EUROPEAN BANKING AUTHORITY

ANNEX – Republic of Bosnia and Herzegovina

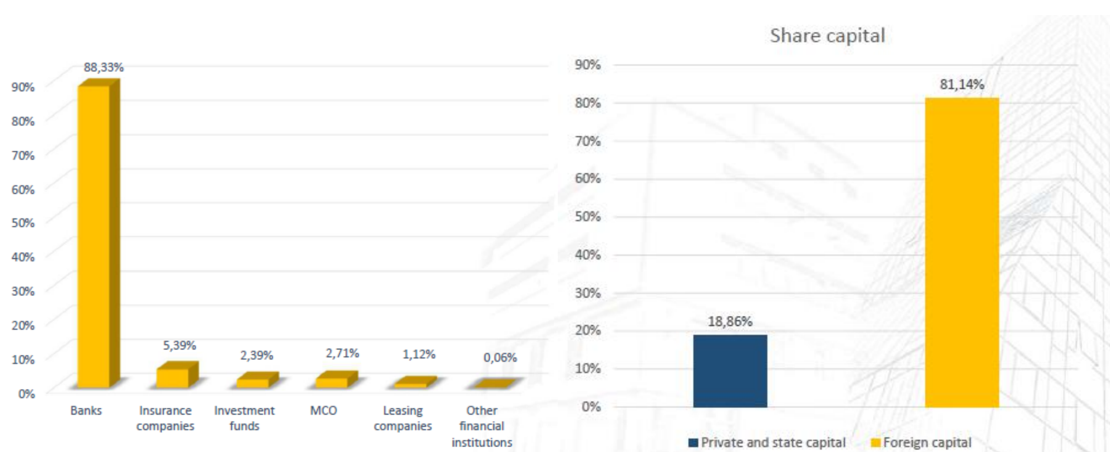
A. Overview of the banking sector

Overview of the financial system

1. The financial system of Bosnia and Herzegovina (BiH) is under the jurisdiction of the administrative entities of the Federation of BiH (FBiH) and Republika Srpska (RS); this means that the regulatory and supervisory authorities for banking, insurance and capital markets are retained at entity, rather than at central, level. In particular, the banking regulatory and supervisory authority for the federation of BiH is the Federal Banking Agency (FBA), while the responsible authority for Republika Srpska is the Banking Agency of Republika Srpska (BARS).

2. The financial system in Bosnia and Herzegovina presents a quite simple structure and is essentially bank-dominated, as the banking sector accounts for 88% of the financial assets. The rest of the financial system is small and consists of insurance companies, investment funds, microcredit organizations, voluntary pension funds' management companies and leasing companies. Within their entities, FBA and BARS also regulate and supervise MicroCredit Organisations (MCOs), saving-credit organisations and leasing companies, which in aggregate accounts for less than 4% of total financial assets.

Figure 1a and 1b – A bank-centric financial sector, dominated by EU presence



Source: FBA, BARS

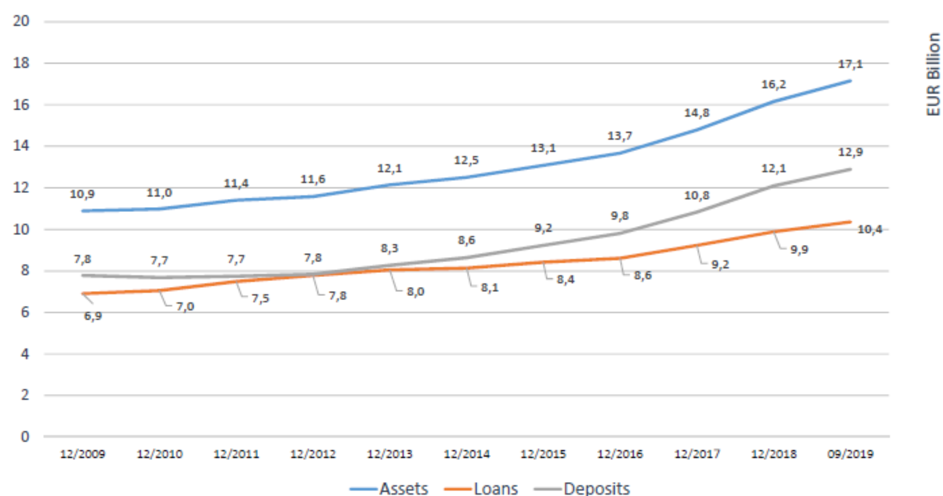
3. As of September 2019, the number of banks in the country amounted to 23 in total (15 in FBiH and 8 in RS), for total assets of EUR 17.1 bn (ca. 100% of the GDP). Over the past decade, the banking sector has become more and more concentrated, following a process of consolidation:

a decade ago, in 2009, the number of banks established in BiH was 30 (20 in FBiH and 10 in RS). The five largest banks (three in FBiH and two in RS) now represent over 60% of banking sector assets.

4. Moreover, the banking system is characterised by a large presence of foreign subsidiaries (mostly from Euro Area), which represent 81% of banking share capital, while domestically-owned and state capital institutions account for 19%.

5. Over the past ten years total assets and deposits in the BiH sector have continued to increase and are now 70% higher than in 2009; this pace of growth has not been matched by a corresponding growth in loans, which increased, but by a slower pace (ca. 40% higher over the past decade). As a result, banks are quite abundant in cash.

Figure 2 – BiH balance sheet evolution, 2009-2019



Source: FBA, BARS

6. The highly-liquid position of BiH banks is quite visible in the breakdown of asset composition, where 28% of assets (as of September 2019) are held in cash. This particular situation may be due to the lack of adequate investment opportunities that otherwise would drive banks to extend credit to the corporate sector. This is also confirmed by the banks' loan structure: while the share of household and corporate loans is relatively similar (48% and 43% of total loans), the former has been increasing at a much faster rate over the past year (respectively, 6.9% y-o-y vs. 2.9% y-o-y).

