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TECHNICAL NOTE—SYSTEMIC LIQUIDITY MANAGEMENT, FINANCIAL SAFETY NET, INSOLVENCY FRAMEWORK, AND MACROPRUDENTIAL POLICY

This Technical Note on Systemic Liquidity Management, Financial Safety Net, Insolvency Framework, and Macroprudential Policy on Bosnia and Herzegovina was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in July 2015.

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SYSTEMIC LIQUIDITY MANAGEMENT, FINANCIAL SAFETY NET, INSOLVENCY FRAMEWORK, AND MACROPRUDENTIAL POLICY

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This Technical Note was prepared by IMF staff in the context of the Financial Sector Assessment Program in Bosnia and Herzegovina. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Further information on the FSAP can be found at http://www.imf.org/external/np/fsap/fssa.aspx

CONTENTS

EXECUTIVE SUMMARY **3**

INTRODUCTION **8**

SYSTEMIC LIQUIDITY MANAGEMENT **9**

FINANCIAL SAFETY NET **16**

A. Crisis Preparedness Framework 16

B. Crisis Management Framework 22

ADDRESSING THE NPL OVERHANG **35**

MACROPRUDENTIAL POLICY **37**

A. Best Practices 37

B. The Case of Bosnia and Herzegovina 38

FIGURES

1. Banking System Liquidity 9
2. Excess Reserve Requirements 10

TABLES

1. FSAP Main Recommendations 6

APPENDICES

I. Macroprudential Framework 42

EXECUTIVE SUMMARY[1]

There are constraints on the ability of both banks and the Central Bank of Bosnia and Herzegovina (CBBH) to manage liquidity. The system lacks a central bank liquidity window, and the secondary market for government securities is also small and illiquid. Despite the existing infrastructure, money market and interbank markets are also relatively small, reflecting both high levels of bank liquidity and the fact that foreign banks' internal risk management practices aim to minimize exposures vis-à-vis the domestically-owned banks. Given the currency board arrangement (CBA), the aforementioned limitations call for conservative liquidity management and liquidity buffers for banks.

The use of reserve requirements should be better tailored towards prudential purposes. There is scope to amend the system to support systemic liquidity management. First, n times of stress, the CBBH could consider increasing the flexibility of RR holdings and introducing daily or period-minimum holding thresholds. This should be combined with higher penalty rates, accompanied by enhanced supervision, before sanctions are applied. Second, for the RR base, the CBBH should consider residual maturities and set a minimum daily requirement. Lastly, the CBBH should consider the adequacy of existing RR levels, since they were significantly lowered during the financial crises.

Liquidity regulations should be streamlined and the adoption of the LCR would strengthen liquidity management. For the purpose of maturity calculations of liquidity ratios, it would important to take into account early deposit withdrawal options. The minimum liquidity ratio should be raised above the RR to ensure that it is binding. Upon adoption of the LCR, care would be needed in treating RRs as high quality liquid assets (HQLA), given their uncertain availability to meet liquidity pressures. Also, there could be a need to calibrate the haircut applied to public securities for the purposes of the LCR, given the shallow market, the assumptions for deposits/borrowed funds run-off rates, and the treatment of liabilities maturing after 30 days with a prepayment clause. Given the high level of euroization, currency-specific LCRs should also be considered.

The banking agencies have statutory authority to require corrective actions by banks, but enforcement powers are limited. The agencies have developed guidance on the use of corrective powers, including setting out triggers for corrective actions based on breaches of capital, liquidity, and asset quality requirements. However, their authority to impose financial penalties for noncompliance, or to permanently suspend board members and controlling owners is limited, except under provisional administration. Similarly, the authority for replacing or restricting the powers of controlling owners outside of provisional administration is also limited.

The deposit insurance framework is a relatively well developed paybox scheme, but further enhancements of the deposit insurance arrangements would be beneficial. The DIA has the infrastructure in place required for an effective deposit insurance framework, including MOUs to

[1] Prepared by Geof Mortlock (IMF consultant, Financial Safety Net) and José Rutman (IMF consultant, Systemic Liquidity Management and Macroprudential Policies).

support coordination with the banking agencies, regular testing of depositor data and procedures for making deposit pay-outs. The formal assessment of the DIA against the IADI standards suggests that the majority of the principles are compliant or largely compliant. These would include (i) establishing the capacity for making prompt pay-outs to insured depositors, in line with the EU relevant directive; (ii) amending legislation to establish the means for the prompt pay out of depositors and authorize the use of DIA funds to facilitate a purchase and assumption transaction (P&A) under the least cost solution; and (iii) ensuring that the DIA is involved at an early stage in the problem bank resolution process with bank supervision agencies.

Better coordination is essential. All relevant authorities in the SCFS should ensure that the inter-agency contingency plan includes guidance on the actions required by the relevant SCFS members if a bank is closed, including public communications to minimize contagion. Broadening the focus of the SCFS to include small banks in circumstances where their distress could have implications for financial stability is recommended.

Contingency plans were prepared in 2014 by the relevant agencies and a coordinated contingency plan was developed by the SCFS. While these represent significant progress, the plans need to be revised to incorporate procedures to manage each stage of a crisis, such as systemic impact assessment, diagnostics, assessment and implementation of resolution options, cross-border coordination and communications with relevant stakeholders. Regular crisis simulation testing is also required as part of the contingency planning and capacity-building process.

Cross-border cooperation and coordination requires attention. Currently, the banking agencies and other relevant authorities have no specific crisis resolution related arrangements with their respective foreign counterparts. Given the systemic importance of several foreign banks to the BiH financial system, this creates a significant risk of inadequate coordination with the home authorities to achieve a satisfactory whole-of-group resolution that would require the signing of MoUs.

There is a need to establish a resolution authority. At present, FBA and BARS have some resolution powers but are not formally designated as, or equipped, to be resolution authorities. The proposed new banking laws need to establish clear responsibility for bank resolution with appropriate accountability and transparency. Ideally, resolution powers should be vested in the DIA, establishing it as the resolution authority, but this would appear impossible in BiH owing to institutional constraints. Therefore, the team suggested instead to vest resolution powers in FBA and BARS and designate them as the resolution authorities for the banks in their respective jurisdictions. This would enable synergies to be reaped between the supervisor, in its responsibility to exercise early intervention, and the resolution authority, in executing resolution. However, this would require designing governance and accountability arrangements to avoid potential conflicts of interest. And if this option were to be taken forward, it would also be appropriate for the DIA management board to include representatives of the two banking agencies.

The scope to draw on the existing deposit insurance fund (DIF) should be broadened for funding bank resolution. Currently, the DIF currently can only pay out insured deposits. The DIF should be allowed to participate in bank resolution subject to it being least cost solution—i.e., up to

the amount that would have been expended for insured depositor reimbursement in a liquidation—including P&A transactions. However, DIF resources should not be used to provide open bank assistance.

Over time, the safety net could be broadened by establishing a Financial Stability Fund (FSF) under the DIA for open bank assistance. Such assistance in a systemic crisis should be provided only if necessary to preserve financial stability and where there is no new capital forthcoming from private creditors. To protect the taxpayer, the FSF backstop option should be subject to a set of clearly defined criteria. Most importantly, all losses in failed banks should be absorbed up-front by existing shareholders, but also by other creditors according to the hierarchy of claims in liquidation and subject to financial stability considerations. This option should be used under strict conditions that minimize the risk of moral hazard and allow for ex-post recovery from the banking industry.

The FSF described above could also be designed to provide very limited liquidity support to solvent banks in the case of acute liquidity stress, given the CBBH is constrained from performing any Lender of Last Resort (LOLR) functions. The limited and temporary liquidity support—as an early prompt corrective action tool—should be triggered only after the bank has used all the available liquidity management options, including the interbank market, parent bank funding if available, and its reserve requirements. Moreover, such support should only be available to systemic banks that comply with the supervisory capital requirements, are under sound management, and have sufficient collateral or guarantees to cover credit risks for the liquidity provider. Emergency liquidity support should be accompanied by enhanced monitoring and supervision to minimize moral hazard**.** The FSF could be financed through ex-ante levies on banks and with the capacity for ex-post levies on banks to cover costs and any losses sustained by the fund.

The legal framework governing creditor/debtor relationships is comprehensive; however, neither debt resolution nor bankruptcy liquidation work effectively, impeding NPL resolution. There is a need to streamline execution procedures, introduce incentives to facilitate corporate debt restructurings and resolution, and adopt out-of-court restructuring guidelines. The institutional framework could be further improved through hiring more commercial court judges with appropriate experience and improving the regulation of the insolvency profession.

The macroprudential policies in BiH are at in their infancy. While there is no institution with an explicit macroprudential mandate, and some isolated macroprudential initiatives have been taken, there is room for further coordination to improve systemic risk assessment and the design and implementation of macroprudential policies.

Table 1. Bosnia and Herzegovina: FSAP Main Recommendations

Recommendations and Authority Responsible for Implementation	Time[1]
Systemic Liquidity Management	
Revise the reserve requirements including residual (instead of contractual) terms for the base, a minimum daily requirement and the reinstatement of the requirement to borrowed funds from non-resident.	NT
Revise rules applied to the banks for not complying with the reserve requirements (limiting transactions and the interest charged), linking the fines to the magnitude and the length of the breach. (Art. 36 CBBH Law)	MT
Recalibrate the liquidity regulation consistent with the rules for the reserve requirement; standardize the treatment of maturity mismatch between the entities; including by setting criteria for the time bucket allocation of deposits with early withdraw clauses.	NT
Introduce the LCR, including by setting the criteria for treating reserve requirements, haircuts on public securities, assumptions of outflows (percentage of deposits´ run-off) ,deposits with maturity above 30 days with early withdraw clauses, and the rules for using this liquidity buffer by the banks.	MT
Improve the scope and exchange of information on key variables important for systemic liquidity (systemic concentration, intra-month interbank transactions, daily data on deposits[2] and interest rates).	I
Crisis Management Framework	
Provide resolution powers to the FBA and BARS for banks in their respective jurisdictions on the new Laws on Banks, following the FSB Key Attributes and EU BRRD (FBA, BARS, DIA, relevant Ministries).	I
Broaden the scope to draw on the existing DIF for funding bank resolution using least-cost solution (DIA)	I
Establish a Financial Stability Fund (FSF)—under the DIA—to provide for open bank resolution and limited and temporary liquidity support in systemic crisis (DIA, CBBH, FBA, BARS, Governments).	MT
BARS, FBA and CBBH to develop cross-border bank crisis resolution coordination arrangements with their respective counterparties for all systemically important banks, desirably on a multilateral basis	NT
Crisis Preparedness Framework	
Enable prompt depositor pay-out (DIA).	I
DIA membership within the deposit insurance system should be linked to the issuance (and withdrawal) of the bank's operating license. All banks which are allowed to collect deposits in BIH should be members of the DIA.	I
BARS and FBA to require all banks to have recovery plans and to regularly test the plans	NT
BARS and FBA to establish resolution plans for all banks assessed as systemically important, with pre-positioning as required to facilitate least-cost resolution consistent with resolution objectives	NT
Strengthen, regularly review, and test bank contingency plans of SCFS members (SCFS)	I
Strengthen the cooperation between DIA and financial safety net players (DIA, CBBH, FBA, BARS).	I
SCFS members to undertake regular crisis simulation exercises, individually and in coordination	NT

[2] As of 11/28/2014 the BARS requests from the banks to report on daily data on deposit structure for the purpose of liquidity monitoring.

