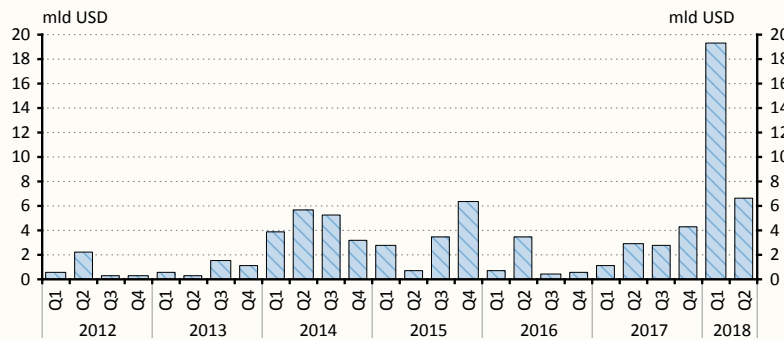
finansijska stabilnost, zaštita potrošača i integritet tržišta), i (iii) Selektivna primjena postojećeg pravilnika koji je, gdje je to neophodno, prilagođen da obuhvati inovacije.

Generalno, ovaj pragmatičan stav okreće se oko slojevite regulatorne strukture, uz različite regulatorne

2018-2019. godinu i propisuju rok za ispunjenje tih zadataka. Prioriteti su:

- Praćenje regulatornih opsega, uključujući procjenjivanje tekućih pristupa za davanje odobrenja i dozvola za rad FinTech kompanijama, i analiziranje regulatornih zahtjeva i centara za inovacije u cilju identifikacije seta najboljih praksi za jačanje konzistentnosti i olakšanje koordinacije između supervizora;
  - Praćenje novih trendova i analiziranje uticaja na poslovne modele postojećih institucija za pružanje usluga i prudencijalnih rizika i mogućnosti koje nastaju iz upotrebe finansijske tehnologije;
  - Promovisanje najboljih supervizorskih praksi o procjeni sajber bezbjednosti i promovisanje zajedničkog okvira za testiranje na prijatnije protiv sajber kriminala;
  - Rješavanje problema klijenata koji nastaju iz upotrebe FinTech, naročito u oblastima nejasnog regulatornog statusa FinTech kompanija i njihovog objelodanjivanja klijentima, potencijalne nacionalne barijere koje sprječavaju FinTech kompanije da povećaju usluge koje pružaju klijentima na jedinstvenom tržištu, i podesnost postojećeg regulatornog okvira za virtuelne valute;
  - Identifikovanje i procjenjivanje rizika od sprečavanje pranja novca i finansiranja terorizma koji su povezani sa regulisanim FinTech kompanijama, pružiocima tehnologije i FinTech rešenjima (EBA 2018, Enria2018).
- Odbor za finansijsku stabilnost Bazelskog komiteta je u dokumentu „Dobre prakse implikacija razvoja finansijske tehnologije za banke i

**Slika 3**  
Ukupna investiciona aktivnost FinTech-a u Evropi  
(2012–2018)



Izvor: KPMG (2018, str.34)

Značaj FinTech pitanja u Evropi je jasno iskazan sledećim razvojem: dan nakon što se objavio akcioni plan FinTech EU, u martu 2018. godine, Evropski bankarski regulator (EBA) je objavio Smjernice za FinTech pod nazivom „Kreiranje regulatornih i supervizorskih smjernica za finansijsku tehnologiju“.

Smjernice Evropskog bankarskog regulatora su važan pregled neophodnog i propisanog regulatornog pristupa koji se odnosi na usluge koje pružaju postojeće banke i novoosnovane FinTech kompanije.

„Većina postojećih regulatornih pristupa se nalazi između ova dva ekstrema: „neka se desi“ i „regulisati i ograničiti“. Oni se obično zasnivaju na tri komponente :

- (i) Praćenje inovacija,
- (ii) Procjena rizika naspram javnog interesa (mikroprudencijalni,

zahtjeve prema rizicima za svaku kompaniju, njihove klijente, finansijski sektor i ekonomiju u cjelini. U principu, cilj je da se ostvare očekivanja „isti rizik- ista pravila“.

Da citiramo još jedno važno stanoviše u ovom dokumentu: „Čak iako FinTech kompanije mogu ponuditi proizvode koji su slični bankarskim proizvodima, i takmičiti se sa bankama za iste klijente, to ne mora da znači da oni mogu dobiti dozvolu, biti regulisani i kontrolisani kao banke. Ovdje treba da napravimo ključnu razliku između grupe usluga koja predstavlja osnovu bankarstva, i koja bi kao takva trebalo da bude rezervisana za licencirane banke, i onih dodatnih usluga koje ostali posrednici mogu ponuditi, na jedinstvenoj osnovi, u konkurenciji sa regulisanim bankama“. Smjernice za FinTech opisuju prioritete za

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supervizore banaka“ koji je objavljen u februaru 2018. godine sažeo „kako inovacije koje pokreće tehnologija u pružanju finansijskih usluga ili „FinTech“ mogu uticati na bankarski sektor i na aktivnosti supervizora u bliskom do srednjem roku“.

Ova obimna analiza pruža odlično razumijevanje razvoja finansijske tehnologije i trenutno poznate poslovne modele FinTech-a. „U ovom kontekstu, trenutna zapažanja ukazuju da, iako je bankarski sektor bio podvrgnut mnogim inovacijama u prošlosti, brzo usvajanje razvojnih tehnologija i pojava novih poslovnih modela predstavljaju značajan izazov za postojeće banke u gotovo svim scenarijima bankarskog sektora“.

Bazelski komitet je sastavio deset mogućih najvažnijih implikacija predloženog supervizorskog pristupa koji se odnosi na veze između tradicionalnih banaka i pružalaca FinTech usluga:

1. Sveobuhvatna potreba da se obezbijedi sigurnost i stabilnost i visoko usaglašene standarde koji su jako usaglašeni ne sputavajući korisne inovacije u bankarskom sektoru;
2. ključni rizici za banke koji su povezani sa razvojima FinTech-a, uključujući strateške rizike /rizike profitabilnosti, operativne rizike, sajber rizike i rizike usaglašenosti;
3. implikacije za banke o upotrebi inovativnih razvojnih tehnologija;
4. implikacije za banke povećane upotrebe trećih strana preko eksternalizacije i/ili partnerstava;
5. međusektorska saradnja između supervizora banaka i drugih nadležnih organa;
6. međunarodna saradnja između supervizora banaka;

7. prilagođavanje supervizorskih vještina,

8. potencijalne mogućnosti za supervizore da koriste inovativne tehnologije („suptech“);

9. značaj postojećih regulatornih okvira za nove inovativne poslovne modele; i

10. ključne karakteristike regulatornih inicijativa koje su uspostavljene da omoguće FinTech inovacije.

Posmatrajući poslednje trendove, očigledno je da su donosioci odluka u EU svjesni značaja i globalnog konkurentnog razvoja finansijske tehnologije. Napori su skoncentrisani na jačanje razvoja Evropske monetarne unije i Evropske unije tržišta kapitala. S jedne strane, oni potvrđuju da bi trebalo podržati digitalne aplikacije, raspoloživost FinTech usluga, ali s druge strane, oni zahtijevaju poboljšanje super-

sferi nacionalne nadležnosti. Sljedeći izazov je kako obezbijediti jednaka uslove tržišne konkurencije između tradicionalnih banaka i pružalaca FinTech usluga. Nije lako pronaći uravnoteženo rješenje. Osnivanje novih FinTech kompanija zahtijeva manje kapitala, sticanje klijenata je jeftino, dok je regulisanje i supervizija blaga ili ne postoji. Postojeće banke su upravo izašle iz posljedica međunarodne finansijske krize, sa zahtijevnim budžetskim ograničenjima, i zbog toga oni imaju manje raspoloživih resursa za digitalne razvoje, predmet su strogog i ponekad previše regulisanog funkcionalnog okruženja, a suočavaju se i sa strogim kriterijumima za procjenu rizika. S druge strane, FinTech izazov motiviše tradicionalne banke da dostignu i investiraju u finansijsku i digitalnu tehnologiju. Igra se nastavlja: samo

*“Posmatrajući poslednje trendove, očigledno je da su donosioci odluka u EU svjesni značaja i globalnog konkurentnog razvoja finansijske tehnologije*

vizorske procjene rizika, zaštite potrošača i jačanje relevantnog pravnog okvira. Snažno je naglašeno da bi trebalo obezbijediti jednake uslove tržišne konkurencije između tradicionalnih banaka i pružalaca FinTech (TPP) usluga.

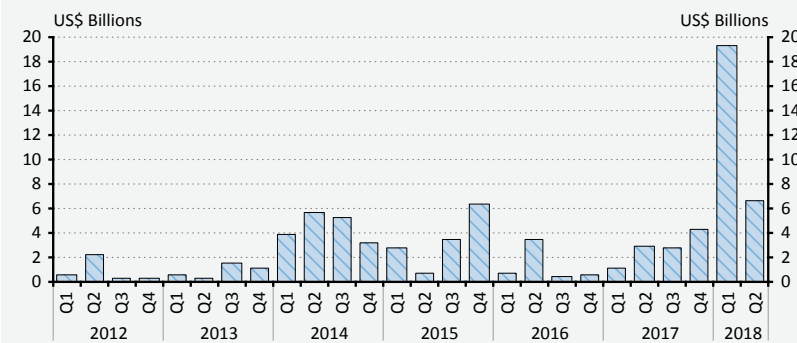
Nedostatak precizne definicije je vjerovatno zahtijevao sadašnje stanovište Evropske centralne banke (ECB) koje navodi da bi regulisanje i supervizija pružanja FinTech usluga trebalo da ostane, za sada, u

se nadamo da će konačan ishod biti pozitivan za sve - ponuda i pružanje boljih usluga.

Smrt i porezi su možda bile jedini izvjesni događaji po riječima Bendžamina Frenklina prije dva vijeka, ali danas jedino je smrt neosporiva. Sa usponom digitalne tehnologije, sve je više ekonomske vrijednosti koja potiče iz nematerijalne imovine, kao što su podaci prikupljeni sa digitalnih platformi, sa društvenih medija, ili ekonomije



**Figure 3**  
**Total European FinTech investment activity**  
 (2012–2018)



Source: KPMG (2018, p.34)

The importance of the FinTech issue in Europe is clearly reflected by the next development: the day after the EU FinTech Action plan was published, in March 2018 the European Banking Authority published its FinTech Roadmap under the title “Designing a Regulatory and Supervisory Roadmap for FinTech.”

The EBA Roadmap is an important summary of the necessary and envisaged regulatory approach related to the services provided by the incumbent banks and FinTech start-ups.

“Most of the current regulatory approaches are situated between these two extremes: “let it happen” and “regulate and restrict”. They are generally based on three components:

- (i) monitoring of innovation,
- (ii) assessment of risks vis-à-vis the public interest (micro-prudential, financial stability, consumer protection and market integrity), and
- (iii) selective application of the existing rulebook, where needed adapted to capture the innovation.

In general, this pragmatic attitude revolves around a tiered regulatory structure, with differentiated regulatory requirements according to the

risks for the firms, their customers, the financial sector and the economy at large. In principle, the objective is to deliver “same risk – same rules” expectations.

Let us quote another important view of this document: “Even though FinTech firms may offer some bank-like products and compete with banks for the same customers, this doesn’t necessarily mean that they should be licensed, regulated and supervised as banks. We need to make a key distinction, here, between the cluster of services that represent the essence of banking, and as such should be reserved to licensed banks, and those additional services that may be offered, on a standalone basis, also by other intermediaries, in competition with regulated banks”. The EBA’s FinTech Roadmap describes its priorities for 2018/2019 and provides an indicative timeline for the completion of these tasks. The priorities are:

- monitoring the regulatory perimeter, including assessing current authorisation and licensing approaches to FinTech firms, and analysing regulatory sandboxes and innovation hubs in order to

identify a set of best practices to enhance consistency and facilitate supervisory coordination;

- monitoring emerging trends and analysing the impact on incumbent institutions’ business models and the prudential risks and opportunities arising from the use of FinTech;
- promoting best supervisory practices on assessing cybersecurity and promoting a common cyber threat testing framework;
- addressing consumer issues arising from FinTech, in particular in the areas of unclear regulatory status of FinTech firms and related disclosure to consumers,
- potential national barriers preventing FinTech firms from scaling up services to consumers across the single market, and the appropriateness of the current regulatory framework for virtual currencies;
- identifying and assessing money laundering/terrorist financing risks associated with regulated FinTech firms, technology providers and FinTech solutions (EBA 2018, Enria 2018).

In a paper “Sound Practices on the implications of FinTech developments for banks and bank supervisors”, in February 2018 the Basel Committee’s Financial Stability Board summarised “how technology-driven innovation in financial services, or ‘FinTech’, may affect the banking industry and the activities of supervisors in the near to medium term”.

This extensive analysis provides an excellent understanding of financial technology developments and the presently known FinTech business models. “Against this backdrop, current observations suggest that

dijeljenja. Zbog toga što se sjedišta kompanija mogu sada brzo i lako premjestiti iz jedne u drugu državu, vladama postaje teško da naplate poreze. Istovremeno, javna potrošnja će se vjerovatno povećati kako bi ispunila zahtjeve onih koji su zaoptimali u eri globalizacije i digitalnih tehnologija.

To bi se moglo promijeniti. Jedna ideja koja trenutno dobija na snazi je da se poreskim kompanijama ponude besplatne digitalne usluge na drugačiji način, tako da njihova nematerijalna vrijednost dobije isti poreski tretman kao materijalna vrijednost koju proizvode trgovci i tradicionalni pružaoci usluga.

Nadležni donosioci odluka u EU su takođe shvatili značaj dobro kontrolisanog digitalnog (FinTech) razvoja čak i sa stanovišta oporezivanja. Kao dio izgradnje arhitekture Jedinственоg digitalnog tržišta u EU, Evropska komisija je predložila direktivu Savjeta kojom se propisuju pravila o oporezivanju kompanija sa značajnim prisustvom digitalne tehnologije. Prema prijedlogu Komisije: „Digitalna ekonomija transformiše način na koji mi komuniciramo, trošimo, i poslujemo. Digitalne kompanije rastu mnogo brže nego cijela ekonomija, i ovaj trend se nastavlja“ (Evropska komisija2018)

Međutim, digitalizacija takođe stvara pritisak na međunarodni sistem oporezivanja, kako se poslovni modeli mijenjaju. Kreatori politika se trenutno bore da nađu rješenja koja će obezbijediti objektivno i efektivno oporezivanje kako se bude ubrzavala digitalna transformacija privrede, a postojeća pravila za oporezivanje kompanija su previše zastarjela da bi obuhvatila ovaj razvoj.

Postojeća pravila o oporezivanju kompanija su izgrađena na principu da bi profit trebalo oporezovati kada se vrijednost kreira. Međutim, ta su pravila prvenstveno osmišljena početkom 20. vijeka za tradicionalne kompanije i njima se definiše pravo oporezivanja u zemlji („gdje oporezivati“) i koliko je dobiti dodijeljeno određenoj zemlji („koliko oporezivati“) i uglavnom se zasnivaju na fizičkoj prisutnosti u toj zemlji i ne odražavaju vrijednost stvorenu učestvovanjem korisnika u toj jurisdikciji.

Ovaj prijedlog usmjeren je na rješavanje problema koji se javljaju u digitalnoj ekonomiji je uspostavljanjem sveobuhvatnog rješenja u okviru postojećih sistema oporezivanja dobiti kompanija u državama članicama. On pruža zajednički sistem za oporezivanje digitalnih aktivnosti u EU u kojem se propisno uzimaju u obzir karakteristike digitalne ekonomije. Kao prvo, ovim prijedlogom se utvrđuju pravila za utvrđivanje oporezive veze za digitalne kompanije koje prekogranično posluju u slučaju da nema fizičke komercijalne prisutnosti (dalje u tekstu „značajna digitalna prisutnost“). Novi pokazatelji za tu značajnu digitalnu prisutnost neophodni su kako bi se utvrdila i zaštitila prava oporezivanja država članica u odnosu na nove digitalne poslovne modele. S druge strane, ovim prijedlogom utvrđuju se načela za pripisivanje dobiti digitalnom poslovanju. Tim načelima treba da se bolje registruje stvaranje vrijednosti digitalnih poslovnih modela koji se u velikoj mjeri oslanjaju na nematerijalnu imovinu. Ova direktiva, kada

se implementira u nacionalno zakonodavstvo država članica, primjenjivaće se na prekogranične digitalne aktivnosti unutar Unije, čak iako važeći sporazumi o dvostrukom oporezivanju između država članica nijesu na odgovarajući način izmijenjeni. Čim stupi na snagu, ova direktiva EU će imati pozitivan uticaj na željene jednake uslove za tradicionalne banke i novoosnovane FinTech kompanije.

### **PRISTUP FINANSIJSKOJ TEHNOLOGIJI U KINI**

„Konkurencija u oblasti finansijske tehnologije razvija se na globalnom nivou. Kako se to često dešava na inovativnim tržištima, ključ uspjeha leži u velikom domaćem tržištu, koje dozvoljava uspješnim kompanijama da se razvijaju omogućavajući im da dostignu globalno vođstvo. Dugoročno gledano, evropske FinTech kompanije bi bile u značajno nepovoljnijem položaju u odnosu na njihove konkurente iz SAD i Kine, ukoliko evropska tržišta ostanu usitnjena u okviru nacionalnih granica, sa različitim pravilima i nekoordinisanim aktivnostima lokalnih nadležnih organa“ (Enria2018).

U ovom poglavlju o kineskom iskustvu, mi dajemo pregled finansijske tehnologije u tri dimenzije: kinesku vladu, Narodnu banku Kine i nadležni organ za finansijsku superviziju Odbor za regulisanje bankarskog sektora Kine (CBRC) , i kineskih komercijalnih banaka.

Da bismo dali kratak pregled, mi navodimo pristup finansijske tehnologije Kine, koji su predstavili izvrsni finansijski eksperti na forumu Finansijskog samita

although the banking industry has undergone multiple innovations in the past, the rapid adoption of enabling technologies and emergence of new business models pose an increasing challenge to incumbent banks in almost all the banking industry scenarios considered”.

The Basel Committee summarised the ten most important possible implications of the suggested supervisory approach related to the relations of traditional banks and FinTech service providers:

1. the overarching need to ensure safety and soundness and high compliance standards without inhibiting beneficial innovation in the banking sector;
2. the key risks for banks related to FinTech developments, including strategic/ profitability risks, operational, cyber- and compliance risks;
3. the implications for banks of the use of innovative enabling technologies;
4. the implications for banks of the growing use of third parties, via outsourcing and/or partnerships;
5. cross-sectoral cooperation between bank supervisors and other relevant authorities;
6. international cooperation between bank supervisors;
7. adaptation of the supervisory skill set;
8. potential opportunities for supervisors to use innovative technologies (“suptech”);
9. relevance of existing regulatory frameworks for new innovative business models; and
10. key features of regulatory initiatives set up to facilitate FinTech innovation.

Looking at the latest developments, it is obvious that decision-makers in the EU are aware of the importance and global competitive impact of the development of financial technology. The efforts are concentrated on strengthening the development of the European Monetary Union and the European Capital Markets Union. On the one hand, they confirm that digital

*“Looking at the latest developments, it is obvious that decision-makers in the EU are aware of the importance and global competitive impact of the development of financial technology*

applications, the availability of FinTech services should be supported, but on the other they urge an improvement of supervisory risk assessment, consumer protection and strengthening the relevant legal framework. It is strongly emphasised that a level playing field between traditional banks and FinTech (TPP) service provider should be ensured.

The lack of a precise definition most probably required the present standpoint of the European Central Bank, stating that the regulation and supervision of FinTech services should remain – for the time being – in the sphere of national competence. The next challenge is how to ensure a level playing field between the traditional banks and FinTech service providers. It is not easy to find a balanced solution. Establishing

a FinTech start-up requires less capital, the acquisition of clients is cheap, and the regulation and supervision is mild or non-existent. The incumbent banks had just emerged from the consequences of the international financial crisis, with demanding budget constraints, and for this reason they had less resources available for digital developments,

are subject to a strict and sometimes overregulated functional environment and face strict risk assessment criteria. On the other hand, the FinTech challenge is motivating traditional banks to catch up and to invest in financial and digital technology. The game is on: we just hope that the final outcome will be a win-win situation, offering and providing better services.

Death and taxes may have been the only certainties in the words of Benjamin Franklin two centuries ago, but today only death remains undeniable. With the rise of the digital economy, more and more economic value is derived from intangibles such as the data collected from digital platforms, social media, or the sharing economy. And because company headquarters can now

## 42 “Digitalna plaćanja u Kini čine gotovo polovinu globalnog obima, a uzajamno kreditiranje putem interneta čini tri četvrtine ukupnog uzajamnog kreditiranja

AFCFA CEE- Novo poglavlje azijsko-evropske finansijske saradnje koji je održan u novembru 2017. godine u Budimpešti u Mađarskoj. Sektor finansijske tehnologije u Kini se ubrzano razvija i globalni je lider po osnovu nekoliko mjerila. Digitalna plaćanja u državi čine gotovo polovinu globalnog obima, a uzajamno kreditiranje (P2P) putem interneta čini tri četvrtine ukupnog globalnog uzajamnog kreditiranja. Kineski sektor finansijske tehnologije nalazi se sada na ključnoj prekretnici. Stav kineske vlade prema finansijskoj tehnologiji je postao značajno složeniji jer su se rizici nagomilali na P2P platformama, a broj ilegalnog prikupljanja sredstava i finansijske aktivnosti se povećao. Nadležni organi i dalje podržavaju FinTech uprkos nekim nedavnim mjerama stezanja (Hu-Yin-Zheng 2016, PWC Kina 2017).

U pogledu finansiranja preko interneta, premijer Li Keqiang je dao neke važne izjave: „Mi ćemo ohrabriti finansiranje preko interneta kako bi tražili zdrav razvojni put koji će podržati odgovarajuća regulatorna saradnja i supervizorski mehanizmi“ i „Mi ćemo raditi na tome da se finansiranje preko

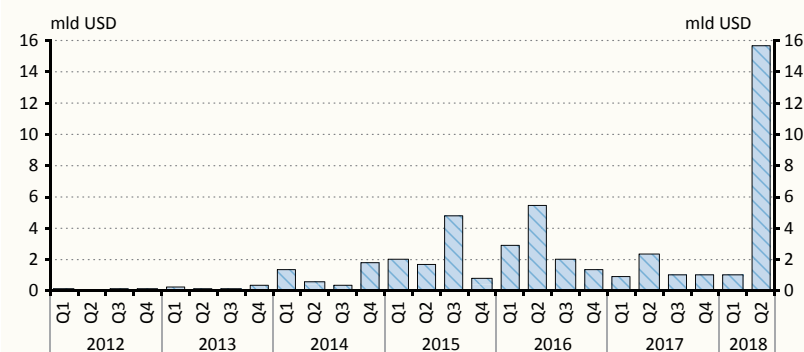
interneta razvija u skladu sa propisima“. Kineska vlada je akterima dala slobodu da eksperimentišu. Jednostavna regulativa – ili tačnije – kasna regulativa digitalnih aktivnosti i aktera u Kini je ohrabрила preduzetništvo i eksperimentisanje. Dok je odgovor regulatora kasnio za tržišnim razvojem, internetski giganti Kine bili su relativno slobodni da testiraju i komercijalizuju proizvode i usluge i dobiju ključne mase. Na primjer, regulatorima je trebalo 11 godina nakon što je Alipay uveo internet transfere novca 2005. godine da uspostave limite na vrijednost transfera. Pet godina nakon što je Alipay uveo rješenja za plaćanje na osnovu barkoda, Kineski regulatori pripremili su zvanični standard za zahtjeve za upravljanjem (McKinsey 2017).

Sa stanovišta komercijalnih banaka, citiraćemo pristup nekih od glavnih kineskih finansijskih institucija. Liu Qiang, potpredsjednik Banke Kine

sadržaj finansija i proširio tržište. Kombinacija novih tehnologija, kapitala i tržišta mogu kreirati zapanjujuću snagu. Banke na obje strane treba da energično istupe u inovacijama i saradnji u tehnologiji i promovišu transformaciju i nadogradnju efikasnosti bankarskih usluga. Svako može vidjeti da tehnički napredak stalno unaprjeđuje rješavanje informacione asimetrije, koja je izuzetno važna za finansijski razvoj. FinTech ima bogate konotacije i postaće trend finansijskog razvoja u neprestanom tehničkom napretku.

Iako su u prethodnim godinama tehnološke inovacije, napredak, ubrzano mijenjanje ponašanja potrošača i prilagođavanje na oblike finansiranja podsticale izvanredan rast tradicionalnih i netradicionalnih digitalnih finansijskih usluga, kinesko regulatorno orkuženje je pružalo plodne uslove za rad. Ovu rečenicu potvrđuju podaci dati u sljedećoj slici (vidjeti Sliku 4).

**Slika 4**  
Ukupne FinTech investicije u Aziji  
(2012–2018)



Izvor: KPMG (2018, str. 47)

je zahtijevao da se preuzme vodeća uloga u tehnološkim inovacijama i poboljša efikasnost finansijskih usluga. FinTech može poboljšati kvalitet služenja realnoj ekonomiji. Razvoj FinTech-a je obogatio

Huang Yi, izvršni potpredsjednik kineske Construction Bank, održao je govor pod nazivom Finansijska tehnologija i strateška transformacija bankarskog sektora u Kini. Yi smatra da, umjesto da dovede do

be moved between countries with ease, governments are finding it ever harder to raise taxes. At the same time, public spending will likely have to increase to meet the demands of those left behind in the era of globalisation and digital technologies.

That may be about to change. One idea currently gaining traction is to tax firms offering free-to-use digital services differently, so that their intangible value receives the same tax treatment as the tangible value produced by manufacturers and traditional service providers.

The competent EU decision-makers also realised the importance of a well-controlled digital (FinTech) development even from the taxation point of view. As part of building the architecture of the EU Single Digital Market, the European Commission suggested a Council Directive laying down the rules relating to the corporate taxation of a significant digital presence. According to the Commission's proposal: "The digital economy is transforming the way we interact, consume and do business. Digital companies are growing far faster than the economy at large, and this trend is set to continue." (European Commission 2018)

However, digitalisation is also putting pressure on the international taxation system, as business models change. Policy makers are currently struggling to find solutions which can ensure a fair and effective taxation as the digital transformation of the economy accelerates, and the existing corporate taxation rules are too outdated to capture this evolution.

The current corporate tax rules are built on the principle that profits should be taxed where the value is created. However, they were mainly conceived in the early 20th century for traditional "brick and mortar" businesses and define what triggers a right to tax in a country ("where to tax") and how much of corporate income is allocated to a country ("how much to tax") largely based on having a physical presence in that country and without reflecting the value created by user participation in that jurisdiction.

This proposal aims to address the issues raised by the digital economy by setting out a comprehensive solution within the existing Member States' corporate tax systems. It provides a common system for taxing digital activities in the EU which properly takes into account the features of the digital economy. First, this proposal lays down rules for establishing a taxable nexus for digital businesses operating across borders in case of a non-physical commercial presence (hereinafter: a "significant digital presence"). New indicators for such a significant digital presence are required in order to establish and protect Member States' taxing rights in relation to the new digitalised business models. Second, this proposal sets out principles for attributing profits to a digital business. These principles should better capture the value creation of digital business models which rely strongly on intangible assets. This Directive, once implemented in the Member States' national legislation, will apply to cross-border digital activities within the Union, even if the applicable double taxation treaties between Member States

have not been modified accordingly. As soon as it enters into force, this EU Directive will have a positive impact on the desirable level playing field between traditional banks and FinTech start-ups.

## THE APPROACH TO FINTECH IN CHINA

"Competition in the FinTech space is developing at the global level. As often occurs in innovative markets, the key to success lies in a large domestic market, which allows successful companies to achieve a scale enabling them to aim for global leadership. In the long term, European FinTech players would be at a significant disadvantage vis-à-vis their US and Chinese competitors, if the European markets remain segmented along national borders, with different sets of rules and uncoordinated actions by local authorities" (Enria 2018).

In this chapter on the Chinese experience, we survey FinTech in three dimensions: the Chinese government, the People's Bank of China (the Chinese central bank) and the financial supervision authority Chinese Banking Regulation Committee (CBRC), and the Chinese commercial banks.

In order to make a short summary we refer to the FinTech approach of China, which was presented by excellent high-level financial experts at the AFCA CEE Financial Summit Forum – New Chapter of Asia-Europe Financial Cooperation in Budapest, Hungary in November 2017. The FinTech sector in China has been developing rapidly and is the global leader by several measures. The country's digital payments account



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for almost half the global volume and online peer-to-peer (P2P) lending accounts for three quarters of the global total. China's FinTech sector is now at a critical juncture. The Chinese government's attitude towards FinTech has become progressively more complex, as risks have piled up around P2P platforms and the number of underground fund raising and financing activities have grown. The authorities

*“The digital payments in China account for almost half the global volume and online peer-to-peer (P2P) lending accounts for three quarters of the global total*

remain generally supportive, despite some recent tightening measures (Hu – Yin – Zheng 2016, PWC China 2017).

In relation to internet finance, Premier Li Keqiang made some important statements: “We will encourage internet finance to seek a healthy development path with the backing of proper regulatory coordination and supervisory mechanisms” and “We will work to see that internet finance develops in line with regulations”. The Chinese government gave players a free hand to experiment. Light-touch – or, more accurately, late-touch – regulation of digital activities and players in China has encouraged entrepreneurship and

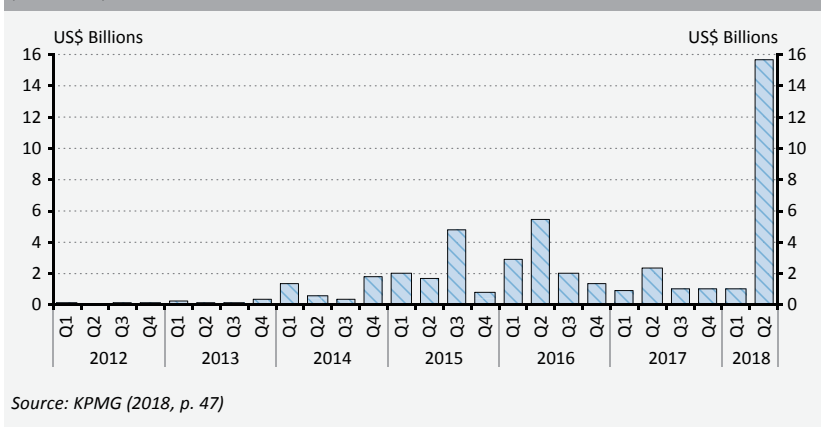
experimentation. While the response of regulators lagged behind market developments, China's internet giants were relatively free to test and commercialise products and services and to gain critical mass. For example, regulators took 11 years after Alipay introduced online money transfers in 2005 to set a cap on the value of the transfers. It was five years after Alipay introduced barcode-based payment solutions that Chinese regulators produced an official standard on management requirements (McKinsey 2017).

On the side of the commercial banks let us quote the approach of some of the major Chinese financial institutions. Liu Qiang, Vice President of the Bank of China urged to take the lead in technological innovation and improve the efficiency of financial services. FinTech can improve the

power. Banks on both sides should vigorously step up innovation and cooperation in technology and promote the transformation and upgrading of banking service efficiency. Everyone can see that technical progress is continuously pushing forward the resolving of information asymmetry, which is of great importance to financial development. FinTech has rich connotations, and will become a trend of financial development within the ceaseless technical progress.