7. In terms of the source of funding, banks remain predominantly funded by deposits (80% of total liabilities), with a minimal contribution of capital instruments (4% of total liabilities), also due to the limited dimension of subordinated-debt market.

Figure 3a – Assets structure of the BiH banking sector

Figure 3b – Liability structure of the BiH banking sector

Source: FBA, BARS

Performance of the banking sector

8. During the last few years, the BiH banking sector has undergone a significant reduction of NPLs, from ca. 15% in 2013 to 8% in 2019 thanks to a number of regulatory and supervisory initiatives:

    a. A series of AQR (2014, 2016 and 2017), as part of arrangement with IMF, starting with the banks having high exposures to credit risk and weak risk management practices, and following with the ones with high growth rates of their business.

    b. A new legal framework for purchase and sale of bank investments (2017).

    c. The adoption (in 2019), by both BARS and FBA, of a *"Decision on credit risk management and determination of expected credit losses"* which aligns the framework to the best practices prevailing in the EU and prescribes:

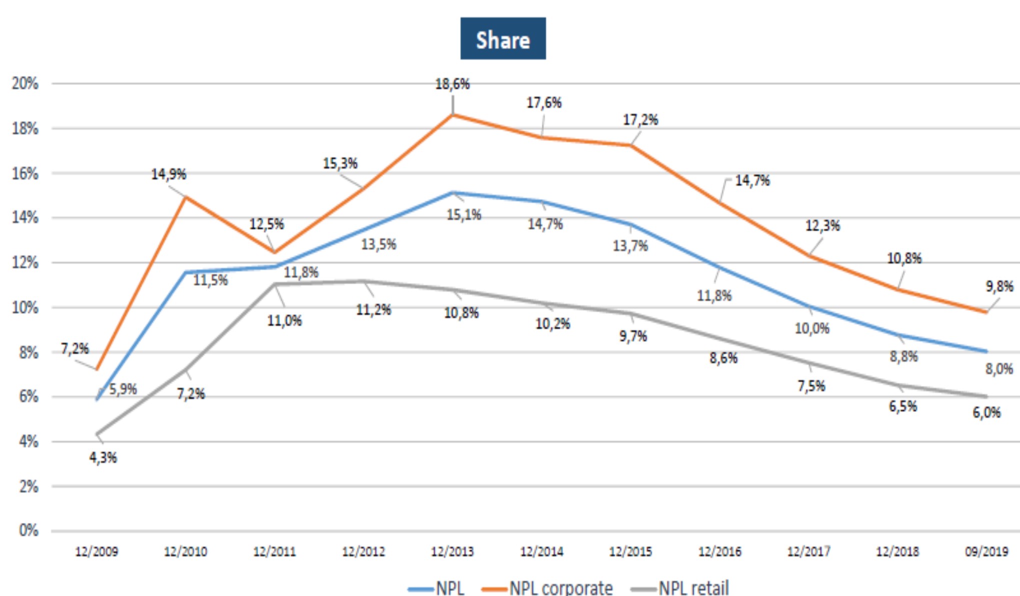
        i. credit risk management rules, including treatment of non-performing exposures and restructured exposures,

        ii. key definitions aligned with relevant EU regulations/guidelines, including the definition of default,

        iii. criteria for classification of exposures into credit risk stages,

        iv. minimum expected credit loss rates (including for non-performing exposures) and accounting write-off rules.

Figure 4 - Non-Performing Loans (NPLs) in BiH, 2009-2019



Source: FBA, BARS

9. As a result, the profitability of the banking system has kept increasing over the past years and the Return on Equity (RoE) for 2018 stood around 9%, despite the ongoing decline in interest rates that put significant pressure on net interest income.

10. Thanks to the good profitability and an efficient management of NPLs, as well as the high capital requirements imposed by FBA and BARS (CET1 at 6.75%, Total Capital at 12%, i.e. 50% higher than required under Basel III and the CRR), the Bosnian Banking system is adequately capitalized, showing a CET1 ratio of 16.2% in RS and of 16.5% in FBiH. The high level of capital adequacy is also confirmed by leverage ratio, at 10.4% in RS and 10.7% in FBiH.

11. From the liquidity standpoint, banks have abundant reserves to manage funding risks in the short and long term. The requirement to have a Liquidity Coverage Ratio (LCR) at least equal to 100% came into force in 2019 and the first reporting shows a high level of 254% for the Bosnian banking system. Loan to Deposit ratio (LTD) at 70% also shows that that there are significant reserves available for expected or unexpected contingencies. In terms of long term funding risks, banks are obliged to ensure appropriate fulfilment of long-term obligations by means of a set of instruments of stable funding sources in usual and stress conditions, according to the Decision on liquidity risk management in banks. To this extent, the establishment of Net Stable Funding Ratio (NSFR) as an obligatory quantitative requirement shall be subsequently prescribed, in accordance with the EU regulation, while BARS and FBA are currently working on a by-law concerning the reporting on NSFR.

Main trends and risks

12. The figures in the above section show that the banking system in Bosnia and Herzegovina is liquid, well capitalized, and profitable, and operating in a moderately dynamic economic environment. However, some risks remain that need to be monitored in the coming future:

13. **Low-interest rates** – The low level of interest rates has reverberated across the market in Bosnia and Herzegovina from other markets (notably EU). While a relatively low level of interest rates clearly put some pressure on net interest income, operating in a low-interest environement might also led banks to search for yield, focussing more intensively on the sectors where higher interest rates can be applied (e.g. “retail“ segment and products) or products with a potential for a quicker change in case of an increase in interest rates (enhanced short-term commercial lending). However, this might also imply a corresponding deterioration of credit quality.

14. **NPLs** – While there has been a steady decrease in the share of non-performing loans as a result of the active approach to recovery and the measures described above, in spite of the implementation of the measures aligned with EU best practices, there is a need for a constant review of the market and approaches. In particular, the current NPL level (8%), while far from its peak, remains quite material and will need to be addressed as a potential downturn in the economic cycle could lead to a sudden increase in the quality of assets.