Recommendations and Authority Responsible for Implementation	Time[1]
Delinquency Management and resolution of NPLs	
Streamline collateral execution procedures by allowing a final auction at no reserve price if previous rounds of auctions failed and specify realistic criteria for asset market values (RS/FBiH Ministry of Justice).	I
Consider tools and incentives to facilitate restructurings and debt resolution as well as adoption of out-of-court restructuring guidelines. (RS/FBiH/BiH MoF, FBA, BARS).	I
Revise the insolvency framework by introducing incentives to initiate proceedings early and expand the insolvency framework to cover businesses run by individuals. (RS/FBiH MoJ).	NT
Macroprudential Policy	
Amend the coordination MoU among CBBH, FBA and BARS by adding macroprudential analysis and policy and post it in the respective web site of the institutions	NT
CBBH, FBA and BARS define and collect additional information for the assessment of vulnerabilities in the financial system and the design of macroprudential tools	I
Define the tools to be used for the identification of systemic risk, select and calibrate the appropriate instruments to address, and implement (by the corresponding institution)	NT

[1] I-Immediate" is within one year; "NT-near-term" is 1–3 years; "MT-medium-term" is 3–5 years.

INTRODUCTION

1. **Key elements in the stability and efficiency of a financial system are the frameworks for managing systemic liquidity and financial safety nets.** Systemic liquidity management is critical to sound liquidity management, both at an individual bank level and across the financial system. In the periods of banking sector stress, it is essential that the authorities are well equipped to deal with it cost-effectively and in a manner consistent with maintaining financial stability, protecting depositors, minimizing fiscal costs and minimizing moral hazard. A financial safety net, including liquidity support and prompt corrective action arrangements, resolution strategies as well as recovery and resolution powers provides the means by which the authorities can achieve these objectives.

2. **The FSAP mission to BiH included an assessment of liquidity within the banking system.** It covered the arrangements by which liquidity is managed by banks individually and through the inter-bank market. It also included an assessment of the means by which liquidity management could be strengthened. Related to this, the mission also evaluated the current framework for managing macro-prudential risks and the scope for enhancements to it.

3. **The mission also included a comprehensive review of the financial safety net framework in BiH.** This included an assessment of existing and proposed new statutory powers for corrective actions, recovery and resolution of banks, resolution institutional arrangements, recovery and resolution policies and crisis management planning. Domestic and cross-border coordination arrangements for crisis resolution were also considered in this context, as were the frameworks for resolution funding and liquidity support. Given the high level of Non-Performing Loans (NPLs), and the impediment they pose to the soundness of banks and the resumption of normal credit growth, our review of financial safety net arrangements included an assessment of the obstacles to NPL resolution and the means by which these could be addressed.

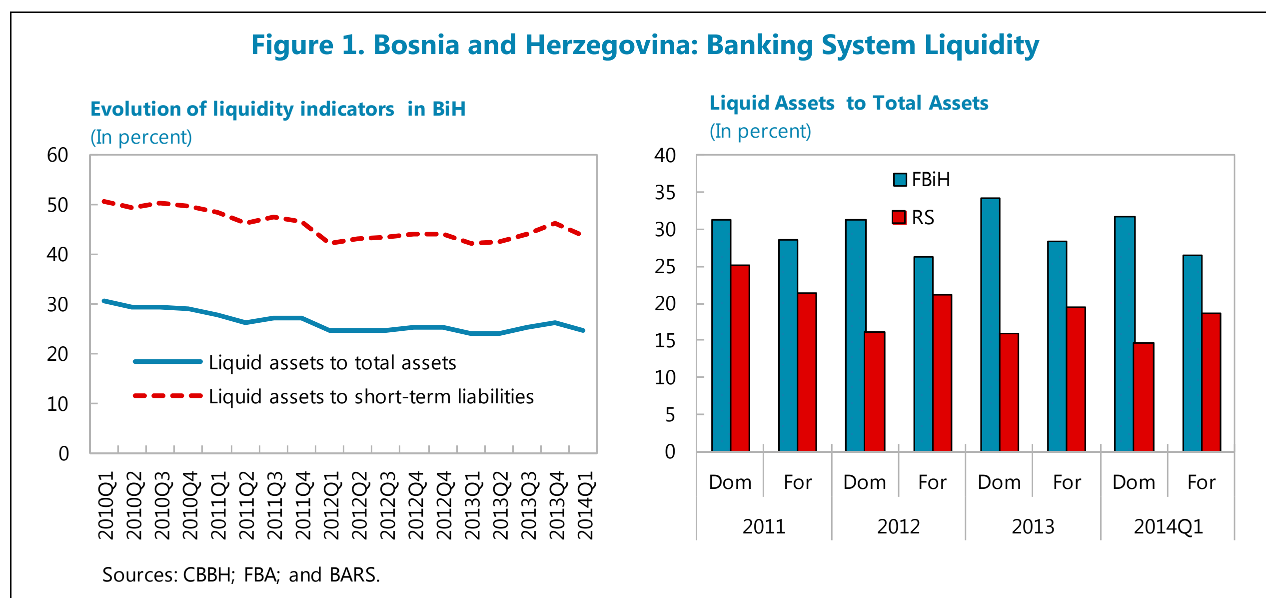
4. **In preparing the Technical Note (TN), the mission had particular regard to previous Technical Assistance reports on crisis resolution and NPL issues relating to BiH.** We reviewed the findings of the TA reports and assessed progress made by the authorities in addressing recommendations made in these reports.

5. **This TN sets out the main findings of the assessments in these areas.** It first discusses financial system liquidity issues and the initiatives that could be taken to strengthen liquidity arrangements in the financial system. The paper then discusses the financial safety net in BiH, with particular focus on the areas in need of strengthening. These include recovery and resolution powers, prompt corrective action for problem banks, resolution strategies and resolution funding. It also includes recommendations in relation to emergency liquidity arrangements. Macroprudential issues and policy framework arrangements are covered in the last section of this note.

SYSTEMIC LIQUIDITY MANAGEMENT

6. Liquidity in the system is high, although slightly decreasing and with high dispersion. The banking system liquid assets stood at 24.7 percent and 43.6 percent in terms of total assets and short term liabilities as of 1Q2014. The banks had excess reserves over the ten-day average reserve requirement of about 150 percent (KM 2.0 billion), with a significant dispersion among the different banks.

Figure 1. Bosnia and Herzegovina: Banking System Liquidity



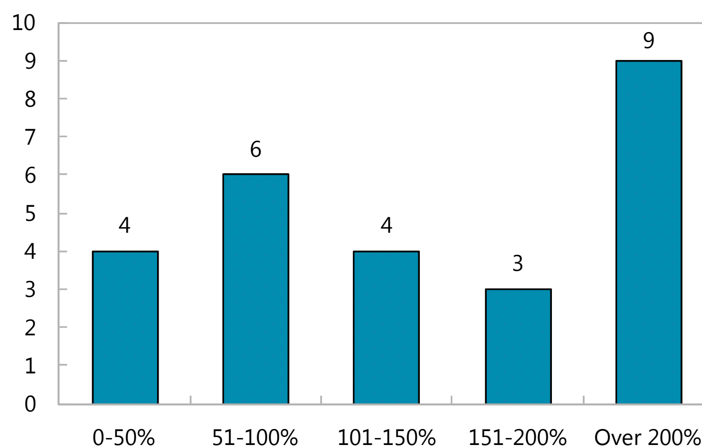
Sources: CBBH; FBA; and BARS.

7. Both foreign and domestic banks in RS have lower liquidity compared to the banks in FBiH. This behavior has been observed over several years, and has been detected in banks of the same group licensed in both entities. Among others factors, this performance could be a consequence of the differences in criteria applied by the maturity mismatch regulations (explained with more details later in the TN). This illustrates the impact of the different regulatory and supervisory frameworks in each entity.

8. Foreign owned banks rely on their parent banks, especially during periods of liquidity shortages and stress situations. Although the parent banks' funding has been decreasing in recent years -- as a consequence of deleveraging and weak credit demand --, all subsidiaries of foreign banks rely on their respective parent banks for a source of liquidity to be used in case of need. In some cases, this liquidity support is structured as a formal contract, while in others it is less formally structured. In any case, reputational risk should be a strong enough incentive for providing liquidity assistance to subsidiaries operating in BiH, unless the parent bank itself is under stress and/or the home supervisor applies restrictions on this support.

9. The interbank market is small and fragmented. The interbank transactions are limited, with most of them conducted outside the stock exchange and the electronic platform for interbank lending launched by the CBBH in 2008. The interbank market is underdeveloped as banks have little interest in lending funds through interbank money market. There are some limited overnight interbank transactions (performed intra-month and mainly among domestic banks) which are not captured in the monthly supervisory report. According to the policies established by their parent banks, foreign banks do not have credit limits to provide interbank loans to domestic banks. The REPO transactions, which could mitigate the counterparty credit risk by using public securities as collateral, have not taken off. The Banja Luka Stock Exchange (BLSE) has developed a standard REPO contract, in line with the international standards, and included the REPO transactions modality in its platform. However, no interbank lending has been structured as REPO.

Figure 2. Bosnia and Herzegovina: Excess Reserve Requirements



Source: the Central Bank of Bosnia and Herzegovina.

10. Although the secondary market of public securities has been growing, it is still underdeveloped and illiquid. Both entities began to issue treasury bonds and bills (up to one year) using primary auctions in 2011. Banks are among the subscribers of these public securities, generally holding them until maturity, although classified as 'securities for trading'. A more developed secondary market would not only facilitate the potential monetization (transform into liquid assets) of the public securities held in banks' balance sheets, but would also help to boost the REPO market, since the public securities negotiated in a more liquid and deeper market would be considered as more trustworthy collateral.