While the growth phenomenal of traditional and non-traditional digital financial services has been fostered in recent years by technological innovation, advancement, rapidly changing consumer behaviour and adaptation to forms of finance, China's regulatory environment has also provided fertile conditions for growth. This statement is confirmed by the data below (see Figure 4).

**Figure 4**  
Total FinTech investment in Asia  
(2012–2018)



quality serving the real economy. The development of FinTech has enriched the content of finance and expanded the market. The combination of new technologies, capital and market can create astounding

Mr Huang Yi, Executive Vice President of China Construction Bank, delivered a speech titled Financial Technology and Strategic

*In April 2018, CBIRC took over the role of CBRC, and its activity covers not only the banks but insurance companies, as well*

smanjenja bankarskog sektora, brzi razvoj kineskog internetskog finansiranja doveo je do konkurentnog i kooperativnog razvoja kroz dvosmjernu interakciju i dopunjavanje prednosti. Proboj i zrelost tehničkih područja postavili su čvrste temelje za tehnološku transformaciju bankarskog sektora. Takođe je napomenuo da je finansijska tehnologija direktnija, snažnija i efikasnija pokretačka snaga za transformaciju. Prirodno je da je razvoj finansijske tehnologije efikasno probio fizička ograničenja i podstaknuo integraciju bankarskih kanala. Osim toga, primjena finansijske tehnologije podstaknula je reformu modaliteta bankarskog poslovanja i postupno popularizovala načine pružanja usluga na osnovu scenarija i platformi. Nadalje, finansijska tehnologija je obogatila sredstva kontrole rizika, čineći upravljanje rizikom efikasnijim. On je svoje izlaganje nastavio na sljedeći način: s obzirom da su finansijske tehnologije imale prednosti, Kina je mogla da radi na razvoju osnovnih tehnologija i postavljanju standarda za patente. Kineske komercijalne banke i neke velike internetske kompanije ostale su na svjetskom tržištu u pogledu prakse finansijske tehnologije. Oni bi trebali da iskoriste prednosti integracije srodnih tehnologija i da patentiraju ove tehnologije, kao i da koriste ove prednosti patenta za promjenu procesa međunarodnog finansijskog sektora, za stvaranje novih industrijskih standarda i poboljšanje osnovne konkurentnosti kineskog bankarskog sektora. (Kerényi – Müller 2018).

Jačanje propisa i supervizije je u fokusu CRBC-a, Odbora za regulisanje bankarskog sektora Kine.

Na osnovu ovog okvira, osnovni principi upravljanja regulisanjem digitalnih finansija su „tolerisati, podstaknuti, voditi i standardizovati“, a sa tim povezani zahtjevi supervizora bi se mogli sažeti kao „sveobuhvatni, blagovremeni, profesionalni i efikasni“ (Varga2017:134)

Na Konferenciji Renminbi inicijative<sup>4</sup> koja je održana u Budimpešti 2018 .godine, gospodin Ren Zhe, predstavnik Narodne banke Kine, govorio je o nedavnom razvoju FinTech regulative u Kini. On je naglasio da je definicija Internet finansiranja široka, a Internet plaćanja, digitalne valute i digitalna infrastruktura zahtijevaju različite pristupe. Promjene su potrebne u regulatornim i supervizorskim zahtjevima i promjenama poslovnih podsticaja postojećih pružalaca usluga i novih konkurenata. Po njegovom mišljenju, „ne postoji jedinstven pristup FinTech aktivnostima; poboljšanje ekosistema FinTech-a može da pomogne da se ublaže neki značajni rizici; potrebno je uključiti nove ideje i nove pristupe za poboljšanje efikasnosti regulative“. S obzirom na to da ne postoji jedinstveni pristup za FinTech aktivnosti, on je naglasio značaj samodiscipline.

### **PRISTUP FINANSIJSKO REGULATIVI U MAĐARSKOJ**

Nakon pregleda pristupa Evropske unije i Kine razvoju FinTech-a, ukratko ćemo se osvrnuti na mađarske stavove.<sup>5</sup>

Naravno, mađarski pristup FinTech-u je bliži onom koji se razvija u Evropskoj uniji i onom koji se razvija u okviru eurozone. Međutim, postoje neke karakteristike koje su specifične za Mađarsku. Globalna finansijska kriza je uticala i na mađarski finansijski sektor: aktivnosti odobravanja kredita i profitabilnost su se smanjili, stope nekvalitetnih kredita su porasle, krediti stanovništvu su bili opterećeni deviznom konverzijom, a banke su se suočile sa internim snažnim budžetskim organizacijama. Zbog apsorpcije ovih trendova, bankarski sektor se mogao vratiti normalnom razvoju informacione tehnologije i drugih usluga. Digitalne inovacije i ekspanzija finansijske tehnologije je započela u poslednje tri do četiri godine. Iako je strano vlasništvo relativno visoko u bankarskom sektoru, kreće se oko 50 procenata, većina razvoja finansijske tehnologije je pripremljena u mađarskim zavisnim društvima i nije preuzeta od matičnih banaka. Takođe, posebna karakteristika, mada nije jedinstvena, je ta da Magyar Nemzeti Bank (MNB), Centralna banka Mađarske, ima supervizorsku i regulatornu nadležnost.

U takvom kontekstu, regulisanje FinTech-a se kotira visoko na agendi MNB. Kada se ideja regulisanja FinTech-a prvi put pojavila u MNB, prvi korak je bio da se traže informacije o najboljim praksama drugih centralnih banaka širom svijeta. MNB smatra da je podrška

<sup>4</sup> Više informacija o ovom događaju možete naći na Internet stranici: <https://www.mnb.hu/en/pressroom/press-releases/press-releases-2018/budapest-renminbi-initiative-2018-conference-at-the-central-bank-and> (Mészáros 2018).

<sup>5</sup> Ovo poglavlje je zasnovano na dokumentu za Konsultacije Centralne banke Mađarske (MNB2017,Fáykissetal. 2018), koji je objavio rezultate ankete tržišta o inovacijama u finansijskoj tehnologiji i njenom potencijalnom regulisanju, i zasnovane su na intervjuima autora sa predstavnicima MNB



Transformation of the Banking Industry in China. According to Yi, instead of leading to a shrinkage of the banking industry, the rapid development of China's internet finance has brought about competitive and cooperative development through two-way interaction and complementation of advantages. The breakthrough and maturity of technical fields laid a solid foundation for the technology-driven transformation of the banking industry. He also mentioned that financial technology was a more direct, powerful and effective driving force for transformation. Intuitively, the development of financial technology first broke through physical limitations effectively, and drove the integration of banking channels. Besides, the application of financial technology drove the reform of banking business modes, and gradually popularised the service modes based on scenarios and platforms. Furthermore, financial technology had enriched risk control means, making risk management more effective. He continued as follows: as financial technology had advantages, China could work to develop core technologies and set patent standards. China's commercial banks and some large internet enterprises stayed ahead in the international market in terms of financial technology practices. They should take the advantage to integrate related technologies and make these technologies their patents, and use these patent advantages to change the process of the international financial industry, to form new industrial standards and to enhance the core competitiveness of China's banking industry (Kerényi – Müller 2018).

Strengthening regulation and supervision is the focus of the CBRC, the Chinese Banking Regulatory Committee. Based on the framework, the fundamental principles governing the regulation of Digital Finance are “tolerate, encourage, guide and standardise” and the associated supervisory requirements can be summed up as “comprehensive, timely, professional and effective” (Varga 2017:134)

In 2018, at the Budapest Renminbi Initiative Conference Mr Ren Zhe, Representative of the Peoples Bank of China, spoke about the recent development of FinTech Regulation in China. He emphasised that the definition of internet finance is broad, and internet payments, digital currencies and digital infrastructure require different approaches. Changes are needed in the regulatory and supervisory requirements and related changes in business incentives of incumbents and new players. In his opinion, “there is no unified approach to FinTech activities; improvement the ecosystem of FinTech can help mitigate some significant risks; new ideas and approaches to improve regulation efficiency should be incorporated”. Since there is no unified regulatory approach on FinTech activities he emphasised the importance of self-discipline.

### **THE APPROACH TO FINTECH IN HUNGARY**

After reviewing the EU and Chinese approaches to the FinTech development, we briefly summarise the Hungarian attitudes.

As a matter of course, the Hungarian FinTech approach is closer to that of in the European Union and rather to that within the euro area. However, there are some country-specific features. The global financial crisis also impacted the Hungarian financial sector: lending activity and profitability decreased, NPL rates rose, there was a heavy burden of FX-denominated retail loans, and internal hard budget constraints were faced within the banks. Due to the absorption of these developments, the banking sector could return to the normal development of IT and other services. Digital innovations and FinTech expansion was started in the past three to four years. Although foreign ownership is relatively high in the banking sector, at around 50 per cent, most of the FinTech developments are made at Hungarian subsidiaries and are not taken over from the parent banks. It is also a special, although not unique feature, that the Magyar Nemzeti Bank (MNB), as Hungary's central bank, has both the supervisory and regulatory competence.

Against this background, FinTech regulation is high on the MNB's agenda. When the idea of regulating FinTech first appeared to the MNB, their first step was to look for information on the best practices of other central banks around the world. The MNB considers the support of FinTech development so important that “the MNB established an Innovation Center (Multilateral

<sup>4</sup> More information on this event: <https://www.mnb.hu/en/pressroom/press-releases/press-releases-2018/budapest-renminbi-initiative-2018-conference-at-the-central-bank> and (Mészáros 2018).

<sup>5</sup> This section is based on the Consultation Document of the Magyar Nemzeti Bank (MNB 2017, Fáykiss et al. 2018), which published the results of a market survey on FinTech innovations and their potential regulation and also based on an interview by the authors with representatives of the MNB

razvoju finansijske tehnologije toliko važna da je „MNB osnovala Centar za inovacije (Multilateralna platforma za konsultacije) kako bi pomogla novoosnovanim FinTech kompanijama u početnoj fazi, ili čak i onima koji se već nalaze na tržištu da upravljaju regulatornim pitanjima“ (Thurzó2017).

MNB je takođe pripremila ciljne upitnike kako bi procijenila stav i predloge tržišnih učesnika koji razvijaju i nude FinTech inovacije. Prema ovoj anketi „banke vjeruju da će nastaviti da igraju glavnu ulogu u finansijskom posredovanju. S druge strane, nadmoćna većina FinTech kompanija redovno kontaktira banke ili se od svog osnivanja okrenula bankama. Ovo je zbog činjenice da pored finansijske podrške, banke mogu takođe da pruže pomoć kroz ekspertizu koju su stekle tokom poslovanja. Pristup obimnim podacima banaka je ključan za novoosnovane FinTech kompanije, a banke imaju temeljno znanje o detaljnim pravnim zahtjevima koji se tiču sektora. Sistemsko razmišljanje banaka može vjerovatno da obezbijedi tačne smjernice o mogućim operativnim i finansijskim rizicima. Tradicionalni bankarski sektori uglavnom predviđaju partnerska rješenja u pogledu FinTech inovacija. Motivacija banaka se zasniva na njihovoj potrebi da poznaju efikasna rješenja i usvoje ih najbrže što je moguće, a fleksibilnost uočena u stavu FinTech kompanija i njihova sposobnost da brzo donose odluke može olakšati tehnološki napredak. Jedan glavni element saradnje je obezbjeđivanje poslovnog modela koji je dugoročno održiv. Banke vjeruju da saradnja i razvoj inkubacionih programa može

olakšati dugoročno razmišljanje, i kao rezultat toga, inovacije mogu postati dio tradicionalnog bankarskog sistema“ (MNB2017).

Centar za inovacije MNB (koji je nedavno osnovan) pomaže da se identifikuju stvarnu pojavu pravnih prepreka i da se poboljša izvodljivost inovativnih ideja (Fáykiss et al. 2018). Internet platforma omogućava vezu između regulatornih i supervizorskih nadležnih organa i inovativnih domaćih institucija (FinTech kompanija, banaka, osiguravača, itd.), i podržava svjesnost međunarodnih najboljih praksi.

- Informacioni repozitorij
- Komunikacioni centar
- Platforma za regulatornu podršku
- Platforma za međunarodnu saradnju

„Međutim, određeni stepen neizvjesnosti okružuje regulatorni okvir, jer 65 procenata institucija nije odlučilo da li žele da učestvuju, pri čemu je 29 ispitanika odgovorilo da je voljno da učestvuje i da može da pokrene fazu testiranja inovativnog proizvoda ili usluge čak i u kratkom vremenskom periodu. Mnoge FinTech kompanije već saraduju sa tradicionalnim bankarskim akterima. FinTech kompanije uglavnom se ne osjećaju odbačenim od banaka. Tržišne konsultacije su potvrdile da postoje različite vrste saradnje. Preko jedne trećine mađarskih kompanija u uzorku MNB-a ukazale su da imaju partnerski odnos sa bankom odnosno da učestvuju u inkubacionom programu banke ili da djeluju kao dobavljači za banku sa ugovorom o zastupništvu. Banke dobijaju znanje i iskustvo FinTech kompanija prilično rijetko kroz sticanja. Otvorenost sa strane

FinTech kompanija će se po pravilu nastaviti, jer polovina uzorka planira dalju saradnju. Tri kompanije su jedino ukazale na potpuno odbijanje saradnje“ (MNB2017).

Na kraju, od izuzetnog je interesa vidjeti kako tradicionalne banke uzimaju u obzir razvoj FinTech-a u Mađarskoj. Predsjednik Udruženja banaka Mađarske je ukratko iznio svoje stavove o digitalnim izazovima i izazovima FinTech-a na sljedeći način:

„Digitalizacija je ogroman izazov i pritisak za obnavljanje u bankarskom sektoru. Mnogi ljudi koji imaju 20 ili 30 godina danas neće posjetiti filijalu, već se svoje transakcije izvršavati putem mobilnih telefona. Stavovi klijenata i njihovo ponašanje će se promijeniti, značaj filijala će se smanjiti, a značaj tehnologije će se povećati. Postoji prava opasnost za mnoge banke da će njihovu ulogu preuzeti novi igrači, na primjer pružaoci platnih usluga. Ovakav razvoj vide regulatori širom svijeta, a ako ti akteri žele da imaju odobravanje kredita i da poštuju i usaglašavaju se sa relevantnim propisima, moraće da ispune iste zahtjeve za kapitalom kao i tradicionalne banke, zatim će banke pobijediti i poraziti ih u konkurenciji. Opasnost postoji, ali će banke naučiti kako da primijene nove tehnologije umjesto da dozvole novim igračima da im oduzmu hleb. Banke su spremne za ozbiljnu integraciju FinTech kompanija“ (Patai 2018). Za sada, čak i klijenti imaju pozitivan stav da tradicionalne mađarske banke nemaju neprijateljski stav prema novoosnovanim FinTech kompanijama.

Consultation Platform) to help FinTech start-ups in the initial phase, or even those already on the market, to navigate regulatory issues” (Thurzó 2017).

The MNB also prepared a targeted questionnaire to assess the attitude and proposals of market participants which are developing and offering FinTech innovations. According to this survey “banks believe that they will continue to play a central role in financial intermediation. On the other hand, the overwhelming majority of FinTech firms are in regular contact with banks or have turned to banks since their launch. This is due to the fact that in addition to financial support, banks can also provide assistance through the expertise gained during their operations. Access to banks’ extensive datasets is crucial for newly established FinTech firms and banks have thorough knowledge of the detailed legal requirements pertaining to the industry. Banks’ systemic thinking can probably also provide more accurate guidance on potential operational and financial risks. Traditional banking actors mainly foresee partnership solutions with respect to FinTech innovations. Banks’ motivation is based on their need to be familiar with efficient solutions and adopt them as soon as possible, and the flexibility observed in the attitude of FinTech firms and their ability to make decisions quickly may facilitate technological progress. One major element of cooperation is the provision of a business model which is sustainable over the longer term. Banks believe that cooperation and the development of incubation programmes

can facilitate long-term thinking, and as a result of that, innovations can become part of the traditional banking system” (MNB 2017).

The MNB’s Innovation Hub (which was recently founded) helps to identify actually arising legal obstacles and to improve feasibility of innovative ideas (Fáykiss et al. 2018). The online platform provides a connection between the regulatory and supervisory authority and the innovative domestic institutions (FinTech firms, banks, insurers, etc.), and supports the awareness of international best practices.

- Information repository
- Communication hub
- Regulatory support platform
- International cooperation platform

“However, some uncertainty also surrounds the Regulatory Sandbox, as 65 per cent of the institutions have not decided whether they wish to participate, whereas 29 per cent of the respondents would be willing and able to launch a testing phase with an innovative product or service even within a short period of time. Most FinTech firms already cooperate with traditional banking actors. FinTech firms typically do not feel rejected by banks. The market consultation confirmed that there are different types of cooperation. Over one-third of the Hungarian companies in the MNB’s sample indicated that they are in a partnership with a bank, i.e. they are participating in a bank’s incubation program or acting as suppliers to a bank with an agency agreement. Banks obtain FinTechs’ know-how through acquisition fairly rarely. Openness on the part

of the FinTech firms will typically continue, as half of the sample plan further cooperation. Complete rejection of cooperation was only indicated by three companies altogether” (MNB 2017).

Finally, it is also of great interest to see how the traditional banks consider the development of FinTech in Hungary. The Chairman of Hungarian Banking Association summarised his views on the digital and FinTech challenges as follows: “Digitalisation is a tremendous challenge and pressure for renewal in the banking sector. Many people who are 20 or 30 years old today will not visit a branch office, and instead conduct all of their transactions on their mobile phones. Client attitudes and behaviour will change, the importance of branches will decrease and the importance of technology will increase. For many banks it’s a real danger that their role will be taken over by new actors, for instance payment service providers. This development is seen by regulators all over the world, and if these actors want to have lending activities and will observe and comply with the relevant rules, they will have to meet the same capital requirements as traditional banks, then the banks will win and defeat them in competition. The danger is there, but banks will learn how to apply the new technologies rather than to let new actors take away their bread. Banks are ready for the serious integration of FinTech companies.” (Patai 2018). For the time being it is a positive attitude even for the clients that the incumbent Hungarian banks do not have a hostile attitude towards FinTech start-ups.

## REZIME I ZAKLJUČAK

Od početka 21. vijeka, svjedoci smo digitalne transformacije - promjena koje su povezane sa inovacijama u oblasti digitalne tehnologije u svim aspektima društva i ekonomije. Četvrta industrijska revolucija je već u toku. Finansijska tehnologija je jedna od najinovativnijih, izuzetno važnih i potencijalno najbržih promjena u pružanju finansijskih usluga i iz temelja mijenja način na koji posluju kompanije koje se bave pružanjem finansijskih usluga. Ona transformiše tržišta dužničkih hartija od vrijednosti i kapitala, plaćanja, procjenu kredita, usklađenost sa propisima, lične finansijske i mnoge druge aspekte finansijskih usluga. Da bismo bolje razumjeli ovaj proces, kratko smo uporedili iskustvo iz prethodne tri industrijske revolucije. Mi možemo vidjeti sličnosti, pošto revolucije imaju iznenađan početak i uglavnom završavaju sa pozitivnim promjenama i moćima transformacije, ali isto tako imaju razorne efekte. U početnoj fazi teško je predvidjeti ishod, predvidjeti šta će biti dugoročni pozitivni efekat i procijeniti potencijalne rizike i njihovo upravljanje.

U današnje doba, jedan od najvećih izazova za bankarski sektor, za regulatore i supervizore je digitalna transformacija finansijskih usluga. S tim u vezi, budućnost tradicionalnog finansijskog posredovanja i odnos između postojećih banaka i novoosnovanih FinTech kompanija je značajno pitanje. Ovi razvoji i novi akteri na tržištu postavljaju pitanja o potencijalnim rizicima, i kako regulativa i supervizija treba da se promijene, i da li se fer konkurentnost i jednaki uslovi konkurencije na tržištu mogu obezbijediti i održati.

Prilikom istraživanja fenomena FinTech, prvi zadatak je da se pronađe tačna definicija. Jasno je da ne postoji široko prihvaćena definicija finansijske tehnologije, ne zbog toga što su regulatori neupućeni ili neobrazovani, već zato što se finansijska tehnologija tako brzo razvija da su supervizori i centralne banke primorani da prate događaje. Neefikasan status definicije je zajednički za sve teritorije koje smo pregledali. Najkorišćenija definicija je radna definicija Odbora za finansijsku stabilnost, koji definiše finansijsku tehnologiju kao „tehnološki omogućenu finansijsku inovaciju koja može dovesti do novih poslovnih modela, aplikacija, procesa ili proizvoda uz materijalni efekat na finansijska tržišta i institucije i pružanje finansijskih usluga“. Ova široka, „pragmatična“ definicija smatra se osnovom regulative.

Ova dozvoljena i široka definicija ima ozbiljnih posljedica. S obzirom da definicija ne identifikuje precizno sadržaj i opseg usluga finansijske tehnologije, stvaraju se teškoće kod uspostavljanja zakonskog okvira za označavanje granica supervizorskih kontrola i obezbjeđivanje jednakih uslova konkurencije za tradicionalne banke i FinTech kompanije. Ako se bankama nametnu strogi regulatorni zahtjevi, FinTech kompanije bi imale nepoštenu konkurentnu prednost, a nedostatak detaljnih pravila takođe predstavlja rizike za zainteresovane strane. Ako neko nezrelo rješenje dođe prerano do tržišta, to može dovesti do neočekivanih gubitaka kako za klijente tako i za zajmodavce. Previše blag regulatorni pristup može gurnuti finansijsko posredovanje u područje gdje regulatorni nadležni organi jedino imaju ograničeni uticaj.

Nakon hronološkog i globalnog pregleda, fokusirali smo naše istraživanje na tri geografske oblasti: Evropsku uniju, Kinu i Mađarsku. Mi smatramo da prve dvije podržavaju naše napore da utvrdimo pravac globalnog finansijskog digitalnog razvoja, da nađemo sličnosti i razlike u pristupima i na kraju da istražimo gdje se nalazi Mađarska u ovom procesu.

U Evropskoj uniji, značaj digitalne tehnologije je shvaćen i smatra se pitanjem od izuzetne strateške, ekonomske i društvene važnosti. Evropska komisija je objavila da će nova digitalna tehnologija biti ključni element u budućoj konkurentnoj prednosti EU. Ovo je zbog toga što EU razvija ambicioznu i sveobuhvatnu Strategiju za digitalno jedinstveno tržište koju prati Akcioni plan za FinTech u 2018. godini. U cilju jačanja ispunjenja ovih ciljeva, Evropski bankarski regulator je objavio Smjernice za FinTech pod nazivom: „Kreiranje regulatornih i supervizorskih sjernica za finansijsku tehnologiju“. Smjernice Evropskog bankarskog regulatora su važan pregled neophodnog i propisanog regulatornog pristupa koji se odnosi na usluge koje pružaju postojeće banke i novoosnovane FinTech kompanije.

Definicija FinTech-a koja se koristi u EU je široka, ali regulatori se bore da ublaže rizike i obezbijede fer konkurenciju. Oni prate pragmatičan stav koji se okreće oko slojevite regulatorne strukture sa diferenciranim regulatornim zahtjevima u skladu sa rizicima za kompanije, za njihove klijente, finansijski sektor i ekonomiju u cjelini. U principu, cilj je da se ostvare očekivanja „isti rizik - ista pravila“.

## SUMMARY AND CONCLUSION

Since the beginning of the 21st century, we have been experiencing a digital transformation – changes associated with innovation in the field of digital technology in all aspects of society and the economy. The fourth industrial revolution is already underway. Financial Technology represents one of the most innovative, increasingly important and potentially the most rapid change in financial services revolutionising the way financial services firms operate and transforming debt and equity markets, payments, credit assessment, regulatory compliance, personal finance and many other aspects of financial services. For a better understanding of this process, we have briefly compared the lessons from the previous three industrial revolutions. We can see similarities, as revolutions have a sudden start and mostly end up with positive changes and transformational powers, but they also have disruptive effects. In the initial phase it is difficult to predict the outcome, to foresee what will be a lasting positive effect and to assess the potential risks involved and their management.

In our day and age, one of the greatest challenges for the banking sector, for the regulators and for supervisors is the digital transformation of financial services. In this context, the future of traditional financial intermediation and the relationship between incumbent banks and FinTech start-up companies is a relevant question. These developments and the new actors on the market raise the question of potential risks, thus how regulation and supervision should be changed, and whether fair competition and

a level playing field can be ensured and maintained.

In investigating the FinTech phenomenon, the first task is to find the exact definition. It is clear that there is no widely accepted definition of financial technology, not because regulators are ignorant or unknowledgeable, but rather because the development is so rapid that supervisors and central banks are forced to follow the events. The inefficient status of the definition is common in all of the territories we examined. The most commonly used definition is the Financial Stability Board's working definition of FinTech as "technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services". This broad, "pragmatic" definition is considered as the basis of regulation.

The permissive and broad definition has consequences. Since the definition does not make it possible to precisely identify the content and scope of FinTech services, it creates difficulties in establishing the legislative framework to indicate the boundaries of supervisory controls, and in establishing equal conditions of competition between traditional banks and FinTech companies. If strict regulatory requirements are imposed on banking actors, FinTech firms would enjoy an unfair competitive advantage, and the lack of detailed rules also poses risks to stakeholders. If an immature solution reaches the market too soon, it may cause unexpected losses to both consumers and lenders. An excessively lenient regulatory approach may

push financial intermediation into a segment where regulatory authorities only have limited influence.

After the chronological and global review, we focused our examination on three geographic areas: the European Union, China and Hungary. In our view the first two support our endeavour to identify the direction of the global financial digital development, to find similarities and differences in the approaches and ultimately to explore where Hungary stands in this process.

In the European Union, the importance of digital technology has been realised and it is considered an issue of paramount strategic, economic and social importance. The European Commission declared that the new digital technology will be a key element in the future competitive edge of the EU. This is why the European Union has been delivering on an ambitious and comprehensive Digital Single Market Strategy, which was shortly followed by FinTech Action Plan in 2018. In order to strengthen the accomplishment of these targets, the European Banking Authority published its FinTech Roadmap under the title: "Designing a Regulatory and Supervisory Roadmap for FinTech". The EBA Roadmap is an important summary of the necessary and envisaged regulatory approach related to the services provided by incumbent banks and FinTech start-ups.

The definition of FinTech used in the EU is broad, but regulators are struggling to mitigate risks and ensure fair competition. They follow a pragmatic attitude that revolves around a tiered regulatory structure, with differentiated regulatory requirements according to the risks for the firms, their customers, the financial

Nedostatak tačne definicije najvjerojatnije zahtijeva sadašnje stajalište Evropske centralne banke (ECB), koja je izjavila da regulativa i supervizija FinTech usluga treba da ostane - za sada - nacionalnoj nadležnosti. Ova izjava sama po sebi pokazuje kako bi u sadašnjem trenutku bilo teško centralno regulisati ovaj preces i aktivnosti. Sljedeći izazov je kako obezbijediti jednaka pravila za tradicionalne banke i pružaoce FinTech usluga. Nije lako naći uravnoteženo rješenje. Drugi delikatan problem je pitanje oporezivanja. Kao dio izgradnje arhitekture Jedinственоg digitalnog tržišta Evropske Unije, Evropska komisija je predložila direktivu Savjeta kojom se propisuju pravila o oporezivanju pravnih lica sa značajnim digitalnim prisustvom.

Sljedeće poglavlje ovog istraživanja predstavlja kratak pregled pristupa finansijskoj tehnologiji u Kini, gdje se sektor finansijske tehnologije ubrzano razvija i globalni je lider po osnovu nekoliko mjerila. Digitalna plaćanja u državi čine gotovo polovinu globalnog obima, a uzajamno kreditiranje (P2P) putem interneta čini tri četvrtine ukupnog globalnog uzajamnog kreditiranja. Međutim, kineski sektor finansijske tehnologije nalazi se sada na ključnoj prekretnici. Prije nekoliko godina, problemi su nastali kada su se rizici nagomilali na P2P platformama, a broj ilegalnog prikupljanja sredstava i finansijske aktivnosti

se povećao. Ovo je poslužilo kao lekcija i upozorenje za regulatore i supervisore, a njihov promijenjeni stav je moralna lekcija i instrukcija mnogim drugim državama. Inače, kineski pristup je na mnogo načina sličan onom u EU. Na primjer, po mišljenju Narodne banke Kine, ne postoji jedinstveni pristup FinTech aktivnostima; poboljšanje ekosistema za FinTech može pomoći da se ublaže neki značajni rizici; potrebno je uključiti nove ideje i pristupe za poboljšanje efikasnosti regulative. U ovoj situaciji, samodisciplina je takođe neizbježna.

Nakon analiziranja FinTech pristupa u EU i Kini, predstavljanje mađarskog pristupa je osvježenje. Može se navesti da Mađarska ne zaostaje čak iako se njeni regulatori i tradicionalne banke suočavaju sa sličnim zadacima sa kojima se suočavaju regulatori i tradicionalne banke u EU ili Kini. Mi se oslanjamo na najnovija istraživanja Centralne banke Mađarske. Postoji obećavajući proces za integraciju inovativnih proizvoda i rješenja u bankarsko poslovanje.

Banke u Mađarskoj vjeruju da će nastaviti da igraju centralnu ulogu u finansijskom posredovanju. S druge strane, velika većina FinTech kompanija redovno je u kontaktu sa bankama ili su se od svog osnivanja obratile bankama. Prema rezultatima MNB istraživanja, aktivno angažovanje regulatornih i supervizorskih nadležnih organa je neophodno kako

bi se promovisala konkurencija ili saradnja između raznih tržišnih učesnika i novih učesnika.

Prema mađarskoj bankarskoj zajednici, digitalizacija predstavlja ogroman izazov i pritisak za obnavljanje bankarskog sektora. Mnogi ljudi koji imaju 20 ili 30 godina danas neće posjetiti filijalu, već će svoje transakcije izvršavati putem mobilnih telefona. Stavovi klijenata i njihovo ponašanje će se promijeniti, značaj filijala će se smanjiti, a značaj tehnologije će se povećati. Jedan opšti, realni rizik je da će ulogu nekih banaka preuzeti novi igrači, na primjer pružaoci platnih usluga.

Naslov ovog istraživanja je inspirisan poznatom knjigom koju je napisao Oldouz Haksli (1894–1963), „Vrli novi svijet“ koja je objavljena 1931. godine. Haksli je pokušao, iako je ironično kritikovao potrošačko društvo, kojim je manipulirao i upravljao svijet mašina, da predvidi budućnost ljudskog roda. Veliki dio njegove vizije je pomiješan sa naučnom fantastikom, a naučni elementi postali su realnost u narednim dekadama. Može se čak reći da je bolji vrli novi svijet izgrađen na osnovama svijeta mašina.

Mi nijesmo propovjednici, mi ne pokušavamo da predvidimo konačan ishod digitalne finansijske transformacije, ali zaista vjerujemo da ovaj razvoj može predstavljati ljudsku vrstu sa pozitivnim promjenama. Međutim, bankarstvo i finansijske usluge su jedan od najvažnijih elemenata ekonomije i društva u cjelini, pa stoga moramo pažljivo ispitati razvoj FinTech-a. Mora se vidjeti da li postoje rizici, kako se oni mogu kontrolisati ili ublažiti.

*“Prema mađarskoj bankarskoj zajednici, digitalizacija predstavlja ogroman izazov i pritisak za obnavljanje bankarskog sektora*

sector and the economy at large. In principle, the objective is to deliver “same risk

– same rules” expectations.

The lack of an exact definition most probably required the present standpoint of the European Central Bank (ECB), which has stated that the regulation and supervision of FinTech services should remain – for the time being – in the sphere of national competence. This statement in itself shows how difficult it would be at present to centrally regulate this process and activity. The next challenge is how to ensure a level playing field between traditional banks and FinTech service providers. It is not easy to find a balanced solution. Another delicate problem is the question of taxation. As part of building the architecture of the EU Single Digital Market, the European Commission proposed a Council Directive laying down the rules relating to the corporate taxation of a significant digital presence.