15. **Liquidity** – As shown in the previous sections, a large portion of banks' balance sheet is held in cash, mostly due to lack of investment opportunities. Although the liquidity indicators are favorable, the maturity structure of the liabilities has been continuously changing in favor of short-term funding sources with a further increase in the total deposits. This does not necessarily imply an advantage in low- and negative-interest rate environment and may have long-term effects on the market and banks' performance.

16. **Economic growth** – Both agencies expect quite stable economic conditions with average GDP growth of approximately 3% in the 2019-2021 period. However, there are a number of risks that might affect economic growth in the country and, in turn the profitability of the banking sector:

    a. The economy of Bosnia-i-Herzegovina is largely aligned with the economic cycle in Europe and many companies are also major exporters. Thus, the local economy might be significantly affected by a deceleration of economic growth in its major European trading partners.

    b. Low dynamism of the public sector, as potential chances for an acceleration in economic growth also depend on the implementation of major infrastructure projects of local and regional importance, which very much depend on political will and regional cooperation.

    c. While banks managed to compensate for the decreased interest income by increasing the share of non-interest income based on delivery of other fee-based traditional services and other optimization (primarily on the side of costs), the space for this type of initiatives has progressively decreased.

17. **Changes in traditional market conditions and the impact of FinTech** – As elsewhere in Europe, the traditional banking business model is being challenged by the entrance of new market participants and by the need to adopt new technologies in order to remain competitive. In turn, this could dent significantly banks' profitability or sustainability of some business models.

18. **Political conditions and EU enlargement** – While the banking system is dominated by banks domiciled in the EU and this contributes to maintain the overall stability, the uncertainties linked to the EU enlargement process for Western Balkan countries may have additional adverse effects on economic growth, stability, and demographic conditions.

EBA EUROPEAN BANKING AUTHORITY

B. Detailed Assessment of Bosnia and Herzegovina

Country: Republic of Bosnia-Herzegovina		
Section 2	**Supervisory Framework**	Topic Assessment Largely Equivalent
Rationale for overall topic assessment		**<u>Tasks and responsibilities of the authorities</u>** Supervisory activities in the financial sector are performed by the Federation of Bosnia and Herzegovina Banking Agency (FBA) and Banking Agency of Republika Srpska (BARS). The FBA and BARS are independent and autonomous institutions with competencies for prudential regulation, supervision (and resolution) of banks, microcredit organisations, leasing companies and saving-credit organisations. They report to the Parliaments of the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS) respectively, who supervise their operations. The overarching objective of both agencies is preserving and strengthening the stability of the banking system and protecting depositors, as well as improving its safe, high-quality and legal business operations. Both agencies have competences in the area of prudential supervision of financial institutions, consumer protection, AML/CFT and resolution of distressed institutions. In addition to their supervisory functions (licensing, supervising and issuing corrective measures), FBA and BARS are also authorised to adopt prudential regulations, issued in the form of Decisions, Instructions and Rulebooks/Guidelines. Banks must comply with all regulations issued by the FBA/BARS. Decisions and Rulebooks are adopted by the respective Management Boards, while Instructions and Guidelines are adopted by the Director of the Agency and explain in more technical details how to apply provisions of the Law or Decisions. <u>The two Agencies coordinate on any changes, in order to keep the regulatory frameworks aligned</u>. With regard to primary legislation *per se*, laws are brought into effect via the Ministry for Finance, while the Agencies can give comments and technical advice. The final approval is then for the Parliament. Banks may send questions regarding the interpretation or the application of certain provision in the prudential regulation adopted by FBA/BARS; the answers to the questions related to prudential regulation issued by the FBA/BARS are then treated as official interpretation of the regulation and banks are obliged to comply with the instructions given in the answer. **<u>Licensing of credit institutions</u>** Both BARS and FBA have the power to issue and withdraw banking licenses. For both agencies, the information to be submitted (details of key personnel, information on holdings and controlling interests, business plan, initial capital, organisation, accounting internal control system of the bank, and remuneration policy) and the requirements to be fulfilled are largely corresponding to the respective provisions in the CRD. The initial minimum capital requirements for banks are higher than the 5 million EUR foreseen in the EU regime – banks are required to have a minimum capital of the dinar equivalent of EUR 7.5 million. The Law on Banks prescribes a very detailed number of circumstances where a license can be withdrawn – BARS and FBA have different criteria but all appear to be within the bounds of what is expected in the EU according to the CRD. **<u>Qualifying shareholder participations</u>** The provisions for the notification and assessment of increases in participation (qualifying shareholdings) are in line with the framework defined in the EU:

- **Definition**: Qualifying holding is defined when a person has (alone or through related parties) at least 10% of capital ownership or share in the voting rights of an institution; or has the ability of influence the management;
- **Prior approval:** acquisitions and increases of qualifying holdings must be subject to application for approval and prudential assessment by FBA/BARS;
- **Threshold**: Same as in the EU (20%, 30%, 50%).

Fit and Proper

Overall, the fit and proper regime appears in line with the EU framework. All the provisions are highly harmonised between the two agencies and there are no substantial differences between the requirements for FBA and the ones envisaged by BARS. The criteria for appointment to the Management Board and to the Supervisory Board include good business reputation; adequate qualifications with a sufficient level of education and training, as well as appropriate practical experience; and no conflicts of interest. The following requirements are also considered and are largely in line with the CRD provisions:

- Independence of mind: At least one third of the members of the bank's supervisory board must be persons who are independent from the bank. No conflicts of interest with respect to the bank, shareholders, supervisory board, board of directors and senior management.
- Time Commitment: A person or an authorized representative of the legal person may not be Chairman or member of the supervisory board in one or more banks at the same time; one person may be a member of the supervisory board in no more than two banks in BiH.