11. The legal framework prohibits the CBBH from intervening in the money market and acting as a LOLR, which makes it more important to have adequate management of the individual banks' and systemic liquidity risk. Under the CBA, the CBBH is obliged to ensure that the aggregate amount of its domestic liabilities shall, at no time, exceed the equivalent, and denominated in the currency of BiH, of its net foreign exchange reserves at the fixed exchange rate.[3]

[3] The CBA principles are established under the Law on the CBBH (Articles 31 and Article 32). Foreign exchange reserves are defined as: gold and other precious metals; other assets issued by other countries than BiH (banknotes and coins, credit balances, certificates of deposits, bonds, promissory notes, etc.) in freely convertible foreign currency; Special Drawing Rights of the International Monetary Fund any; and forward purchase or repurchase agreements of the Central Bank concluded with or guaranteed by foreign central banks or international financial

(continued)

As of November 30th 2014, the foreign exchange reserves of the CBBH (KM 7,7 bn) exceeded its monetary liabilities and liabilities to non-resident (KM 7,2 bn) by only 7 percent (or KM 0,5 bn). Consistent with the CBA and with the limited excess of net foreign exchange reserves, the law sets clear limits to the CBBH for engaging in any kind of monetary policy operations. Moreover, the law explicitly prohibits the CBBH to perform money market operations involving securities of any type (article 37). This excludes establishing a standing liquidity facility (liquidity window) at the CBBH. Also, the CBBH cannot perform LOLR functions.[4]

12. The reserve requirement (RR) is the only tool available to the CBBH that can be applied to influence bank and systemic liquidity. Art. 36 of the CBBH Law establishes certain characteristics of the RR. This includes the same application for all banks, the period within which it has to be complied (average of 10 days) and the consequences of failing to meet them. The CBBH has the power to regulate the level, base as well as remuneration of the RR. Since February 2011, the level of the RR has been set at 10 percent for deposits and borrowed funds with a contractual due date of up at one year, and 7 percent for funds with a due date longer than one year. The calculation base includes deposits and borrowed funds (regardless of their currency), with the exclusion of borrowed funds from nonresidents (from November 2008) and funds from the entity government intended for development projects (from May 2009). The RR levels, and in some extent the base of calculation, have been modified before and after the global financial crisis, using this instrument as a countercyclical tool.

13. The CBBH remunerates the banks' accounts with the central bank for both the required and excess reserves. All the accounts banks have at the CBBH, for the RR, allocation of excess of liquidity and operational purpose for the payment system, are denominated in KM. Currently, the calculation of the remuneration of the balances at the CBBH up to the amount required to comply with RR consists of a level equivalent to 70 percent of the weighted average of interest rates earned by the CBBH on deposits invested in one month, with a floor of zero[5]. The remuneration of the balances that exceed the reserve requirement follows the same principles, except that the percentage used for calculating the interest rate is higher (90 percent). This is to incentive banks to keep their excess of liquidity at the CBBH, instead of depositing them in their correspondent's banks abroad.

14. The design of the RR could be improved by incorporating more prudential elements. For instance, relying on residual terms, and not contractual terms, for the classification of liabilities and applying relevant RR rates, would factor in higher liquidity risks stemming from the liabilities that getting closer to their maturity. In addition, the inclusion of a daily minimum requirement, if

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organizations, and any futures and option contracts of the Central Bank, providing for payment by residents of countries other than BiH in freely convertible foreign currency.

[4] Art. 67 point 1.a of the CBBH Law, prohibits the CBBH, under any circumstances, grant any credit.

[5] Since August 2014, there has been no remuneration because of negative interest rates for short term funds offered by the European Central Bank.

well calibrated, could improve the liquidity management of the banks avoiding disruptive movements on the money market during the days preceding the closing of the 10 day for calculating the RR. The removal of the exemption for the borrowed funds from nonresidents in the RR base calculation would allow the internalization of liquidity risks arising from these liabilities, as well as leveling the playing field between domestic and foreign sources of funds. The calibration of these changes would benefit from an impact study. The changes in regulations should not be disruptive and shall take into account the over-compliance with RR.

15. Breaching the minimum RR is severely penalized by the CBBH Law. The law sets the penalty interest rate for not complying with the RR (0.5 percent per day). However, after the second consecutive period of ten days where the bank fails to meet the reserve requirement, the CBBH is obliged to cease processing withdrawal transactions for the bank. This penalty is likely to expel the bank from the payment system.[6] It is highly probable that being unable to make payments through the payment system will drive the bank into a severe stress and, eventually, causing broader financial stability consequences. To avoid this, the CBBH Law could be amended so that this particular sanction is applied only when the bank has not met the RR after during more extended periods and has failed to meet at least certain percentage of RR. These changes should be accompanied by more thorough liquidity supervision with a more preventive characteristic. Also, the breach of RR should be in this case penalized by higher interest rates.

16. The current regulations on banks' liquidity risk management include guidelines on best practices as well as a minimum liquidity ratio and maturity mismatch thresholds. The regulations in both entities are similar, covering the responsibility of the bank´s supervisory boards and management. They also cover requirements to have a strategy, policies and procedures for prudent liquidity management, including minimum requirements for those procedures. Banks have to maintain a liquidity ratio, consisting of an average of 10 days minimum liquidity in cash funds (comprising cash in banks, central bank accounts and correspondent account) of short term liabilities (deposits and liabilities of up one year residual maturity). In terms of maturity adjustment, the regulation requires minimum percentage of assets compared with liabilities maturing up to specific bucket of time.

17. The liquidity ratio, which is daily monitored by the supervisors, is de facto not binding and should be revised. The liquidity ratio threshold (10 percent[7]) would be breached only after the banks would be already below the mandatory RR. This is a consequence of the structure of the indicator, which, compared to RR calculation base, has a broader definition of liquid assets and a narrower definition for liabilities (only short term liabilities). Consequently, the usefulness of the liquidity ratio as an early warning indicator is limited as it will be always less binding (lower) than the

[6] The corresponding regulation of the CBBH on this issue establishes "a) On the next working day, after the expiry of the second consecutive maintenance period in which the bank failed to meet the reserve requirements, discontinue transactions that relate to reducing reserve account upon request of the bank, b) Enable the bank to make payments from the settlement account in the RTGS system only up to the amount of achieved daily inflow on that account.

[7] Additionally, there is a daily minimum requirement of 5 percent.

RR. The revision of the indicator would allow to use it for early corrective actions before the bank breaches RR. In addition, considering the illiquid secondary market, the authorities should revise the definition of liquid assets in the liquidity ratio by introducing haircuts on the public securities depending on their liquidity (the potential to be converted into cash).

18. The maturity mismatch regulations have differences between the two banking agencies, both in wording as well as in implementation. This regulation is the most stringent among the liquidity regulations, requiring banks to have higher levels of liquidity to be counted as assets in the first time bucket, above the ones needed for complying with the RR or liquidity ratio. With respect to the differences between the two banking agencies, the BARS has allowed the banks to reallocate sight deposits in time buckets later than 30 days, although this has not been explicitly contemplated in the regulation. Meanwhile, the FBiH has amended (on May 2014) its regulation (which now differs from the BARS) allowing the possibility of banks to use a corrective factor for moving up in the time buckets up to 15 percent of their retail sight deposits, conditioned that the bank can demonstrate the stability of them in an extended period of time. The latter might explain the different levels of liquidity between the banks in RS and in FBH.

19. Banks have a range of saving and term deposits with early withdraw clauses. The so-called open-saving accounts and other term deposits with a medium term contractual maturity (e.g., 2-3 years), allow the clients to withdraw its deposits in advance to the maturity. In some cases, depending on the sum withdrawn and the specific conditions of the product, there are penalties for the early redemption of the deposits by using lower interest rates. Some larger depositors (e.g., utilities companies and government agencies) want to have the option to withdraw deposit in advance with no penalties involved. One of the incentives for the banks to develop these products is to reduce the impact of the maturity mismatch regulation.

20. The misallocations of these deposits in the time bucket according to the contractual maturity distorts the information on maturity mismatches and underestimates individual and systemic liquidity risks. Since most of the banks use contractual terms for these deposits, without considering the withdrawal clauses, they are implicitly assuming that none of the depositors will exercise the option of withdrawing the deposits in advance.[8] While this might be the case under normal circumstances, it is highly probable that under a stress situation the interest rate penalties would be insufficient to discourage some depositors to withdraw early. The “misclassification” creates a distorted picture about the maturities of deposits, affecting the liquidity risk assessment by the banks and the supervisor.

21. The banking agencies (mainly at the FBA) are aware of these practices. The supervisors have inspected the relevant deposit contracts, pointing to higher-than-assumed liquidity risks involved. In addition, the supervisor asked the bank to revise their internal policies accordingly. In

[8] Or the banks are “gaming” the maturity mismatch regulation.

some cases, the banks had to reallocate the deposits in the time-bucket corresponding to the dates where the clients have the right to withdraw their deposits.

22. An amendment to the liquidity regulation, establishing that the maturity of these deposits is up to the moment of prepayment, requires an impact study. For this purpose, the banking agencies should require and process information to have an adequate understanding on all banks of the residual maturity of deposits, comparing this information with the residual maturity up to when the clients are able to withdraw their deposit. With those results in mind, it should be analyzed if it is necessary to adjust the minimum percentage of maturity mismatch to avoid disruptive effects associated with these potential amendments in the regulation.

23. While the banking agencies and the CBBH are involved in monitoring individual and systemic liquidity, there is room for improvement. Both BARS and FBA receive daily information on banks' total liquid assets (cash in banks, balances at the CBBH and at the correspondent banks) and compared the data with the minimum requirements derived from the liquidity ratio requirement. These institutions receive monthly information on maturity mismatches, and quarterly information on concentration of main liquidity sources in the banks, such as other borrowings and parent funding. The analysis of systemic concentration of sources of funds is carried out by FBiH periodically, but the exercise does not cover both entities. The CBBH performs daily monitoring of the balances on the bank´s accounts and the compliance with the minimum RR. Additionally, it monitors the sale of foreign currency to the banks as an indicator of potential liquidity need. The banking agencies provide the CBBH with quarterly information on maturity mismatch and liquidity concentration.

24. The scope, usage and exchange of information on liquidity could be strengthened. The banking agencies have recently started to collect daily data on bank-by-bank deposits. Having this information, even if with some delay, will facilitate the analysis of the behavior of deposits (e.g., their stability and seasonality) as well as complementary early warning indicators detecting disruptive movements and trends. In addition, the information on passive and active interest rates for the new transactions is received once per month reflecting the average for that period. The daily information of deposits and interest rates could be useful for closer systemic liquidity monitoring, as well as for warning indicators for a specific or group of banks.

25. The Liquidity Coverage Ratio (LCR) should be designed and implemented considering the specific features of the BiH financial system. The LCR, one of the ratios considered under Basel III,[9] requires banks to have a sufficient amount of high quality liquid assets (HQLA) to cover the net outflows within 30 days under a stress situation. This indicator has the benefit of being sensitive to the behavior of assets and liabilities, considering their specific characteristics (e.g., liquidity of assets, stability of depositors and creditors). Although the document sets guidelines for calculation, the calibration for the BiH banking system has to be tailored.

[9] The other liquidity ratio included was NSFR.