The next chapter of this study is an overview of the FinTech approach in China, where the FinTech sector has been developing rapidly and is the world leader by several measures. The country’s digital payments account for almost half the global volume and online peer-to-peer (P2P) lending accounts for three quarters of the global total. However China’s FinTech sector is now at a critical juncture. Some years ago, problems emerged when risks piled up around P2P platforms and the number of underground fundraising and financing activities multiplied. This served as a lesson and a warning for the regulators and supervisors, and their changing attitude is moral and instructive to many other countries.

## *“According to the Hungarian banking community, digitalisation is a tremendous challenge and pressure for renewal for the banking sector*

Otherwise, the Chinese approach is similar in many ways to that of the EU. For example, in the view of the Peoples Bank of China there is no unified approach to FinTech activities; improving the ecosystem for FinTech can help mitigate some significant risks; new ideas and approaches to improve regulation efficiency should be incorporated. In this situation a self-discipline requirement is also inevitable.

After reviewing the EU and Chinese FinTech approaches it is refreshing to present the Hungarian case. One can state that Hungary is not lagging behind even if its regulators and traditional banks face similar tasks as in the EU or China. We relied on the latest surveys of the Hungarian Central Bank. There is a promising process to integrate innovative products and solutions in banking operations.

Banks in Hungary are confident that they will continue to play a central role in financial intermediation. On the other hand, the overwhelming majority of FinTech firms are in regular contact with banks or have turned to banks since their launch. According to the result of the MNB survey, the active involvement of regulators and supervisory authorities is necessary to promote competition or cooperation between various market participants and new entrants.

According to the Hungarian banking community, digitalisation is a tremendous challenge and pressure

for renewal for the banking sector. Many of those who are 20 or 30 years old today will not visit a branch offices, but rather conduct all their transactions on their mobile phones. Client attitudes and behaviour will change, the importance of branches will decrease, and the importance of technology will increase. One general, real risk is that the role of some banks will be taken over by new actors, for instance payment service providers.

The title of this study was inspired by a famous book by Aldous Huxley (1894– 1963), “Brave New World”, published in 1931. Huxley, while ironically criticising the consumer society, manipulated and ruled by the world of machines, tried to forecast the future of mankind. A great part of his vision mixed with science fiction and scientific elements became reality in the following decades. One may even say that a better a brave new world was built up on the basis by the world of machines.

We are not evangelists, we are not trying to predict the final outcome of the digital financial transformation, but we do believe that this development might present mankind with positive changes. However banking and financial services are one of the most important elements of the economy and of society as a whole, and therefore we must carefully scrutinise FinTech developments. It must be seen if there are risks, how these can be controlled or mitigated.

Poslije gotovo stotinu godina od početka treće industrijske revolucije, filozofi su i dalje pokušavali da sažeto prikažu odnos između mašina i ljudi i da predstave svoj stav u pogledu uticaja doba mašina na razmišljanje i ponašanje ljudi. Mi smatramo da su ova pitanja opravdana ili mogu biti opravdana u dobu digitalne tranzicije i da su ona takođe važna prilikom procjene metamorfoze tradicionalnih banaka i njihovih klijenata. Na kraju, FinTech treba da služi boljem životu ljudi.

U ovom trenutku, mi iznosimo glavne zaključke naše analize. Možemo zaključiti da je FinTech u početnoj fazi ubrzanog mijenjanja i širenja globalnog „revolucionarnog“ procesa razvoja. Prema tome, to je doba razornih promjena, i vrijeme mirnog, predvidivog razvoja još nije stiglo. Iako se ulaganja u finansijsku tehnologiju veoma brzo šire na finansijskim tržištima, njihov potencijalni uticaj na banke i finansijske institucije je daleko od toga da bude jasan. Tenzija između stabilnosti i konkurentnosti leži u osnovi cijele debate o FinTech-u i kako to regulisati, biti u Evropskoj uniji, Kini ili Mađarskoj.

Možemo navesti u ovom trenutku razvojnog procesa da finansijska tehnologija ubrzano napreduje, i da je definicija ove teme široka i stalno se mijenja. Zbog brzih promjena regulatori i supervizori ne idu ispred tih promjena, već pokušavaju da dostignu ovaj proces. Zbog široke i uglavnom slobodne definicije teže je obezbijediti jednake konkurentne uslove i jednaka pravila za tradicionalne banke i novoosnovane FinTech kompanije, a to praktično znači da su bankarska regulativa i supervizija strožiji.

Veza između tradicionalnih banaka i novoosnovanih FinTech kompanija se razvija i mijenja. Nekoliko svojstava karakteriše moguću vezu između

tradicionalnih banaka i FinTech kompanija, kao što je fatalna privlačnost ili opasne veze. Prihvatanje je takođe različito: propovjednici glasno pozdravljaju razvoje, dok su skeptici oprezni.

Kakav god bio rezultat razvoja FinTech-a, analiza u ovom radu pokazuje da smo svjedoci vrlo brzog i neizbježnog procesa koji ima globalne i konkurentne implikacije. Ovaj rad je takođe bio usredsijeđen na želju za boljim razumijevanjem fenomena FinTech i mogućim odnosom između tradicionalnih banaka i novoosnovanih FinTech kompanija. Po našem mišljenju banke i FinTech kompanije imaju više zajedničkih poslovnih interesa nego problemi koji ih dijele.

Ljudi su čak i u pozadini ovog digitalnog razvoja, i prema tome jedno od velikih pitanja je kako će se društvo transformisati tokom i nakon digitalne revolucije. Retrospektiva ponekad pomaže da se razumije budućnost sadašnjih razvoja. Podržimo našu ideju citirajući Karla Džaspersa: „Svakodnevna složenost svijeta koju je preplavila tehnologija tjera nas da vladamo svijetom u okruženju (Umwelt) koje je prihvatljivo za nas. Veza sa stvarima se mijenja; stvari odlaze od nas, postale su ravnodušne dok su preuzimale oblik faktora koji se ne mogu promijeniti; tehnologija odsijeca čovjeka od stanja neposredne prisutnosti. Novi zadatak koji treba da se izvrši uz pomoć tehničkih kreacija je da se ponovo pronađe direktno postojanje za sve stvari koje čine svijet. Novi uslovi koje kreira razvoj tehničkih mogućnosti treba da budu u službi čovjeka“ (Jaspers1946).

Neki ekonomisti tvrde da je digitalni svijet „nova normala“. Mi ukazujemo da se ipak treba zapitati nad ovom izjavom. U ovom periodu ubrzanih promjena, mi ne znamo kakav će

konačan oblik poprimiti „nova normala“. U dnevnoj štampi finansijska tehnologija se opisuje kao „rušilačka“, „revolucionarna“ tehnologija, koja je naoružana „digitalnim oružjem“ koje će „srušiti“ sve barijere i tradicionalne finansijske institucije“ (Svjetski ekonomski forum 2017).

Može se postaviti pitanje da li su društvo i ekonomija pripremljeni ili spremni da se suoče sa ovim izazovima. Odgovor je da nisu. Svi akteri imaju odgovornost: centralne banke, regulatori, supervizori, postojeće banke, klijenti, kao i FinTech kompanije. Svi regulatori i supervizori prate burni razvoj, primjenjujući pragmatičnu definiciju, pokušavajući da obezbijede jednake uslove za glavne aktere; postojeće banke i FinTech kompanije testiraju jedni druge i tržište istovremeno radeći na značajnim novim FinTech aplikacijama. Klijenti su zadovoljni zbog bržih, jeftinijih finansijskih usluga, ali od tradicionalnih banaka traže bezbjednost i uglavnom vjeruju i imaju povjerenje u postojeće banke.

Većina centralnih banaka i regulatora upozoravaju u pogledu potencijalnih rizika. Procjena rizika nije laka u svijetu koji se ubrzano mijenja. Ponekad, „mašine“ prikupljaju i ocjenjuju podatke koji su potrebni za procjenu rizika. Ranije smo pomenuli da je informacija moć. Regulatori moraju da potpuno obezbijede da se vlasništva FinTech kompanija i pružalaca finansijskih usluga nad digitalnim podacima ne zloupotrijebe protiv klijenata.

Brzom razvoju FinTech usluga pomaže i period odlaganja. Pod ovim se smatra da se globalni finansijski sektor mirno razvijao gotovo deset godina. Realna mjera mogućih rizika će se pojaviti kada dođe do nove recesije ili perioda krize. Finansijski sektor treba da bude pripremljen za to.



Almost one hundred years after the beginning of the third industrial revolution, philosophers were still trying to summarise the relation between machines and human beings and to present their view of the impact of the machine age on human thinking and behaviour. In our view, these questions are or could be justified in the age of digital transition and are also valid when assessing the metamorphosis of traditional banks and their clients. At the end of the day, FinTech should serve a better life for human beings.

At this point, we sum up the major conclusions of our analysis. We can conclude that FinTech is in the initial phase of a rapidly changing and expanding global “revolutionary” development process. It is therefore in the era of disruptive changes, and the time of a calm, predictable development has not arrived yet. Although investments in FinTech have been expanding very rapidly in financial markets, their potential impact on banks and financial institutions is still far from clear. The tension between stability and competition underlies the entire debate over FinTech and how to regulate it, be it in the European Union, China or Hungary.

We can state at this point in the development process that financial technology is proceeding rapidly, and the definition of this subject is broad and changing. Because of the fast changes regulators and supervisors are not ahead but rather trying to catch up with this process. The broad and mostly permissive definition makes it more difficult to ensure equal competitive conditions and a level playing field between traditional banks and FinTech start-ups, and in practical terms this means that banking regulation and supervision are more strict.

The relationship between traditional banks and Fintech start-ups is developing and changing. Several attributes

characterise the possible relationship between traditional banks and FinTech companies, such as fatal attraction or dangerous liaisons. The acceptance is also different: evangelists loudly welcome the developments, while sceptics are cautious.

Whatever the outcome of the FinTech development is, the analysis above shows that we are witnessing a very fast and inevitable process, which has global and competitive implications. This paper was also focused on the wish for a better understanding of the FinTech phenomenon and the possible relationship between traditional banks and FinTech start-ups. In our view banks and FinTech firms have more common business interests than issues that divide them.

Even in the background of this digital development there are human beings, and therefore one great question is how will the society be transformed during and after the digital revolution. Retrospection sometimes helps to understand the future of present developments. Let us support our idea with the following quotation from Karl Jaspers: “The everyday complexity of the world flooded by technology forces us to reign over the world in the environment (Umwelt) that is accessible for us. Relationship to things has changed; things moved away from us, became indifferent while taking the form of unchangeable factors; technology has cut off man from the immediate presence. The new task that needs to be accomplished is that with the aid of technical creations to re-find the direct existence for all things that make up the world. The new conditions created by the development of technical possibilities should be applied in the service of man” (Jaspers 1946).

Several economists have claimed that digital is the new normal. We suggest putting a question mark at the end of

this statement. In this time of rapid changes we do not know what the final shape of “the new normal” will be. “In the news, financial technology is described as ‘disruptive’, ‘revolutionary’, and armed with ‘digital weapons’ that will ‘tear down’ barriers and traditional financial institutions” (World Economic Forum 2017).

One may ask whether society and the economy are prepared or ready to face these challenges. The answer is no. All of the actors have responsibility: the central banks, regulators, supervisors, incumbent banks, consumers and FinTech companies alike. All of the regulators and supervisors are following the stormy development, applying a pragmatic definition, trying to ensure a level playing field for the main actors; incumbent banks and FinTech companies are testing each other and the market, while working on more and more new FinTech applications. Consumers are happy about quicker, cheaper financial services, but they require safety from their traditional banks, and mostly have trust and confidence in the incumbent banks.

Most of the central banks and regulators warn about potential risks. Risk assessment is not easy in this rapidly changing world. Sometimes “machines” collect and evaluate the data for risk assessment. Earlier we mentioned that information is power. Regulators must strictly ensure that the digital data holdings of FinTechs and financial service providers are not misused against the customers.

The rapid development of FinTech services have also been supported by a grace period. By this we mean that the global financial sector has now enjoyed almost a decade of peaceful development. The real measure of the possible risks will emerge when a new recession or crisis period arrives. The financial sector should be prepared.



# Bazela III: Likvidnost u kratkom roku

Dražen Vujošević, direktor Sektora upravljanja rizicima u NLB Banci Podgorica i predsjednik Odbora za rizike u Udruženju banaka

*“Nagli preokret u tržišnim uslovima je pokazao koliko brzo likvidnost može nestati i nelikvidnost može potrajati izvjesno vrijeme*

Među osnovnim obilježjima Bazela III izdvajaju se snažni zahtjevi za kapitalom kao neophodnim uslovom za stabilnost bankarskog sektora. Međutim, Bazel III se ne zaustavlja na pojačanim zahtjevima za kapitalom, već u odnosu na Bazel II ide korak dalje kada je u pitanju postavljanje standarda za osnaživanje likvidnosne pozicije banaka. Dakle, Bazel III po prvi put uvodi međunarodno harmonizovane standarde za upravljanje likvidnošću. Ovim standardima se definišu minimalni zahtjevi kada je u pitanju upravljanje likvidnošću. Standardi upravljanja likvidnošću u okviru Bazela III su nastali kao odgovor na činjenicu da su tokom poslednje globalne finansijske krize mnoge banke imale likvidnosne probleme uprkos

njihovoj adekvatnoj kapitalizovanosti. Adekvatna kapitalizovanost se nije pokazala kao dovoljna poluga za održavanje stabilnosti bankarskog i uopšte finansijskog sistema. Kriza je pokrenula pitanje važnosti likvidnosti u pogledu odgovarajućeg funkcionisanja bankarskog sektora i finansijskih tržišta. Prije krize tržišta su bila dinamična i finansiranje je bilo dostupno uz niske troškove. Nagli preokret u tržišnim uslovima je pokazao koliko brzo likvidnost može nestati i nelikvidnost može potrajati izvjesno vrijeme.

Bazelski komitet za superviziju banaka je razvio standarde upravljanja likvidnošću na način da zadovolje dva cilja koja su komplementarna. Prvi od njih je ispunjavanje likvidnosti u kratkom roku. Ovaj cilj podrazumjeva da

banke imaju dovoljan nivo visoko kvalitetnih likvidnosnih rezervi koje će im omogućiti da prežive aktune stres scenarije u trajanju od mjesec dana. Bazelski komitet za superviziju banaka je razvio poseban indikator – „Liquidaty Coverage Ratio“ (LCR) kojim se mjeri kratkoročna otpornost banaka na potencijalne likvidnosne probleme. Drugi cilj predstavlja promovisanje otpornosti banaka na likvidnosne probleme u roku od godinu dana. Ovdje je cilj da banke obezbijede finansiranje njihovih aktivnosti sa stabilnijim izvorima finansiranja. U ovu svrhu je razvijen poseban indikator - „Net Stable Funding Ratio“ (NSFR) koji, kao što smo rekli ima vremenski horizont od jedne godine i koji je razvijen da obezbijedi održivu ročnu strukturu aktive i pasive. U daljem tekstu fokusiraćemo se na objašnjenje LCR pokazatelja.

*“Adekvatna kapitalizovanost se nije pokazala kao dovoljna poluga za održavanje stabilnosti bankarskog sistema*

LCR = HQLA / Ukupan neto odliv u narednih 30 dana  
LCR >= 100%

# Basel III: Short-Term Liquidity

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Committee in the Banking  
Association

*“Adequate capital levels did not prove to be sufficient leverage to maintain the stability of banking and financial system in general*

Strong capital requirements stand out among the main features of the Basel III as the necessary condition for the banking system stability. However, Basel III does not stop on the reinforced capital requirements, but compared to the Basel II, it goes even further when it comes to setting up the standards for enhancing liquidity position of banks. Thus, Basel III introduces for the first time internationally harmonised standards for liquidity management. These standards define minimum requirements for liquidity management. Standards for liquidity management within the Basel III were prepared as a response to the fact that in the post-crisis period, many banks experienced problems with their liquidity despite their adequate capital levels. Adequate capital

levels did not prove to be sufficient leverage to maintain the stability of banking and financial system in general. The crisis set in motion the

importance of liquidity to proper functioning of the banking sector and financial markets. Prior to the crisis, asset markets were buoyant and funding was readily available at low cost. The rapid reversal in market conditions illustrated how quickly liquidity can evaporate, and that illiquidity can last for an extended period of time.

Basel Committee on Banking Supervision developed standards for liquidity management to meet two complementary objectives. The first objective is to meet short-term

liquidity. This objective implies that banks will have sufficient high quality liquidity assets (HQLA) to survive a significant stress scenarios lasting one month. Basel Committee on Banking Supervision developed a special indicator – Liquidity Coverage Ratio (LCR), which measures short-term banks’ resilience to potential liquidity problems. The second objective is to promote banks’ resilience to liquidity problems lasting one year. It is aimed at ensuring that the banks fund their activities using more stable sources of funding. The indicator developed for this purpose is Net Stable Funding Ratio (NSFR) with one-year time horizon. It is developed to provide sustainable maturity structure of assets and liabilities. We will further in this paper focus on the explanation of the LCR.

$LCR = HQLA / \text{total net cash outflow in the next 30 days}$

$LCR \geq 100\%$

*“The rapid reversal in market conditions illustrated how quickly liquidity can evaporate, and that illiquidity can last for an extended period of time*

## *“Prvi cilj je ispunjavanje likvidnosti u kratkom roku, a drugi promovisanje otpornosti banaka na likvidnosne probleme u roku od godinu dana*

HQLA („High Quality Liquidaty Assets“) predstavlja visoko kvalitetna likvidna sredstva koja su sastavljena od gotovine ili finansijskih instrumenata koji su likvidni na finansijskim tržištima što znači da se jednostavno, brzo i uz minimalne troškove mogu unovčiti. Osnovne karakteristike HQLA: nizak rizik, jednostavnost i izvjestnost procjene vrijednosti, niska korelacija sa rizičnom aktivom, kotiranje na organizovanim tržištima, utrživost, niska volatilitnost cijene i tendencija ulaganja u ove finansijske instrumente u vremenima krize. Postoje dvije kategorije imovine koje mogu biti uključene u HQLA: tzv. „Nivo 1“ i „Nivo 2“. Imovina koja pripada „nivou 1“ može se uključiti u HQLA bez ograničenja, dok imovina „nivo 2“ ne može biti više od 40% HQLA. Međutim, nacionalni regulatori zadržavaju pravo da zahtjevaju haircut-ove za imovinu iz „nivoa 1“ u zavisnosti od ročnosti, kreditnog i likvidnostnog rizika. Imovina u „nivou 1“ je sastavljena od:

- 1) Gotovine;
- 2) Rezervi kod centralne banke (uključujući obaveznu rezervu) do mjere do koje centralna banka dozvoljava da budu povučene u periodu stresa;
- 3) Utrživih hartija od vrijednosti izdatih od države, centralnih banaka, Banke za međunarodna poravnjanja, Međunarodnog monetarnog fonda, Evropske

centralne banke, ili međunarodnih razvojnih banaka i ujedno zadovoljavajući sledeće uslove: da se dodjeljuje 0% ponder na takve hartije od vrijednosti za kreditni rizik prema standardizovanom pristupu u okviru Bazela II; da su takve hartije od vrijednosti predmet trgovanja na razvijenim finansijskim tržištima; da predstavljaju pouzdan izvor likvidnosti čak i tokom stresnih tržišnih uslova; da ne predstavljaju obavezu predmetnoj finansijskoj instituciji niti njenim subsidijarima;

- 4) Hartije od vrijednosti izdatih od države ili centralne banke u domaćoj valuti čak i ako se na odnosnu državu ili centralnu banku primjenjuje veći ponder za rizik od 0% ukoliko je rizik likvidnosti preuzet u toj državi ili se radi o matičnoj državi banke;
- 5) Hartije od vrijednosti izdatih od matične države ili centralne banke u stranoj valuti su podesne do iznosa bančnih stresnih neto odliva u datoj stranoj valuti.

Kada je u pitanju „nivo 2“ imovina važno je naglasiti da se ista dijeli na 2 potkategorije: „nivo 2A“ i „nivo 2B“. Osim što „nivo 2“ imovina ne može biti više od 40% HQLA, potrebno je istaći da se na pojedinačnu imovinu iz okvira „nivo 2“ primjenjuju haircut-ovi, pa se tako na pojedinačnu imovinu iz domena „nivo 2A“ primjenjuje

haircut od 15%, dok haircut na imovinu iz opsega „nivo 2B“ zavisi od tipa imovine. Sledeća imovina se uključuje u „nivo 2A“:

- 1) Utržive hartije od vrijednosti izdate od strane države, centralne banke ili multilateralnih razvojnih banaka koji zadovoljavaju sledeće uslove: dodjeljuje se 20% ponder za kreditni rizik prema standardizovanom pristupu u okviru Bazela II; da su takve hartije od vrijednosti predmet trgovanja na razvijenim finansijskim tržištima; da predstavljaju pouzdan izvor likvidnosti čak i tokom stresnih tržišnih uslova; da ne predstavljaju obavezu predmetnoj finansijskoj instituciji niti njenim subsidijarima;
- 2) Korporativne dužničke hartije od vrijednosti („Corporate Debt Securities“) ili pokrivene obveznice („covered bonds“) koje zadovoljavaju sledeće uslove: u slučaju pokrivenih obveznica nisu izdate od strane odnosne finansijske institucije niti od njenih subsidijara; u slučaju pokrivenih obveznica nisu izdate od odnosne banke ili njenih subsidijara; imaju dugoročni kreditni rejting određen od strane priznate eksterne rejting agencije minimum AA- ili u odsustvu dugoročnog kreditnog rejtinga imaju kratkoročni kreditni rejting koji kvalitetom odgovara prethodno opisanom dugoročnom kreditnom rejtingu ili ukoliko nemaju kreditni rejting određen od strane priznate eksterne rejting agencije interno im je određena vjerovatnoća neplaćanja („probability of default) koja odgovara kreditnom rejtingu AA-; da su takve hartije od vrijednosti



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predmet trgovanja na razvijenim finansijskim tržištima; da predstavljaju pouzdan izvor likvidnosti čak i tokom stresnih tržišnih uslova.

Kao što smo gore naveli u „nivo 2“ imovinu može biti uključena i dodatna imovina koju označavamo kao „nivo 2B“ a što je u diskreciji nacionalne regulative. Supervisor očekuje da banke imaju odgovarajuće sisteme i mjerenja da vrše monitoring potencijalnih rizika za imovinu koja je predmet uključivanja u „nivo 2B“. Sledeća imovina se uključuje u „nivo 2B“:

1) Hartije od vrijednosti bazirane na stambenim kreditima („Residential Mortgage Backed Securities“) se uključuju nakon primjene haircut-a od 25% ukoliko zadovoljavaju sledeće uslove: nisu izdate, niti imovina koja ih obezbeđuje predstavlja imovinu odnosno banke niti njenog subsidijara; ima dugoročni kreditni rejting određen od strane priznate međunarodne eksterne agencije minimum AA ili u odsustvu dugoročnog rejtinga ima kratkoročni kreditni rejting koji kvalitetom odgovara prethodno pomenutom dugoročnom rejtingu; da su takve hartije od vrijednosti predmet trgovanja na razvijenim finansijskim tržištima; da predstavljaju pouzdan izvor likvidnosti čak i tokom stresnih tržišnih uslova; imovina koja predstavlja obezbijedenje je ograničena samo na stambene kredite; stambeni krediti koje predstavljaju sredstvo obezbijedenja su tzv. „full recourse“ krediti, odnosno predstavljaju neupitno potraživanje banke i minimalni prosječni LTV („Loan to Value“), to jest odnos kredita i vrijednosti hipoteke je 80%; izdavalac hartija od vrijednosti

zadržava rizik („risk retention“) stambenih kredita;

2) Korporativne dužničke hartije od vrijednosti („Corporate Debt Securities“) se uključuju nakon primjene haircut-a od 50% ukoliko zadovoljavaju sledeće uslove: nisu izdate od odnosne finansijske institucije niti od njenih subsidijara; imaju dugoročni kreditni rejting dodjeljen od strane priznate eksterne rejting agencije između A+ i BBB- ili u odsustvu dugoročnog rejtinga imaju kratkoročni kreditni rejting ekvivalentan pomenutom dugoročnom kreditnom rejtingu ili nemaju kreditni rejting dodjeljen od strane priznate eksterne agencije ali imaju interno određenu vjerovatnoću neplaćnja („probability of default“) između A+ i BBB-; da su takve hartije od vrijednosti predmet trgovanja na razvijenim finansijskim tržištima; da predstavljaju pouzdan izvor likvidnosti čak i tokom stresnih tržišnih uslova;

3) Akcije se uključuju nakon primjene haircuta od 50% ukoliko zadovoljavaju sledeće uslove: nisu izdate od odnosne finansijske institucije niti od njenih subsidijara; konstituišu berzanski indeks; denominovani u domaćoj valuti matične zemlje banke ili u valuti gdje je preuzet likvidnosni rizik; da su takve hartije od vrijednosti predmet trgovanja na razvijenim finansijskim tržištima; da predstavljaju pouzdan izvor likvidnosti čak i tokom stresnih tržišnih uslova.

Za izračunavanje LCR pokazatelja potrebno je procijeniti i ukupan neto odliv u narednih 30 dana. Ukupne neto odlive mogli bismo predstaviti na sledeći način:

Ukupni neto odlivi u narednih 30 kalendarskih dana = Ukupni očekivani

odlivi – Minimum (ukupni očekivani prilivi; 75% ukupnih očekivanih odliva)

Prije nego što objasnimo kako se procjenjuju ukupni očekivani odlivi i ukupni očekivani prilivi bitno je naglasiti da bankama nije dozvoljeno da dupliraju određene stavke, to jest imovina koja je uključena u visoko kvalitetnu aktivu (brojilac LCR pokazatelja), povezani prilivi sa tom imovinom ne mogu se uključiti u ukupne očekivane prilive (jedan od faktora imenioca). Ukupni očekivani odlivi se dobijaju kao zbir proizvoda niže navedenih stavki sa odgovarajućom stopom. U procjenu očekivanih odliva uzimamo u obzir sledeće:

1) Povlačenje depozita stanovništva.

Depoziti stanovništva se dijele na stabilne i manje stabilne depozite. Stabilni depoziti su oni koji su u potpunosti osigurani kroz efektivne depozitne šeme osiguranja ili javnim garancijama koje obezbeđuju ekvivalentnu zaštitu i gdje deponenti imaju uspostavljene šire poslovne odnose sa bankom koji čine povlačenje depozita malo vjerovatnim ili se depoziti uplaćuju na transakcionim računima (na primjer računima gdje se primaju plate). Na stabilne depozite se primjenjuje stopa od minimum 3%. Manje stabilni depoziti su oni koji nisu u potpunosti pokriveni kroz efektivne depozitne šeme osiguranja ili javnim garancijama koje obezbeđuju ekvivalentnu zaštitu, depoziti visokih iznosa, depoziti koji mogu da budu povučeni vrlo brzo (npr. internet depoziti) i depoziti u stranoj valuti. Na manje stabilne depozite se primjenjuje stopa od minimum 10%. Ako banka nije u mogućnosti da jednostavno razdvoji stabilne o manje stabilnih depozita, onda je potrebno da sve depozite

*“The first objective is to meet short-term liquidity, while the second objective is to promote banks’ long-term resilience to liquidity problems lasting one year*

High quality liquidity assets (HQLA) consist of cash or financial instruments that can be easily and immediately converted into cash at little or no loss of value. The main features of HQLA are: low risk, ease and certainty of valuation, low correlation with risky assets, listed on organized markets, marketability, low volatility, and tendencies of investment into these types of financial instruments in systemic crisis. There are two categories of assets that could be included into HQLA: Level 1 assets and Level 2 assets. Level 1 assets can be included without limits, while Level 2 assets can only comprise up to 40% of the HQLA. However, national regulators may require haircuts for Level 1 assets based on their duration, credit and liquidity risk. Level 1 assets are limited to:

- 1) Coins and banknotes;
- 2) Central bank reserves (including reserve requirement) to the extent that the central bank policy allow them to be drawn down in times of stress;
- 3) marketable securities representing claims on or guaranteed by sovereigns, central banks, the Bank for International Settlements, the International Monetary Fund, the European Central Bank, or multilateral development bank and satisfying all of the following conditions: assigned a 0% risk-weight under the Basel II standardized approach for credit

risk; traded in large, deep and active financial markets; have proved record as a reliable source of liquidity in the markets even during stressed market conditions; not an obligation of a financial institution or any of its affiliated entities;

- 4) where the sovereign has a non-0% risk weight, sovereign or central bank debt securities issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken or in the bank’s home country;
- 5) Domestic sovereign or central bank debt securities issued in a foreign currency are eligible up to the amount of bank’s stressed net cash outflows in that specific currency.

Level 2 assets comprises of two sub-categories: Level 2A assets and Level 2B assets. In addition to the fact that Level 2 assets cannot be more than 40% of HQLA, it should be mentioned that haircuts are applied to individual assets within the Level 2 assets. Thus, a 15% haircut is applied to individual assets within the Level 2A assets, while haircut for Level 2B assets depends on the type of the assets. The Level 2A assets includes the following assets:

- 1) Marketable securities representing claims on or guaranteed by

sovereigns, central banks or multilateral development bank that satisfy all of the following conditions: assigned a 20% risk-weight under the Basel II Standardised Approach for credit risk; traded in large, deep and active financial markets; have a proven record as a reliable source of liquidity even during stressed market conditions; not an obligation of a financial institution or any of its affiliated entities;

- 2) Corporate debt securities or covered bonds that satisfy all of the following conditions: in the case of corporate debt securities, not issued by a financial institution or its affiliated entities; in the case of covered bonds, not issued by the bank itself or any of its affiliated entities; either have a long-term credit rating from a recognized external rating institution (ECAI) of at least AA- or in the absence of a long-term rating, a short-term rating equivalent in the quality to the long-term rating, or do not have a credit assessment by a recognized external credit assessment institution by are internally rated as having a probability of default corresponding to a credit rating of at least AA-; traded in large, deep and active financial markets; have a proven record as a reliable source of liquidity even during stressed market conditions.

kvalifikuje kao manje stabilne depozite.

2) Povlačenje neobezbjedenih „wholesale“ izvora. U pogledu izračuna LCR pokazatelja, neobezbjedeni „wholesale“ izvori su definisani kao one obaveze prema pravnim licima koje nisu obezbjedenje određenom imovinom. Neobezbjedeni „wholesale“ izvori mogu biti kategorisani na:

- Neobezbjedeni „wholesale“ izvori od malih klijenata: 5%, 10% ili viša;
- Operativni depoziti nastali iz kliring, kastodi i upravljanjem novcem aktivnosti: 25%;
- Tretman depozita u institucionalnoj mreži kooperativnih banaka: 25% ili 100%;
- Neobezbjedeni „wholesale“ izvori dobijeni od nefinansijskih korporacija, država, centralnih banaka i multilateralnih razvojnih banaka: 20% ili 40%;
- Neobezbjedeni „wholesale“ izvori dobijeni od ostalih pravnih lica: 100%.

3) Povlačenje obezbjedenih izvora. Na obezbjedenje izvora se primjenjuju različite stope zavisno od vrste obezbjedenja;

- Obezbjedeni „nivo 1“ imovinom 0%;
- Obezbjedeni „nivo 2A“ imovinom 15%;
- Obezbjedeni hartijama od vrijednosti baziranim na stambenim kreditima (dio „nivo 2B“ imovine) 25%;
- Obezbjedeni ostalom „nivo 2B“ imovinom 50%;
- Ostalo 100%.