In terms of authorisations, approvals and reappointments, the requirements are generally in line with those in the EU. According to the Bosnian regulatory framework, only a person who has obtained a prior approval of the Agency to hold the office of a member of the board of directors in that bank may be appointed in that function. Fit and Proper criteria are assessed on on-going basis through on-site and off-site inspections to make sure that governance, management and bodies are established in accordance with the law and regulations.

Prudential Supervision

Supervisory scope

With regards to the supervisory scope, based on the respective articles of the Law on banks, FBA and BARS conduct the supervision on a consolidated basis of the banking group in which a bank headquartered in RS/FBiH has the capacity of an ultimate parent company or subsidiary (where the ultimate parent company is registered in the RS/FBiH).

In line with the CRD, the entities reporting on a consolidated basis may, with the prior supervisory approval, exclude from the scope of prudential consolidation a member of the banking group:

- who is headquartered in a country in which there are legal obstacles to the provision of the data and information required for the preparation of the consolidated financial statements,
- whose inclusion in the consolidated financial statements is of no relevance to ascertaining the banking group's financial condition,
- whose inclusion in the consolidated financial statements would be misleading regarding the banking group's financial condition.

To this extent, there is only a slight difference in the quantitative criterion used for determining the entities that can be excluded from the prudential scope. The local regulation provides for such exclusion if the total amount of balance-sheet assets of the subordinated company concerned is less than 1% of the total balance sheet of the ultimate parent company or bank, whereas in the EU framework such exclusion is envisaged if the total amount of assets and off-balance sheet items is less than EUR 10 million, or 1% of the total amount of assets and off-balance sheet items of the parent undertaking.

	The allowed methods of consolidation are: • Full consolidation method; • Proportional consolidation method; • Accounting equity method. FBA and BARS can ask for consolidation on other cases if they are of the opinion that the bank exercises significant influence over one or more consolidation entities, where it has no equity share or any other equity related relationship; and /or the bank and one or more consolidated entities have a common management and governance structure. **Audit activities** The audit company must notify immediately the bank's supervisory board, the management and the audit committee, as well as the FBA and BARS, about material breach of laws and regulations, breaches of internal procedures or acts of the bank or the group the bank belongs to, and any circumstances that could result in a material loss for the bank. The same obligation holds for any internal control function (Audit, but also Compliance and Risk Management). The Internal Audit function must submit an activity report to supervisors on a quarterly basis. **Supervisory powers** FBA and BARS are legally empowered to impose a set of administrative measures and penalties on institutions, in case the latter acted contrary to the provisions of the banking law, as well as other regulations or standards of prudent banking operations. The agencies can then impose one or several supervision measures against that bank: • issue a letter of warning, • order that deficiencies and irregularities in the bank's operations be eliminated, • limit the rights of shareholders with qualifying holding, • undertake early intervention measures, • revoke the operational license, initiate the procedure of enforced liquidation or issue a decision to petition bankruptcy proceedings, • initiate the procedure of assessment for the start of the resolution procedure, when the condition of the bank is such that it cannot or it is likely that it cannot continue operations. **<u>Supervisory Review Process</u>** **ICAAP** Both BARS and FBA require banks to perform annually their Internal Capital Adequacy Assessment Process (ICAAP) and to submit the respective report. Within the ICAAP, a bank shall, on continuous basis, establish and implement an appropriate procedure to ensure an adequate level of capital that, according to the bank internal assessment, corresponds to the nature, scope, and complexity of the bank's activities. This should be done taking into account the risk profile, risk management system and techniques used to mitigate risk. The content of the ICAAP is largely in line with the practice followed in the EU and established by the CRD. The bank's internal audit shall perform an adequacy assessment of the set ICAAP at least once a year. While at the time of assessment FBA had implemented provisions both for ICAAP and ILAAP, BARS had only implemented ICAAP ones, and the ILAAP will be part of a further upgrade that will also include the implementation of the SREP approach, an enhancement of the stress tress framework and the finalisation of FINREP reporting. **CAMELS/SREP** All the 23 banks operating in Bosnia are subject to a supervisory risk assessment process currently based on a CAMELS approach (C – Capital Adequacy, A – Asset quality, M – Management and governance quality, E – Quality and level of profitability, L – Liquidity adequacy, S – Sensitivity of the

<table>
<tr><td></td><td colspan="2">bank's risks). Under the CAMELS framework, the ratings of individual components as well as the composite rating are determined on a scale from one to five. Rating 'one' represents the highest level, high quality and successful performance and risk management with a low level of supervisory concern. Whereas a rating 'five' indicates critically bad and unsuccessful performance and risk management with cause for an extreme supervisory concern. The composite rating is assigned to each bank on a quarterly basis (offsite) and after a comprehensive onsite inspection. In targeted inspections, the rating of the inspected segment is updated accordingly (most often assets quality and credit risk management, capital adequacy (own funds) and liquidity).

At the time of assessment, both BARS and FBA were in the process of adoption of the SREP Methodology, which will be aligned with the approach currently in place in the EU, and consistent with the EBA SREP Guidelines and the ECB SREP Methodology Manual. The methodology had been tested on a sample of banks in 2019 and is going to be fully implemented from 2020, when all the banks will be assessed according to the SREP framework.

Supervisory powers to levy higher requirements

Once the CAMELS review is concluded, both Agencies may set for an individual bank an adequacy ratio of the regulatory capital greater than the one prescribed based on the type and degree of risk, systemic importance and business activities of the bank if this is determined as necessary for the purpose of stable and secure operations of the bank. Currently, Pillar 2 requirements are based on ICAAP assessment on a risk-by-risk basis. To this extent, both agencies can assess and challenge the adequacy of internal capital estimates and set additional requirements for risks that are not adequately covered by Pillar 1 capital.</td></tr>
<tr><td rowspan="2">Section 3</td><td rowspan="2">Own Funds</td><td>Section Assessment</td></tr>
<tr><td>Largely Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2"><u>Own funds requirements</u>

The own funds requirements are 50% higher than in the EU framework, and are structured as follows:

• CET1 ratio: 6.75%

• T1 ratio: 9%

• Total Capital ratio: 12%

In terms of capital composition, core capital items are the same as in CET1 as per CRR (paid-in share capital, excluding cumulative preferential shares, reserves from profit and profit of the bank and other items that are perpetual), while the eligibility criteria are the same as prescribed in the CRR for all the capital instruments that can be issued by an institution (CET1, AT1, T2). The trigger event is set at 7.687% or higher.