26. The calibration of the LCR should take into account the treatment of RR, government securities, relevant run-off rates, and deposits with early withdraw clauses. Regarding the HQLA, it should be defined whether all, part or none of the RR are going to be included in the definition.[10] This is very relevant in BiH considering the high level of RR. Also, the government securities should be subject to certain haircuts before being considered as part of the HQLA given the illiquidity of the secondary market for such papers. For the outflows, the treatment of deposits with early withdraw clauses is important; in particular whether these deposits should be included in the 30 days period in which the client has the right to withdraw them. Although the Basel document establishes that "they might not be considered if the early withdrawal results in a significant penalty that is materially greater than the loss of interest," the behavior of the depositor in a stress situations should be carefully analyzed, including whether the penalty acts as a reasonable deterrent for deposit withdrawals. It should also be analyzed which are the relevant run-off rates to be assumed under a stress test for the cases of BiH. The design and calibration of the LCR, which has to be consistently applied between both jurisdictions, could be reinforced by a quantitatve impact study (QIS) exercise considering historical data with special emphasis on stress situations. Based on the high level of euroization, separate LCR per currency (domestic and foreign) should also be considered. Finally, in the medium term, the authorities should consider the inclusion of a NSFR regulation (in domestic and foreign currency).

27. The banking agencies should contemplate the conditions where the liquidity buffer (LCR) might be used by the bank. One of the characteristics of the LCR is that during a period of financial stress banks may use their stock of HQLA (falling below the minimum of 100 percent established for this ratio). This should be admitted as, alternatively, this could produce undue negative effects on the bank. The supervisor should assess each situation and adjust their response according to the specific circumstances.

28. While implementing the LCR, the rest of the liquidity indicators should be re-visited. The analysis on the liquidity ratio and maturity mismatch thresholds should determine whether these regulations need adjustments (in order to be consistent with the LCR) or might be eliminated, since they may have been subsumed by the LCR. The RR would still play an important role in managing systemic liquidity, as a safeguard for any potential weaknesses in the new liquidity prudential regulation framework; and as a potential countercyclical tool.

[10] The Basel document establishes that "Local supervisors should discuss and agree with the relevant central bank the extent to which central bank reserves should count towards the stock of liquid assets, i.e., the extent to which reserves are able to be drawn down in times of stress."

FINANCIAL SAFETY NET

A. Crisis Preparedness Framework

Corrective Action Arrangements

29. An important element of promoting financial stability and minimising the risk of bank distress or failure is the need for a prompt corrective action framework. It is essential that the supervisory agency, in conjunction with the resolution authority, intervene as soon as indications suggest that a bank may be getting into difficulty or breaching regulatory requirements, particularly minimum capital adequacy and liquidity requirements. This requires several components, including:

- a reliable system of early warning indicators of emerging bank stress;
- obligations on banks to provide prompt notification of actual or incipient breaches of prudential requirements;
- robust off-site and on-site supervision;
- effective legal powers for requiring corrective actions;
- penalties on banks and their directors and management where they do not comply with the required corrective actions;
- a policy framework that sets triggers for corrective action and specifies the nature of the actions that may be required;
- an organisational culture that supports prompt corrective action and discourages regulatory forbearance; and
- robust accountability arrangements, including the ability to remove relevant management and staff from the agency where they have failed to discharge their obligations satisfactorily (subject to appropriate due process).

30. The FBA and BARS have a number of these components in place. They have a suite of statutory powers in their respective laws to enable corrective actions to be required of banks. These include the powers to issue warnings, require rehabilitation plans by the supervisory board of a bank, issuing directions to the bank to take specified measures (such to desist from specified activities or implement remedial measures), suspending members of the supervisory board and management in certain circumstances, appointing an adviser to obtain information and facilitate corrective action, and appointing a provisional administrator. They also have ability to impose fines on banks for non-compliance.

31. The agencies have developed guidance on the use of corrective powers. This includes setting out triggers for corrective actions based on breaches of capital, liquidity and asset quality

requirements. Corrective actions vary depending on the triggers and the circumstances, with an escalation of corrective action applying as the severity of a breach of prudential requirement increases. The triggers and corrective actions are set within the context of the supervisory ratings applied by the banking agencies (ranging from 1 (a very sound bank) to 5 (a bank in serious distress). Corrective actions typically apply to banks rated as 4 or below.

32. In most respects the legal and policy elements of corrective action arrangements in the banking agencies are satisfactory. However, some elements of the legal powers are deficient. For example, there powers to remove members of the supervisory board and management are constrained to a narrow set of preconditions that do not adequately support corrective action. Similarly, the ability to apply financial sanctions or to pursue criminal charges (where grounds exist) against a bank's directors and management need to be strengthened. These are matters for consideration in the refinement of the draft banking laws.

33. The effectiveness of the FBA and BARS in taking prompt corrective action relies on a number of other elements. These include having well-developed, reliable early warning indicators of emerging bank stress, a program of regular stress testing, comprehensive off-site monitoring and on-site examinations, and experienced supervisor staff with sufficient expertise and seniority to exercise appropriate vigilance in their supervision. It also requires an organisational culture and discipline that fosters vigilant monitoring of banks and prompt reaction to any emerging indicators of stress or suspected breaches of prudential requirements. Regulatory forbearance needs to be avoided unless it is based on sound supervisor judgement and where the supervisors ensure that banks are taking satisfactory remedial measures.

34. It is in some of these areas where we see scope for improvements to FBA and BARS. In particular, there is a need to ensure that the culture and discipline of the banking agencies is conducive to prompt corrective action and the avoidance of unwarranted forbearance. All staff, from top management down, need to embrace a culture in which bank non-compliance with prudential requirements and excessive risk-taking by banks are promptly identified and remedied. There needs to be a strong degree of accountability at all levels in the banking agencies for any unwarranted regulatory forbearance. It is suggested that these matters be given further attention by the banking agencies, with a view to strengthening the culture, disciplines and accountability required for reliable prompt corrective action.

35. A further area where improvements can be made is in the early warning indicators for banks. The FBA and BARS have developed some frameworks in this area, but there is scope for further development to ensure that the agencies have 'dashboards' of early warning indicators for all banks, covering the range of risks taken by banks and intra-group contagion.

Deposit Insurance Fund

36. The deposit insurance framework in BiH is relatively well developed, but has been untested until recently. The DIA was established in 2002 at State level. It has responsibility for administering a paybox form of deposit insurance where the deposit insurance fund is financed by

annual levies on banks, supported by a €50 million standby facility with the EBRD. The level of deposit insurance has been progressively increased since 2002, the most recent increase being on January 1, 2014 to KM50,000 per depositor per bank. The current level of funding is sufficient to cover all insured deposits in the small domestically-owned banks. Bobar Bank was liquidated on December 22, 2014—after the FSAP mission took place—and the DIA started the deposit pay-out within a month, on January 19, 2015. This constitutes the first deposit pay-out of the DIA. Since its establishment, the DIA has made good progress in developing much of the infrastructure required for an effective deposit insurance framework, including MOUs to support coordination with the FBA and BARS, regular testing of depositor data and procedures for making deposit pay-outs. The formal assessment of the DIA against the IADI standards suggests that the majority of the principles are compliant or largely compliant.[11]

37. However, DIA membership is linked to the fulfillment of special membership criteria. One bank in BiH is currently operating without being a member of DIA. The authorities should find a solution for this problem and change the membership rules. Membership in the DIA should be linked to the licensing process.

38. Moreover, further enhancement to the deposit insurance arrangements is needed as part of the overall resolution framework. In particular, there is a need for the DIA to establish the capacity for making prompt pay-outs to insured depositors once a bank has been closed. Under existing law, the DIA has up to 90 days to make pay-outs (and longer in some situations). This needs to be substantially reduced if deposit insurance is to achieve the objective of maintaining depositor confidence and providing insured depositors with quick access to their deposits. Ultimately, the payout period should be shortened to bring it in line with the EU relevant directive. To further enhance the effectiveness of deposit insurance, legislation should be amended to establish the means for the prompt pay out of depositors and a P&A transaction under the least cost solution (as mentioned above). DIA should be also involved very early in the problem bank resolution process with both bank supervision agencies. Moreover, the DIA should assess the availability of suitable back-up facilitates given its potential expanded role and the fact that its existing back-up line expires at end-2017.

39. To further enhance the effectiveness of deposit insurance, the Law on Deposit Insurance should be amended to enable deposit accounts of a failed bank to be transferred to a recipient bank via a purchase and assumption transaction (P&A), subject to meeting the 'least-cost' principle.[12] Current law does not facilitate the application of deposit insurance funds for this purpose. This a major deficiency in the resolution framework, given that the transfer of deposit accounts to a recipient bank or bridge bank via a P&A transaction is generally the quickest and

[11] See Technical Note on the compliance with the IADI's Core Principles for Effective Deposit Insurance Systems.

[12] In this context, the 'least-cost' principle refers to the selection of deposit pay-out or deposit account transfer method that involves the least cost to the DIA in terms of amount of funds used for payment less recoveries from the assets of the failed bank; or only up to the amount the DIA would have expended in repaying insured depositors in a liquidation.

least-cost means of providing insured depositors with access to the funds. In order for this to be achievable, it requires not only a change to the Law on Deposit Insurance, but also the development of procedures by the resolution authorities (i.e., the FBA and BARS) and DIA to facilitate the ability of a recipient bank to assume the deposit liabilities so that depositors can continue to operate their existing deposit accounts once transferred to the recipient bank.

40. Where the DIA's funds are applied for purposes other than deposit pay-out, it is important that specific safeguards are applied to avoid the misuse of funds. These safeguards should be incorporated into the Law on Deposit Insurance and documented in policy guidance developed by the DIA. The safeguards include:

- The DIA is fully informed and involved in the resolution decision-making process.
- The use of the DIA's funds is transparent and documented, and is clearly and formally specified.
- In a non-liquidation scenario, the resolution results in a viable, solvent, and restructured bank which limits the exposure of the DIA to contribute additional funding in respect of the same obligation.
- Contributions are restricted to the costs the DIA would otherwise have incurred in a payout of insured depositors in liquidation, net of expected recoveries.
- Contributions are not used for the recapitalization of resolved institutions unless shareholders' interests are reduced to zero and uninsured, unsecured creditors are subject to pari passu losses in accordance with the legal claim priority.
- The use of the DIA's funds is subject to an independent audit and the results reported back to the DIA.
- All resolution actions and decisions using the DIA's funds are subject to independent ex post review.

41. Given the current weaknesses in the banking system and the possibility that deposit pay-outs might need to be made at some stage, it is essential for the DIA, in close liaison with the FBA and BARS, to undertake testing of the procedures to be followed for bank closure and pay-out (and eventually deposit account transfer via a P&A transaction). Although the DIA regularly tests depositor data, there has been no program of regular similar exercises or 'walk-through' testing in respect of all elements required by the banking agencies and DIA, respectively, to facilitate prompt pay-out. This should be a major priority in readiness for activating deposit insurance arrangements if the need arises. In conjunction with this, all relevant authorities in the SCFS should ensure that their inter-agency contingency plan includes guidance on the actions required by all relevant members if a bank is closed and depositors are paid out, including public communications to minimize the risk of contagion. An effective communications program, prepared ex ante as part of crisis preparedness should be designed with the aim to mitigate possible adverse public confidence and financial stability which could be caused by banking problems.