Kada govorimo o ukupnim očekivanim prilivima, dozvoljeno je da banka kao očekivane prilive tretira samo ugovorene prilive (uključujući kamate) koji proizilaze iz zdravog dijela bančinog portfolija i za koji banka nema razloga da očekuje nenaplativost („default“) u narednih 30 dana. Banke i supervizori treba da prate koncentraciju očekivanih priliva kako bi osigurale da bančine likvidnosne pozicije ne zavise snažno od jednog ili nekoliko subjekata. Definisana je tzv. kapica („cap“) na očekivane prilive u smislu njihovog uvažavanja u LCR kalkulaciji. Kapica je postavljena na nivo od 75% ukupnih očekivanih odliva. Ovo je uvedeno kako se banke ne bi ograničavale samo na ukupne očekivane prilive već držale minimum 25% visoko kvalitetnih likvidnih sredstava. U očekivane prilive ubrajamo sledeće:

1) Obezbjedeni zajmovi, uključujući repo transakcije i hartije od vrijednosti. Zajmovi mogu biti obezbjedeni različitim kolateralima u zavisnosti od čega je primjenjena stopa priznavanja istih u očekivane prilive, pa tako imamo sledeće kategorije:

- Zajmovi obezbjedeni „nivoom 1“ 0%;
- Zajmovi obezbjedeni „nivoom 2A“ 15%;
- Zajmovi obezbjedeni stambenim kreditima (dio imovine „nivo 2B“) 25%;
- Zajmovi obezbjedeni ostalom „nivo 2B“ imovinom 50%;
- Zajmovi obezbjedeni ostalim kolateralima 100%.

Stopa od 0% za zajmove obezbjedene najlikvidnijom imovinom („nivo 1“) je zbog pretpostavke da će isti biti produženi i ako dospjevaju u roku od 30 dana, dok je pretpostavka kod onih zajmova koje obezbeđuje manje likvidna imovina da isti neće biti produženi. Izuzetak od gore navedenog je situacija kada se kolaterali uzimaju kroz repo transakcije ili kolateralizovane svopove da se pokrije kratka pozicija koja može biti produžena preko 30 dana. U toj situaciji stopa priznavanja ovakvih zajmova u očekivane prilive je 0%.

2) Sredstva kod drugih finansijskih institucija („Committed facilities“). Stopa priznavanja u očekivane prilive za sredstva koja banka drži kod drugih finansijskih institucija je 0%. Ovako niska stopa prinosa je zbog toga da se banka ne bi oslanjala na ova sredstva jer ona često nose kontingentni rizik. Takođe, nastanak određenih likvidnosnih problema u jednoj banci bi se lako prelilo na drugu banku ukoliko bi se banka oslanjala na ova sredstva.

3) Ostali prilivi od trećih lica se dijele na: prilive od stanovništva i male privrede i ostali „wholesale“ prilivi. Stopa priznavanja u očekivane prilive za stanovništvo i malu privredu, naravno kada govorimo o onome što dospjeva u narednih 30 dana i što je procenjeno kao naplativo je 50%.

LCR pokazatelj treba da bude minimum 100% što znači da suma visoko kvalitetne likvidne aktive kojom banka raspolaže treba da bude jednaka ili veća od ukupnih neto odliva koje će banka imati u narednih 30 dana. Pojedinačne banke mogu definisati svojim internim rizikom apetitom da LCR pokazatelj bude postavljen kao minimum 110%, 120% ili neki višiji procenat kako bi osigurale da njihova likvidnost u kratkom roku bude na visokom nivou.

*“LCR pokazatelj treba da bude minimum 100% što znači da suma visoko kvalitetne likvidne aktive treba da bude jednaka ili veća od ukupnih neto odliva koje će banka imati u narednih 30 dana*



As it has been already mentioned, additional assets, Level 2B assets, may be included in Level 2 assets at the discretion of national regulation. A supervisor expects that the banks will have corresponding systems and measurements to monitor potential risks for the assets subject to their inclusion into Level 2B assets. Level 2B assets includes the following assets:

- 1) Residential Mortgage Backed Securities (RMBS) that satisfy all of the following conditions, subject to a 25% haircut: not issued by, and the underlying assets have not been originated by the bank itself or any of its affiliated entities; have a long-term credit rating from a recognised ECAI of AA or higher, or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating; traded in large, deep and active financial markets; have a proven record as a reliable source of liquidity even during stressed market conditions; the underlying asset pool is restricted to residential mortgages; the underlying mortgages are “full recourse” loans and are a maximum loan-to-value ratio (LTV) of 80% on average at issuance; the securitizations are subject to “risk retention” of residential loans;
- 2) Corporate debt securities that satisfy all of the following conditions, subject to a 50% haircut: not issued by a financial institution or any of its affiliated entities; either (i) have a long-term credit rating from a recognised ECAI between A+ and BBB- or in the absence of a long term rating, a short-term rating equivalent in

quality to the long-term rating; or (ii) do not have a credit assessment by a recognised ECAI and are internally rated as having a PD corresponding to a credit rating of between A+ and BBB-; traded in large, deep and active financial markets; have a proven record as a reliable source of liquidity even during stressed market conditions;

- 3) Common equity shares that satisfy all of the following conditions, subject to a 50% haircut: not issued by a financial institution or any of its affiliated entities; a constituent of the major stock index; denominated in the domestic currency of a bank's home jurisdiction or in the currency where a bank's liquidity risk is taken; traded in large, deep and active financial markets; have a proven record as a reliable source of liquidity even during stressed market conditions.

Total net cash outflows for the subsequent 30 calendar days should be assessed for LCR calculation. Total net cash outflows may be presented as follows:

Total net cash outflows over the next 30 calendar days = Total expected cash outflows – Minimum (total expected cash inflows; 75% of total expected cash outflows)

Before explaining how to assess total expected cash outflows and total expected cash inflows, it is important to emphasise that the banks are not allowed to double count items, i.e. if an asset is included as a part of the stock of HQLA (the numerator of the LCR), the associated cash inflows cannot also be counted as cash inflows (part of

the denominator). Total expected cash outflows are obtained as a sum of product of the following items multiplied by corresponding rate. The following is included in the assessment of the expected cash outflows:

- 1) Retail deposit run-off. Retail deposits are divided into stable and less stable deposits. Stable deposits are those that are fully insured by an effective deposit insurance scheme or by a public guarantee that provides equivalent protection and where the depositors have other established relationships with the bank that make deposit withdrawal highly unlikely; or deposits are in transactional accounts (e.g. accounts where salaries are automatically deposited). Stable deposits usually receive a run-off rate of minimum of 3%. Less stable deposits are those that are not fully insured by an effective deposit insurance scheme or by a public guarantee that provides equivalent protection, high-value deposits, deposits that can be withdrawn quickly (e.g. internet deposits) and foreign currency deposits. Less stable deposits receive a run-off rate of minimum of 10%. If a bank is not able to readily separate stable deposits from less stable deposits, it should qualify all deposits as less stable deposits.
- 2) Unsecured wholesale funding run-off. For the purposes of the LCR, unsecured wholesale funding sources are defined as those liabilities that are raised from legal persons that are not collateralised. The unsecured wholesale funding sources may be categorized as follows:



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**NLB Viber chat** je nova usluga banke preko koje korisnici Vibera mogu dobiti bitne informacije o ponudi, naručiti uslugu, provjeriti uslove, prijaviti reklamaciju, uspostaviti razgovor sa operaterom ili dogovoriti vrijeme sastanka.

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- unsecured wholesale funding provided by small business customers: 5%, 10% and higher;
- operational deposits generated by clearing, custody and cash management activities: 25%;
- treatment of deposits in institutional networks of cooperative banks: 25% or 100%;
- unsecured wholesale funding provided by non-financial corporates and sovereigns, central banks and multilateral development banks: 20% or 40%;
- unsecured wholesale funding provided by other legal entity customers: 100%.

3) Secured funding run-off. Different run-off rates are applied to secured funding depending on the type of collateral;

- Backed by Level 1 assets: 0%;
- Backed by Level 2A assets: 15%;
- Backed by RMBS eligible for inclusion in Level 2B: 25%;
- Backed by other Level 2B assets: 50%;
- All others: 100%.

When considering total expected cash inflows, the bank is allowed to treat expected cash inflows only as contractual inflows (including interest payments) from outstanding exposures that are fully performing and for which the bank has no reason to expect a default within the 30-day time horizon. Banks and supervisors should monitor the concentration of expected inflows in order to ensure that bank's liquidity positions are not overly dependent on one or a limited number of entities. The cap is defined on expected inflows with regard to their inclusion into

*“The LCR should be at a minimum of 100%, which means that total HQLA the bank has should be equal or higher than total net cash outflows the bank will have in the next 30 days*

the LCR calculation. The cap is set at 75% of total expected outflows. This is introduced so that the banks would not be limited only to total expected inflows but to maintain a minimum of 25% of HQLA. Expected inflows include the following:

- 1) Secured lending, including repos and securities borrowing. Lending may be backed by different collaterals which results in the application of different rates for their recognition into the expected inflows. Thus, we have different categories as follows:
  - Secured lending backed by Level 1 assets: 0%;
  - Secured lending backed by Level 2A assets: 15%;
  - Secured lending backed by RMBS eligible for Level 2B assets: 25%;
  - Secured lending backed by other Level 2B assets: 50%;
  - Margin lending backed by all other collateral: 100%.

Secured lending backed by HQLA (Level 1) receives as 0% rate due to the assumption that they it be rolled-over and mature within a 30-day time horizon, while it is assumed that those backed by non-HQLA will not be rolled-over. The exemption is a situation where the collateral is obtained through repo

transactions or collateral swaps to cover short positions that could be extended beyond 30 days. In such a situation, these loans receive a 0% inflow rate.

2) Committed facilities. Committed facilities recognized into expected inflows receive a 0% inflow rate. Such a low rate of return is that the bank would not rely on these facilities as they often bear contagion risk. Also, the emergence of certain liquidity problems in a bank would easily spill over to another bank if the bank would rely on these facilities.

3) Other inflows by counterparties are divided into: retail and small business inflows, and other wholesale inflows. Retail and small business receive a 50% inflow rate if they mature within a 30-day horizon and fully performing.

The LCR should be at a minimum of 100%, which means that total HQLA the bank has should be equal or higher than total net cash outflows the bank will have in the next 30 days. Individual banks may define, in its internal risk appetite, the LCR at a minimum of 110%, 120% or higher to ensure that their short-term liquidity is at a high level.

# Novi regulatorni zahtjevi EU za problematične kredite

Sanja Kočović  
Direktor odeljenja za finansijske institucije i usluge  
KPMG d.o.o. Beograd



Finansijska kriza i naknadne recesije su za posledicu imale rast broja dužnika u Evropskoj uniji koji nisu bili u stanju da otplate svoje kredite, budući da se sve više fizičkih i pravnih lica suočavalo sa kontinuiranim teškoćama u plaćanju, pa čak i sa bankrotstvom. Tendencija je posebno bila izražena u državama članicama koje su se suočile sa dugim ili dubokim recesijama. Posledično, u bilansima mnogih banaka došlo je do akumuliranja problematičnih kredita (u daljem tekstu: NPL).

Analize Evropskog tijela za bankarstvo (u daljem tekstu: EBA), kao i istraživanja drugih međunarodnih organizacija, pokazale su da NPL predstavlja problem, kako na mikroprudencijalnom, tako i na makroprudencijalnom nivou. Na mikroprudencijalnom nivou, visok nivo NPL dovodi se u vezi sa nižom profitabilnošću i efikasnošću, i visoki nivoi NPL-ova u bilansima banaka mogu ozbiljno ugroziti održivost njihovih poslovnih modela. Na makroprudencijalnom nivou, visok nivo NPL dovodi se u vezi sa stagnacijom rasta, s obzirom da je kapital vezan za NPL i posledično je smanjeno plasiranje novih kredita ekonomskim subjektima. Takođe, visok nivo NPL negativno utiče na otpornost bankarskog sektora na potrese i stoga povećava izloženost sistemskom riziku.

U julu 2017. godine, Evropski savjet usvojio je Akcioni plan za rješavanje NPL. Pri tom, Savjet je zaključio da je za rješavanje problema postojećih NPL, kao i za sprečavanje nastanka i akumuliranja novih NPL

u bilansima banaka, potreban sveobuhvatan pristup, koji bi podrazumijevao kombinaciju komplementarnih aktivnosti na nacionalnom nivou i na nivou EU.

U periodu koji je uslijedio, regulatorna tijela i institucije EU, svako u svojoj nadležnosti, su pokrenuli niz inicijativa i projekata sa ciljem davanja doprinosa realizaciji Akcionog plana.

Posljednje izmjene regulative u Evropi u vezi sa NPL izvršene su u decembru 2018. i januaru 2019. godine, kada su objavljene:

- A. Smjernice EBA o objelodanjivanjima o problematičnim i restrukturiranim izloženostima (objavljene 17. decembra 2018) i
- B. Ažurirani tekst predloga izmjena i dopuna Regulative (EU) br. 575/2013 u vezi sa zahtijevanim minimalnim nivoom pokrića NPL („bonitetni zaštitni mehanizam Evropske komisije“).

Pored navedenog, Evropska centralna banka (u daljem tekstu: ECB) se u svojim SREP dopisima fokusirala na NPL, uključujući pritom i supervizorska očekivanja u vezi sa nivoom pokrića NPL u narednim godinama.

Prethodno je ECB u julu 2018. godine objavila da planira određivanje supervizorskih očekivanja u vezi sa nivoom pokrića NPL-a po bankama.

*“Posljednje izmjene regulative u Evropi u vezi sa NPL izvršene su u decembru 2018. i januaru 2019. godine*

# New EU regulatory requirements for non-performing loans

Sanja Kočović

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Financial crisis and subsequent recessions resulted in a growing number of debtors in the European Union that were not able to repay their loans, as the increasing number of natural and legal persons faced with an ongoing repayment difficulties and even bankruptcy. This trend has been particularly evident in the Member States that confronted with long or deep recessions. Consequently, non-performing loans (NPLs) accumulated in balance sheet of many banks.

The analyses of the European Banking Authority (EBA), as well as researches conducted by other international organisations, indicated that NPLs are a problem on both microprudential and macroprudential levels. At microprudential level, high levels of NPLs are associated with lower profitability and lower efficiency, while high NPL levels in the balance sheets of banks may seriously affect the sustainability of their business models. At macroprudential level, high levels of NPLs are connected with the stagnant growth, as capital is tied up in NPLs and consequently there is decreased new lending into economic entities. In addition, high stock of NPLs negatively affects the resilience of the banking sector to shocks and hence increases their exposure to systemic risk.

In July 2017, the European Council adopted the Action Plan to Tackle Non-Performing Loans. The Council concluded that a comprehensive approach consisting a mix of complementary policy actions, at national level and at the European level where

appropriate, was the most effective way to address the existing stocks of NPLs, as well as the emergence and accumulation of new NPLs, on bank balance sheets.

In the subsequent period, regulatory authorities and EU institutions, within their competence, launched a series of initiatives and projects aimed at contributing to the implementation of the Action Plan.

The latest amendments of the regulation in Europe on NPLs were made in December 2018 and in January 2019 when the following was published:

**A.** EBA Guidelines on disclosure of non-performing and forborne exposures (published on 17 December 2018), and

**B.** An updated text of the proposed amendments to the Regulation (EU) No. 575/2013 as regards minimum loss coverage for non-performing exposures (prudential backstop of the European Commission).

In addition, the European Central Bank (ECB) focused in its SREP memos on NPLs, including also supervisory expectations with regard to the coverage level of NPLs in the following years. Previously, in July 2018, the ECB published its plans to set up supervisory expectations with regard to the NPL coverage level per individual banks.

## **A) EBA Guidelines on disclosure of non-performing and forborne exposures**

Currently, credit institutions are not required to disclose a significant volume of information on NPLs.

This may result in an asymmetry between the information on NPLs available to market participants and the information that the institutions internally have, as well as the potential inconsistencies with

*“The latest amendments of the regulation in Europe on NPLs were made in December 2018 and in January 2019*





Cilj uvođenja bonitetnog zaštitnog mehanizma je sprečavanje akumuliranja NPL u bilansima banaka, kao i obezbeđivanje da banke posjeduju dovoljno sredstava za pokriće gubitaka po osnovu NPL. S obzirom da je raspored zahtijevanog minimalnog nivoa pokrića NPL u skladu sa očekivanjima o nelinearnosti, bankama se omogućava da pokušaju na druge načine da riješe problem NPL-a, poput sekundarnih tržišta ili putem vansudskih nagodbi. EBA je kvantitativnom analizom zasnovanom na "veoma konzervativnoj metodologiji" utvrdila da bi uvođenje bonitetnog zaštitnog mehanizma moglo dovesti do kumulativnog (negativnog) uticaja na pokazatelj adekvatnosti osnovnog akcijskog kapitala od 56 baznih poena (na slučaju prosječne banke tokom prvih sedam godina).

ECB je 15. marta 2018. godine objavila konačnu verziju Dodatka Smjernicama ECB-a bankama o problematičnim kreditima (u daljem tekstu: Dodatak). Dodatak dopunjuje kvalitativne smjernice za problematične kredite i definiše regulatorna očekivanja ECB u vezi sa nivoom pokrića problematičnih kredita. Dodatak nije obavezujućeg karaktera i služiće kao osnova za supervizorske dijaloge između banaka i ECB-a.

ECB kvantitativna očekivanja						
Nakon N godina u NPE statusu	2	3	4	5	6	7
Neobezbeđeni deo	100%	100%	100%	100%	100%	100%
Obezbeđeni deo	/	40%	55%	70%	85%	100%

Dodatak ne zamjenjuje postojeće regulatorne ili računovodstvene zahtjeve. Naime, ideja je da se banke podstaknu da u situacijama kada je nivo pokrića problematičnih kredita niži u odnosu na supervizorska očekivanja obračunaju maksimalni mogući nivo ispravki vrijednosti u skladu sa važećim računovodstvenim standardima. Ako je nivo pokrića NPL u skladu sa važećim računovodstvenim standardima niži od supervizorskih očekivanja, banke imaju mogućnost da izvrše prilagođavanje, odnosno umanjenje osnovnog akcijskog kapitala. Tokom supervizorskog dijaloga, najmanje jednom godišnje u kontekstu SREP-a, ECB će sa bankama diskutovati o odstupanjima nivoa pokrića NPL od supervizorskih očekivanja.

## *“Predstoji da vidimo da li će i u kojoj mjeri aktivnosti koje se preduzimaju na nivou EU uticati na izmjenu regulative u Crnoj Gori i posledično na poslovanje banaka*

Treba napomenuti da zahtijevani, odnosno očekivani nivo pokrića NPL u okviru predloženih izmjena i dopuna Regulative EU od strane Evropske komisije i Dodatka ECB-a nisu u potpunosti usaglašeni, ali kako predložene izmjene i dopune od strane Evropske komisije nisu još stupile na snagu, ostaje dovoljno vremena za usklađivanje istih.

### ZAKLJUČAK

Imajući u vidu sve prethodno navedeno, može se zaključiti da regulatorna tijela i institucije EU nastoje da problem NPL rješavaju kako na nivou pojedinačnih kreditnih institucija tako i kroz kreiranje sistemskih rješenja. Takođe, pored aktivnosti na smanjenju akumuliranih NPL u bilansima bankama, fokus je na sprječavanju nastanka i akumuliranja novih NPL. Posljednjim izmjenama regulative posebna pažnja je posvećena podizanju stepena transparentnosti, odnosno smanjenju informacione asimetrije kroz pružanje većeg obima informacija o NPL tržišnim učesnicima, što nije bio slučaj u prethodnom periodu.

Predstoji da vidimo da li će i u kojoj mjeri aktivnosti koje se preduzimaju na nivou EU uticati na izmjenu regulative u Crnoj Gori i posledično na poslovanje banaka i regulatorne zahtjeve pod kojima izvještavaju banke u Crnoj Gori.



The introduction of the prudential backstop is aimed at preventing the accumulation of NPL in banks' balance sheets, as well as ensuring that banks have sufficient resources to cover losses from NPLs. Given that the calendar of the required minimum coverage level for NPLs is in accordance with the expectations of non-linearity, banks are allowed to try address the problem of NPLs in other ways, such as secondary markets or via out-of-court settlements. The EBA determined in its quantitative analysis which was based on very conservative methodology that the introduction of a prudential backstop could lead to a cumulative (negative) impact on the CET1 capital ratio of 56 basis points (in the case of an average bank over a seven-year horizon).

On 15 March 2018, the ECB published the final version of the Addendum to the ECB Guidance to banks for non-performing loans (the Addendum). The Addendum supplements the qualitative guidelines for non-performing loans and defines the regulatory expectations of the ECB regarding the coverage levels for NPLs. The addendum does not have a binding nature and it will be used as a basis for supervisory dialogues between banks and the ECB.

#### ECB quantitative expectations

After N years in NPE	2	3	4	5	6	7
Unsecured portion	100%	100%	100%	100%	100%	100%
Secured portion	/	40%	55%	70%	85%	100%

The Addendum does not replace the existing regulatory or accounting requirements. Namely, the idea is that banks are encouraged to calculate the maximum possible level of value adjustments in accordance with the applicable accounting standards in situations where the coverage level for the non-performing loans is lower than those related to the supervisor's expectations. If the coverage level for the NPLs in line with the applicable accounting standards is lower than the supervisory expectations, the banks are allowed to make adjustments, i.e. to reduce CET1 capital. During the supervisory dialogue, at least once a year in the context of SREP, the ECB will discuss with banks the deviations of the NPL coverage level from the supervisory expectations.

It should be noted that the requested and/or expected coverage level for the NPLs within the proposed

*“We will see in the upcoming period if and to what extent the activities undertaken at EU level will affect the amendments to the regulations in Montenegro and consequently to the operations of banks*

amendments to the EU Regulation by the European Commission and the ECB Addendum have not been fully harmonised. However, as the proposed amendments by the European Commission have not yet come into force, it remains sufficient time for their harmonisation.

#### CONCLUSION

Bearing in mind all of the above-mentioned, it can be concluded that EU regulatory authorities and institutions are

trying to address the NPL problem both at the level of individual credit institutions and through the creation of systemic solutions. In addition to the activities to reduce the accumulated NPLs in banks' balance sheets, the focus is on preventing the emergence and accumulation of the new NPLs. With recent amendments to the regulation, special attention is devoted to raising the level of transparency, i.e. reducing the information asymmetry by providing a greater amount of information on NPLs to market participants, which was not the case in the previous period.

We will see in the upcoming period if and to what extent the activities undertaken at EU level will affect the amendments to the regulations in Montenegro and consequently to the operations of banks and to the regulatory reporting requirements of banks in Montenegro.



Zarija Milić  
Addiko banka

# Novi standard PSD2 uveliko mijenja bankarstvo

*“Realno je i očekivanje da će ova direktiva promijeniti industriju finansijskih usluga kakvu poznajemo*

**B**ankarski sektor u Crnoj Gori će se, iako još nije dio Unije, izmijeniti zbog promjena regulative u EU. Očekivanja su da se promjene i dese u toku sljedeće dvije godine zbog uvođenja novog standarda digitalnih plaćanja kroz PSD2 direktivu (The Payment Services Directive is an EU Directive). U zemljama EU, PSD2 je standard koji će postati obavezujući za sve banke, počev od 14.09.2019. godine.

Novi standard PSD2 i koncept otvorenog bankarstva uveliko mijenjaju finansijsku industriju u Evropi i otvaraju pristup trećim stranama - pružaocima usluga (TPPs – Third Party Providers) ka informacijama o računima i plaćanjima klijenata, kako bi za klijente mogli da kreiraju digitalne usluge.

*“PSD2 otvara tržište koje će pokrenuti inovacije, povećati konkurenciju, omogućiti nove proizvode i usluge za krajnjeg korisnika*

U ovom segmentu se već vidi ulaz na velika vrata tržišta digitalnih transakcija novih fintek (finansij-sko-tehnoloških) kompanija, ali giganata kao što su Google, Apple, Facebook, Amazon itd., a realno je i očekivanje da će ova direktiva promijeniti industriju finansijskih usluga kakvu poznajemo. Kao i svaka velika promjena i ova će uzrokovati početne poteškoće, ali dugoročno koristi od PSD2 će se isplatiti, obzirom na to da otvara tržište koje će pokrenuti inovacije, povećati konkurenciju, omogućiti nove proizvode i usluge za krajnjeg korisnika.

Iskustvo govori da klijenti banke ne vole velike promjene, ali isto tako, ukoliko im se ponudi kvalitetno rješenje, spremni su da ga prihvate.

Otvoreno bankarstvo nije nešto čime bilo koja banka može da se bavi samostalno, niti ono na tržištu može da se desi preko noći. Uspješnost otvorenog bankarstva zavisi od cijelog ekosistema koji će raditi jedinstveno kako bi se uveli novi biznis modeli i kako bi se ponudili inovativni proizvodi i usluge, kao rezultat saradnje banaka i fintek kompanija.

Izmjene u regulativi koje se očekuju i kod nas, nijesu kraj procesa, već samo ulaznica u svijet otvorenog bankarstva, dok su tehnološke inovacije nešto što će biti glavna pokretačka snaga ove industrije.

Jedan od dobrih načina da se ubrza razvoj bankarskog sektora je kreiranje partnerstva sa fintek kompanijama. Otvoreno bankarstvo, za obje strane donosi tehničke izazove i obje strane moraju da sagledaju kako će obraditi veliku količinu podataka i kako će te podatke najbolje koristiti.

# PSD2 Largely Changes Banking Industry

*“The expectation that this Directive will change the financial services industry as we know it, is realistic*

Although still not part of the Union, the banking sector in Montenegro will change as a result of the revisions of the regulation in the EU. These changes are expected in the next two years due to the introduction of the new rules on digital payments through the PSD2 (Payment Services Directive). The PSD2 will become binding for all banks in the EU Member States starting from 14 September 2019.

The PSD2, and a concept of an open banking, largely change the financial industry in Europe and open access for third party providers (TPPs) to information on customers' accounts and payments in order to create digital services for customers.

Zarija Milić  
Addiko Bank

This area has already seen the entrance of FinTech start-ups in the market of digital transactions, but also giants such as Google, Apple, Facebook, Amazon, and the like. Therefore, the expectation that this Directive will change the financial services industry as we know it, is realistic. As any other big change, this change will have some initial difficulties, but in a long run, everyone will benefit from the use of PSD2 since it opens the market that will launch innovations, increase competition, enable new products and services for end users.

The experience shows that the bank's customers do not like big changes, but also, if a qualitative solution is offered to them, they are ready to accept it.

Open banking is not something any of the banks can deal with on its own, or it can happen in the market through the night. The successfulness of open market depends on the entire ecosystem, which will work uniformly to introduce new business models and offer innovative products and services, as a result of cooperation between banks and FinTech companies.

Changes in regulation that are expected even in our country are not the end of the process, but an admission ticket in the world of open banking, while technological innovations are something that will become a main driving force of this industry.

One of good ways to accelerate the development of the banking industry is creating partnerships with FinTech companies. Open banking, on both sides, brings about technical challenges, and both sides have to look at how to handle a large amount of data and how this data will be best used.

*“PSD2 opens the market that will launch innovations, increase competition, enable new products and services for end users*

Banke će moći, pristupom većem broju podataka o klijentima, da ponude i personalizovane proizvode i usluge prilagođene krajnjem korisniku. Čak i danas, u trenutnoj fazi implementacije PSD2 na tržištu EU, može se vidjeti da neke banke nude plaćanja putem novih kanala, a primjer za to su mobilne aplikacije nekih banaka sa objedinjenim podacima iz različitih banaka na jednom mjestu.

Naše banke će imati priliku da prošire ponudu usluga, radeći u isto vrijeme sa fintek kompanijama kako bi odgovorile na promjene zahtjeva klijenata i poboljšale udobnost i bezbjednost u digitalnim kanalima.

Uzmimo za primjer scenario današnjeg online plaćanja računa za kablovsku televiziju. To bi onda izgledalo ovako:

Vaše plaćanje prolazi kroz nekoliko aktivnosti u pozadini: potvrdu plaćanja na portalu, unos podataka kroz sistem za plaćanje i verifikaciju tokenom, spajanje sa vašom karticom (Visom ili Mastercardom), spajanje kartice sa bankom u kojoj se nalazi vaš tekući račun i, na kraju, preusmjerenje određenog iznosa na račun provajdera. Tek onda je vaš račun plaćen.

Nakon implementacije PSD2, vama i provajderu kablovske televizije će biti omogućeno da preskočite dio sadašnjeg procesa.

Sve će početi logovanjem na portal provajdera

### BANKE U CRNOJ GORI BI TREBALO NA VRIJEME DA SE PRIPREME

Danas mali broj banaka u EU gleda na PSD2 kao na regulatorni projekat. Većina njih uveliko mijenja stare vrijednosti kako bi kreirali nove. Banke u Crnoj Gori bi trebalo na vrijeme da se pripreme za otvoreno bankarstvo, prije nego što to regulativa sama po sebi donese.

One banke koje to ne urade na vrijeme, ili ne budu dovoljno brze u tom procesu, gubiće „tržišnu utakmicu“. Pobjednici ovog procesa vjerovatno neće biti najveće banke na tržištu već one koje i danas razumiju činjenicu da klijentski odnos sa bankama neće ubuduće ličiti na današnji model. Tehnologija će biti u funkciji boljeg korisničkog iskustva i proizvoda okrenutih više potrebama potrošača, a to je ono čemu, makar deklarativno, i danas težimo.

kablovske televizije. PSD2 će omogućiti pružiocima usluge, odnosno, provajderu, u ovom slučaju, da dođe do vaše banke i provjeri da li imate sredstava za plaćanje računa. Ako imate upitanu količinu novca, račun će biti odmah plaćen.

PSD2 će klijentima banke omogućiti da svoje podatke o računu daju na dostupnost različitim pružiocima usluga.

Kao što je već rečeno, PSD2 otvara nove šanse za fintek kompanije koje

će dobiti ulogu posrednika u digitalnim plaćanjima. Oni će imati šansu da razvijaju svoje platforme i da ih, na tržištu, ponude kao rješenja za digitalna plaćanja za multibanking platforme. Ovo znači da će nakon implementacije PSD2 regulative, svi klijenti, koji svoje račune imaju kod više komercijalnih banaka, moći da koriste jedinstvenu platformu za vršenje digitalnih plaćanja, umjesto nekoliko koje koriste danas. Iz perspektive korisnika i korisničkog iskustva, ovo će biti novi doživljaj, a dodatna prednost je ta da će korisnik plaćati samo jedan subscription na digitalnu platformu za multibanking.

Bankama bi ovakav pristup mogao da obezbijedi da svoje transakcije ponude po atraktivnijim uslovima za digitalne kanale, jer bi, u jednom trenutku, CAPEX i OPEX, koje imaju po ovim stavka mogli da budu značajno niži.

*“Tehnologija će biti u funkciji boljeg korisničkog iskustva i proizvoda okrenutih više potrebama potrošača*

### BANKS IN MONTENEGRO TO PREPARE ON TIME

Nowadays, a small number of banks in the EU regards the PSD2 as a new regulatory project. The majority of them largely changes old values to create new ones. Banks in Montenegro should prepare on time for open banking, before the regulation imposes it.

Those banks that do not do this on time or are not sufficiently fast in this process, will lose the market game. The winners of this process will probably not be the largest banks in the market but those who still understand the fact that the client relationship with banks will not look like the present model in the future. The technology will be in the function of better user experience and products oriented more towards the consumers, and that is what, even declaratively, we are still aspiring today.

The banks will be able, by accessing large number of customers' data, to offer personalised products and services tailored to the end users. Even today, in the current implementation phase of PSD2 in the EU market, it can be seen that some banks offer payments through new channels, for example, mobile applications of some banks with unified data from different banks in one place.