The provisions of Art. 29 CRR about requirements for cooperative banks are not included in RS and FBIH regulatory framework as there are currently no such institutions operating the two jurisdictions.

As in the CRR, institutions must obtain the permission to supervisors in order to reduce own funds, and must ensure an adequate level of capital after the reduction.

<u>Adjustments and deductions</u>

With regard to prudential filters the provisions mirror those of Article 32-35 CRR. Most of the provisions in the Bosnian regulation in terms of deductions are equivalent to the ones in the EU framework. On Securitisation (see also relative section): while this is not relevant at the moment, in case banks will decide to invest asset backed securities issued abroad, such an investment should be treated as deductible item from CET 1 or risk weighted 1250%. While none of the banks in RS and FBiH have reciprocal cross holding with any financial sector entity, both regulations provide that such investments must be treated as a deductible item from CET1. In addition, banks shall implement deductions of investments in CET1 instruments on the basis of gross positions (entire amount of the</td></tr>
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<tr><td></td><td colspan="2">investment is deductible). The application of threshold to deductions of significant investments in CET 1 instruments or deduction of DTA is not allowed.

There are some differences but the overall effect is not material. In particular, no deduction is prescribed for Defined Benefit Obligation (DBO) related to pension funds, but this reflect the fact that this type of instrument is not currently applicable in the Bosnian jurisdiction. On a more conservative note, all banks in RS and FBiH must deduct the entire amount of deferred tax assets, i.e. no netting is allowed against deferred tax liabilities.

<u>Minority Interests</u>

There is no specific provision for deduction of minority interests, but this currently does not have a material effect:
• in RS there are no banks that have subsidiaries,
• in FBiH there are two banks that have subsidiaries but there are no minority interests in subsidiaries of these entities.</td></tr>
<tr><td rowspan="2">Section 5</td><td rowspan="2">Credit Risk (Standardised Approach)</td><td>Section Assessment</td></tr>
<tr><td>Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2">Credit risk requirements and the calculation of own funds for credit risk can be considered equivalent to the ones in the CRR for the Standardised Approach, which is the only method authorised by the Bosnian supervisory authorities. No bank is authorised to use IRB approach.

The framework for Standardised Approach to Credit Risk in Bosnia includes the same exposure classes as in the CRR. The risk-weights for all the exposures classes are the same as in the CRR, with some notable exceptions where the approach is more conservative:
• <u>Residential properties secured by mortgages</u>: higher risk weights than CRR Art. 125 (50% vs. 35% in CRR).
• <u>Commercial real estate secured by mortgages</u>: higher risk weights than CRR Art. 126 (75% vs. 50% in CRR). However, the required Loan to Value for this exposure class is slightly higher than in the EU framework (60% vs. 50%).
• <u>Covered Bonds</u>: Same approach as CRR Art. 129, but only exposures guaranteed by central banks, central governments or institutions that qualify for the credit quality step 1 can allow a covered bond to qualify for a preferential treatment (i.e. with a lower risk weight). While it is not forbidden to invest in Covered Bonds backed by real estate properties, they are not eligible for preferential treatment stipulated in the Article 63(4) and 63(5) of the Decision on capital calculation (which reflect Art. 129 CRR).
- In both regulations, <u>Public Sector Entities</u> are defined similarly to the CRR, i.e. non-commercial administrative bodies responsible to central/regional/local governments, non-commercial legal entity owned by or set up by central/regional/local governments, with explicit unconditional guarantee for the obligations of that entity; bodies governed by special law that are under public supervision.
- <u>Retail exposures</u> are defined as in the CRR, with the only difference that the limit of 1mn/EUR has been lowered to the equivalent of 125.000 EUR, to reflect the different conditions of the local market.
- <u>Defaulted exposures</u> are treated in the same way as in the CRR (i.e. 150%/100 %, where credit risk adjustments are less/no less than 20% of the unsecured part of the exposure value if these credit risk adjustments were not applied). The definition of default is equivalent to the one in the CRR and includes both the 90-day past due and the unlikely to pay criteria.
- <u>The cross dependence between the value of property and credit quality of the borrower</u> (i.e. the value of the property shall not materially depend upon the credit quality of the borrower AND the risk of the borrower shall not materially depend upon the performance of the underlying property or project) is not envisaged in the regulation. However, according to Art. 7 of the Decision on credit</td></tr>
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<tr><td></td><td colspan="2">risk management and accounting, banks should take into account such dependence prior to the approval of the exposure and the assessment of client creditworthiness.</td></tr>
<tr><td>Section 7</td><td>Credit Risk Mitigation</td><td>Section Assessment
Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2">It was observed that in certain aspects Bosnian regulation can be seen as more conservative than the CRR, as a narrower set of collateral and or guarantors is allowed for the recognition of the effect of credit risk mitigation. Overall, the regulation applied in Bosnia stipulates the same principles and general conditions for the recognition of CRM techniques for credit protection (funded and unfunded), and thus can be considered to be equivalent to the framework defined in the CRR.