Contingency Planning and Coordinating Arrangements

42. The banking agencies and other authorities comprising the SCFS have made good progress in developing contingency plans. This is an essential step in developing the capacity to respond quickly and effectively to a bank distress situation. Our review of these contingency plans suggests the need for further refinement, particularly as regards the responsibilities of each agency in the implementation of different forms of resolution (including closing a bank and making pay-outs, closing a bank and transferring insured deposits to another bank or bridge bank, recapitalizing a systemically important bank and establishing a bridge bank and transferring all systemically important business to the bridge bank). More specificity in each agency's plans, especially those of the FBA, BARS and DIA, would be desirable.

43. The contingency plans also require more detail on resolution options. In particular, it is important for the plans to include more comprehensive guidance on the resolution options, the criteria for the selection of resolution options and the procedures for implementing each option. In the case of banks considered at the time to be systemically important, the contingency plans should include comprehensive guidance on the resolution options likely to be applicable to such banks. This would include: recapitalization via external sources of capital if feasible; recapitalization via bail-in of shareholders and creditors; and the transfer of systemic banking functions and performing loans to a bridge bank or an existing bank willing to acquire the business. In the case of banks considered not to be systemically important at the time, the contingency plans should include comprehensive guidance on closing the bank and making pay-outs to insured depositors or transferring the viable business (including deposits and performing loans) to another bank willing to acquire it.

44. The guidance needs to include implementation details for each resolution option. This should include policies, procedures and processes to manage each stage of a crisis, including systemic impact assessment, financial institution diagnostics, assessment of resolution options, determination and implementation of the appropriate resolution, cross-border coordination and communications with relevant stakeholders. More content is also needed on communications with stakeholders and public communications under different resolution strategies.

45. Cross-border crisis planning is also required. The current draft plans do not contain details of how cross-border resolution would be implemented. Further details in these areas would be beneficial, given the systemic importance of foreign banks in BiH. In particular, there is a need for the banking agencies, in close liaison with the other SCFS agencies, to develop crisis resolution plans for foreign banks with systemically significant operations in BiH, including the means by which Single Point of Entry (SPE) and Multiple Points of Entry (MPE) recapitalization could be implemented.

46. The SCFS agencies have very recently developed a draft cross-agency 'master plan.' This is a commendable achievement and will assist in promoting a coordinated approach to resolution. However, our review suggests the need for more specificity in the master plan as regards the preconditions for different resolution options, the criteria for determining which resolution option is to be applied and the procedures needed for different resolution options. This is especially

important in the context of the systemically important banks. It should include guidance on the implementation of purchase and assumption resolution options, bail-in, bridge bank and units for asset liquidation.

47. Cross-border cooperation and coordination requires particular attention. Currently, the banking agencies, CBBH, DIA and other relevant authorities have no specific crisis resolution related arrangements in place with their respective foreign counterparts. Given the systemic importance of several foreign banks to the BiH financial system, this creates a significant risk of inadequate coordination with the home authorities to achieve a satisfactory whole-of-group resolution. It is therefore recommended that:

- MOUs be established between the banking agencies, CBBH and DIA with their respective foreign counterparts, either bilaterally or multilaterally (the latter being more efficient), to document processes for cooperation and coordination in relation to resolution with all countries which are home supervisors or resolution authorities of banks of systemic importance in BiH.

- The banking agencies engage with their foreign counterparts to develop resolvability assessments, recovery plans and resolution plans on a whole-of-group basis for all foreign banks of systemic importance in BiH, including resolution plans that address SPE and MPE recapitalization options. These plans should include SPE and MPE resolution options.

48. None of the agencies in the SCFS has yet to hold a crisis simulation exercise to test their respective plans and build capacity. We strongly encourage that this be a high priority for all of the SCFS members, particularly the FBA, BARS and DIA. It is also important the SCFS members hold a joint, cross-agency crisis exercise to test the master plan and coordination arrangements. We recommend that this be done in 2015 and repeated using different scenarios at least every two years. Once a few domestic crisis exercises have been held, and the lessons from the exercises have been incorporated into revised contingency plans, the resolution authorities should seek to hold cross-border crisis exercises with their counterparts in the home jurisdictions. It is suggested that cross-border crisis exercises be held at least every 3 years or so.

49. Other capacity-building initiatives should also be undertaken by the SCFS agencies, and especially by the FBA, BARS and DIA. These would appropriately include regular (e.g., every one or two years) senior management workshops of resolution strategies, including discussing and documenting responses to "what if" scenarios of plausible crisis situations. These workshops can be effective in building and maintaining an understanding at senior management level of the key elements of resolution. They are also an effective means by which the senior management teams in the SCFS member agencies can interact together, in one forum, to promote a more cohesive and coordinated approach to crisis resolution. In addition to senior management workshops, we also suggest that the agencies develop a program of staff training on bank crisis resolution as a means of building relevant knowledge and skills among staff below senior management level. Again, this can be an effective way of promoting cross-agency understanding of key resolution issues if the staff training initiatives are held on a cross-agency basis.

50. Recovery and resolution planning needs to be given high priority. A key element in a financial safety net is the development by all banks (large and small) of recovery plans. Currently, the banking agencies do not require recovery plans except in situations where a bank is experiencing difficulties. We recommend that the banking agencies require all banks to develop comprehensive recovery plans and regularly test their plans, and that the banking agencies include this in their regular supervision of all banks. The recovery plans would appropriately be more comprehensive in nature for the larger banks than for the small banks. In the case of foreign-owned banks, the recovery plans should be developed in coordination with the parent banks and incorporate recovery actions undertaken by the parent banks to support their operations in BiH.

51. Resolution planning is also essential in the case of systemically important banks. We suggest that the banking agencies, as a matter of high priority, undertake resolvability assessments of all systemically important banks to establish resolution plans that preserve continuity of systemically important business and associated functionality. The resolution plans should be kept under regular review to ensure they remain up-to-date. In the case of foreign-owned banks, the resolvability assessments and resolution plans should be developed in close consultation with the respect parent resolution authorities.

B. Crisis Management Framework

52. There are significant deficiencies in the bank resolution framework, although significant progress has been made by the authorities to address some of these. Much further progress is required on many fronts to establish a robust resolution framework, including new resolution powers, recovery and resolution planning, coordinated crisis resolution plans by the authorities and crisis management capacity building.

Legal Powers

53. The bank resolution powers are mainly contained in laws at entity level but some laws also apply at state level. The main resolution-related laws are:

- The Law on Banking Agency of the Republika Srpska;
- The Law on Banking Agency of the Federation of Bosnia and Herzegovina;
- The Banking Law of the Republika Srpska;
- The Banking Law (applicable in the Federation of Bosnia and Herzegovina); and
- The Law on Deposit Insurance in banks of Bosnia and Herzegovina.

54. The current resolution laws in both entities lack effective powers for resolution, as is acknowledged by the authorities. In particular, the banking laws do not make adequate provision for the FBA and BARS to intervene early where a bank is getting into distress. The banking agencies lack sufficient powers to replace a bank's supervisory board and management and to require pre-

positioning for resolution via resolution plans. The current provisional administration provisions in the banking laws do not provide a sufficient range of resolution powers, including powers to implement business transfer, transfer of NPLs for liquidation or recapitalization without shareholder consent. The banking laws do not confer the ability for the FBA or BARS to control the resolution process; the provisional administrator is not under their direction. There are no powers to establish a bridge bank or to enforce a bail-in of shareholders and creditors. The laws also lack clear statutory purposes for which resolution powers may be used, the principles governing the exercise of resolution powers and the preconditions for the exercise of these powers.

55. The authorities have sought to address these deficiencies through drafting new laws in both entities. These draft laws have been modeled reasonably closely on international principles and practice, including the FSB Key Attributes and, in particular, the EU BRRD. If enacted, these laws would provide a much more satisfactory legal framework for resolution, including the ability for the banking agencies, as resolution authorities, to directly assume control of a bank in distress, to remove and replace members of a supervisory board, to force a recapitalization without shareholder consent, to apply a bail-in of shareholders and creditors, to transfer business (in part or in whole) to another bank or a bridge bank established by the resolution authority, and to transfer impaired assets to a company established by the resolution authority. The draft laws also include specific resolution objectives and principles, and set out the triggers for the exercise of resolution powers.

56. In the course of finalizing the draft laws and readying them for introduction into the entity parliaments we suggest that the draft laws be further reviewed. This is to ensure that they align with the Key Attributes and EU BRRD, subject to being appropriate to the circumstances of BiH. In this regard, the draft laws in the FBiH and RS should be mutually consistent (to the extent practicable); differences should be avoided where possible. In reviewing the draft laws prior to their finalization, we suggest the authorities ensure that the laws adequately address the following matters, modeled substantially on the EU BRRD:

- Clearly set out the objectives of resolution and the principles on which resolution powers may be used.
- Empower the resolution authority to require banks to prepare recovery plans in accordance with instructions or guidance provided by the resolution agency, review the recovery plans, require amendments to the recovery plans, require testing of the plans and require external independent review of the plans.
- Empower the resolution authority to obtain information from a bank and its subsidiaries for the purpose of undertaking resolvability assessments.
- Empower the resolution authority to require a bank to develop (or assist the resolution authority to develop) a resolution plan, review the resolution plan, require amendments to the plan, require testing of the plan and require external independent review of the plan.

- Specify the triggers/grounds for the use of each resolution power. This is important if judicial challenges are to be minimized for potential misuse of power.

- Ensure that the agency responsible for resolution has the unambiguous power to remove and replace any or all members of a bank's supervisory board and management, and that such powers can be applied to any entity in the group headed by the bank (ie any subsidiaries of the licensed bank that are included in the consolidated group for supervision purposes).

- Empower the resolution authority to take control of a bank and any or all of its subsidiaries (within the regulated banking group) for the implementation of resolution where the triggers for resolution have been met.

- Ensure that the resolution authority can give binding directions to a provisional administrator, such that the administrator is the agent of the resolution authority.

- Ensure that the resolution authority can remove and replace a provisional administrator at any time without discontinuing administration.

- Ensure that recapitalization of a bank, including through cancellation of existing shares and issuance of new shares and other forms of qualifying capital instruments, can be implemented by the resolution authority without shareholder consent.

- Ensure that the powers to implement transfer of business (including assets, liabilities, systems, data and staff) from a bank to another entity (including another bank, a bridge bank and for liquidation) are comprehensive, and apply not just to the bank but also to any subsidiary of the bank that is part of the supervised banking group.