Our banks will have the opportunity to expand their service offering, working simultaneously with FinTech companies to respond to the customer changing demands and enhance the comfort and security in digital channels.

Let us take, for example, the scenario of the cable TV online bill payment today. That would look like this:

Your payment goes through several background activities: a payment authorisation on the portal, input of data through the payment system and authorisation using token, connection with your payment card (Visa or Mastercard), connection of the payment card with the bank where your current account is opened, and finally, redirecting a certain amount to the provider's account. Only then, your bill is paid.

After implementation of the PSD2, you and the cable television provider will be enabled to skip the part of the current process.

*“The technology will be in the function of better user experience and products oriented more towards the consumers*

It will all begin by logging on to the cable TV provider's portal. In this case, the PSD2 will enable the service providers to come to your bank and check whether there are sufficient funds for the payment of the bill. If so, the bill will be immediately paid.

The PSD2 will ensure the availability of data on the account to different service providers.

As it has been already mentioned, the PSD2

creates new chances for FinTech companies that will pay the role digital payment intermediaries. They will have the chance to develop their platforms and offer them in the market as a solutions for digital payments for multibanking platforms. This means that after the implementation of the PSD2 regulation, all customers who have their accounts with multiple commercial banks will be able to use a single platform for digital payments instead of the few that they use today. From the perspective of user and user experience, this will be a new experience, and the added advantage is that the user will only pay one subscription to the digital multibanking platform.

Banks will be enabled, by using this approach, to offer their transactions under more attractive conditions for digital channels, since at one point of time, their CAPEX and OPEX could be significantly lower.

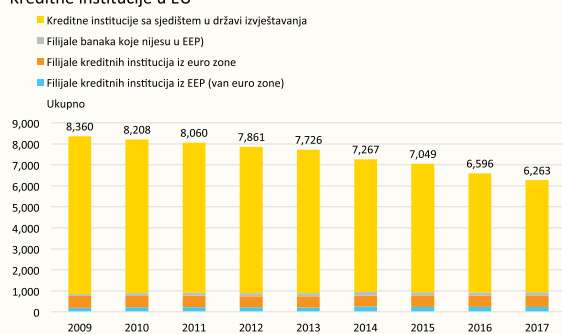
# Struktura i doprinos bankarskog sektora ekonomiji

U poređenju sa 2016. godinom broj bankarskih filijala u EU-28 smanjio se za 3,1% ili za oko 5.900. Ovo djelimično odražava povećanu upotrebu digitalnog bankarstva kod potrošača

## BROJ BANAKA

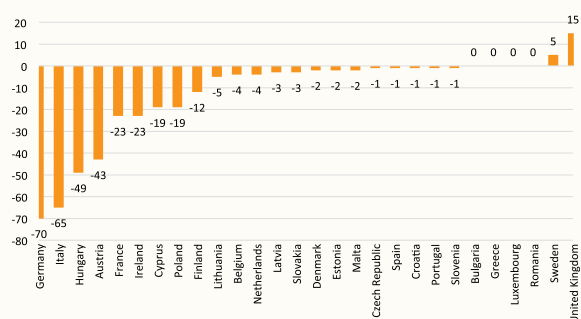
Trend smanjenja broja kreditnih institucija u grupi 28 najrazvijenijih država članica Evropske unije (EU-28), koji je započeo 2009. godine, nastavljen je u 2017. godini smanjujući se na 6.263. Ovo je bio pad od 5% u poređenju sa prethodnom godinom i smanjenje od 2.262 kreditne institucije od početka smanjenja. Većina konsolidacije se desila u okviru kreditnih institucija sa sjedištem u državi izveštavanja gdje se udio tih institucija smanjio za 31% od 2008. godine. Ovaj trend uključuje faktore kao što su spajanja u bankarskom sektoru u cilju snaženja profitabilnosti.

Kreditne institucije u EU



Prema izvještajima ECB, države koje su se suočile sa velikim smanjenjima u apsolutnim iznosima u 2017. godini su Njemačka (-70 jedinica), Italija (-65), Mađarska (-49) i Austrija (-43). Jedine dvije države kod kojih se broj kreditnih institucija povećao su Švedska (+5 jedinica) i Ujedinjeno Kraljevstvo (+15). U 2017. godini, broj kreditnih institucija u državama EFTA-e se smanjio sa 414 na 406.

Promjena u broju kreditnih institucija, 2016 u odnosu na 2017

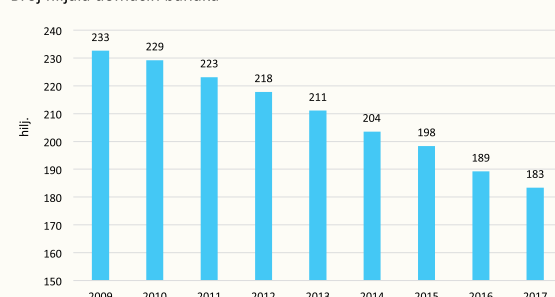


## FILIJALE I ZAVISNA DRUŠTVA

Racionalizacija koja se desila u bankarskom sektoru Evropske unije je uključila i filijale banaka jer je broj filijala banaka nastavile da se smanjuju, tako da je do kraja 2017. njihov broj pao na oko 183.000. U poređenju sa prethodnom godinom, broj filijala u EU-28 smanjio se za 3,1% ili za oko 5.900. Ovo djelimično odražava povećanu upotrebu digitalnog bankarstva kod potrošača.

Broj filijala se smanjio za 21% od 2007. odnosno za gotovo 50.000. Mreža filijala se smanjila za više od 5.000 jedinica od 2007. godine u tri države: Španiji (pad za 18.020 jedinica), Njemačkoj (pad za 8.769) i Italiji (pad za 5.800).

Broj filijala domaćih banaka



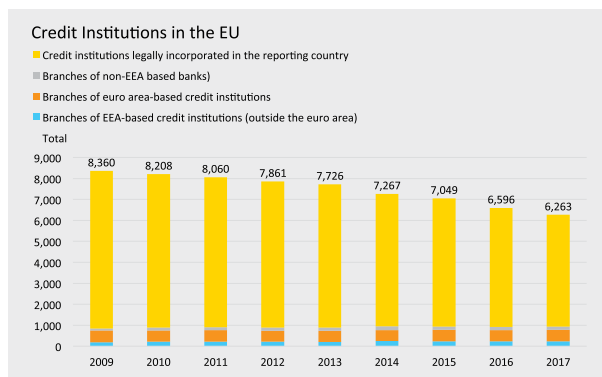
Ukupan broj zavisnih društava je nastavio da se smanjuje već desetu godinu zaredom, i to za 4,4% na 566, dostižići najniži nivo od 1997. godine. Broj

# Structure and economic contribution of the banking sector

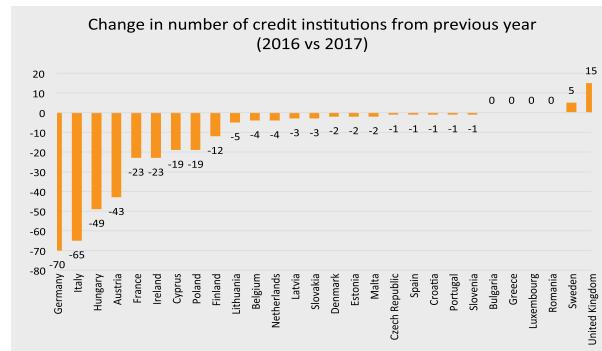
Compared to the previous year, branches in the EU-28 decreased by 3.1% or to about 5,900 branches. This partly reflects the increasing use of digital banking by consumers

## NUMBER OF BANKS

The downward trend in the number of EU-28 credit institutions, which started in 2009, continued in 2017, falling to 6,263. This was a decline of 5% compared to the previous year and a reduction of 2,262 in total since contraction started. Most of the consolidation has occurred within credit institutions legally incorporated into the reporting country, where the stock has fallen by 31% since 2008. This trend includes factors such as mergers in the banking sector with a view to enhancing profitability.



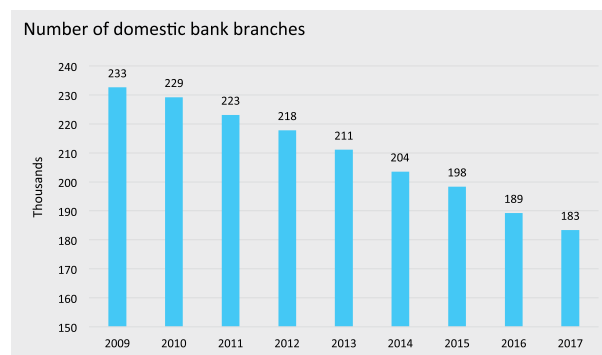
The countries that experienced the largest contraction in absolute terms in 2017 were Germany (-70 units), Italy (-65), Hungary (-49) and Austria (-43), according to the ECB. Sweden (+5 units) and the UK (+15) were the only countries where the number of credit institutions increased. The number of credit institutions in the EFTA countries fell from 414 to 406 in 2017.



## BRANCHES AND SUBSIDIARIES

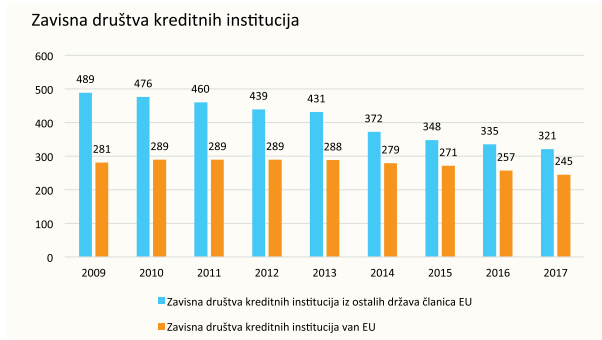
The rationalisation taking place in the EU banking sector also involved bank branches as the number of bank branches continued to shrink, falling to about 183,000 by the end of 2017. Compared to the previous year, branches in the EU-28 decreased by 3.1% or to about 5,900 branches. This partly reflects the increasing use of digital banking by consumers.

The number of branches has fallen by 21% since 2007 or by almost 50,000. Since 2007, the branch network contracted by more than 5,000 units in three countries: Spain (down by 18,020 units) Germany (down 8,769) and Italy (down 5,800).



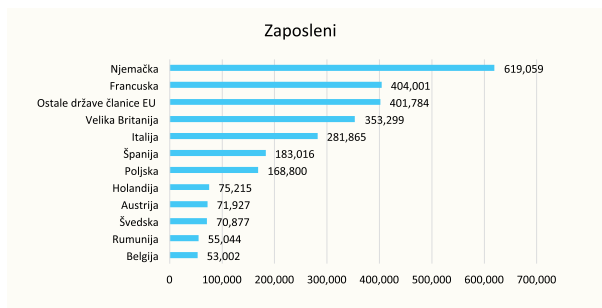
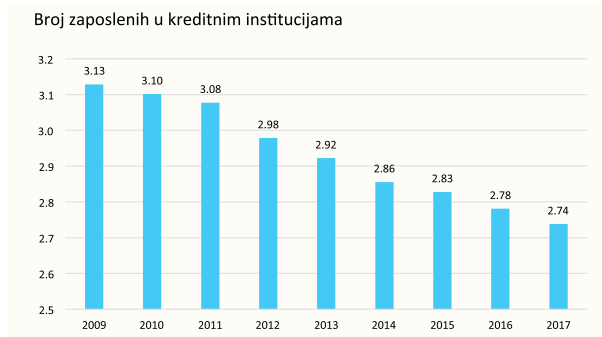
The overall number of subsidiaries continued declining for the tenth consecutive year, falling by 4.4% to 566, the lowest level since 1997. The number of subsidiaries

zavisnih društava kreditnih institucija iz drugih država EU smanjio se za 14 u 2007. godini predstavljajući najniži nivo od 1998. godine. Broj zavisnih društava kreditnih institucija koje ne pripadaju EU opao je na 245, sa 288 koliko ih je bilo 2013 godine.

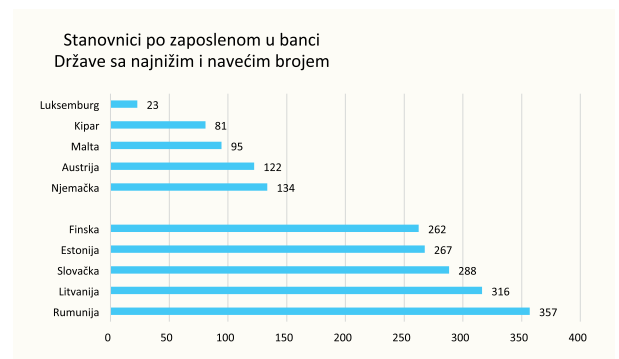
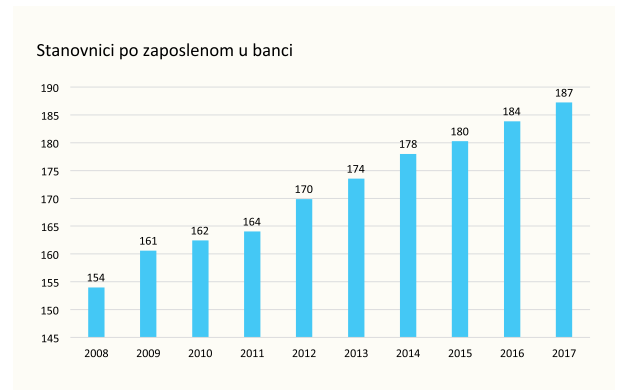


### ZAPOSLENI U BANKARSKOM SEKTORU

Banke EU-28 su zapošljavale oko 2,7 miliona ljudi krajem 2017. godine, što je iznosilo oko 40.000 manje u odnosu na 2016. i predstavlja najniži nivo od kada je ECB počela sa serijom podataka u 1997. Pet najvećih ekonomija Evropske unije i dalje predstavljaju pet država sa najvećim brojem zaposlenih u bankarskom sektoru zapošljavajući 67% od ukupnog zaposlenog stanovništva u EU-28. Broj zaposlenih u bankarskom sektoru, uključujući države članice EFTA, iznosio je oko 2,9 miliona.



Odražavajući takođe stezanje u bankarskom sektoru, prosječan broj stanovnika po zaposlenom u banci u državama članicama EU povećao se sa 184 koliko je iznosio 2016. godine na 187 u 2017. godini. Prosječan broj je porastao od 2008. godine kada je iznosio 154.



### EKONOMSKI DOPRINOS

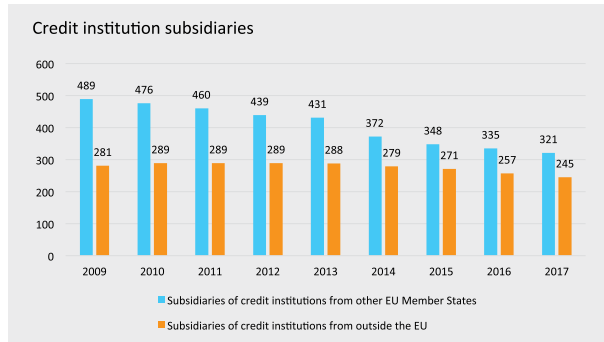
Bankarski sektor i povezane finansijske usluge čine značajno učešće u ekonomiji Evropske unije.

Uprkos padu zaposlenja u bankarskom sektoru prethodnih godina, gotovo na svakih 100 poslova u EU je posao u bankarskom sektoru u 2016. godini.

U posljednjih deset godina, između 3% i 4% vrijednosti naknade zaposlenih i bruto vrijednosti dodate u ekonomiji EU je došlo iz sektora finansijskih usluga (isključujući aktivnosti osiguranja i penzija).

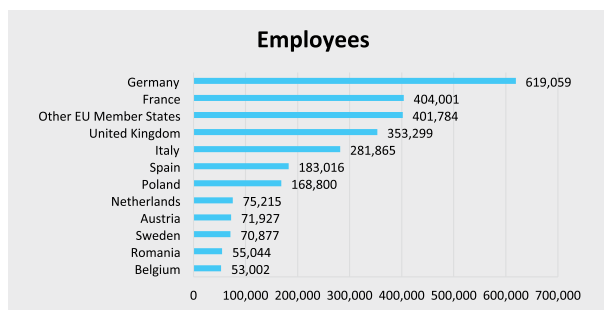
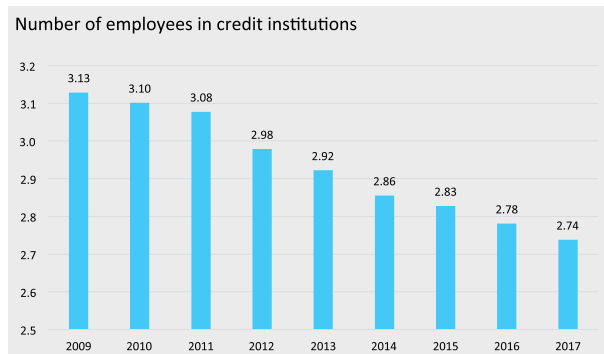


of credit institutions from other EU countries fell by 14 in 2017, the lowest level since 1998. The number of non-EU credit institutions' subsidiaries dropped to 245, down from 288 in 2013.

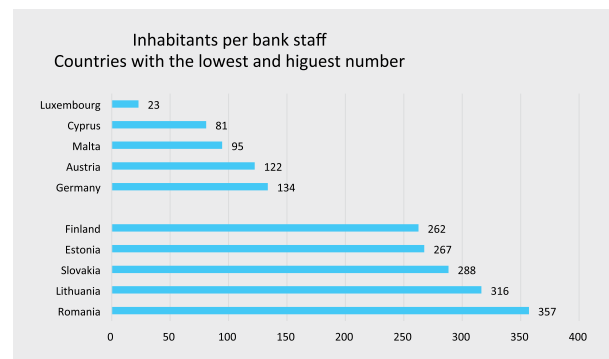
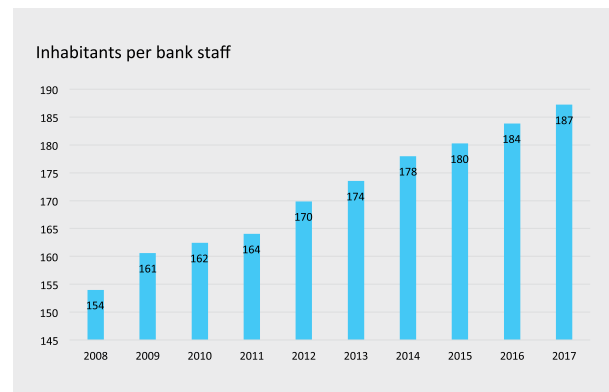


### BANK STAFF

By end-2017, EU-28 banks employed about 2.7 million people, about 40,000 fewer than in 2016 and the lowest level since the ECB's data series began in 1997. The five largest EU economies continue to be the five countries with the largest number of employees in the banking sector employing some 67% of the total EU-28 staff employed. Including EFTA countries, the number of staff employed in the banking sector was about 2.9 million.



Also reflecting a contraction in the banking sector, the average number of inhabitants per bank staff in the EU Member States rose from 184 in 2016 to 187 in 2017. The average number has risen each year since 2008, when it was 154.



### ECONOMIC CONTRIBUTION

Banking and related financial services activities make a significant contribution to the EU's economy.

Despite the drop in bank employment in recent years, about one in every 100 jobs in the EU was a banking job in 2016.

In the past decade, between 3% and 4% of the value of compensation of employees and gross value added in the EU economy has come from financial services (excluding insurance and pension activities).



Zorana Zeković

# Bankarsko tržište u Crnoj Gori: mikroekonomski pristup

*“Poboljšanje bankarske ponude u našoj zemlji iz godine u godinu doprinosi uvećanju raspoloživih kreditnih sredstava i utiče na rast konkurencije među bankama*

P osmatrajući globalno, bankarski sektor karakteriše visoka stopa dinamičnosti. Svjedoci smo da navedeni trendovi imaju veliki uticaj i na Crnu Goru, što je posljednjih deset godina rezultiralo eksponencijalnim rastom i razvojem bankarskog sektora u našoj zemlji. Evidentno je da i ako je crnogorsko bankarsko tržište malo, ono ne zaostaje u dinamičnosti, nepredvidljivosti, povezanosti sa svjetskim bankarskim tržištem.

Poboljšanje bankarske ponude u našoj zemlji iz godine u godinu doprinosi uvećanju raspoloživih kreditnih sredstava i utiče na rast konkurencije među bankama. Usljed izraženog intenziteta konkurencije na bankarskom tržištu klijent postaje fokalna tačka. Jasno izražena težnja za što originalnijem, efikasnijem i efektivnijem zadovoljenju potreba datog klijenta, dobija primat od strane aktera bankarskog tržišta.

Kontinuirane modifikacije i promjene u ovoj istraživačkoj sferi rezultat su ne samo ekonomskih, već i političkih, društvenih i socijalnih faktora što problem istraživanja čini aktuelnim, specifičnim

i interesantnim. Dakle, očekivanja od teze sadržana su u analizama dosadašnjih rezultata i načinima tekućeg funkcionisanja bankarskog tržišta Crne Gore. Pored svega navedenog, hipoteza rada, kao tvrdnja koja se provjerava i adekvatnim predmetnim istraživanjem analizira i dokazuje, glasi: **Na crnogorskom bankarskom tržištu vlada savršena konkurencija.**

## **PREDMET MIKROEKONOMSKE TEORIJE I ANALIZE**

Izučavajući ekonomiju kao disciplinu uvidjeli smo da ista nije nezavisna, samostalna i da se ne može razvijati, kao ni napredovati bez odnosa s drugim disciplinama. Mikroekonomija izučava ekonomsku stvarnost jedne države, proučava ponašanje pojedinih privrednih subjekata i njihovou

interakciju na jednom ili više pojedinačnih tržišta. *Centralni pristup mikroekonomiji je optimizacija: firme teže da maksimiziraju profit, dok domaćinstva maksimiziraju nivo zadovoljstva svojih potreba (korisnost), suočavajući se pritom sa nizom ograničenja na koje ne mogu da utiču. Maksimizacija profita se prije svega postiže identifikacijom individualnih i društvenih potreba i njihovim zadovoljavanjem.*

## **STRUKTURA TRŽIŠTA I KONKURENTSKA STRATEGIJA**

Finansijski sistemi usmjeravaju oskudne resurse privrede od onih koji troše manje nego što zarađuju, ka onima koji troše više nego što zarađuju, odnosno tržište predstavlja mehanizam alokacije resursa u određenom vremenu i u određenom

# Banking Market in Montenegro: Microeconomic Approach

Zorana Zeković

*“The improvement of the banking offer in our country contributes to the increase of the volume of available loans from year to year and affects the growth of competition among banks*

Globally, the banking sector is very dynamic. We have witnessed that these trends have a great impact also on Montenegro, which resulted in exponential growth and development of the banking sector in our country for the last ten years. It is evident that even if Montenegrin banking market is small, it is not lagging behind with respect to the dynamics, the unpredictability, and the connectivity with the global banking market.

The improvement of the banking offer in our country contributes to the increase of the volume of available loans from year to year and affects the growth of competition among banks. Due to the increasing intensity of competition in the banking market, the customer becomes a focal point. A clearly expressed aspiration for more original, more

efficient and effective fulfilment of the needs of a respective customer, receives a primacy from the banking market players.

Continuous modifications and changes in this research are the result of not only economic, but also political and social factors, which makes the problem of research current, specific and interesting. Therefore, the expectations from the theses are contained in the analyses of the current results and the ways of the current functioning of the Montenegrin banking market. In addition to all the above, the hypothesis of the study, as an assertion that is checked and analysed and substantiated by adequate research, reads as follows: A perfect competition exists in Montenegrin banking market.

## **SUBJECT MATTER OF MACROECONOMIC THEORY AND ANALYSIS**

Studying the economy as a discipline, we noticed that it is not independent, autonomous and unable to develop or advance without connecting with other disciplines. Macroeconomics studies the economic reality of a country, the behaviour of individual economic entities and their interaction in one or several individual markets. The central approach to macroeconomics is optimisation: companies tend to maximise profit, while households tend to maximise the level of meeting their needs (benefit), thereby facing with a series of restrictions beyond their influence. The maximisation of profit is primarily achieved by identifying the individual and social needs and meeting those needs.

## **MARKET STRUCTURE AND COMPETITIVE STRATEGY**

The financial systems are directing scarce resources of economy from those who spend less than they earn to those who spend more than

ekonomiji. Zadatak tržišta jeste da osigura koncentraciju ponude i tražnje kako bi njihovo povezivanje i suočavanje dovelo do formiranja objektivne cijene. Finansijski sektor jedne zemlje igra ključnu ulogu u njenom ekonomskom sistemu. Stabilnost finansijskog sistema predstavlja pozitivne eksternalije u odnosu na bankarsko tržište, dok su negativne eksternalije - nestabilnost finansijskog sistema i njegov mogući kolaps.

Među tržišnim učesnicima se mogu uspostaviti konkurentski odnosi različite prirode, intenziteta i s različitim uticajima na funkcionisanje privrede. Postoji veliki broj klasifikacija tržišne strukture, a jedan od najčešće korištenih kriterijuma za klasifikaciju tržišnih stanja i njena polazna pretpostavka kreće od broja učesnika na tržištu. Pored ovog kriterijuma, akcenat se stavlja na diferencijaciji proizvoda i uticaja na formiranje i kontrolu cijena, kao i na slobodu ulaska. Po ovoj klasifikaciji postoje četiri osnovna tržišna stanja i to: savršena konkurencija, monopolistička konkurencija, oligopol i monopol.

Iako savršena konkurencija predstavlja idealizovanje stvarnosti i uzima u obzir niz pretpostavki koje gotovo nikad ne postoje u realnosti, koristi se, najbolje rečeno, kao parametar koji nam olakšava objašnjenje i izvođenje teorijskih zaključaka. Teorijski model savršeno konkurentnog tržišta podrazumijeva ispunjenje pet osnovnih uslova:

- Atomiziranost ponude i potražnje
- Homogenost proizvoda
- Neograničena mobilnost resursa
- Savršena informisanost prodavaca i kupaca
- Maksimizacija profita kao motiv preduzeća.

## **BANKA KAO OBLIK FINANSIJSKE INSTITUCIJE**

Banke su finansijske institucije koje su nastale iz interesa, preko kojih se vrši prikupljanje, transfer i alokacija finansijskih resursa. Banke su finansijski posrednici koji omogućavaju protok i multiplikaciju novca od suficitnih ka deficitnim transaktorima, pritom doprinoseći normalnom odvijanju privredne aktivnosti. Cijela suština bankarskog poslovanja ogleda se u tome da kamata na odobrene kredite bude veća od kamate koju banka plaća na depozite svojim deponentima.

Na savremenom bankarskom tržištu konkurencija je sve veća. Da bi osigurale konkurentnost, likvidnost i profitabilnost - kao principe bankarskog poslovanja, jako je važno posvetiti pažnju što raznovrsnijem izboru proizvoda i bankarskih usluga koje banka nudi različitim kanalima distribucije. Elektronski kanali distribucije olakšavaju kontakt i interakciju banke i klijenata. Osnovne prednosti koje banka ostvaruje implementiranjem distribuiranih usluga su snižavanje troškova poslovanja kroz smanjeno opterećenje bankarskih službenika, što je doprinijelo značajnom skraćanju brzine izvršenja transakcija, raspodjeli i konzumaciji informacija.

## **BANKARSKI POSLOVI U VRIJEME TEHNOLOŠKE REVOLUCIJE**

Promjene na globalnom nivou poput industrijalizacije, privatizacije, finansijske krize, globalizacije, razvoja tehnologije i inovacije direktno izazivaju promjene na bankarskom tržištu, kroz značajno povećanje stepena automatizacije.

Glavni strateški pravci razvoja predstavljaju digitalizaciju servisa i

usluga i optimizaciju procesa sa fokusom na oslobađanje komercijalnih resursa od administrativnih zadataka. Najveća inovacija bankarskih usluga ogleda se u razvoju samouslužnog bankarstva (razvoju bankomata, POS uređaja, m-bankinga, e-bankinga, SMS bankarstva) što klijentima omogućava da bez odlaska u banku upravljaju računom posredstvom interneta na što jednostavan, brži i jeftini način.

Mogućnosti koje nudi mobilno bankarstvo se najvećim dijelom preklapaju s uslugama internet bankarstva, tako da je prije riječ o supstitutima. Sa druge strane, platne kartice imaju izuzetan značaj za razvoj bankarskih distribucionih sistema, a njihova primjena je od ključne važnosti za funkcionisanje bankarskih terminala koji služe za njihovu aktivaciju i povezivanje s računom tačno naznačenog klijenta, što ih čini savršenim komplementima.

## **REGULACIJA NA TRŽIŠTU**

Jedna od osnovnih funkcija finansijskog sistema jeste prenošenje rizika na one koji žele da ga snose. Upravljanje rizicima kao i održavanje ravnoteže između prinosa na kapital i rizika mora se vršiti kontinuirano kako od strane menadžmenta bankarskog sektora, tako i od države, odnosno Centralne banke Crne Gore kao krucialnog regulatora istog. Zadatak regulative je da se definiše osnovni okvir, skup normi ponašanja i pravila za poslovanje, a sloboda svakog pojedinca je da u okviru tih pravila postupa po svom ličnom nahođenju zadovoljavajući svoje interese.

Centralna banka, igra ulogu sudije u sportu pri čemu ona propisuje

they earn. The market represents a mechanism for allocating the resources in a specific period and in a specific economy. Its task is to ensure the concentration of supply and demand, so that their connection and confrontation would lead to the establishment of an objective price. The financial sector of a country plays a key role in its economic system. Financial system stability represents positive externalities relative to the banking market, while negative externalities represent financial system instability and its potential collapse.

The competitive relations may be established among market participants, which may be of various nature, and the most frequently used criteria for the classification of market situations and its initial assumption starts from the number of participants in the market. In addition to this criterion, the differentiation of products and impact on the establishment and control of prices is highlighted as well as the freedom of entrance to the market. According to this classification, there are four basic types of market structures: perfect competition, monopolistic competition, oligopoly, and monopoly.

Although a perfect competition is in fact idealisation of reality and takes into account a series of assumptions that almost never exist in reality, it is used as an indicator to facilitate the explanation and the development of theoretical conclusions. A theoretical model of perfectly competitive market implies meeting of the five major conditions:

- Atomization of supply and demand
- Homogeneity of the product
- Unlimited mobility of resources

- Perfect information of buyers and sellers
- Maximization of profit as a company's motive.

### **BANK AS A FORM OF FINANCIAL INSTITUTION**

Banks are financial institutions that emerged from the interests for gathering, transfer and allocation of financial resources. Banks are financial intermediaries enabling the flow and multiplication of money from surplus-based transactors to deficit-based transactors, thereby contributing to normal performance of economic activity. The banking activities reflect in having lending interest higher than the deposit interest paid by the bank to its depositors.

The competition is increasing in modern banking market. In order to ensure competitiveness, liquidity and profitability as the principles of banking activity, it is very important for the banks to pay attention to various selection of products and banking services they offer through different distribution channels. Electronic distribution channels facilitate the contact and interaction of the bank with its clients. The main advantages of the bank through the implementation of distribution of services is the reduction of operating costs, as well as the reduction of burden on bank staff, which contributes to increasingly shorter time for the execution of transactions, distribution and consumption of information.

### **BANKING ACTIVITIES DURING TECHNOLOGICAL REVOLUTION**

Global changes like industrialisation, privatisation, financial crisis,

globalisation, development of technology and innovation directly affect the banking market through substantially increase in the level of automation of the processes.