<u>Funded credit protection</u>

- <u>Allowed methods</u>: only Financial Collateral Simple Method (FCSM) and Financial Collateral Comprehensive Method (FCCM) are allowed. On-Balance Sheet Netting (OBSN) is not allowed as there is no proper legal framework in place.
- <u>Eligibility criteria</u>: same criteria in terms of legal certainty and recognition. However, Credit Linked Notes (CLN) and Securitisation positions cannot be used as CRM instrument. While banks do not invest in securitisation issuances, banks can use CLN for their internal risk management purposes, but the benefit is not recognized in terms of risk weights.
- <u>Volatility adjustments</u>: the same values as Art. 224 CRR are applied, but only supervisory values are possible (i.e. own volatility adjustment is not possible).
<u>Unfunded credit protection</u>

The rules in terms of eligibility and requirement for unfunded credit protection are in line with the CRR framework. Similar to funded credit protection, the set of protection providers is narrower than in the CRR, as central counterparties, credit derivatives and counter-guarantees by public sector entities are not allowed.</td></tr>
<tr><td>Section 8</td><td>Securitisation</td><td>Section Assessment
Partially Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2">Neither of the jurisdictions has implemented a regulation on securitisation justifying it with a non-existent market and low level of development compared to the EU. Domestic banks perform traditional banking activities where deposits are the main source of funds and banks have not shown any interest to invest in securitisation products issued abroad or to issue themselves. In addition, issuance of securitised products would not be possible as the legal framework in place is currently not ready to support it.

However, should banks decide to invest in securitisation products issued abroad, the regulatory frameworks applicable in FBiH and Republika Sprska require that such positions will be either deducted from CET 1 capital or be subject to a 1250% risk weight under the credit risk framework.

In view of the conservative prudential treatment given to the investment in these securities, the applicable framework on Securitisation is therefore Partially Equivalent.</td></tr>
<tr><td>Section 9</td><td>Operational Risk</td><td>Section Assessment
Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2">Definition

Operational risk is defined in BiH legislation as the risk of potential occurrence of negative effects on the bank's financial result and capital because of employees' mistakes, inadequate internal procedures and processes, inadequate management of information and other systems in the bank, as well as resulting from the occurrence of unforeseeable external events, including legal risk. Definitions of conduct risk and model risk are to be introduced with Decision on Internal Governance.

Regulation</td></tr>
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<tr><td></td><td colspan="2">According to law in both jurisdictions, a bank may calculate the capital requirement for operational risk by using one of the indicator based approaches:
1) Basic Indicator Approach (BIA),
2) Standardised Approach (SA), subject to prior consent of the BARS/FBA.
Alternative SA and Advanced Measurement Approach (AMA) have not been implemented.

Also, subject to prior consent of the BARS/FBA, a bank may calculate the capital requirement for operational risk by using the combination of the two approaches. Both approaches allowed in the legislation are in line with the CRR quantitative requirements (same indicator definition and calculation methods, provisions in place for cases when there are less than three years of available data and for M&A) and qualitative criteria. Banks also need to report regularly (on a quarterly basis) their gross losses by business lines and event types). Both jurisdictions have also transposed Basel's PSMOR into national law.

A bank using the Standardised Approach may revert to BIA only if they get a prior consent of the BARS/FBA and prove that there is no regulatory arbitrage.

Pillar 2

Banks are obliged to establish a methodology for measurement of operational risk under ICAAP (ICAAP report defined by BARS/FBA) and need to explain the impact of stress tests on internal capital requirements.

Capital requirements for Operational risk are 8.8% (FBiH) and 8.2% (Republika Srpska) of total capital requirements and 12.5% and 11.7% respectively of total risk amount.</td></tr>
<tr><td rowspan="2">Section 10</td><td rowspan="2">Market Risk and Counterparty Credit Risk</td><td>Section Assessment</td></tr>
<tr><td>Equivalent</td></tr>
<tr><td>Rationale for overall topic assessment</td><td colspan="2">FBiH's and Republica Srpska's capital adequacy regulation takes into account counterparty credit risk and all risks under market risk. They have provisions in place also for settlement risk.

In general, the legal provisions are based on the same ideas and principles (building block approach) as the CRR provisions for these types of risks and their regulation is identical to the CRR. Market risk and counterparty credit risk regulations are both equivalent to the CRR.

<u>Own funds requirement for market risk</u>

Both FBiH and RS have a trading book concept in place, which is similar to CRR's trading book concept both with regard to the instruments assigned to it and the requirements for its management; also the conditions for the small trading book derogation and principles of prudent valuation. Both jurisdictions have lower thresholds for the inclusion to small trading book (not exceeding 3% of total assets and never exceeding 4%). In addition, if, on the basis of submitted data the BARS/FBA determines that size of trading book exceeds 3% of the total assets for three times or more over one calendar month, i.e. nine or more times over the quarter, a bank needs to apply MR calculations.

Market risk provisions are based on a building block approach taking account of position risk for trading book activities, foreign exchange risk and commodities risk for all business activities. Regarding the approaches to calculate own funds requirements, their regulation allows only for the application of the standardised approach (SA) and the calculations of capital requirements are identical to the CRR but they apply 12% RW to debt instruments and equities positions and FX exposures (8% in the CRR). Both jurisdictions have also capital requirements for commodities risk (without de minimis) and risk of options similarly to the CRR.