- Ensure that bail-in of shareholders and creditors (other than insured depositors and secured creditors) can be implemented by the resolution authority to absorb all estimated losses and, if appropriate, to fund the recapitalization of a bank or capitalization of a bridge bank.

- Empower the resolution agency to establish a bridge bank and an asset liquidation company.

- Ensure that all resolution powers can be exercised without risk of triggering events of default or suspension of obligations to the bank by counterparties.

- Ensure continuity of essential services and functions.

- Ensure that all resolution powers are subject to an ex post independent assessment so that no shareholder or creditor is left worse off than they would have been under a conventional bankruptcy, with compensation being paid to the extent that the resolution did leave them worse off.

- Temporarily stay the exercise of early termination rights.

- Impose a moratorium with a suspension of payments to unsecured creditors and customers and a stay on creditor actions to attach assets or otherwise collect money from the firm, while protecting the enforcement of eligible netting and collateral agreements.

- Make provision for resolution funding (see later in the Technical Note).

57. In addition to the above matters, there is a need for the resolution laws to facilitate coordination between the agencies. In this context, the laws should confer explicit powers on the resolution agencies to share information and cooperate with all relevant domestic agencies (i.e., the member agencies of the SCFS in the case of BiH), the DIA, and foreign agencies (including foreign supervisors, resolution authorities, central banks and finance ministries).

58. The draft laws should also empower the resolution agencies to:

- Establish (as home supervisor) or participate in (as host supervisor) bank-specific supervisory colleges for banking groups with material cross-border operations.

- Share information both bilaterally and through colleges of supervisors.

- Develop, in liaison with the parent supervisory and resolution authorities a framework for cross-border crisis cooperation and coordination.

59. The resolution authority should also have legal capacity to:

- Apply one or a combination of resolution powers either simultaneously or sequentially;

- Apply different types of resolution measures to different parts of the firm's business; and

- Wind down the operations that are not critical to the financial system or the economy.

60. The resolution laws should also include a number of safeguards. These include:

- The resolution powers should respect the hierarchy of claims while providing flexibility to depart from the general principle of equal (*pari passu*) treatment of creditors of the same class to contain the systemic impact of a failure or to maximize the value for the benefit of all creditors.

- Creditors should be compensated where they do not receive at a minimum what they would have received in a liquidation of the firm ("no creditor worse off" principle).

- Directors and officers of a bank and subsidiaries should be protected for actions taken when complying with decisions of the resolution authority. This could be achieved by statutory immunity, other than for actions taken (or a failure to take actions) in bad faith.

- As a safeguard to the effectiveness of the resolution strategy, judicial action should not constrain the implementation, or result in a reversal, of measures taken by the resolution

authority within their legal powers and in good faith. Adjudication should provide for redress by awarding compensation instead.

61. The resolution authority should have powers over local branches of foreign banks. These powers should enable the resolution authority to support resolution carried out by a foreign home authority, where the resolution authority in BiH is satisfied that the resolution proposed by the home authority is consistent with the resolution objectives, especially the maintenance of financial stability and protection of depositors, in BiH. The powers should also enable the resolution authority to take its own initiative where the home jurisdiction is not taking action or acts in a manner that is inappropriate to maintain financial stability and depositor protection in BiH. These latter powers would include the ability to assume control of branch, transfer some or all of the business undertaking of the branch to another bank or a bridge bank, and initiate the winding up of the branch.

62. It is imperative that the new resolution powers are implemented as a matter of high priority. We encourage the authorities to have the laws enacted in 2015.

63. In addition to strengthening the resolution laws, it is also important to consider strengthening the legal powers of the entity governments to provide financial assistance in resolution. For example, the laws in each entity should enable the entity governments to provide, promptly and without recourse to parliament for appropriation, guarantees, indemnities or funding to facilitate resolution. This should be done only as a last resort and subject to a number of statutory and procedural protections, including well-defined statutory purposes for government-funded support, preconditions for triggering such support (but where the discretion to provide support is with the Minister of Finance or other relevant ministers), powers to attach conditions to the provision of support, enforcement powers and exit powers. Consideration of these matters should be undertaken having close regard to the principles set out in the FSB Key Attributes and international practice, including within the EU.

Resolution Authority

64. There is a need to establish a resolution authority. At present, FBA and BARS have some resolution powers but are not formally designated as, or equipped, to be resolution authorities. The proposed new banking laws need to establish clear responsibility for bank resolution with appropriate accountability and transparency. Ideally, resolution powers should be vested in the DIA, establishing it as the resolution authority, but this would appear impossible in BiH owing to institutional constraints. Therefore, the team suggested instead to vest resolution powers in FBA and BARS and designate them as the resolution authorities for the banks in their respective jurisdictions. This would enable synergies to be reaped between the supervisor, in its responsibility to exercise early intervention, and the resolution authority, in executing resolution. However, this would require designing governance and accountability arrangements to avoid potential conflicts of interest. And if this option were to be taken forward, it would also be appropriate for the DIA management board to include representatives of the two banking agencies.

65. It is important that resolution laws set out appropriate governance and accountability arrangements for the banking agencies in their capacity as resolution authorities. This is especially important given the potential conflicts that can arise between supervision and resolution, such as regulatory forbearance causing delays in the activation of resolution. In this regard, it would be appropriate for the resolution laws to require the resolution functions to be administered in a division of the FBA and BARS that is separate from the supervision division, but where there is a close degree of integration between the divisions. The laws could also require the banking agencies to have a senior management position with dedicated responsibility for resolution matters, with a direct reporting line to the executive board of the agency. The law might also appropriately require the FBA and BARS to implement policies and internal controls, and engage staff with the necessary experience and expertise, to ensure that they have the capacity to perform their resolutions functions effectively and to avoid or manage any conflicts of interest between supervision and resolution functions.

66. Transparency of resolution responsibilities is important. In order to ensure transparency in the performance of the resolution function, the FBA and BARS should be required to include in their published annual reports a summary of the actions they took in the relevant period to prepare for and undertake resolution, by reference to the objectives and principles set out in the laws. The authorities should be strongly encouraged to develop detailed bank intervention and resolution manuals to, ex ante, provide a uniform structure in approaching these subjects.

67. Building capacity within the resolution authorities will be crucial. As noted later in this paper, it is essential that the FBA and BARS develop the technical expertise, processes and procedures to perform the resolution functions. This will require the recruitment and training of staff to ensure that they have the knowledge and skills needed to exercise the resolution powers, and the development of contingency plans, processes and procedures to provide guidance on resolution options, following previous IMF Technical Assistance. Regular crisis resolution testing will be important in the development and maintenance of resolution capacity.

Resolution Funding

68. The scope to draw on the existing deposit insurance fund (DIF) should be broadened for funding bank resolution. Currently, the DIF currently can only pay out insured deposits. The DIF should be allowed to participate in bank resolution subject to it being least cost solution—i.e., up to the amount that would have been expended for insured depositor reimbursement in a liquidation—including P&A transactions. However, DIF resources should not be used to provide open bank assistance.

69. Over time, the safety net could be broadened by establishing a Financial Stability Fund (FSF) under the DIA for open bank assistance. Such assistance in a systemic crisis should be provided only if necessary to preserve financial stability and where there is no new capital forthcoming from private creditors. To protect the taxpayer, the FSF backstop option should be subject to a set of clearly defined criteria. Most importantly, all losses in failed banks should be absorbed up-front by existing shareholders, but also by other creditors according to the hierarchy of

claims in liquidation and subject to financial stability considerations. This option should be used under strict conditions that minimize the risk of moral hazard and allow for ex-post recovery from the banking industry.[13]

70. Resolution funding should only be provided in well-defined circumstances. These preconditions would generally be where:

- the resolution authority (in this case the FBA and BARS), in conjunction with the other relevant agencies (in this case the other members of the SCFS) have determined that the bank in question is systemically important in the prevailing circumstances and that some form of open resolution is required to minimize adverse impacts on the financial system, economy, depositors and confidence;
- existing shareholders of the distressed bank have absorbed losses to the full extent of the shareholders' funds and any callable unpaid capital;
- other capital instrument holders have been bailed in if any losses remain;
- subordinated and, if necessary, senior unsecured creditors have been bailed in to absorb losses to the extent that losses remain after all capital holders have fully absorbed losses (on the basis that bail-in should occur in a manner consistent with the ranking of claims in a winding up); and
- the resolution authority is satisfied that the resolution cannot be implemented without funding from outside the distressed bank or an acquiring bank.

71. We would suggest that the purposes of resolution funding in BiH be modeled fairly closely on the purposes set out in the EU BRRD, given the aim of BiH to progressively ready itself for eventual accession to the EU. On this basis, the main purposes for which resolution funding could be applied would include:

- to guarantee the assets or the liabilities of the institution under resolution, its subsidiaries, a bridge institution or an asset management vehicle;
- to make loans to the institution under resolution, its subsidiaries, a bridge institution or an asset management vehicle;
- to purchase assets of the institution under resolution;
- to make contributions to a bridge institution and an asset management vehicle;

[13] The FSF could be based on the principles of the EU Bank Recovery and Resolution Directive (BRRD) with added limited and temporary liquidity support functions (see below).

- to pay compensation to shareholders or creditors in accordance with the principle of no party being left worse off than in a liquidation under conventional insolvency law;
- to make a contribution to the institution under resolution in lieu of the write down or conversion of liabilities of certain creditors, when the bail-in tool is applied and the resolution authority decides to exclude certain creditors from the scope of bail-in;
- to lend to other financing arrangements on a voluntary basis; and
- to take any combination of the actions referred to above.

72. Resolution funding should not generally be used to finance the recapitalization of a bank or capitalization of a bridge bank. Recapitalization or capitalization is expected to be sourced from shareholders and possibly the bail-in of creditors, on the basis that no party is left worse off than had the bank been liquidated under conventional bankruptcy law or from an external new shareholder. Under the EU BRRD, resolution funding can be applied for recapitalization only to the extent that the resolution authority excludes some liabilities from bail-in.

73. Taking into account international principles and best practice, we recommend that the proposed FSF, administered by the DIA, become the source of resolution funding over the medium term. We propose that the FSF be funded by a combination of mechanisms, comprising:

- Annual levies on all banks, based on an appropriate denominator, such as total deposits or total non-capital funding. The levies would be calibrated at a level sufficient to build the fund to a target level over an appropriate period of time and to cover the costs of administering the fund, including fees associated with the proposed standby facility. The levy could be uniform (per KM of relevant liability) or risk-based. The latter would be a more satisfactory approach, given that it would help to reduce moral hazard and sharpen the incentives for sound risk management and capitalization in banks. Given the purpose of the fund, it would also be appropriate to apply higher fees for banks considered to be systemically important.
- A funding line with a suitable party, such as an IFI, to supplement accumulated funds.
- A capacity to impose an ex post levy on banks to recover losses or repay amounts drawn down under the funding line and not covered by recoveries from the bank in resolution. As with the ex ante levy, an ex post levy could be uniform or risk-based, and could be weighted according to the systemic importance of a bank.