The main strategic developments are digitalisation of services and optimisation of processes focusing on freeing the commercial resources from administrative tasks. The greatest innovation of the banking services reflects in the development of self-service banking (development of ATMs, POS, mobile banking, electronic banking, SMS banking), which enables the customers to manage their accounts without going to the bank and by using Internet in a simpler, faster and cheaper way.

The possibilities offered by mobile banking are mostly overlapping with Internet banking services, so they represent substitutes. On the other hand, payment cards are of utmost importance for the development of banking distribution systems, and their application is of crucial importance for the functioning of banking terminals that serve to activate payment cards and connect them to the account of a precisely designated customer, making them perfectly harmonised.

### **REGULATION IN THE MARKET**

One of the basic functions of the financial system is to transfer the risk. Risk management as well as maintaining the balance between return on capital and risks must be carried out continuously both by the management of the banking sector and by the government or the Central Bank of Montenegro as the crucial regulator. The regulation is aimed at defining the basic framework, setting up the norms of

i kontroliše pravila igre na tržišnoj utakmici. Centralna banka je samostalni državni organ koji je zadužen za monetarnu politiku, a čiji je osnovni cilj očuvanje stabilnosti finansijskog sistema, uključujući podsticanje i održavanje zdravog bankarskog sistema, kao i sigurnog i efikasnog platnog prometa u zemlji.

### ANALIZA I STRUKTURA BANKARSKOG TRŽIŠTA U CRNOJ GORI

Ponuda banaka u značajnoj mjeri zavisi od same potrebe na tržištu, te isti kreiraju ponudu fokusirajući se na određene segmente (potencijalnih) klijenata. Koncept poslovanja crnogorskih banaka je usmjeren na pružanje kvalitetnih i brzih finansijskih usluga svojim klijentima te postizanje njihovog zadovoljstva i lojalnosti.

Bankarsko tržište u Crnoj Gori ima generalno pozitivan trend rasta u posljednje dvije godine u pogledu veličine ukupne aktive. Pored toga, značajno je napomenuti da se aktiva pojedinih banaka znatno smanjila u odnosu na 2012.godinu, a razlog tome je zasigurno povećanje broja aktera na bankarskom tržištu.

I ako je zabilježen značajan pad ukupne aktive u odnosu na 2012. godinu,

## “Centralna banka, igra ulogu sudije u sportu pri čemu ona propisuje i kontroliše pravila igre na tržišnoj utakmici

Crnogorska komercijalna banka je i dalje apsolutni lider na crnogorskom tržištu, s najvećim dijelom tržišnog kolača od 14.83% učešća na istom. Druga po veličini je Hipotekarna banka (11,81%) čija aktiva bilježi konstantan rast, a odma za njom nalazi se Erste banka (11,71%). Societe Generale Montenegro i Prva banka zauzimaju mjesto pri vrhu ljestvice, s konstantnim rastom aktive u proteklim godinama. Ostale banke (Lovćen banka, Komercijalna banka, Invest banka Montenegro, Zapad banka, Ziraat banka i Nova banka) pojedinačno imaju neznatan udio na tržištu od ukupno 10.74%.

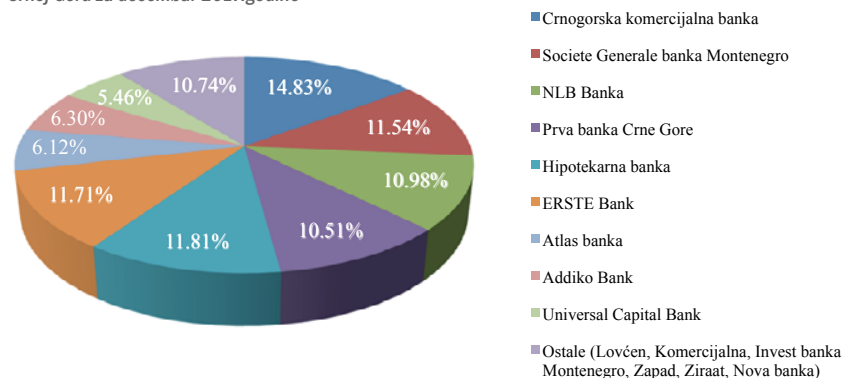
Na osnovu detaljne analize podataka iz Godišnjih makroekonomskih izvještaja Centralne banke Crne Gore i finansijskih izvještaja nezavisnog revizor banaka, konkretno Bilansa stanja na dan 31.decembar, moguće je zaključiti da vodeću poziciju kada je riječ o kreditnom plasmanu zauzimaju:

Societe Generale Montenegro (15,17%), Crnogorska Komercijalna Banka (13,58%), Erste (13,34%) i NLB banka (11,9%). Pored toga, na osnovu analize stavke Depoziti klijenata iz istih izvještaja, primjećujemo da CKB od 2012. godine ima vodeću poziciju u poređenju s ostalim bankama na tržištu. Crnogorska komercijalna banka čini 19,6% ukupnog tržišnog portfolija, NLB banka 14,66%, a Societe Generale Montenegro 11,83% tržišnih depozita. Atlas, Addiko, Universal Capital Bank, Komercijalna ukupno čine 18,79% cjelokupnog tržišnog portfolija depozita.

### ASIMETRIČNE INFORMACIJE NA BANKARSKOM TRŽIŠTU U CRNOJ GORI

Sedamdesetih i osamdesetih godina 20.vijeka dolazi do razvoja tehnologije i interneta, a globalizacija postaje vodeći trend koji je i danas u progresiji, što protok informacija čini sve intenzivnijim, dinamičnijim i teško kontrolisanim. Informacije ukoliko su relevantne, blagovremene i tačne postaju osnovni izvor komparativne prednosti. Na tržištu veliki problem predstavlja činjenica da ne samo da tržišni učesnici u privrednim transakcijama nisu potpuno informisani, već su i informacije kojima raspolažu nepotpune, odnosno asimetrično raspodijeljene. Asimetrične informacije kao pojava prvi put dobijaju priznanje 1970. godine kada je američki ekonomista i Nobelovac Džordž Akerlof, objavio članak pod nazivom „The Market for

Grafik: Analiza učešća banaka na tržištu u Crnoj Gori za decembar 2017.godine



Izvor: Autor na osnovu analiza tržišnog učešća banaka na tržištu u Crnoj Gori za period 12/2012- 12/2017.godine

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“Lemons”: Quality Uncertainty and the Market Mechanism“.

Asimetrične informacije predstavljaju situaciju u kojoj jedna strana u ekonomskoj transakciji ima bolji uvid o bitnim elementima transakcije, odnosno nedostatak informacija uzrok je širokog spektra problema koji se javljaju u finansijskom sistemu prije, tokom i nakon obavljanja transakcija. Asimetrične informacije su jako česta pojava, a nivo asimetrije zavisi isključivo od stepena razvoja tržišta i regulative na njemu.

### NAČINI SPREČAVANJA PROBLEMA ASIMETRIČNIH INFORMACIJA

Evidentno je da moralni hazard i negativna selekcija dovode do maksimiziranja rizika poslovanja na bankarskom tržištu. Postoje dva koncepta sprečavanja problema asimetričnih informacija: koncept tržišne signalizacije i koncept tržišnog skeniranja-market screening. Koncept tržišne signalizacije ili market signalling predstavlja koncept u kome aktivnu ulogu preuzima bolje obaviještena strana, pod pretpostavkom da je motivisana i voljna da šalje „signale“ slabije informisanom učesniku na tržištu koji u skladu sa dobijenim informacijama prilagođava svoje ponašanje. Screening model je model u kome prvi potez povlači akter koji ima manje informacija.

Napori usmjereni na eliminisanje asimetričnih informacija na finansijskom tržištu rezultirali su kreiranjem standardne bankarske politike i internih

bankarskih procedura. Plasirajući detaljne informacije o toleranciji rizika, investicionom znanju i finansijskom položaju standardna bankarska politika ima za cilj zaštitu kako klijenata tako i finansijskih institucija upravo kroz minimizaciju rizika. Prikupljanje informacija i monitoring, odnosno praćenje i analiza poslovnih aktivnosti iz internih periodičnih finansijskih izvještaja i/ili izvještaja nezavisnog revizora, predstavljaju samo neka od rješenja problema asimetričnih informacija. Pored toga sredstva obezbjeđenja, davanjem garancije i ugovaranjem kolaterala, uvođenje klauzula koje ograničavaju aktivnosti i vladine regulativne mjere koje podstiču povećanje količine i kvaliteta informacija, mogu umanjiti probleme asimetričnih informacija na finansijskim tržištima i povećati njihovu učinkovitost.

Sve prethodno navedeno može omogućiti da se informacija, ukoliko je ispravna i vjerodostojna, pretvori u prihvatljivu i sažetu formu koja će donosiocima odluka biti od znatne koristi.

### ZAKLJUČAK

Sumirano, ideja rada se ogledala u pokušaju da se pronađu odgovori i objašnjenja na pitanja vezana za bankarsko tržište u jednoj maloj balkanskoj zemlji, Crnoj Gori. U kontekstu ovog rada, cilj se ogledao u stvaranju teorijske sveobuhvatne slike, bankarskog sektora i njenog regulatora, pojma tržišta i novca,

tržišnim strukturama, problemom asimetričnih informacija i analizi načina njihovog sprečavanja, odnosno povećanja informisanosti aktera na tržištu, da bi se na kraju izvršila analiza bankarskog sektora.

Pored toga, rad je imao za cilj da докаже postavljenu hipotezu. Na osnovu sumiranog prikaza bankarske ponude moguće je utvrditi da one pružaju gotovo identične usluge i proizvode po jako sličnim odnosno konkurentnim cijenama, odnosno da na bankarskom tržištu vlada kako produktna tako i cjenovna konkurencija. Banke, kao i sve druge finansijske institucije imaju za cilj maksimizaciju profita, ali postoje velike barijere za ulazak na bankarsko tržište, kao i izraženo prisustvo asimetričnih informacija. Pored toga, na osnovu izvršene analize finansijskih izvještaja Centralne banke, odnosno analize tržišnog učešća banaka, analize tržišnog portfolija kredita i oročenih depozita tržišnog učešća svake od petnaest banaka koliko posluje na crnogorskom bankarskom tržištu donešen je zaključak da postoje apsolutni lideri na istom. Uzimajući sve gore navedeno u obzir hipoteza rada nije potvrđena. Tržišno stanje koje vlada na crnogorskom bankarskom tržištu nije savršena konkurencija, već oligopol.

Crnogorski finansijski sistem je izrazito bankocentričan s dominacijom bankarskih institucija koje bilježe snažan uticaj na aktivnosti finansijske industrije u Crnoj Gori. Činjenica je da bankarsko tržište u Crnoj Gori sve više napreduje i postaje jedno od najatraktivnijih tržišta u zemlji, a budućnost bankarstva leži upravo u digitalizaciji servisa i usluga, što značajno doprinosi skraćivanju vremena i poboljšanju kvaliteta pružanja i procesuiranja usluga.

*“Bankarsko tržište u Crnoj Gori sve više napreduje i postaje jedno od najatraktivnijih tržišta u zemlji, a budućnost bankarstva leži upravo u digitalizaciji servisa i usluga*



behaviour and rules of business, and the freedom of each individual is to deal with these rules at their personal discretion satisfying their interests.

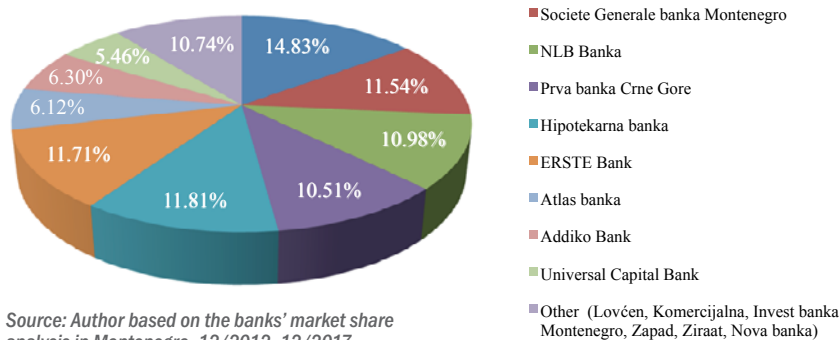
The Central Bank plays the role of a judge in a sport, whereby it prescribes and controls the rules of the market game. The Central Bank is an independent state authority responsible for monetary policy whose primary objective is to preserve the stability of the financial system, including the promotion and maintenance of a sound banking system as well as secure and efficient payment system in the country.

Analysis and structure of the banking market in Montenegro

Banks' offer depends to a large extent on the market needs, so the banks create the offer by focusing on certain segments of (potential) customers. The concept of Montenegrin banks' business is focused on providing qualitative and fast financial services to their customers, so that the customer are satisfied with the services provided and loyal to the bank.

The Montenegrin banking market has had a generally positive growth trend over the last two years with regard to the size of the total assets. In addition, it is important to note that the assets of individual banks decreased considerably compared to 2012, which is certainly due to the increase in the number of players in the banking market.

Graph: Analysis of banks' share in Montenegrin market, December 2017



Source: Author based on the banks' market share analysis in Montenegro, 12/2012- 12/2017

Although a significant decrease in total assets was recorded compared to 2012, Crnogorska komercijalna banka remained the absolute leader in the Montenegrin market, with the market share of 14.83%. The second largest bank is Hipotekarna banka (11.81%) whose assets recorded a steady growth, followed by Erste banka with the market share of 11.71%. Societe Generale Montenegro and Prva banka are among the banks with the largest share, showing a constant growth in assets over the past years. Other banks (Lovćen banka, Komercijalna banka, Invest banka Montenegro, Zapad banka, Ziraat banka and Nova banka) individually have a small market share of total of 10.74%.

Based on a detailed analysis of the data from the Central Bank of Montenegro macroeconomic annual reports and the audited financial statements of banks, specifically the balance sheet at 31 December, it can be concluded that, when it comes to lending activities,

the leaders were the following banks: Societe Generale Montenegro (15.17 %), Crnogorska komercijalna banka (13.58%), Erste (13.34%) and NLB Bank (11.9%). In addition, based on the analysis of deposits of customers from the same reports, we notice that CKB has had a leading position since 2012 compared to other banks in the market. The Crnogorska komercijalna banka accounts for 19.6% of the total market portfolio, NLB banka made up 14.66%, and Societe Generale Montenegro accounted for 11.83% of market deposits. Deposits of Atlas banka, Addiko banka, Universal Capital Bank, Komercijalna banka totaled 18.79% of the entire market portfolio of deposits.

#### ASYMMETRIC INFORMATION IN THE BANKING MARKET OF MONTENEGRO

In 1970s and 1980s, the development of technology and the Internet occurred, while the globalisation has become the leading trend which is progressing nowadays, creating the information flow more intensive, more dynamic and difficult to control. The information, if relevant, timely and accurate, becomes the primary source of comparative advantage. The fact that market participants in economic transactions are not fully informed and the information that they have is also incomplete or asymmetrically

*“The Central Bank plays the role of a judge in a sport, whereby it prescribes and controls the rules of the market game*

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distributed, represents a big problem in the market. The asymmetric information was first recognised as a phenomenon in 1970s, when American economist and Nobel Prize winner, George Akerlof, published an article titled "The Market for the Lemons": Quality Uncertainty and the Market Mechanism".

Asymmetric information is a situation in which one party to an economic transaction has a better insight into the essential elements of a transaction, i.e. lack of information is the cause of a wide range of problems occurring in the financial system before, during and after the transaction. Asymmetric information is very common and the level of asymmetry depends solely on the level of market development and its regulation.

#### **METHODS TO PREVENT THE PROBLEM WITH ASYMMETRIC INFORMATION**

It is evident that moral hazard and negative selection lead to maximizing operating risk in the banking market. There are two concepts of preventing the problems of asymmetric information: the concept of market signalling and market screening. With regard to market signalling, an active role is taken over by a better informed party, assuming it is motivated and willing to send "signals" to a less informed market participant who adjusts its behaviour according to the information obtained. In the screening model, the first move draws a player who has less information.

Efforts to eliminate asymmetric information in the financial market have resulted in the creation of standard banking policy and internal banking procedures. By providing detailed information on risk tolerance, investing knowledge and financial position, the standard banking policy aims to protect

*"The banking market in Montenegro is evolving and becoming one of the most attractive markets in the country, and the future of banking lies precisely in digitalization of services"*

both the customers and the financial institutions through reducing risks to a minimum level. Information gathering and monitoring, i.e. monitoring and analysing business activities from internal periodic financial reports and /or independent auditor's reports, are only one of the solutions to the problem of asymmetric information. In addition, the security instrument, through the issuance of guarantee or collateralization, the introduction of clauses to restrict the activities and government regulatory measures that encourage the increase in the volume and quality of information can reduce asymmetric information on financial markets and increase their efficiency.

All of the foregoing can transform the information, if it is correct and credible, into an acceptable and concise form that will be considerably beneficial to the decision makers.

#### **CONCLUSION**

In summary, the idea of the study was reflected in an attempt to find answers and explanations on issues related to the banking market in a small Balkan country, Montenegro. With that regard, this study was aimed at creating a theoretical comprehensive picture of the banking sector and its regulator, the concept of the market and money, market structures, the problem of asymmetric information, and analysing the ways for preventing them, or increasing the information of market players and ultimately using them for the analysis of the banking sector.

In addition, the objective was to prove the hypothesis that was established. Based on the summarized presentation of the banking offer, it is possible to establish that they provide almost identical services and products at very similar or competitive prices, i.e. that both the product and the price competition are present at banking market. Banks, as well as all other financial institutions, aim to maximize profits, but there are big barriers for the entrance to the banking market, as well as the pronounced presence of asymmetric information. In addition, based on an analysis of the Central Bank's financial statements, i.e. the analysis of market share of banks, the analysis of market portfolios of loans and market share of time deposits of each of fifteen banks operating in Montenegrin banking market, it was concluded that there are absolute leaders in the market. Taking all the above into consideration, the hypothesis of the study has not been confirmed. The market situation in the Montenegrin banking market is not a perfect competition, but it is an oligopoly.

Montenegrin financial system is highly bank-centric, where the banks as dominant market players have a strong influence on the activities of the financial industry in Montenegro. The banking market in Montenegro is evolving and becoming one of the most attractive markets in the country, and the future of banking lies precisely in digitalization of services, which significantly contributes to reducing the time and improving the quality of service provision and processing.



Ivana Tošković

# Ocjena kredibiliteta monetarne politike u režimu valutnog odbora

Vrhovni monetarni autoritet koji vrši svoje funkcije u režimu valutnog odbora karakterisan je odgovornošću uvažavanja i implementacije zakonski definisanih pravila usmjerenih ka kreiranju i održavanju kredibiliteta monetarne politike određene zemlje. Pritom se uz ograničavanje opsega autonomije monetarne vlasti, ovoj instituciji sužava opseg zadataka i ovlašćenja u odnosu na klasičnu centralnu banku, čije se operacije često ocjenjuju kao znatno kompleksnije u odnosu na operacije valutnog odbora. Uz obavezu očuvanja fiksnog deviznog kursa između domaće i sidrene valute, monetarna politika u zemlji koja koristi valutni odbor ocjenjuje se kredibilnom na bazi širokog spektra parametara.

Svjetska ekonomska literatura ovom pitanju ne pristupa uniformnim pristupom. Kredibilitet se vezuje za stepen zadovoljenja pravila koja su prethodno utvrđena kao nužna i opravdana u dostizanju cilja makroekonomske discipline, a monetarni autoritet u ovom svojstvu usmjerava očekivanja ekonomskih agenata zavisno od dinamike ekonomskih dešavanja svojstvenih privredi monetarnog autoriteta od kog se monetarna politika indirektno preuzima, privredi sidrene valute.

Valutni odbor (*currency board*) je forma monetarnog menadžmenta sa ograničenim funkcijama koja predstavlja režim fiksnog deviznog

kursa u kom se domaća valuta veže za jednu valutu ili korpu valuta koje predstavljaju rezervnu, odnosno „sidrenu“ valutu. Limitirani opseg funkcija centralnih banaka koje funkcionišu po pravilima valutnog odbora podrazumijeva činjenicu da ove institucije ne mogu vršiti kreiranje valute bez pokrića, te da je potpuno pokriće monetarne baze deviznim rezervama zakonska obaveza centralnih banaka koje funkcionišu u ovom režimu. Cilj rada je testiranje i interpretacija hipoteze kredibiliteta monetarne

politike u aranžmanu valutnog odbora kroz prizmu pravila ovog režima i utvrđivanja prirode i senzibiliteta ponašanja ekonomskih agenata na promjene u ključnim monetarnim veličinama, u sklopu sistema valutnog odbora.

U kontekstu sagledavanja osnovnih pojedinosti klasične forme valutnog odbora, izdajamo sljedeće:

*Potpuna konvertibilnost domaće valute* podrazumijeva nelimitiranu, kompletnu konvertibilnost nacionalne valute za rezervnu valutu po zakonski determinisanom fiksnom deviznom kursu. Pritom je rezervna valuta konvertibilna strana valuta (ili roba) koja je odabrana za sidrenu valutu zbog svoje očekivane stabilnosti.<sup>1</sup> Kao rezerve, valutni odbor drži visoko kvalitetne, kamatonosne hartije od vrijednosti denominovane u rezervnoj valuti (odnosno robi).<sup>2</sup> Pored vrijednosnih papira, ovaj monetarni autoritet drži i druge oblike sredstava u svojoj aktivi.

*Permanentan fiksni devizni kurs sa sidrenom valutom* čije se „napuštanje“ može dozvoliti jedino u

<sup>1</sup> Hanke, S., H., i Schuler, K., 2015, "Currency Boards for Developing Countries: A Handbook", International Center for Economic Growth, ICS Press, San Francisco, str. 2.

<sup>2</sup> Hanke, S., H., i Schuler, K., 1993, "Currency Boards and Currency Convertibility", Cato Journal, Cato Institute, vol. 12(3), str. 689.

# The Assessment of Monetary Policy Credibility in the Currency Board Regime

Ivana Tošković

The supreme monetary authority performing its mandate within the currency board regime is responsible for complying with and implementing legally defined rules aimed at creating and maintaining the credibility of monetary policy of a country. In addition to limiting the scope of monetary authority's autonomy, tasks and powers of this institution are narrowed compared to traditional central bank which operations are often assessed as substantially more complex than the currency board operations. Alongside the commitment to preserve fixed foreign exchange rate between the domestic and anchor currency, monetary policy in a country using currency board is assessed to be credible on the basis of wide array of indicators.

Global economic literature does not have a uniform approach when it comes to this issue. The credibility is connected with the level of meeting the rules that have been previously identified as necessary and justified in order to achieve the objective of macroeconomic discipline, and monetary authority in this capacity, depending on the dynamics of the economic events inherent to the economy of monetary authority of which monetary policy is indirectly assumed, directs the expectations of economic agents to the economy of the anchor currency.

Currency board is a form of monetary management with limited

functions representing a fixed foreign exchange rate regime in which domestic currency is fixed against either the value of another single currency or a basket of other currencies representing a reserve i.e. anchor currency. Limited scope of functions of the central banks operating by the rules of currency board implies the fact that these institutions cannot create currency without coverage, and full coverage of monetary base by currency reserves is a legal obligation of the central banks operating under this regime. This paper is aimed at testing

and interpreting the hypothesis of credibility of monetary policy in the currency board arrangement through the prism of rules, and establishing the nature and sensibility of behaviour of economic agents on changes in key monetary dimensions within the currency board system.

With a view to reviewing main features of traditional form of a currency board, the following stands out:

*Full convertibility of domestic currency* implies unlimited, full convertibility of the national currency for reserve currency under legally determined fixed exchange rate. In that respect, reserve currency is a convertible foreign currency (or commodity) which is selected to be anchor currency due to its expected stability.<sup>1</sup> As reserves, a currency board holds high-quality, interest-bearing securities denominated in reserve currency (or commodity).<sup>2</sup> In addition to securities, this monetary authority holds also other forms of funds in its assets.

*Permanent fixed exchange rate with anchor currency* whose „leaving“ may be allowed only in emergency or extraordinary situations, which determines the credibility of monetary authority in pursuing monetary policy.

*Full coverage of cash and liquid reserves of banks with monetary authority by foreign exchange reserves* which may be strengthened by additional margin of protection of approximately 5% to 10%. This margin may increase when

<sup>1</sup> Hanke, S., H., i Schuler, K., 2015, "Currency Boards for Developing Countries: A Handbook", International Center for Economic Growth, ICS Press, San Francisco, str. 2.

<sup>2</sup> Hanke, S., H., i Schuler, K., 1993, "Currency Boards and Currency Convertibility", *Cato Journal*, Cato Institute, vol. 12(3), str. 689.

slučaju hitnosti ili vanrednog stanja, što determiniše kredibilitet monetarne vlasti u vođenju monetarne politike.

*Potpuno pokriće gotovog novca i likvidnih rezervi banaka kod monetarne vlasti deviznim rezervama* koje može biti osnaženo dodatnom zaštitnom maržom rezervi od približno 5% do 10%. Ova marža može bilježiti rast kada se očekuje nestabilnost rezervne valute.

*Nediskreciona, pravilima valutnog odbora ograničena monetarna politika* koja podrazumijeva nemogućnost promjene deviznog kursa prema rezervnoj valuti, niti nivoa deviznih rezervi, kao ni regulative u vezi komercijalnih banaka, izuzev u zakonski definisanim slučajevima ocijenjenim kao vanredno stanje ili hitna situacija.

*Odsustvo funkcije monetarnog autoriteta kao kreditora posljednje instance* onemogućava pozajmljivanje sredstava komercijalnim bankama i drugim finansijskim institucijama u slučaju nesolventnosti i pojave rizika od bankrotstva. Ove institucije moraju pronaći alternativne kreditore posljednjeg utočišta<sup>3</sup>, te se time podrazumijeva da je obezbjeđenje konvertibilnosti njihovih obaveza u rezervnu valutu isključivo u domenu odgovornosti ovih institucija.

*Zaštita od političkog pritiska i transparentnost* su osobenosti izvedene iz zabrane centralnoj banci odnosno monetarnom autoritetu obavezanom pravilima valutnog odbora da vrši kreditiranje bankarskog sektora i ostalih pravnih lica, kao i države.

*Ograničenost pri kreiranju inflacije* derivira iz prethodne karakteristike, i vezuje se za tretman inflacije kao poreza nametnutog javnosti. U situaciji kada primarni novac zavisi isključivo od pokrivenosti deviznim rezervama i kada

je garantovana politička nezavisnost, te situaciji nepostojanja mogućnosti finansiranja budžetskih deficita sredstvima centralne banke, nemoguće je koristiti inflacioni porez (inflation tax) kao jedan od izvora senjoraže.

*Dobit monetarnog autoriteta* jednaka je razlici između kamate po osnovu ulaganja rezervi i troškova izdavanja papirnog i kovanog novca. Ortodokсни valutni odbor, za razliku od klasične centralne banke, ne prima depozite, već se jedino rashodi stavljanja novca u opticaj uzimaju u obzir. U hibridnim vrstama valutnih odbora, monetarni autoritet može primati depozite određenih domaćih sektora.

*Formiranje kamatnih stopa*, nalik formiranju stope inflacije, dominantno zavisi od kretanja kamatnih stopa u zemlji sidrene valute, te ne postoji direktan uticaj na kamatne stope od strane monetarnog autoriteta koji slijedi pravila valutnog odbora niti je moguće koristiti eskontnu kamatnu stopu radi uticaja na nivo ili trend kamatnih stopa (usljed ograničenosti kreditne funkcije valutnog autoriteta).

*Ponuda novca* se formira pod uticajem automatskih stabilizatora koji prilagođavaju ponudu novca trenutnim uslovima na tržištu novca, odnosno traženoj količini novca. Kada dođe do odliva sidrene valute, ponuda novca unutar zemlje koja koristi aranžman valutnog odbora se smanjuje. Promjene u ponudi novca mogu proisticati iz promjena u atraktivnošću investicija i promjeni uvozne tražnje.<sup>4</sup> Dakle, promjene u ponudi novca zavise od promjena u platnom bilansu države, ali i od promjena potrošačke tražnje, kao i od promjena u porezima.

*Kredibilitet* je jedna od ključnih karakteristika ovog aranžmana. Zavrjeđivanje kredibiliteta okosnica je uspješnosti funkcionisanja svih svjetskih monetarnih autoriteta i gradi se na principima pouzdanosti i transparentnosti operacija monetarne vlasti. Stepem kredibiliteta u vođenju monetarne politike se u režimu valutnog odbora odnosi na nivo zadovoljenja prethodno definisanih preduslova funkcionisanja valutnog autoriteta, uz zakonski definisane opravdane oscilacije. Kako bi se kredibilitet stekao i očuvao, neophodan je pažljiv izbor sidrene valute, jer izdavalac ove valute izvozi nestabilnost i inflaciju u ekonomiju sa valutnim odborom, upravo posredstvom aranžmana valutnog odbora. Rapidnost u izvršavanju monetarnih reformi, ohrabrena skromnom kompleksnošću aktivnosti ortodoksnog valutnog odbora, vodi akceleraciji u formiranju očekivanja ekonomskih agenata, što doprinosi ubrzanom zavrjeđivanju kredibiliteta. Međutim, naša ekonometrijska analiza na primjeru monetarne politike uslovljene pravilima valutnog odbora u BiH pokazaće da ne možemo govoriti o automatskom monetarnom prilagođavanju niti o automatskom sticanju kredibiliteta, već da postoji izvjestan vremenski pomak u prilagođavanju očekivanja. Ova postepenost ogleđa se u činjenici da postoji izvjestan vremenski jaz od par mjeseci da se kredibilitet ostvari, te da efekat najave (*announcement effect*) postigne efekat rezultata (*result effect*).<sup>5</sup> Bez obzira na rigidnost forme valutnog odbora, povremene fluktuacije deviznog kursa su neminovne.

## HIPOTEZA KREDIBILITETA MONETARNE POLITIKE U REŽIMU VALUTNOG ODBORA BIH

Kurs između EUR i KM (eura i bosanske konvertibilne marke) postavljen je u odnosu na prethodni kurs

<sup>3</sup> U slučajevima kada se centralna banka ne pojavljuje u funkciji kreditora posljednje instance, vlada može pozajmljivati sredstva bankarskom sektoru, uz prateći rizik kreiranja inflacije. Tako je Vlada Hong Kong-a finansirajući potraživanja deponata nesolventnih banaka iz sredstava budžetskog suficita ovu funkciju obavljala u par prilika.

<sup>4</sup> Krus, N., 2012, "The Money Supply in Currency Boards", *Studies in Applied Economics*, No.3, Johns Hopkins Institute for Applied Economics, Global Health, and Study of Business Enterprise, Baltimore, str 12.

<sup>5</sup> U slučajumonetarnepolitikeDanskeovajaz je iznosio 4 mjeseca, nabazirezultataempiriskeanalize.

instability of reserve currency is expected.

*Non-discretionary rule-bound monetary policy of the currency board*, which implies inability to change the exchange rate against reserve currency, or the level of foreign exchange reserves, or regulation in respect of commercial banks, except in legally defined cases assessed as extraordinary or emergency situations.

*Absence of the function of the monetary authority as a lender of the last resort* disables borrowing of funds to commercial banks and other financial institutions in case of insolvency and bankruptcy risk. These institutions must find alternative lenders of the last resort<sup>3</sup>, so this implies that ensuring the convertibility of their obligations into reserve currency is exclusively within the responsibility of those institutions.

*Protection from political pressure and transparency* are features derived from the prohibition of the central bank or monetary authority bound by the currency board rules to lend to the banking industry and other legal persons and the state.

*Limits when creating inflation* derives from the previous feature and it is linked to the treatment of inflation as tax imposed to the public. When the issuing currency depends exclusively from the coverage by foreign exchange reserves and when the political independence is guaranteed, and in a situation where the possibility of funding fiscal deficit from the central bank's resources does not exist, it is not possible to use inflation tax as one of the sources of seigniorage.