Internal Model Method has not been implemented because the markets are very small and simple both in FBiH and in Republika Sprska.</td></tr>
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Considering the fact that regulation in both jurisdictions on own funds requirements for market and related risks comprises of all the elements that are part of the CRR market risk rules and are almost identical to the CRR, the provisions are considered equivalent to those of the CRR.
<u>Settlement risk and CVA risk</u>
The scope and calculations for the settlement risk are identical to the CRR in FBIH and Republika Sprska and include different factor of 12% in period from 5 to 15 working days after due settlement date (which is more conservative than the 8% in the CRR). The 1250% risk weight for free delivery exposures until the extension of the contract is the same as in the CRR.
Neither FBiH or Republika Sprska has implemented requirements for CVA risk because the derivative markets are much less developed compared to the EU.
<u>Counterparty Credit Risk</u>
In general, FBiH’s and RS’s rules for the treatment of counterparty credit risk (CCR) are identical to the respective rules of the CRR. Only the Mark-to-Market Method and the Original Exposure Method (OEM) have been implemented in their regulations. Similarly to the CRR, OEM cannot be used if the institution is not eligible for the small trading book derogation.
Both methods eligible to calculate own funds requirements are identical to the CRR with regard to the calculation methodology. A bank is obliged to apply the same method for all positions belonging to the same group of transactions when calculating CCR (no combinations). Only a bank applying the OEM can switch towards use of the mark to market method.
Unlike in the CRR, contractual netting agreements are not allowed.
Regulation on CCR is equivalent to the CRR in BiH. Due to the degree of development of derivatives markets supervisory authorities in FBiH and RS, counterparty credit risk is not considered as threat to the financial system.
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<tr><td rowspan="2">Section 11</td><td rowspan="2">Liquidity</td><td>Section Assessment</td></tr>
<tr><td>Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2">
The framework for liquidity in Bosnia can be assessed as "equivalent" to the EU one. Banks must respect a 100% threshold for the Liquidity Coverage Ratio (LCR), while the Net Stable Funding Ratio (NSFR) has also been introduced in line with international standards and definitions, although it is not yet a binding requirement.
<u>Short-term liquidity</u>
According to the Bosnian law, banks are required to maintain a Liquidity Coverage Ratio (LCR) of 100%. The LCR is defined as the ratio of liquidity buffer and net liquidity outflows over a 30-day stress period; the regulation also prescribes the same type of stress scenarios as in the EU.
The liquidity buffer is the sum of level 1, level 2A and level 2B assets, with the same limits applied in the CRR (Level 1 assets should equal 60% minimum, Level 2B assets should equal 15% maximum). The composition of assets and the haircuts are the same as defined in Commission Delegated Act (EU) 2015/61, Art. 10-15, while the operational requirements are the same as defined in Art. 8 of the same DA.
The local law prescribes the same conditions for eligibility for LCR purposes (low risk, certainty of valuation, low correlation with risky assets, being listed in an exchange, having an active market, type of issuer), while it is more restrictive in requiring that assets issued by credit institutions, investment firms, insurance undertakings, financial holding companies) are excluded from HQLA for LCR purposes.
Outflow rates mirror the rules envisaged by the European regulation and caps on inflows (generally equal to 75% of outflows) are in place.
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EUROPEAN BANKING AUTHORITY

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<u>**Long-term liquidity**</u>

Requirements for the banks with respect to ensuring stable funding sources are prescribed both by FBA and by BARS as follows:

- In order to reduce funding risk over a longer time period, banks must ensure appropriate fulfilment of long- term obligations by means of a set of instruments of stable funding sources in usual and stressed conditions.
- Banks must also ensure appropriate reporting on items which facilitate and require a stable funding source.

The NSFR is defined in both legislation (FBA and BARS) in line with CRR, i.e. the ratio between the amount of available stable funding (ASF) and the amount of required stable funding (RSF); however, this is not yet introduced as a mandatory requirement. Until NSFR is introduced as a mandatory quantitative requirement, banks must comply and report on maturity matching of financial assets and liabilities in maturity periods of up to 30, 90 and 180 day and the structure of the largest funding sources.

<u>**Supervision**</u>

The assessment of risks to liquidity is part of the supervisory review process based on CAMELS (see section on Supervisory Framework). During this analysis, FBA and BARS compare a) current and expected future sources of liquidity to b) current and expected future needs for liquid funds, as well as the adequacy of practices in managing fund sources. Those practices should also demonstrate the capability of a bank to successfully manage unplanned (unexpected) changes in fund sources, as well as to react in adequate way to market changes which influence the possibility to liquidate (cover to cash funds) assets (some of its items) with minor losses. The new SREP Methodology in place from 2020 will include the assessment of a bank's capacity to meet its short-term financial obligations (short-term liquidity risk), and a longer-term assessment of the sustainability of its funding profile (funding risk), as well as the inter-linkage between risks in the short and in the long term.

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<tr><td rowspan="2">**Section 12-13**</td><td rowspan="2">**Macroprudential framework and capital buffers**</td><td>Section Assessment</td></tr>
<tr><td>Largely Equivalent</td></tr>
<tr><td>**Rationale for overall topic assessment**</td><td colspan="2">

The framework for macroprudential framework/tools and capital buffers in Bosnia can be regarded as "largely equivalent" to the EU one.

<u>**Macroprudential framework**</u>

- The responsibility for financial stability is shared between FBA, BARS, Ministry of Finance and Deposit Insurance Agency.
- The assessment of financial stability threats lies with the central bank, together with FBA and BARS.
- A <u>Standing Committee for Financial Stability (SCFS)</u> has been established in 2009. The SCFS is chaired by the Governor of Central bank of Bosnia-i-Herzegovina, and other members are Directors of the BARS and FBA, Minister of Finance and Treasury of BiH, Ministers of Finance of RS and FBiH and Director of the Deposit Insurance Agency of BiH. The aim of the SCFS is to improve financial stability and crisis preparedness; it can issue recommendation, but decisions remain within each institution's competence.
- A SCFS contingency plan is in place, which details measures and procedures to be undertaken by SCFS members either independently or in cooperation with other SCFS members and other regulatory authorities to take preventive action and avoid crisis situation.

<u>**Macroprudential tools**</u>

In addition to the requirement of a systemic risk buffer, both agencies can impose limits to certain kind of exposures if they can lead to an increase systemic risk (in 2018, both FBA and BARS decided to limit amount and maturity of unsecured general purpose and substitute loans, as they had previously increased too much).