74. The target size of the fund will need to be assessed. The calibration of the target size of fund would be made taking into account the results of stress testing of the banking system and an estimate of the plausible amounts of funding that could be required for the resolution of systemically important banks. The calibration of the fund size would appropriately be based on an assumption that all or most of the maximum estimated losses in the bank in distress will be absorbed by shareholders, other capital instrument holders and creditors of the bank through a bail-in arrangement.

75. Our view is that the DIA would be the appropriate entity to administer the FSF. The DIA already has some of the infrastructure required to perform these functions and is better placed than any other existing government agency in that regard. The banking agencies are not well placed to perform these functions; they do not possess the systems, controls or expertise required. Moreover, incorporating resolution fund responsibilities into the banking agencies would add complexity to their responsibilities and create risks of distracting management from their core responsibilities. However, the DIA would need to see increase in staffing both to handle the broadened responsibilities, going beyond a pay-box function, as well as the FSF.

76. The FSF, would be legally distinct from the deposit insurance fund; they would serve different purposes. Deposit insurance funds would only be available for open resolution purposes under limited circumstances, as previously mentioned – i.e., essentially where the funds are used solely for the protection of depositors and where the least-cost principle is met. In the resolution of systemically important banks, the resolution fund would be the main source of funding.

77. We would propose that the statute establishing the FSF would set out the preconditions for drawdowns under the resolution. The agencies responsible for testing that the preconditions have been met would be the respective banking agencies, given that this complements their existing responsibilities as supervisors and proposed responsibilities as resolution authorities.

78. In the case of determining when the FSF could be used for resolution purposes, we suggest that this be the joint responsibilities of the member agencies of the DIA board.[14] The relevant banking agency would specify the terms and conditions attaching to the use of the resolutions funds and would be responsible for monitoring compliance with those terms and conditions and for taking enforcement actions for any breaches.

Limited and Temporary Emergency Liquidity Assistance in the Context of a Currency Board

79. Currently, there is no framework in BiH or either of its component entities for providing liquidity assistance to a solvent bank that is in liquidity distress. The CBBH is prevented by Articles 1(1) and 67(1)(a) of the Law on CBBH from providing credit; it has no statutory powers to act as LOLR to a bank. Further, the currency board arrangement, by its very design and nature, would severely limit the ability of the CBBH to provide credit to banks even if it had the legal authority to do so. This is because Article 31(1) of the Law on CBBH states that the aggregate amount of the CBBH's monetary liabilities shall at no time exceed the equivalent (in terms of the currency of Bosnia and Herzegovina) of its net foreign exchange reserves. In effect, the CBBH could only lend to banks (if the law were amended to allow it) to the extent of surplus foreign exchange

[14] We expect that the representatives of the banking agencies would join the DIA Management Board after being designated as resolution authorities. The involvement of the SCFS can be also considered although it may prolong the process in circumstances were decisions should be taken promptly.

reserves—i.e., reserves that exceed monetary liabilities as a result of CBBH profit retention or equity injection. Currently, the level of free reserves is too low to provide a meaningful source of LOLR support.

80. No other government agencies in BiH have the statutory authority to provide liquidity assistance to a solvent bank. The DIA can only use its funds for the purpose of making payments to protected depositors under the deposit insurance arrangements, where the bank in question has been closed and is in the process of liquidation. This is appropriate since deposit insurance funds are not intended as a source of liquidity support for banks.

81. The entity governments (via the ministries of finance) could, in theory, provide liquidity assistance to a soundly capitalized bank in distress, but there is no readily available funding source for this. Moreover, the ministries of finance understandably lack the infrastructure and expertise to perform a LOLR function; it is not a natural complement to their core functions. Moreover, a LOLR facility provided by a Ministry of Finance would entail a high level of moral hazard and a risk of expectations of bail-out.

82. In the absence of official liquidity support arrangements, banks generally hold a much higher amount of reserves at the CBBH than the minimum requirement. Banks' reserves at the CBBH are currently, in aggregate, more than double the minimum level required to be held at the CBBH. More generally, banks hold a relatively high proportion of liquid assets relative to short-term financial liabilities—approximately 43 percent in aggregate as at June 2014. This provides a substantial cushion of liquidity to enable a bank to meet its financial obligations in a period of liquidity stress.

83. In the case of banks owned by foreign parent banks, parent banks could likely be relied on for liquidity support in periods of stress except where the parent banks themselves are in stress. However, as noted below, if the parent bank is itself in financial difficulty, then there is no guarantee that it would be willing or able to provide liquidity support to its subsidiary in BiH.

84. The need for liquidity assistance from the official sector has not been a significant issue in recent times, given the high level of liquidity held by the banks and, in some cases, reliable parent bank support. However, there are circumstances where liquidity stress could arise, either on a bank-specific basis or across the banking system as a whole. It is in these low-probability but high-impact situations that there is a need to consider the establishment of liquidity support arrangements.

85. Notwithstanding the current high level of liquidity in the banking system, risks remain. There is a risk that economic or financial shocks of a severe magnitude could result in solvent banks becoming illiquid, and where no market-based sources of liquidity are available to meet their needs. This could arise in a range of situations, including where:

- a parent bank gets into financial distress and, as a result, the bank subsidiary in B-H comes under acute liquidity pressure but is unable to obtain liquidity support from its parent or other banks;

- the failure of one or more banks creates liquidity pressures on other banks through a run on retail deposits (notwithstanding the presence of deposit insurance) and withdrawal of wholesale deposits; and

- a severe economic shock undermines confidence in the country and banking system, leading to large withdrawals of bank funds.

86. In such situations, liquidity support may be necessary in order to prevent a solvent and adequately capitalized bank or banks from defaulting on their financial obligations or being unable to repay term deposits where depositors seek early repayment. In the absence of liquidity support arrangements, there is a risk that otherwise financially sound banks may fail, with adverse impacts on depositor and investor confidence, financial stability and the provision of credit.

87. Liquidity support might also be required as part of a bank resolution, such as where a bank is being recapitalized through bail-in or some form of external support or where the business of a failed bank has been transferred to newly established bridge bank. In such a situation, the resolved bank or bridge bank may struggle to retain depositor support and access market funding until confidence in the bank has been restored. Liquidity support in this situation may be necessary as an interim measure until the resolved bank is stabilized.

88. A further important reason for establishing some form of liquidity support arrangement is the risk of a liquidity crisis undermining the CBA in general by rendering some banks insolvent. In such circumstances, the abandonment of the CBA would be very destabilizing for the banking system, corporate sector and wider economy, particularly given the amount of bank and corporate liabilities denominated in Euro and other foreign currencies. A liquidity support facility that is appropriately structured and subject to robust discipline and accountability could significantly reduce this risk and therefore help to underpin the sustainably of the CBA.

89. As long as a bank is soundly capitalized (or will be as part of a resolution process), has sufficient collateral available, and all market-based sources of liquidity have been exhausted, liquidity support from the authorities is justified. This is to avoid needless bank defaults and resultant adverse impacts on confidence, financial stability and the real economy. The important caveat to this is that any liquidity support arrangement should be structured so as not to undermine the CBA. We note that several countries with CBA or dollarization arrangements have LOLR facilities of some kind, including Ecuador, and Bulgaria, Hong Kong, albeit the available resources vary to a great degree and are often very limited.

90. It is important to acknowledge that the establishment of a LOLR facility would not, of itself, address a system-wide banking crisis. The financial resources available under any workable LOLR arrangement under the constraints of a CBA would not be sufficient to provide liquidity in a

system-wide crisis. In that situation, more fundamental remedial measures would need to be considered that go beyond the scope of LOLR. At most, a LOLR would be a means of providing liquidity assistance to an idiosyncratic bank liquidity stress situation where the financial system as a whole is relatively stable.

91. For a LOLR arrangement is to be established, a number of principles would need to be observed. These include:

- Any LOLR facility should be designed to complement and not undermine the CBA.
- The design of a LOLR arrangement needs to respect, and be consistent with, the responsibilities and statutory independence of each relevant agency, including those of the CBBH, BARS, FBA and DIA. Duplication of functions should be avoided.
- The design of a LOLR framework should avoid, if possible, the creation of a new agency, given the desire to avoid unnecessary regulatory costs and institutional complications.
- Legislative amendments should be kept to a minimum to the extent practicable.

92. The FSF described above could also be designed to provide very limited liquidity support to solvent banks in the case of acute liquidity stress. The limited and temporary liquidity support—as an early prompt corrective action tool—should be triggered only after the bank has used all the available liquidity management options, including the interbank market, parent bank funding if available, and its reserve requirements—the framework of which should be amended along the lines recommended above. Moreover, such support should only be available to systemic banks that comply with the supervisory capital requirements, are under sound management, and have sufficient collateral or guarantees to cover credit risks for the liquidity provider.

93. Emergency liquidity support should be accompanied by enhanced monitoring and supervision to minimize moral hazard. The compliance with the terms and conditions of the use of the limited and temporary liquidity support would be monitored by the applicable banking agency, which would take enforcement actions as required. An un-remedied breach of the FSF terms and conditions would be grounds for the relevant banking agency to exercise resolution powers.

94. The FSF could be financed through ex-ante levies on banks and with the capacity for ex-post levies on banks to cover costs and any losses sustained by the fund. The FSF could be also supported by possible financing from an international financial institution (IFI). There could be scope to further support the FSF by switching a portion of potential increases in RR into the FSF. The FSF would be administered by the DIA and separated from the DIF. The FSF should be protected with various safeguards. These would include the objectives of the fund, the purposes for which it may be used, the preconditions for invoking it and the governance arrangements.

95. In the context of the above, the preconditions for access to the LOLR should be clearly specified, either in statute or in a protocol issued by appropriate agencies. The preconditions might appropriately include the following:

- The bank in question has exhausted all existing sources of liquidity, including:
- having drawn down all available liquid assets, including surplus reserves at the CBBH;
- exhausted the ability to obtain liquidity from shareholders;
- exhausted the ability to obtain liquidity by selling securities or other assets (such as packaged portfolios of high quality loans) to other banks in BiH, either via sale and repurchase agreements or straight sale agreements;
- drawn down reserves at the CBBH below the required level, subject to a floor, with approval from the CBBH (see later in this note); and
- the relevant authorities (BARS and FBA) are satisfied and have affirmed in writing to the FSF that the bank in question:
- has capital that meets the minimum requirements specified by the prudential supervisor; or
- will be restored to capital compliance as part of a resolution by the provision of capital support from shareholders, bail-in or some other source, and that this will be achieved simultaneously or within a very short period (e.g., 24 hours) of LOLR being provided;
- is being soundly managed to the satisfaction of BARS or FBA (or will very shortly be as part of any resolution actions being taken); and
- the bank in question either has sufficient collateral (preferably high quality bonds and portfolios of high quality loans, although it may be necessary to accept various types of collateral, particularly in stressful times when a bank may have depleted or otherwise pledged the highest quality assets that would normally be sought in LOLR), such that LOLR liquidity is provided on a repo basis, or that collateral or a guarantee is provided by a financially robust third party to the LOLR agency (e.g., a parent bank or a resolution fund).