*Monetary authority profit* equals the difference between the interest from reserve investment and costs of issuing notes and coins. The orthodox currency

board unlike the traditional central bank, does not take deposits but only takes into account expenses of putting money into circulation. With respect to hybrid currency boards, monetary authority may take deposits from specific domestic sectors.

*Interest rates creation*, like inflation rate creation, depends mainly on the interest rate movements in the country of anchor currency. Therefore, there is no direct impact on interest rates by the monetary authority following the currency board rules or there is no possibility to use discount interest rate to influence the level or trend of interest rates (due to the limited lending function of the currency authority).

*Money supply* is formed under the influence of automatic stabilizers that adjust money supply to current money market conditions and/or requested quantity of money. When the anchor currency outflow occurs, money supply within the country using currency board arrangement declines. Changes in money supply may result from the changes in the attractiveness of investments and changes in the demand for imports.<sup>4</sup> Thus, changes in money supply depend on the changes in the balance of payment of a country and also on the changes in consumer demand and changes in taxes.

*Credibility* is one of the key features of this arrangement. Deserving the credibility is a backbone of the successfulness of functioning of all global monetary authorities and it is built on the principles of reliability and transparency of the monetary authority's operations. The level of credibility in pursuing monetary policy in the currency board regime refers to the level of meeting previously determined preconditions of currency

authority functioning together with legally defined justified oscillations. In order to build and preserve the credibility, anchor currency should be carefully selected, since the issuer of this currency exports instability and inflation in the economy having currency board through the currency board arrangement. Rapid execution of monetary reforms, encouraged by modest complexity of the activities of orthodox currency board leads to the acceleration in establishing economic agents, which contributes to rapid justification of credibility. However, our econometric analysis on the example of rule-bound monetary policy of the currency board in Bosnia and Herzegovina will show that we cannot talk about automatic monetary adjustment or automatic acquisition of credibility, but there is a certain time shift in adjusting the expectations. This *gradual progress* reflects in the fact that there is a certain time gap of several months for credibility to be built, and the announcement effect reaches result effect.<sup>5</sup> Regardless of the rigidity of the type of the currency board, occasional fluctuations of the exchange rate are inevitable.

#### **HYPOTHESIS OF MONETARY POLICY CREDIBILITY IN THE CURRENCY BOARD REGIME OF BOSNIA AND HERZEGOVINA**

The exchange rate between EUR and KM (Bosnia and Herzegovina Convertible Mark) is set in comparison to the previous exchange rate between DEM and EUR established by the European monetary authorities as follows: 1 EUR=1,95583 KM. Fisher interest rate model is modified for the assessment of the credibility, where the growth in nominal interest rate is adjusted to the growth in inflation expectations, which is known as Fisher effect in economic literature. The oscillations in the value of the KM currency against the EUR may be measured by deviations of daily exchange rate between

3 U slučajevima kada se centralna banka ne pojavljuje u funkciji kreditora posljednje instance, vlada može pozajmljivati sredstva bankarskom sektoru, uz prateći rizik kreiranja inflacije. Tako je Vlada Hong Kong-a finansirajući potraživanja deponata nesolventnih banaka iz sredstava budžetskog suficita ovu funkciju obavljala u par prilika.

4 Krus, N., 2012, "The Money Supply in Currency Boards", *Studies in Applied Economics*, No.3, Johns Hopkins Institute for Applied Economics, Global Health, and Study of Business Enterprise, Baltimore, str 12.

5 U slučaju monetarnopolitike Danske ovaj je iznosio 4 mjeseca, nabazire rezultata empirijske analize.

između DEM i EUR utvrđen od strane evropskih monetarnih vlasti, i to: 1 EUR=1.95583 KM. Za ocjenu kredibiliteta modifikovan je Fišerov model kamatnih stopa (*Fisher interest rate model*) gdje se rast nominalne kamatne stope prilagođava rastu inflacionih očekivanja, što je u ekonomskoj literaturi poznato kao Fišerov efekat (*Fisher effect*). Oscilacije u vrijednosti KM u odnosu na EUR mogu se izmjeriti odstupanjima prosječnog dnevnog kursa između KM i EUR u odnosu na kurs predviđen pravilima valutnog odbora. Dakle, varijabla kredibiliteta monetarne politike CBBiH izraziće se standardnom devijacijom deviznog kursa, pri čemu je  $n$  broj opservacija u toku mjeseca.<sup>6</sup>

Najčešće korišćena tehnika za testiranje efekata kredibiliteta je metoda predviđanja greške (*prediction error method*).<sup>7</sup> Jedna od pretpostavki ove metode je da se u sklopu stohastičkog dijela modela indirektno uključi varijabla monetarne politike bez određivanja jedinstvene funkcionalne forme. Međutim, u slučaju režima fiksnog deviznog kursa, kako bi se uvažila pravila valutnog odbora, kredibilitet monetarne politike može se uvrstiti direktno u regresioni model, te je u radu korišćena direktna metoda (*direct method*).<sup>8</sup> Korišćenjem direktne metode doprinosi se smanjenju varijanse koristeći cjelokupan set nezavisnih varijabli, dok kod metode predviđanja greške i alternativnih metoda isključivo stohastički segment modela obavlja ovu funkciju. Dakle, direktna metoda koristi i stohastički dio samih nezavisnih varijabli.

Ukoliko je monetarna politika kredibilna, pad varijabilnosti deviznog kursa može rezultirati smanjenjem averzije prema riziku od strane ekonomskih agenata, što će uticati na smanjenje nominalne kamatne stope. Međutim, ova pretpostavka je obično zadovoljena u slučaju signifikantnih promjena u okviru monetarnog režima, odnosno promjene samog režima.<sup>9</sup> Alternativno, *varijabla kredibiliteta* se može samo djelimično interpretirati kao mjera averzije prema riziku, pritom uzimajući u obzir činjenicu i da ostale varijable poput stope rasta ponude novca u domaćoj privredi i stope inflacije simultano ostvaruju efekat na nominalne kamatne stope (a da pritom direktno zavise od monetarnih uslova u privredi sidrene valute), i da ekonomski agenti formiraju očekivanja na bazi raspoloživih informacija u realnom vremenu. U ovom slučaju, rast varijabilnosti deviznog kursa ne mora podrazumijevati rast nominalnih kamatnih stopa. Ukoliko ovi periodi imaju veću težinu u uzoračkom periodu, može nastupiti da su devizni kurs i diferencijal kamatnih stopa povezani inverzno, prije nego pozitivno.<sup>10</sup>

Hipotezu kredibiliteta na primjeru privrede Bosne i Hercegovine ispitujemo na vremenskoj seriji podataka od 01.januara 2011. godine do 31.decembra 2017. godine. Stoga, pratimo kretanje domaćih nominalnih kamatnih stopa u zavisnosti od: njihove vrijednosti sa izvjesnim vremenskim pomakom, nominalnih kamatnih stopa u eurozoni sa izvjesnim vremenskim pomakom, i stopom rasta ponude novca u bosanskohercegovačkoj privredi sa izvjesnim vremenskim

pomakom. Varijabla realne stope inflacije pokazala se statistički neznačajnom za dati uzorak, te nije uključena u model. Maksimalna dužina vremenskih pomaka je 11 mjeseci. U nastavku prezentujemo ključne rezultate i interpretacije na bazi ekonometrijskog modela.

Varijabla kredibiliteta monetarne politike ostvaruje jak uticaj na nivo kamatnih stopa u privredi BiH. Rezultati upućuju na zaključak da je samo treća docnja ove varijable statistički značajna pri determinisanju nominalnih kamatnih stopa, te da se ostvarenje kredibiliteta realizuje u roku od tri mjeseca, što govori u prilog činjenici: da najave imaju prolongirani efekat, da se reakcija ekonomskih agenata na date najave ostvaruje sa vremenskim pomakom od (približno) jednog kvartala i da postoji izvjesna gradualnost u ostvarenju efekata rezultata, te da se hipoteza o automatskom prilagođavanju kamatnih stopa može odbaciti. Jedno od mogućih objašnjenja postojanja negativne korelacije između varijable kredibiliteta i domaćih nominalnih kamatnih stopa je, kako smo naveli, postojanje opadajućeg trenda nominalnih kamatnih stopa kako u eurozoni, pa tako i u privredi BiH. Ekonomski agenti pritom nijesu znatno osjetljivi na promjene u varijabilitetu deviznog kursa kako ove promjene nijesu drastične i nenajavljene (naveli smo da se uglavnom u slučaju drastičnih promjena, poput promjene režima monetarne politike, varijabla kredibiliteta interpretira kao mjera averzije prema riziku). Ovo ukazuje na mogućnost prihvatanja hipoteze da monetarna politika CBBiH gradualno ostvaruje kredibilitet.

6 Artus, P., i Barroux, Y., 1990, "Monetary Policy: A Theoretical and Econometric Approach", *Applied Econometric Association*, Geneva, str. 82-88.

7 Blackburn, K., i Christensen M., 1988, "Monetary Policy and Policy Credibility Theories and Evidence", *University of Western Ontario, Department of Economics Research Reports*, London, Ontario, str. 55.

8 Christensen, M., 1988, "Policy Credibility and the Lucas Critique - Some New Tests with an Application to Denmark", *Monetary and Financial Models*, edited by Artus, P., Barroux, Y., i McKenzie, G., *Applied Econometric Association*, Geneva, str. 79-81.

9 Za primjer se često navod iprelazak iz konzervativnog režima u social demokratski režim u Danskoj u oktobru

1982.godine, kadasi smanjene fluktuacije deviznog kursa uslovlje pad nominalnih kamatnih stopa sa nivoa od oko 20% u 1982. godini do 14% u 1985. godini.

10 Macfarlane, I., J., i Tease, W., J., 1989, "Capital Flows and Exchange Rate Determination", *Reserve Bank of Australia, Research Department, Research Discussion Paper 8908*, str. 14.



KM and EUR against the exchange rate established by the rules of currency board. Thus, variable of the monetary policy credibility of the Central Bank of Bosnia and Herzegovina (CBBiH) will be expressed by standard deviation of the exchange rate whereas  $n$  represents the number of observations during a month.<sup>6</sup>

Most frequently used technique for testing the effects of credibility is the prediction error method.<sup>7</sup> One of the assumptions of this method is to include indirectly, within the stochastic part of the model, variable of monetary policy without setting the uniform functional form. However, in case of the fixed exchange rate regime, in order to respect the rules of the currency board, the credibility of monetary policy may be included directly into the regression model; therefore, the direct method<sup>8</sup> is used in this paper. The use of the direct method contributes to the decrease in variance using entire set of independent variables, while stochastic part of this model exclusively performs this function in the prediction error method and alternative methods. Thus, direct method uses also stochastic part of independent variables.

If monetary policy is credible, the decline in the exchange rate variability may result in the decline in risk aversion by economic agents, which will influence the decline in nominal interest rate. However, this assumption is usually met in case of significant changes within monetary regime or change in the regime.<sup>9</sup> Alternatively, *credibility variable* may only be interpreted as a measure of risk aversion taking into consideration the fact that other variables like growth rate of money supply in domestic economy and

inflation rate have simultaneously an effect on nominal interest rates (thereby directly depending on monetary conditions in the economy of anchor currency), and that economic agents establish expectations on the basis of available sources of information in real time. In this case, the growth of exchange rate variability does not have to imply the growth in nominal interest rates. If these periods have higher weight in sample period, it may occur that exchange rates and differential of interest rates are linked invasively rather than positively.<sup>10</sup>

The hypothesis of the credibility on the example of Bosnia and Herzegovina is analysed using data time series from 1 January 2011 to 31 December 2017. Therefore, we monitor trend in domestic nominal interest rates depending on the following: their value with certain time shift, nominal interest rates in euro area with certain time shift, and growth rate of money supply in the economy of Bosnia and Herzegovina with certain time shift. The variable of real inflation rate has proven to be statistically insignificant for the given sample and it was not included in the model. Maximum length of time shifts is 11 months. We will present key results and interpretations based on econometric model further in the paper.

The credibility variable of monetary policy influenced strongly the level of interest rates in the economy of Bosnia and Herzegovina. The results indicate to the conclusion that only third default of this variable is statistically important when determining nominal interest rates, and the accomplishment of credibility is realised within three months. This supports the fact that: announcements

have prolonged effect, the reaction of economic agents on given announcements is accomplished with time shift of (approximately) one quarter, and there is a certain gradual progress in accomplishing result effects, and thus, the hypothesis on automatic adjustment of interest rates may be rejected. As it has been already mentioned, one of possible explanations of negative correlation between credibility variable and domestic nominal interest rates is the existence of declining trend in nominal interest rates both in the euro area and the economy of Bosnia and Herzegovina. Economic agents are not significantly sensitive to changes in the variability of the exchange rate as these changes are not extreme and unannounced (we stated that mostly in the case of extreme changes, like changes in monetary policy regime, credibility variable is interpreted as a measure of risk aversion). This indicates the possibility of accepting the hypothesis that the CBBiH monetary policy gradually accomplishes the credibility.

We will divide our time series in two periods compared to the exchange rate fluctuations and show changes in other relevant sizes. In period from the beginning of 2015 until the end of 2017, average exchange rate fluctuations were higher than in period from 2011 to the end of 2014. With the declining trend in nominal interest rates in Bosnia and Herzegovina and euro area, in period of increased exchange rate fluctuations, changes (in this case decline) in interest rates accelerated.

6 Artus, P., i Barroux, Y., 1990, "Monetary Policy: A Theoretical and Econometric Approach", Applied Econometric Association, Geneva, str. 82-88.

7 Blackburn, K., i Christensen M., 1988, "Monetary Policy and Policy Credibility Theories and Evidence", University of Western Ontario, Department of Economics Research Reports, London, Ontario, str. 55.

8 Christensen, M., 1988, "Policy Credibility and the Lucas Critique - Some New Tests with an Application to Denmark", Monetary and Financial Models, edited by Artus, P., Barroux, Y., i McKenzie, G., Applied Econometric Association, Geneva, str. 79-81.

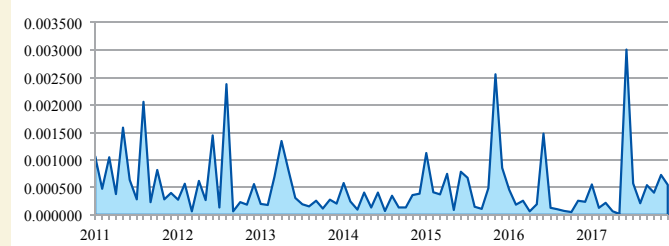
9 Za primjer se često navod iprelazak iz konzervativnog režima u social demokratski režim u Danskoj u oktobru

1982.godine, kadasi smanjene fluktuacije deviznog kursa usloville pad nominalnih kamatnih stopa sa nivoa od oko 20% u 1982. godini do 14% u 1985. godini.

10 Macfarlane, I., J., i Tease, W., J., 1989, "Capital Flows and Exchange Rate Determination", Reserve Bank of Australia, Research Department, Research Discussion Paper 8908, str. 14.

Našu vremensku seriju u odnosu na fluktuacije deviznog kursa podijelićemo na dva perioda, i u skladu sa tim posmatrati promjene u ostalim relevantnim veličinama. U periodu od početka 2015. godine do kraja 2017. godine prosječne fluktuacije deviznog kursa veće su nego u periodu od 2011. godine do kraja 2014. godine. Uz opadajući trend nominalnih kamatnih stopa u BiH i eurozoni, u periodu povećanih fluktuacija deviznog kursa dolazi do akceleracije promjene (u ovom slučaju pada) kamatnih stopa.

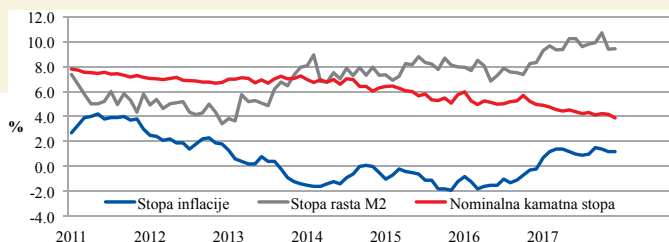
Varijabilnost realnog deviznog kursa BAM-EUR u odnosu na zakonski utvrđen devizni kurs BAM-EUR za period od 2011. godine do 2017. godine\*



\*Varijabilnost deviznog kursa BAMEUR mjerena standardnom devijacijom prosječnog deviznog kursa u odnosu na kurs predviđen pravilima valutnog odbora BiH  
Izvor: Kalkulacija autora na osnovu podataka preuzetih sa: <https://tradingeconomics.com/>

Akceleracija pada kamatnih stopa u BiH podrazumijeva deceleraciju rasta kreditne aktivnosti bankarskog sektora. Pored obaveza nefinansijskih privatnih preduzeća, i obaveze centralne Vlade BiH po osnovu kredita kod bosnohercegovačkih poslovnih banaka bilježe opadajući trend, kako se ekonomski agenti iz javnog i privatnog sektora orijentišu na kreiranje duga prvenstveno na međunarodnim tržištima kapitala, i zadužuju se instrumentima denominovanim u EUR, poput euro obveznica.<sup>11</sup> Uzroci ovih anomalija mogu se tražiti

u kapacitetima domaćeg finansijskog tržišta, te relativno povoljnijim uslovima zaduživanja na inostranim tržištima.<sup>12</sup> Dati faktori doprinose neelastičnosti tražnje za novcem u zemlji u zavisnosti od promjene kamatnih stopa i marginalnih frekvencija deviznog kursa, što rezultira negativnom korelacijom između varijable kredibiliteta i nivoa kamatnih stopa. Taj zaključak je koincidentan sa interpretacijom *varijable kredibiliteta* koja uzima u obzir uticaj rezidualnih faktora na nivo kamatnih stopa i kada postoje odstupanja od razumijevanja ove varijable kao nominalne



Stopa inflacije, stopa rasta M2 i nominalna kamatna stopa u BiH za period od 2011. godine do 2017. godine

mjere averzije prema riziku.

Senzibilitetu domaćih institucionalnih sektora u BiH na promjene kamatnih stopa u uslovima

povišenih fluktuacija deviznog kursa tada se pripisuje negativan predznak, i ova karakteristika simbolizuje gradualnost u ostvarenju kredibiliteta monetarne politike u režimu valutnog odbora.

Posmatrajući devizni kurs kao determinantu tražnje za novcem, moramo uzeti u obzir i uticaj inostrane investicione tražnje koji podstiče rast tražnjeza KM, te uticaj na monetarnu ponudu. Povećana koncentracija inostranih investitora u BiH stvara pritisak na porast tražnje za KM, te ekspanzijom M2 dolazi do pada kamatnih stopa. Privreda BiH bilježi pozitivan saldo na kapitalnom i finansijskom računu

platnog bilansa, dok se na tekućem računu deficit smanjuje. Akceleraciji pada kamatnih stopa doprinosi i činjenica da se efekti uvoza kredibiliteta multiplikuju u slučaju približavanja stvarnog deviznog kursa granicama kursa utvrđenog pravilima valutnog odbora. Promjene u stopi inflacije približno reflektuju promjene u stopi rasta M2. Takođe, postoji tendencija ponašanja kamatne stope i stope inflacije u skladu sa Fišerovim efektom.

Izvor: Prikaz autora na osnovu podataka preuzetih sa: [www.cbbh.ba](http://www.cbbh.ba) i [tradingeconomics.com/](http://tradingeconomics.com/)

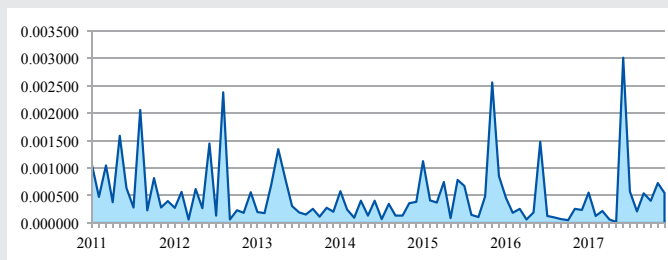
Stiče se utisak da, pod ovakvim okolnostima, CBBiH predstoji izazov očuvanja kredibiliteta u vođenju monetarne politike, čime se ova institucija, koja je tokom godina poslovanja u svojstvu valutnog odbora zavrijedila kredibilitet u kontekstu usmjeravanja ekonomskog ponašanja, može pronaći u ulozi jednog od glavnih aktera na makroekonomskoj sceni BiH kao zemlje u razvoju. Tvrdo budžetsko ograničenje nametnuto režimom valutnog odbora tada je neophodno posmatrati kao ulaznicu za izgradnju dugoročne makroekonomske discipline, a ograničenost autonomije monetarne politike može pružiti adekvatnu podlogu za odolijevanje pritiscima interesnih grupa koji mogu ispoljiti destruktivno dejstvo na makroekonomsku stabilnost zemlje. Valutni odbor tada postaje sidro za očuvanje kredibiliteta i poštovanje pravila u zemlji vezane valute u odnosu na zemlju sidrene valute.

11 Detaljnije vidjeti: Alihodžić, A., 2014, „Proračun trajanja za određene obveznice na finansijskom tržištu u BiH“, Bankarstvo, vol. 43, br. 1.

12 U izvještaju Evropske Investicione banke (EIB) iz 2016. godine o finansijskim potrebama sektora malih i srednjih preduzeća u BiH navodi se da ovom sektoru ne nedostaju finansijske alternative, već da je kreditni portfolio lošeg

kvaliteta, nasljeđe krize 2008-2010, rezultirao konzervativnim kreditnim praksama, te da deficitarni transaktori mogu naići na poteškoće pri zaduživanju na domaćem tržištu. Detaljnije vidjeti: European Investment Bank, 2016, „Assessment of financing needs of SMEs in the Western Balkans countries. Country report: Bosnia and Herzegovina“.

Variability of real exchange rate BAMEUR compared to statutory exchange rate BAMEUR for period from 2011 to 2017\*



\* Variability of the exchange rate BAMEUR measured by standard deviation of average exchange rate against the exchange rate anticipated by the currency board rules of Bosnia and Herzegovina. Source: Author calculation based on data downloaded from: <https://tradingeconomics.com/>

The acceleration of decline in interest rates in Bosnia and Herzegovina implies the deceleration of the growth in lending activity of the banking sector. In addition to the obligations of non-financial private companies, the obligations of the central government of Bosnia and Herzegovina based on loan with commercial banks of Bosnia and Herzegovina recorded a downward trend as economic agents from public and private sectors are focused on creating debt primarily at international capital markets and borrow using instruments denominated in EUR like euro bonds.<sup>11</sup> Samples of these anomalies may be looked for in the capacities of domestic financial market and relatively more favourable borrowing conditions at foreign markets.<sup>12</sup> These factors contribute to inelasticity of money demand in a country depending on the change in interest rates and marginal frequencies of the exchange rate, which results in a negative correlation between credibility variable and the level of interest rates. This conclusion coincides with the

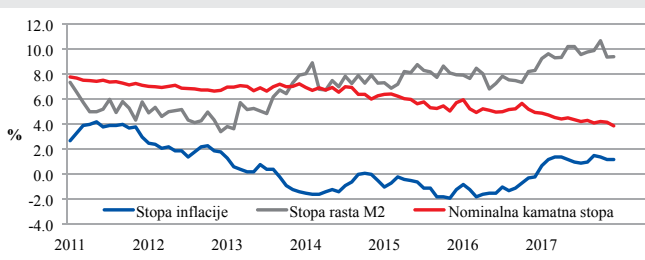
interpretation of the *credibility variable* which takes into account the impact of residual factors on the level of interest rates also when there are deviations from understanding this variable as nominal measure of risk aversion. Negative sign is

assigned to the sensibility of domestic institutional sectors in Bosnia and Herzegovina on changes in interest rates in the situation of high fluctuations of exchange rates. This characteristic symbolizes gradual process in accomplishing monetary policy credibility in the currency board regime.

Observing the exchange rate as determinant of money demand, we have to take into account also the impact of foreign investment demand that encourages growth in demand for KM, and impact on monetary supply. The increased concentration of foreign investors in Bosnia and Herzegovina creates the pressure on the increase in demand for KM, and the expansion of M2 results in the decline in interest rates. The economy of Bosnia and Herzegovina records positive balance of the capital and financial balance of payments accounts, while deficit declines on the current account. The fact that effects of import of credibility are multiplied in case of convergence of

real exchange rate to the exchange rate established by the currency board rules also contributes to the acceleration of the decline in interest rates. Changes in inflation rate approximately reflect the changes in M2 growth rates. Also, there is a trend of behaviour of interest rate and inflation rate in accordance with Fisher effect.

Inflation rate, M2 growth rate and nominal interest rate in Bosnia and Herzegovina for period 2011-2017



Source: Illustration of the author based on data downloaded from: <https://www.cbbh.ba/> and <https://tradingeconomics.com/>

The impression is created that under such circumstances, CBBiH will be challenged to preserve the credibility in pursuing monetary policy, whereby this institution, which has gained the credibility in the context of directing economic behaviour having acted as a currency board over a number of years, may be found in a role of one of the main players in the macroeconomic field of Bosnia and Herzegovina as a developing country. Hard budget limits imposed by the currency board regime should be observed as a pass for development of long-term macroeconomic discipline, and limitation of autonomy of monetary policy may offer adequate base for resisting to the pressures of interest groups which may display destructive action on the macroeconomic stability of the country. Currency board then becomes an anchor for preserving the credibility and respecting rules in a country of pegged currency compared to the country of anchor currency.

11 Detaljnije vidjeti: Alihodžić, A., 2014, „Proračun trajanja za određene obveznice na finansijskom tržištu u BiH“, Bankarstvo, vol. 43, br. 1.

12 U izvještaju Evropske Investicione banke (EIB) iz 2016. godine o finansijskim potrebama sektora malih i srednjih preduzeća u BiH navodi se da ovom sektoru ne nedostaju finansijske alternative, već da je kreditni portfolio lošeg

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Miodrag Kirsanov  
Centralna banka  
Crne Gore

# DENOMINACIJA JUGOSLOVENSKE VALUTE IZ 1965. I SERIJE NOVČANICA SA DATUMIMA 1. AVGUST 1965 I 1 V 1968. (3)

Vrijeme kada je „konj“ zamijenio „crvendaća“

U nastavku Privredne reforme, po ugledu na Francusku i njenu valutnu reformu iz 1958., na osnovu Zakona o izdavanju novih novčanica i kovanog novca (Sl. list SFRJ, br 33/65) 1. avgusta 1965. izvršena je prva denominacija jugoslovenskog dinara u odnosu 1:100. Narodna banka Jugoslavije 1. januara 1966. pušta u opticaj apoene u vrijednosti od 5, 10, 50 i 100 dinara, sa datumom izdavanja 1. avgust 1965. Osim numeričke promjene vrijednosti apoena (nominala), brisanjem dvije nule i datuma izdavanja kod prva tri apoena, promijenjeni su ime i faksimil potpisa viceguvernera i faksimil potpisa guvernera Nikole Miljanića. Umjesto Isaka Siona sada je viceguverner Borivoje Jelić. Zbog pravila da su promjene novca uvijek rizične, odlučeno je da se emituju novčanice nepromijenjenog dizajna, u funkciji stabilnosti nacionalne valute i jačanja povjerenja u novi dinar.

Apoen od 100 dinara je najveći u ovoj seriji i predstavlja novinu u dizajnu i vizuelnom identitetu novčanica Narodne banke Jugoslavije. Njen autor je Miodrag Petrović, tadašnji tehnički direktor ZIN-a. Na aversu je crtež skulpture „MIR“ (skulptura konjanika sa bakljom), rad hrvatskog vajara Augusta Augustinčića. Kao poklon SFRJ i danas krasi park ispred zgrade

Organizaciji ujedinjenih nacija u Njujorku. U opticaj je pušten 1. aprila 1968. Prilikom ove denominacije izvršena je samo nominalna promjena pariteta dinara (prije denominacije 1 „stari“ dinar = 0,7109368 mg čistog zlata, a poslije denominacije 1 „novi“ dinar 71,09368 mg čisto zlata.

Iste godine, na osnovu istih zakonskih rješenja, emitovana je nova serija apoena od 5, 10 i 50 dinara sa datumom 1. V 1968. Osim što su neznato većih dimenzija, novčanice iz nove serije, sadrže tekst koji je na aversu dat na jezicima naroda Jugoslavije, ćirilicom i latinicom, a ne kao kod prethodne serije – na jednom jeziku i samo ćirilicom, odnosno latinicom. Na novoj seriji novčanica nalazi se potpis viceguvernera Branislava Čolanović. Kod grafike uočljivo je premještanje vinjete sa aversa na revers i sada ona čini osnovu za njegov sadržaj.

Dizajn reversa je promijenjen i preuzet sa novog apoena od 100 dinara. Na njemu su jasno odvojeni stilizovani ram u kojem je centralno smještena vinjeta a tekstom i desno, bijela površina u kojoj je naziv zemlje i na dnu vrijednost apoena. Dizajnom reversa napravljen je otklon od prethodne serije „privredni razvoj zemlje“ dok su ta tema zadržale

# THE DENOMINATION OF THE YUGOSLAV CURRENCY FROM 1965 AND THE BANKNOTE SERIES OF 1 AUGUST 1965 AND 1 MAY 1968 (3)

## The time when the "horse" replaced the "robin"

Miodrag Kirsanov  
Central Bank of Montenegro

Following the Economic Reform on the model of France and its currency reform of 1958, on 1 August 1965, the first denomination of the Yugoslav dinar was executed pursuant the Law on issuance of new banknotes and coins (OGSFRY 33/65) at rate 1: 100. On January 1, 1966, the National Bank of Yugoslavia issued the denominations of 5, 10, 50 and 100 dinars with the date of issue of 1 August 1965. In addition to the numerical change of denomination value (par), the name and facsimile of the signature of the Vice Governor and the facsimile signature of Governor Nikola Miljanić have been changed by deleting two zeroes and the date of issue in the first three denominations. Isaac Sion was replaced by Borivoje Jelić, a new Vice Governor. Due to the rules that the replacements of banknotes always bear risk, it was decided that the design of the new issue of banknotes would remain unchanged, in function of national currency stability and strengthening of confidence in a new dinar.

The 100 dinar denomination was the largest in this series and was a novelty in the design and visual identity of the National Bank of Yugoslavia banknotes. Its author was Miodrag Petrović, the then technical director of the ZIN. A drawing of the sculpture "MIR" (a horseman with a torch sculpture) was on the obverse, which was the work of the Croatian sculptor Augustus Augustinčić. As a present of the SFRY, it stands in the

park in the front of the United Nations Organization building in New York today. This banknote was put in circulation on 1 April 1968. In this denomination, only the nominal change of the dinar parity was made (before denomination 1 "old" dinar = 0.7109368 mg of pure gold, and after denomination 1 "new" dinar 71.09398 mg of pure gold).

In the same year, according to the same legal regulations, a new series of denominations of 5, 10 and 50 dinars was issued with the date 1 May 1968. In addition to the slightly larger dimensions, the banknotes from the new series contained texts which were on the obverse written in the languages of the people of Yugoslavia, in Cyrillic and Latin, and not as in the previous series - in one language and only in Cyrillic or Latin. The signature of Vice Governor Branislav Čolanović was on the new series of banknotes. The transfer of the vignette from the obverse to the reverse was noted in the graphics and it made the basis for its contents.

The design of the reverse has been changed and taken over from the new denomination of 100 dinars. There is a clearly separated stylized frame in which a vignette is centrally located with the text, and on the right, a white surface in which the name of the country was written and at the bottom the value of the obverse. The design of the reverse deleted the words "economic development of the country" which were

na aversima od 5, 10. i 50 dinara. Kod apoena od 100 dinara akcenat je stavljen na međunarodne odnose i borbu za mir u svijetu.