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<u>Capital buffers</u>

Four capital buffers are implemented in Bosnia:

- Capital conservation buffer, set at 2.5%;
- Countercyclical capital buffer, currently set at 0%;
- Systemic risk buffer, currently set at 0%;
- Capital buffer for systemically important banks (O-SII) currently set at 0%.
The buffers consist only of CET1 capital and cannot be used to maintain other capital adequacy ratios. Two points are worth noting:

- Article 40(3) of the Decision on capital calculation for RS and Article 40 of the Decision on capital calculation for FBiH both allow the agencies to impose Capital Conservation Buffer, Systemic Risk Buffer and the D-SII buffer. However, the level of these buffers has been set to 0% in consideration of the higher capital requirements with respect to the values set in Basel and CRR framework and of the high capital ratios of local banks: as of September 30th, 2019, the average capital adequacy rate (i.e. Total Capital Ratio) was 18%.
- The Methodology to determine the list of systemically important banks in Bosnia and Herzegovina was adopted in 2013. The most recent update of the list of systemically important banks was carried out in 2016 for 2017; a new methodology is under development to align it with the one adopted by the BCBS.

Capital conservation measures-MDA

Where a bank fails to meet its combined buffer requirement, it will be subject to payment restrictions and needs to present a capital conservation plan prescribed, which are in line with respective requirements in the CRD. Currently no bank is subject to specific P2 capital requirements (although FBA and BARS have the power to impose such measures), since P1 is already 50% higher than in EU. However, the approach reflects the one applied in the CRD and EBA SREP, i.e. restrictions to payments are triggered if capital ratios fall below P1+Combined buffer (e.g. below 9.25% CET1 ratio).
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<tr><td rowspan="2"></td><td>Section 14</td><td>Large Exposures</td><td>Section Assessment
Equivalent</td></tr>
<tr><td>Rationale for section assessment</td><td colspan="2">
Definitions and limits

- <u>The Large Exposure definition</u> provided in the FBA and BARS legislation is the same as in the EU, i.e. exposure exceeding 10% of the bank's capital. While there is no difference between eligible and regulatory capital, the legislation prescribes that for the purpose of regulatory capital, T2 is capped at one third of T1 capital. Therefore, there is no substantial difference with the provision set in the EU framework.
- <u>Connected clients</u> are defined in the same way as in the CRR, i.e. through the notion of economic interconnection or control.
- As in the CRR, <u>the large exposure limit</u> (for a client or group of connected clients) is set at 25% of the bank capital. The limit is defined only in percentage, and the Bosnian authorities explained that the absolute limit set out in EU legislation (150 mn EUR) at the moment, is too high for the local financial market.
- The calculation of the exposure value is aligned with the provisions of CRR.
- In case the limit is exceeded the bank shall immediately notify FBA/BARS of the amount of the excess and the obligor the excess relates to. The bank shall also include to the notification a description of measures that it will be undertaken to comply with the requirements and provide a deadline for the implementation of these measures.
Level of application

Large exposure limits are applied both at consolidated and solo level.

Large exposures in the trading book
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<td colspan="2">The provisions are very much in line with the EU framework:
- Trading book exposures are included in the relevant exposures of the Large Exposure calculation.
- A bank may exceed the exposure limits only in extraordinary cases for exposures in the trading book and if some specific conditions (aligned with Art. 395 and 397 of the CRR) are fulfilled.
Exemptions
Exposures exempted are substantially the same as those envisaged in the CRR; however, FBA and BARS took a more conservative approach and some exposures (notably the ones envisaged by Art. 400(1)(e,f,j,k), 400(2), and 400(3) of the CRR) cannot be exempted.
Reporting and monitoring
Large exposures are constantly monitored through regular reporting. Banks have to report all large exposures and the level of detail is already quite granular, so the local regulation does not provide separate provisions for the ten largest exposures.</td>
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<td>Section 15</td>
<td>Leverage</td>
<td>Section Assessment
Equivalent</td>
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<td>Rationale for section assessment</td>
<td colspan="2"><u>Definition</u>
According to the Article 37 of the Decision on capital calculation (both for FBA and BARS), banks have to fulfil a requirement concerning the extent to which they can leverage their own funds relative to its assets (leverage ratio). The leverage ratio is defined as ratio of Tier 1 capital to the bank's exposure measure and is expressed as a percentage. The minimum requirement is 6%.
<u>Exposures</u>
The total exposure measure includes same items as the CRR and it is the sum of the following values:
- assets that are not deducted when determining the capital measure,
- derivatives,
- value of repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions including those that are off balance sheet,
- off balance sheet items.
The calculation of on-balance sheet can be considered in line with the one applied in the EU framework:
- the exposure value of the assets is its’ accounting value remaining after credit risk adjustments (IFRS 9 provisions),
- physical or financial collateral, guarantees or credit risk mitigation purchased cannot be used to reduce exposure values of assets,
- loans cannot be netted with deposits,
- repurchase transactions, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions cannot be netted either.
<u>Netting and add-ons</u>
Effects of netting for securities financing transaction exposures are not permitted and there are no provisions for novation.
There are no provisions for a CCR add-on for SFT. However, banks do not have exposures based on repos, securities or commodities lending or borrowing transactions, long settlement transactions and margin lending transactions.</td>
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<td>Section 16</td>
<td>Disclosure</td>
<td>Section Assessment
Largely Equivalent</td>
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	Rationale for section assessment	Both FBA and BARS apply qualitative and quantitative disclosure elements which are largely comparable to the EU requirements. The principles underlying the scope and objective of disclosure are in line with Art. 431 of the CRR. Also, in line with Art. 432 of the CRR, exceptions to disclosure are based on confidentiality and materiality of data. Banks must disclose the prescribed information at least once a year, at all level of consolidation, and providing adequate detail on reconciliation. The scope of information to be disclosed is fully in line with the CRR (in some instances with a higher level of detail), with two exceptions that are more related to a different level of development in the underlying framework rather than to a gap in the disclosure provision, i.e. in respect to disclosure on exposures to securitisation and on models for counterparty credit risk, where a basic framework is applied. Regarding supervisory disclosure, both FBA and BARS publish all the relevant laws and regulations on their website.