Zakonom o Narodnoj banci Jugoslavije iz 1965. zamijenjen je Zakon o Narodnoj banci FNRJ iz 1946. Novim Zakonom Narodna banka Jugoslavije je definisana kao emisiona banka Jugoslavije koja, pored ostalih zadataka obezbjeđuje količinu novca potrebnu za nesmetano vršenje proizvodnje i prometa. Ona ima isključivo prava izdavanja novčanica i kovanog novca na teritoriji Jugoslavije. O izradi novih vrsta novčanica i kovanog novca, međutim, odlučuje Savezna skupština. Izrada novčanica i kovanog novca povjerena je Zavodu za izradu novčanica. Ovaj Zakon o NBJ mijenjan je i dopunjavao 1966., 1968. i 1971.

Ovim Zakonom banke su podijeljene na poslovne banke i Narodnu banku Jugoslavije. U poslovne banke uvedeno je društveno upravljanje, preko skupština i izvršnih odbora. Poslije desetogodišnjeg perioda decentralizacije banke su ušle i period ukрупnjavanja i spajanja. Okosnicu su činile bivše republičke privredne banke osnovane 1961.

U ovom periodu je konačno prekinuta zavisnost Službe društvenog knjigovodstva od Narodne banke Jugoslavije.

Kreditni sistem je liberalizovan tako da su, sve poslove banke mogle kod NBJ podići kredite zbog povećanja svog kreditnog potencijala i kreditiranja komitenata.

Zbog vođenja politike „jeftinog novca“, sistem eskontnih operacija NBJ je pretvoren u nepresušni izvor kreditiranja poslovnih banaka. Putem beskonačnog reeskonta kredit Narodne banke poslovnim bankama je deformisan i postao je svojevrsni oblik budžetskog prava na kredit. Kratkoročni plasmani su na taj način postali dugoročni, a Narodna banka učesnik inflatornog finansiranja razvoja.

Količina novca u opticaju nastavila je da raste da bi se i dalje zadovoljavale potrebe privrede za jeftinim novcem. Sa 459.895, 8 miliona komada novčanica i kovanica raznih apoena i godina izdanja u opticaju je 1968. bila količina od 9.584,2 miliona komada „novih“ deminovanih dinara.

Novе novčanice serija iz 1965 i 1968. su Štampane na istim mašinama i papiru kao i prethodna serija, tehnikom zbirne duboke štampe, koja je tada omogućavala izuzetno visok stepen zaštite od falsifikovanja.

### 5 DINARA 1. AVGUST 1965.



5 dinara 1. AVGUST 1965. avers

**Dimenzije:** 135x64 mm, Boja: Zelena;

**Avers:** – lijevo Djevojka sa srpom (žetelica); desno od nje tekst ćirilicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE /slovna/brojčana/slovna vrijednost apoena/ VICEGUVERNER/potpis: Borivoje Jelić; Beograd/1 AVGUST/1965; GUVERNER/potpis: Nikola Miljanić /Serijski broj, numeracija: crvena, dva slova, 6 cifara/ ZAVOD ZA IZRADU NOVČANICA- BEOGRAD;

**Revers:** u stilizovanom ramu: centralno, panorama - kombajni, žetva, oko nje, nazivi republika, iznad i ispod tekst, ćirilicom i latinicom: Socijalistička Federativna Republika Jugoslavija; lijevo i desno od nje brojčane i slovne oznake apoena, ćirilicom i latinicom; u uglovima brojčane oznake apoena; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja.

**Autori:** M. Petrović – FEC i T. Krnjajić – SC;

**Papir:** bijeli papir sa crvenim i plavim vlaknima;

**Izdata:** na osnovu propisa objavljenih u Sl. listu SFRJ, 33 i 56/65;

**U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ, 57/65 od 31.12.1965. do 31.12.1979;

**Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ, 3/79 i 70/80;

**Naknadno mijenjana:** do 31.12.1985;

**Tiraž:** 74.484.000;

**Štampa:** Zavod za izradu novčanica - Beograd.

in the previous series, while the topic was kept on the obverse of 5, 10 and 50 dinars. At a denomination of 100 dinars, the accent was placed on international relations and the struggle for peace in the world.

The Law on National Bank of Yugoslavia of 1965 replaced the Law on National Bank of the FNRJ of 1946. The new Law defined the National Bank of Yugoslavia as issuing bank of Yugoslavia which, in addition to other tasks, provides the amount of money necessary for the smooth manufacturing and turnover operations. It had exclusive rights to issue banknotes and coins in the territory of Yugoslavia. However, the production of new types of banknotes and coins was decided by the Federal Parliament. The production of banknotes and coins was entrusted to the Institute for Manufacturing Banknotes and Coins (ZIN). This NBY Law was amended in 1966, 1968 and 1971.

This Law prescribed the division of banks into commercial banks and the National Bank of Yugoslavia. The social management was introduced in commercial banks, through the general meetings and the executive boards. After a ten-year period of decentralization, the bank also entered the period of consolidations and mergers. The backbone was made up of former Republic commercial banks established in 1961.

During this period, the dependence on the Social Bookkeeping Service from the National Bank of Yugoslavia was finally terminated.

The credit system was liberalised, and all commercial banks could borrow from the NBY in order to increase its credit potential and its lending activities.

Due to pursuing "cheap money" policy, the NBY system of discounted operations has become an inexhaustible source of lending to commercial banks. Through the infinite repricing of the National Bank's loans to commercial banks, it was deformed and became a sort of budget right on credit. Short-term placements have thus become long-term, and the National Bank was a participant in inflationary financing of the development.

The amount of money in circulation continued to grow to meet the economy's needs for cheap money. Of the 459,895, 8 million pieces of banknotes and coins of various denominations and years of issue,

the quantity of 9,584.2 million pieces of "new" denominated dinars was in circulation in 1968.

The new 1965 and 1968 series banknotes have been printed on the same machines and paper as the previous series, a deep mass printing technique, which then provided an extremely high level of protection against falsification.

### 5 DINARS 1 AUGUST 1965 OBVERSE



5 dinars 1 August 1965, obverse

**Dimensions:** 135x64 mm, **Colour:** Green;

**Obverse:** a picture of the Girl with a sickle (reaping machine) is on the left; an inscription from the top to the bottom is to the right: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/letter value of denomination/ VICEGOVERNOR/signature: Borivoje Jelić; Belgrade/1 AUGUST/1965; GOVERNOR/ signature: Nikola Miljanić /Serial number, numbering: red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS - BELGRADE;

**Reverse:** the panoramic view – combines, harvest is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; to the left and to the right of the frame was denomination written in Cyrillic and Latin in numbers and letters; followed by the clause against counterfeiting.

**Authors:** M. Petrović – FEC and T. Krnjajić – SC;

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 33 and 56/65;

In circulation pursuant to the regulation published in Official Gazette of the SFRY 57/65 from 31.12.1965 to 31.12.1979;

10 dinara 1. AVGUST 1965. Avers

102

**10 DINARA 1. AVGUST 1965.****Dimenzije:** 143x68 mm,**Boja:** Braon;

**Avers:** – lijevo: livac – desno od njega tekst latinicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE slovna/brojčana/slovna vrijednost apoena VICEGUVERNER/ potpis: Borivoje Jelić; Beograd/1 AVGUST/1965; GUVENER/potpis: Nikola Miljanić /Serijski broj, numeracija: crvena, dva slova, 6 cifara/ZAVOD ZA IZRADU NOVČANICA - BEOGRAD;

**Revers:** u stilizovanom ramu: centralno, panorama Željezara u Zenici, nazivi republika, iznad i ispod tekst, ćirilicom i latinicom: Socijalistička Federativna Republika Jugoslavija; lijevo i desno od nje brojčane i slovne oznake apoena, ćirilicom i latinicom; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja;

**Autori:** M. Petrović – FEC i B. Kocmut – SC;**Papir:** bijeli papir sa crvenim i plavim vlaknima;**Izdata:** na osnovu propisa objavljenih u SL. listu SFRJ 33 i 56/65;**U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ 57/65 od 31.12.1965. do 31.12.1979;**Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ 3/79 i 70/80, 1. 1. do 31. 12. 1979;

Naknadno mijenjana 30.12.1975;

**Tiraž:** 101.782.000;**Štampa:** Zavod za izradu novčanica - Beograd.**50 DINARA 1. AVGUST 1965.**

50 dinara 1. AVGUST 1965. avers

**Dimenzije:** 151x72 mm,**Boja:** plava;

**Avers:** lijevo: reljef Kosovka devojka, desno tekst ćirilicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE /slovna/brojčana/slovna vrijednost apoena/VICEGUVERNER/potpis: Borivoje Jelić; Beograd/1 AVGUST/1965; GUVENER/potpis: Nikola Miljanić /Serijski broj, numeracija: crvena, dva slova, 6 cifara/ZAVOD ZA IZRADU NOVČANICA - BEOGRAD;

**Revers:** u stilizovanom ramu: centralno, panorama Skupština FNRI, nazivi republika, iznad i ispod tekst, ćirilicom i latinicom: SOCIJALISTIČKA FEDERATIVNA REPUBLIKA JUGOSLAVIJA; lijevo i desno od nje brojčane i slovne oznake apoena, ćirilicom i latinicom; u uglovima brojčane oznake apoena; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja; autori: M.Petrović – FEC i T. Krnjajić – SC.



**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY 3/79, 70/80;

**Subsequently replaced:** by 31.12.1985;

**Circulation:** 74.484.000;

**Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

### 10 DINARS, 1 AUGUST 1965



10 dinars, 1 AUGUST 1965, reverse

**Dimensions:** 143x68 mm, **Colour:** Brown;

**Obverse:** – to the left: a smelter – to the right is a text inscribed from the top to the bottom: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/letter value of denomination/ VICEGOVERNOR/signature: Borivoje Jelić; Belgrade/1 AUGUST/1965; GOVERNOR/signature: Nikola Miljanić /Serial number, numbering: red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS - BELGRADE;

**Reverse:** the panoramic view of the Steel Plant in Zenica is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; to the left and to the right of the frame was denomination written in Cyrillic and Latin in numbers and letters; followed by the clause against counterfeiting;

**Authors:** M. Petrović – FEC and B. Kocmut – SC;

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 33 and 56/65;

**In circulation:** pursuant to the regulation published in Official Gazette of the SFRY 57/65 from 31.12.1965 to 31.12.1979;

**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY 3/79, 70/80, 1. 1. to 31. 12. 1979;

**Subsequently replaced:** by 30.12.1975;

**Circulation:** 101.782.000;

**Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

### 50 DINARS, 1 AUGUST 1965



50 dinars, 1 AUGUST 1965., reverse

**Dimensions:** 151x72 mm,

**Colour:** blue;

**Obverse:** the sculpture of the girl from Kosovo is on the left, while to the right is a text inscribed from the top to the bottom: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/letter value of denomination/ VICEGOVERNOR/signature: Borivoje Jelić; Belgrade/1 AUGUST/1965; GOVERNOR/ signature: Nikola Miljanić /Serial number, numbering:

**Papir:** bijeli papir sa crvenim i plavim vlaknima;  
**Izdata:** na osnovu propisa SFRJ 33 i 56/65;  
**U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ 57/65 od 31.12.1965. do 31.12.1979;  
**Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ 3/79 i 70/80, 1. 1. do 31. 12. 1979;  
**Tiraž:** 85.708,000;  
**Štampa:** Zavod za izradu novčanica - Beograd.

### 100 DINARA SA DATUMOM 1. VIII 1967. (TIP 1)



100 dinara sa datumom 1. VIII 1967. (tip 1) avers

**Dimenzije:** 147x70 mm, **Boja:** crvena;  
**Avers:** lijevo, skulptura „MIR“, desno tekst u tri reda, trojezično, ćirilicom i latinicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE/slovna/brojčana/slovna vrijednost apoena/ VICEGUVERNER/potpis: Borivoje Jelić; Beograd/1 VIII 1965; GUVENER/potpis: Nikola Miljanić /Serijski broj, numeracija: crvena, dva slova, 6 cifara/ZAVOD ZA IZRADU NOVČANICA - BEOGRAD;

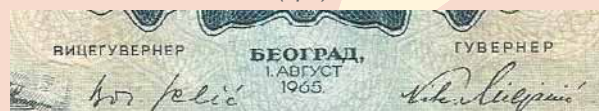
**Revers:** u stilizovanom ramu: centralno, vinjeta, lijevo i desno od nje slovne oznake apoena na jezicima naroda, ćirilicom i latinicom, u centru vinjete je numerička oznaka apoena, okolo, u unutrašnjem krugu su ćirilicom i latinicom nazivi republika, u spoljnom krugu su stilizovane figure igrača u kolu, simboli bratstva i jedinstva i ravnopravnosti naroda Jugoslavije, u uglovima brojčane oznake apoena; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja; desno od rama, u tri reda, na jezicima naroda, latinicom i ćirilicom SOCIJALISTIČKA FEDERATIVNA

REPUBLIKA JUGOSLAVIJA/brojčana vrijednost apoena; autori: M.Petrović – FEC i T. Krnjajić – SC.  
**Papir:** bijeli papir sa crvenim i plavim vlaknima;  
**Izdata:** na osnovu propisa SFRJ 18/67;  
**U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ 8/68 od 1. 4. 1968. do 30. 6. 1990;  
**Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ 84/89, 1. 1. do 30. 06. 1990;  
**Tiraž:** 344.808,000;  
**Štampa:** Zavod za izradu novčanica - Beograd.

### 50 DINARA SA DATUMOM 1. V 1968. (TIP 1)



50 dinara sa datumom 1. V 1968. (tip 1) avers



Faksimili potpisa na novčanici iz 1968.

**Dimenzije:** 147x70 mm,  
**Boja:** crvena;  
**Avers:** lijevo,reljef Kosovka devojka, desno tekst u tri reda, trojezično, ćirilicom i latinicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE / slovna/ brojčana/slovna vrijednost apoena/VICEGUVERNER/ potpis:

red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS - BELGRADE;

**Reverse:** the panoramic view of the Parliament of FPRY, is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; to the left and to the right of the frame was denomination written in Cyrillic and Latin in numbers and letters; followed by the clause against counterfeiting; **Authors:** M. Petrović – FEC i T. Krnjajić – SC.

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 33 and 56/65;

**In circulation:** pursuant to the regulation published in Official Gazette of the SFRY 57/65 from 31.12.1965 to 31.12.1979;

**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY, 3/79, 70/80, 1. 1. to 31. 12. 1979;

**Circulation:** 85.708,000;

**Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

### 100 DINARS, DATED 1 JULY 1967 (TYPE 1)



100 dinars dated 1. VIII 1967. (type 1), reverse

**Dimensions:** 147x70 mm, **Colour:** red;

**Obverse:** to the left, the sculpture „MIR“, to the right, text in three rows, three languages, in Latin and Cyrillic from top to bottom: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/letter value of denomination/ VICEGOVERNOR/ signature: Borivoje Jelić; Belgrade/1 AUGUST/1965; GOVERNOR/ signature: Nikola Miljanić /Serial number, numbering: red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS - BELGRADE;

**Reverse:** in stylised frame in the central part a vignette, to the left and to the right letters of the denomination in languages of peoples written in Cyrillic and Latin, in the

centre of the vignette is numerical denominations surrounded by the inner circle with names of the Republics with the inscription in Cyrillic and Latin, in the outer circle are stylised figures of dancers, symbols of brotherhood and unity and equality of people of Yugoslavia, is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; in corners were numerical denominations, in smaller stylised frame was clause against counterfeiting written in the peoples' languages in Cyrillic and Latin; to the right of the frame in three rows it was written in Cyrilic and Latin in peoples' languages THE SOCIALIST FEDERATIVE REPUBLIC OF YUGOSLAVIA /numerical denomination; **Authors:** M. Petrović – FEC and T. Krnjajić – SC.

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 18/67;

**In circulation:** pursuant to the regulation published in Official Gazette of the SFRY 8/68 from 1. 4. 1968 to 30. 6. 1990;

**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY 84/89, 1. 1. to 30. 06. 1990;

**Circulation:** 344.808,000;

**Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

### 50 DINARS DATED 1. V 1968 (TYPE 1)



50 dinars dated 1. V 1968 (type 1) reverse



Facsimiles of signatures on the banknote from 1968

**Dimensions:** 147x70 mm, **Colour:** red;

**Obverse:** the sculpture of the girl from Kosovo is on the left, while to the right is a text inscribed from the top to the bottom in three rows in three languages in Cyrillic and Latin: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/letter value of denomination/ VICEGOVERNOR/

Branislav Čolanović; БЕОГРАД- BEOGRAD/1 V 1968/ БЕЛГРАД; GUVERNER/potpis: Nikola Miljanić / Serijski broj, numeracija: crvena, dva slova, 6 cifara/ ZAVOD ZA IZRADU NOVČANICA - BEOGRAD; Revers: u stilizovanom ramu: centralno, vinjeta, lijevo i desno od nje slovne oznake apoena na jezicima naroda, ćirilicom i latinicom, u centru vinjete je numerička oznaka apoena, okolo, u unutrašnjem krugu su ćirilicom i latinicom nazivi republika, u spoljnom krugu su stilizovane figure igrača u kolu, simboli bratstva i jedinstva i ravnopravnosti naroda Jugoslavije, u uglovima brojčane oznake apoena; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja; desno od rama, u tri reda, na jezicima naroda, latinicom i ćirilicom SOCIJALISTIČKA FEDERATIVNA REPUBLIKA JUGOSLAVIJA/brojčana vrijednost apoena; autori: M.Petrović – FEC i T. Krnjajić – SC. **Papir:** bijeli papir sa crvenim i plavim vlaknima; **Izdata:** na osnovu propisa SFRJ 18/67; **U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ 40/68 od 1. 4. 1968. do 31. 12. 1989; **Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ 50/89, 15. 9. do 31. 12. 1989; **Naknadna zamjena:** 31. 3. 1990. **Tiraž:** 172.320,000; **Štampa:** Zavod za izradu novčanica - Beograd.

### 10 DINARA SA DATUMOM 1. V 1968. (TIP 1)



10 dinara sa datumom 1. V 1968. (tip 1) avers

**Dimenzije:** 131x62 mm,

**Boja:** braon;

**Avers:** lijevo, crtež livca, desno tekst u tri reda, trojezično, ćirilicom i latinicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE / slovna/ brojčana/ slovna vrijednost apoena/VICEGUVERNER/ potpis: Branislav Čolanović; БЕОГРАД- BEOGRAD/1 V 1968/ БЕЛГРАД; GUVERNER/potpis: Nikola Miljanić / Serijski broj, numeracija: crvena, dva slova, 6 cifara/

ZAVOD ZA IZRADU NOVČANICA - BEOGRAD; **Revers:** u stilizovanom ramu: centralno, vinjeta, lijevo i desno od nje slovne oznake apoena na jezicima naroda, ćirilicom i latinicom, u centru vinjete je numerička oznaka apoena, okolo, u unutrašnjem krugu su ćirilicom i latinicom nazivi republika, u spoljnom krugu su stilizovane figure igrača u kolu, simboli bratstva i jedinstva i ravnopravnosti naroda Jugoslavije, u uglovima brojčane oznake apoena; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja; desno od rama, u tri reda, na jezicima naroda, latinicom i ćirilicom SOCIJALISTIČKA FEDERATIVNA REPUBLIKA JUGOSLAVIJA/brojčana vrijednost apoena; autori: M.Petrović – FEC i T. Krnjajić – SC. **Papir:** bijeli papir sa crvenim i plavim vlaknima; **Izdata:** na osnovu propisa SFRJ 40/68; **U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ 44/68 od 1. 11. 1968. do 31. 12. 1989; **Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ 50/89, 15. 9. do 31. 12. 1989; **Zakonsko sredstvo plaćanja:** do 31. 12. 1989. **Naknadna zamjena:** 31. 3. 1990. **Tiraž:** 458.924,000; **Štampa:** Zavod za izradu novčanica - Beograd.

### 5 DINARA SA DATUMOM 1. V 1968. (TIP 1)



5 dinara sa datumom 1. V 1968. (tip 1) avers

**Dimenzije:** 123x58,5 mm,

**Boja:** Zelena;

**Avers:** – lijevo Djevojka sa srpom (žetelica); desno tekst u tri reda, trojezično, ćirilicom i latinicom, od vrha na dolje: NARODNA BANKA JUGOSLAVIJE/ slovna/ brojčana/ slovna vrijednost apoena/VICEGUVERNER/ potpis: Branislav Čolanović; БЕОГРАД- BEOGRAD/1 V 1968/ БЕЛГРАД; GUVERNER/Potpis: Nikola Miljanić / Serijski broj, numeracija: crvena, dva slova, 6 cifara/ ZAVOD ZA IZRADU NOVČANICA - BEOGRAD; **Revers:** u stilizovanom ramu: centralno, vinjeta,

signature: Borivoje Jelić; БЕОГРАД- BEOGRAD/1 V 1968/ БЕЛГРАД; GOVERNOR/ signature: Nikola Miljanić /Serial number, numbering: red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS – BELGRADE;

**Reverse:** in stylised frame in the central part a vignette, to the left and to the right letters of the denomination in languages of peoples written in Cyrillic and Latin, in the centre of the vignette is numerical denominations surrounded by the inner circle with names of the Republics with the inscription in Cyrillic and Latin, in the outer circle are stylised figures of dancers, symbols of brotherhood and unity and equality of people of Yugoslavia, is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; in corners were numerical denominations, in smaller stylised frame was clause against counterfeiting written in the peoples' languages in Cyrillic and Latin; to the right of the frame in three rows it was written in Cyrillic and Latin in peoples' languages THE SOCIALIST FEDERATIVE REPUBLIC OF YUGOSLAVIA /numerical denomination;

**Authors:** M. Petrović – FEC and T. Krnjajić – SC.

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 18/67;

**In circulation:** pursuant to the regulation published in Official Gazette of the SFRY 40/68 from 1. 4. 1968 to 31. 12. 1989;

**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY 50/89, 15. 9. to 31. 12. 1989; Subsequently replaced: 31. 3. 1990.

**Circulation:** 172.320,000;

**Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

### 10 DINARS DATED 1. V 1968 (TYPE 1)



10 dinars dated 1. V 1968. (type 1) reverse

**Dimensions:** 131x62 mm, **Colour:** brown;

**Obverse:** to the left – a smelter, to the right a text in three rows in

three languages written in Cyrillic and Latin from top to bottom: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/letter value of denomination/ VICEGOVERNOR/signature: Borivoje Jelić; БЕОГРАД- BEOGRAD/1 V 1968/ БЕЛГРАД; GOVERNOR/ signature: Nikola Miljanić /Serial number, numbering: red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS – BELGRADE;

**Reverse:** in stylised frame in the central part a vignette, to the left and to the right letters of the denomination in languages of peoples written in Cyrillic and Latin, in the centre of the vignette is numerical denominations surrounded by the inner circle with names of the Republics with the inscription in Cyrillic and Latin, in the outer circle are stylised figures of dancers, symbols of brotherhood and unity and equality of people of Yugoslavia, is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; in corners were numerical denominations, in smaller stylised frame was clause against counterfeiting written in the peoples' languages in Cyrillic and Latin; to the right of the frame in three rows it was written in Cyrillic and Latin in peoples' languages THE SOCIALIST FEDERATIVE REPUBLIC OF YUGOSLAVIA /numerical denomination;

**Authors:** M. Petrović – FEC i T. Krnjajić – SC.

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 44/68 from 1. 11. 1968 to 31. 12. 1989;

**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY 50/89, 15. 9 to 31. 12. 1989;

**Legal tender:** until 31. 12. 1989. **Subsequently replaced:** 31. 3. 1990. **Circulation:** 458.924,000;

**Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

### 5 DINARS DATED 1. V 1968 (TYPE 1)



5 dinars dated 1. V 1968 (type 1) reverse

**Dimensions:** 123x58,5 mm, **Colour:** Green;

lijevo i desno od nje slovne oznake apoena na jezicima naroda, ćirilicom i latinicom, u centru vinjete je numerička oznaka apoena, okolo, u unutrašnjem krugu su ćirilicom i latinicom nazivi republika, u spoljnom krugu su stilizovane figure igrača u kolu, simboli bratstva i jedinstva i ravnopravnosti naroda Jugoslavije, u uglovima brojčane oznake apoena; ispod, u manjem stilizovanom ramu, na jezicima naroda, ćirilicom i latinicom klauzula o zabrani falsifikovanja; desno od rama, u tri reda, na jezicima naroda, latinicom i ćirilicom SOCIJALISTIČKA FEDERATIVNA REPUBLIKA JUGOSLAVIJA/brojčana vrijednost apoena; autori: M. Petrović – FEC i T. Krnjajić – SC.

**Papir:** bijeli papir sa crvenim i plavim vlaknima;  
**Izdava:** na osnovu propisa objavljenih u Sl. listu SFRJ, 40/68;

**U opticaju:** na osnovu propisa objavljenih u Sl. listu SFRJ, 44/68 od 1. 11. 1968. do 31.12.1989;

**Povučena:** na osnovu propisa objavljenih u Sl. listu SFRJ, 50/89, 1. 7. 1988. do 30. 9. 1988;

**Zakonsko sredstvo plaćanja:** do 1. 10. 1988.

**Naknadno mijenjana:** do 31. 12. 1988;

**Tiraž:** 48.988.000;

**Štampa:** Zavod za izradu novčanica – Beograd.

Postoji tip 2 novčanica od 100 dinara sa datumom 1. VIII 1965. i 5. 10 i 50 dinara sa datumom 1. V 1968. o kojima će, zbog datuma izdavanja, biti riječi i nekom od Bankara koji slijede.

**Obverse:** – to the left / a girl with a sickle, to the right a text in three rows in three languages written in Cyrillic and Latin from top to bottom: NATIONAL BANK/ OF YUGOSLAVIA /letter/numerical/ letter value of denomination/ VICEGOVERNOR/signature: Borivoje Jelić; БЕОГРАД- БЕОГРАД/1 V 1968/БЕЛГРАД; GOVERNOR/signature: Nikola Miljanić /Serial number, numbering: red, two letters, 6 numbers/ THE INSTITUTE FOR MANUFACTURING OF BANKNOTES AND COINS – BELGRADE;

**Reverse:** in stylised frame in the central part a vignette, to the left and to the right letters of the denomination in languages of peoples written in Cyrillic and Latin, in the centre of the vignette is numerical denominations surrounded by the inner circle with names of the Republics with the inscription in Cyrillic and Latin, in the outer circle are stylised figures of dancers, symbols of brotherhood and unity and equality of people of Yugoslavia, is in the central part of the stylised frame, surrounded by the names of the republics, with the inscription above and below the frame in Cyrillic and Latin: The Socialist Federative Republic of Yugoslavia; in corners were numerical denominations, in smaller stylised frame was clause against counterfeiting written in the peoples' languages in Cyrillic and Latin; to the right of the frame in three rows it was written in Cyrillic and Latin in peoples' languages THE SOCIALIST FEDERATIVE REPUBLIC OF YUGOSLAVIA /numerical denomination; **Authors:** M. Petrović – FEC i T. Krnjajić – SC.

**Paper:** white paper with red and blue UV threads;

**Issued:** pursuant to the regulation published in Official Gazette of the SFRY 40/68;

**In circulation:** pursuant to the regulation published in Official Gazette of the SFRY 44/68 from 1. 11. 1968 to 31.12.1989;

**Withdrawn:** pursuant to the regulation published in Official Gazette of the SFRY 50/89, 1. 7. 1988 to 30. 9. 1988;

**Legal tender:** until 1. 10. 1988. **Subsequently replaced:** by 31. 12. 1988;

**Circulation:** 48.988.000; **Printed by:** The Institute for Manufacturing Banknotes and Coins - Belgrade.

There is type 2 of banknotes of 100 dinars dated 1. VIII 1965, and banknotes of 5, 10 and 50 dinars dated 1. V 1968, which will be discussed, due to the date of issue, in some of the following editions of the magazine the Bankar.

Fotografije koje ilustruju tekst preuzete su sa Interneta:

5 dinara sa datumom 1. AVGUST 1965.

[https://www.kupindo.com/Srbija-i-YU-1961-danas/29014969\\_SFRJ-5-DINARA-1965-god-SPECIMEN-;](https://www.kupindo.com/Srbija-i-YU-1961-danas/29014969_SFRJ-5-DINARA-1965-god-SPECIMEN-;)

10 dinara sa datumom 1. AVGUST 1965.[https://www.kupindo.com/Srbija-i-YU-1961-danas/47830005\\_SFRJ-10-DINARA-1965-sa-slika-Manji-Brojevi-UNC-;](https://www.kupindo.com/Srbija-i-YU-1961-danas/47830005_SFRJ-10-DINARA-1965-sa-slika-Manji-Brojevi-UNC-;)

50 dinara sa datumom 1. AVGUST 1965. [https://www.kupindo.com/Srbija-i-YU-1961-danas/50638925\\_Jugoslavija-50-dinara-1965-;](https://www.kupindo.com/Srbija-i-YU-1961-danas/50638925_Jugoslavija-50-dinara-1965-;)

100 dinara sa datumom 1. AVGUST 1965. <https://banknoteindex.com/browse.mhtml?browseBy=Authority&browse>

50 dinara sa datumom 1. V 1965.[https://static.kupindoslike.com/Jugoslavija-50-dinara-1968-UNC-AA-serija\\_slika\\_O\\_72476557.jpg;](https://static.kupindoslike.com/Jugoslavija-50-dinara-1968-UNC-AA-serija_slika_O_72476557.jpg)

10 dinara sa datumom 1. V 1965.<https://www.limundo.com/kupovina/Numizmatika/Novcanice/SFRJ-i-Srbija-1961-danas/10-dinara-1968-UNC/76980099;>

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinara sa datumom 1. V 1965.[https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

Photographs illustrating the text are downloaded from the following websites:

5 dinars dated 1. AUGUST 1965

[https://www.kupindo.com/Srbija-i-YU-1961-danas/29014969\\_SFRJ-5-DINARA-1965-god-SPECIMEN-;](https://www.kupindo.com/Srbija-i-YU-1961-danas/29014969_SFRJ-5-DINARA-1965-god-SPECIMEN-;)

10 dinars dated 1. AUGUST 1965 [https://www.kupindo.com/Srbija-i-YU-1961-danas/47830005\\_SFRJ-10-DINARA-1965-sa-slika-Manji-Brojevi-UNC-;](https://www.kupindo.com/Srbija-i-YU-1961-danas/47830005_SFRJ-10-DINARA-1965-sa-slika-Manji-Brojevi-UNC-;)

50 dinars dated 1. AUGUST 1965 [https://www.kupindo.com/Srbija-i-YU-1961-danas/50638925\\_Jugoslavija-50-dinara-1965-;](https://www.kupindo.com/Srbija-i-YU-1961-danas/50638925_Jugoslavija-50-dinara-1965-;)

100 dinars dated 1. AUGUST 1965. <https://banknoteindex.com/browse.mhtml?browseBy=Authority&browse>

50 dinars dated 1. V 1965. [https://static.kupindoslike.com/Jugoslavija-50-dinara-1968-UNC-AA-serija\\_slika\\_O\\_72476557.jpg;](https://static.kupindoslike.com/Jugoslavija-50-dinara-1968-UNC-AA-serija_slika_O_72476557.jpg)

10 dinars dated 1. V 1965 <https://www.limundo.com/kupovina/Numizmatika/Novcanice/SFRJ-i-Srbija-1961-danas/10-dinara-1968-UNC/76980099;>

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

5 dinars dated 1. V 1965 [https://static.limundoslike.com/originalslika\\_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg;](https://static.limundoslike.com/originalslika_SFRJ-5-DINARA-1968-sa-slika-UNC-195328171.jpg)

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