96. The target size of a LOLR fund and size of a credit line to supplement the fund would need to be determined by reference to liquidity stress testing and an analysis of the plausible maximum extent of lending required to meet a range of liquidity shocks for small, medium and large banks in the context of idiosyncratic bank distress scenarios. The mission has not undertaken this analysis at this stage, as we believe the conceptual framework first needs to be considered before calibration issues are addressed.

97. In addition to establishing a LOLR facility via the FSF, we also think that it would be desirable for the CBBH to establish greater flexibility in the reserve requirements applicable to banks as a further liquidity cushion, as discussed above. In particular, we see scope for modifying the CBBH reserve requirements to allow banks to draw down their reserves at the CBBH below the minimum requirement for short periods, provided that the CBBH has received an affirmation from the relevant banking agency that the bank in question is not in breach of its capital

requirements and is otherwise prudentially sound, or will be under resolution arrangements in place. Introducing some flexibility in this regard would assist banks in periods of liquidity stress and lessen the probability of any LOLR facility (if established) being used.

ADDRESSING THE NPL OVERHANG

98. Non-performing loans continue to increase on account of weak domestic demand and modest credit activity. High levels of NPLs remain a key vulnerability. Domestic banks have experienced the largest increase in NPLs, standing at around 26 percent of total loans, mostly on account of corporate loans. The NPLs in the foreign banks have remained relatively stable. Within the corporate sector, business activities more dependent on domestic demand are experiencing the highest levels of NPLs, namely manufacturing, trade, construction, and real estate (with NPL levels of around 30 percent). The household NPLs have remained remarkably steady over the past years, despite high levels of unemployment and stagnant wages. The high share of special mention loans - that could become NPLs - exhibits weaknesses that could pose further risks to the system.

99. Weaknesses in the legal and judicial frameworks have impeded the resolution of NPLs. One of these is the legal impediment (in the Law on Obligations and the Law on Protection of Consumers, the latter being applicable to loans to natural persons) that prevents banks from transferring non-cancelled NPLs to an entity other than a bank. These laws have been a significant obstacle in the ability of banks to resolve NPLs, given that one of the preferred mechanisms for doing so is the sale of NPLs to either a company formed for the purpose within the bank's group or to an external party which specializes in impaired debt collection.

100. There are some potential work-arounds to avoid aspects of this impediment. For example, one bank has managed to achieve a form of NPL transfer by effectively terminating the loans (under contractual rights due to the debtor failing to meet contractual obligations under the loan) and transferring the receivables and recovery rights to another party (i.e., a form of 'synthetic' loan transfer). However, no other banks have so far used this mechanism to our knowledge, possibly in recognition of the challenges it involves and the likely loss of value that arises when a loan is terminated. It is generally much less costly to transfer the loan intact to another party. It is therefore important that this legal impediment be addressed.

101. A further difficulty impeding the resolution of NPLs is the absence of an alternative to bankruptcy. Under BiH laws, there is no satisfactory streamlined process by which a company and its creditors can negotiate a restructuring of debt or the company itself to facilitate a least-cost solution to loan impairment. This results in more companies being placed into bankruptcy than might otherwise be required, with a consequential loss in recovery on the impaired loans and potentially greater costs to the economy in terms of loss of economic activity and jobs. It also results in a large backlog of cases in the courts awaiting decisions. It is therefore imperative that a new law be created to provide a mechanism for companies and creditors to negotiate a debt restructuring to avoid bankruptcy, oversee by the courts.

102. The judicial framework also contributes to the NPL situation. Our discussions have indicated considerable dissatisfaction with the judicial process, including the lack of a specialist commercial court, inadequate resourcing of the courts and a lack of suitable experienced judges, especially in complex corporate cases. Concerns have also been raised that the appeals court has a tendency to refer decisions back to the primary court in circumstances where the appeal court has the jurisdiction to make a ruling (i.e., where no procedural errors were made in the primary court). All of these factors have apparently contributed to long delays in court cases and the large backlog of NPL cases.

103. Improving the legal framework is therefore essential. It is essential that the legal impediments and deficiencies in court resources are addressed if NPLs are to be resolved in a timely manner and in a manner consistent with maximizing recoveries on NPLs and minimizing unnecessary disruption to the economy and asset markets.

104. The current high level of NPLs poses a significant threat to the stability of the financial system. It signals weak underwriting practices, impairs banks' capital positions, weakens their profitability, cash-flow and liquidity, and diverts management attention from more productive areas. Reducing the level of NPLs and facilitating the cost-effective management of NPLs are critical to the future stability of the financial system.

105. Initiatives likely to assist in addressing the NPL problem include the following:

- Assessing the adequacy of credit risk management policies and practices in banks, including risk appetite, lending policies and procedures, stress testing frameworks and governance arrangements. These are all key areas needed to ensure that banks manage credit risks in a manner consistent with maintaining high asset quality and avoiding excessive levels of NPLs.
- Amending the relevant laws, including the Law on Obligations and Law on Consumer Protection, to enable banks to transfer NPLs to entities that are not banks – including AMCs established by the banks or other companies that are willing to buy the loans. The law should permit the transfer of NPLs without the need to cancel the loan agreement, both in respect of loans to companies and loans to natural persons, subject to certain safeguards. One safeguard is to ensure that the banking agencies have the powers required to supervise private AMCs where these are part of the banking group, consistent with consolidated banking supervision practice. Another safeguard is to ensure that all NPLs are maintained on a credit register so that banks and other credit providers can assess the risk associated with the debtors in question if they are considering lending to them.
- The resolution powers should include the ability of the resolution authority to transfer NPLs to an SPV established for the purpose of liquidating the remaining assets of a bank under resolution (as proposed in the draft banking laws).
- A new law should be established to enable companies and their creditors to negotiate a debt or company restructuring, with court approval, as an alternative to bankruptcy, and where the court can enforce the restructuring on all creditors where a majority of creditors have agreed to the

restructuring (subject to the safeguard that no creditor is left worse off than they would have had bankruptcy proceeded).

- A specialist commercial court should be established in FBiH entities,[15] with adequate resourcing and suitably qualified and experienced judges, to help clear the backlog of case and to provide for greater judicial expertise in resolve corporate NPL cases.

MACROPRUDENTIAL POLICY

A. Best Practices

106. Macroprudential policies use primarily prudential tools to limit systemic risk and system-wide financial risk. This is achieved by employing tools to limit the build-up of financial imbalances, constructing defenses for containing the consequences of downswings and identifying and addressing common exposures, risk concentrations, linkages, and interdependencies that are sources of contagion and spillover risks that may jeopardize the functioning of the whole financial system.[16] Systemic risk could be defined as the risk of disruptions to financial services that is caused by an impairment of all or parts of the financial system, and can have serious negative consequences for the real economy, while system-wide financial risk include the risk arising from all kind of financial institutions, instruments, markets and infrastructure.

107. The macroprudential policies seek to address the time and cross-sectional dimension. The time dimension reflects a cumulative, amplifying mechanism that operates within the financial system, as well as between the financial system and the real economy, generating what is called procyclicality (assumption of excessive risks during upswing, making the financial system and the economy more vulnerable to shocks). The cross-sectional dimension reflects the distribution of risk in the financial system at a given point of time.

108. The macroprudential framework should contain analytical, operational and institutional aspects. The analytical aspect refers to the identification and monitoring of systemic risks, including the identification and collection of data and the process of it to assess the risk to the financial stability. The operational aspect has to contemplate the tools to contain risks and prevent them from becoming systemic, the rules governing the use of these instruments; and assessments of their effectiveness. Finally, the institutional aspect includes the mechanisms of governance, accountability, transparency and coordination of macroprudential policy with the objective to preserve the financial stability.

109. Macroprudential policies need institutional arrangements to ensure the policymaker has the ability and willingness to act. This includes clear mandates, control over macroprudential

[15] Such courts already exist in RS.

[16] The list of macroprudential tools include capital surcharge to systemic banks, countercyclical capital buffers, dynamic provisioning, limits in terms of exposure, caps in foreign open positions among others.

instruments that are commensurate with those mandates (e.g., design and implementation of countercyclical capital buffers, capital surcharge to systemic banks), operational independence and accountability (in most cases, reinforced by transparency and clear communication of decisions and decision-making processes).

B. The Case of Bosnia and Herzegovina

110. BiH does not have a single institution or committee concentrating the responsibility of financial stability and the design and implementation of macroprudential tools. Supervisory responsibility on banks (regulation, grant/revocation of licenses, on-off site supervision) in each jurisdiction lies, in accordance with constitutional and legal framework, in the corresponding banking agency.[17] On the other hand, the main objective of the CBBH is to maintain the stability of the domestic currency in accordance with the CBA, and his tasks contemplate –among others- to promote an appropriate payment system as well as to coordinate the activities of the banking agencies (including the exchange of information).

111. The SCFS, comprising the main stakeholder of the financial system, also does not have a macroprudential mandate. Created in December 2009 through a MoU between the CBBH, the two banking agencies, the Deposit Insurance Agency and the Fiscal Council, establishes as objectives and scope: the set up for cooperation of common assessments on threats to financial stability, the preparation of common solutions and actions for managing a crisis; exchange of information; coordination of public information; and establishing consistency plans, including stress testing exercises. Several articles of the MoU are dedicated to the crisis management. The CBBH acts as a coordinator of the SCFS, while the Financial Stability Unit (FSU) of the CBBH is responsible for the compilation of data, information and analysis to be distributed to the SCFS members (including the one from the banking agencies). Among other activities, the SCFS has considered the results of the stress test of the financial system, been informed of the Financial Soundness Indicators (FSI) and Financial Stability Report (FSR), discussed specific situation of banks with problems and has been in the process of collecting (from the banking agencies and CBBH) individual crisis management contingency plans, with the purpose to elaborating a master plan on crisis management.

112. Some initiatives have been taken with a macroprudential approach, although they are isolated, need further development as well as an institutional framework. The CBBH and the banking agencies have been adopting measures with a macroprudential bias. Some examples are the changes adopted by the CBBH of the reserve requirement ratios and calculation base; the calculation and publication by the CBBH, with the data provided by the banking agencies, of Financial Soundness Indicator (FSI), aligned with the international standards; also with the bank´s information provided by the banking agencies, the CBBH has been performing top-down stress test on the main financial risks of the financial system, whose aggregate results are published and the individual ones (for each bank) are referred to the respective banking agencies; the regulation (in

[17] The same case is for insurance companies and the securities sector.

both entities) on foreign currency open position; CBBH, together with the banking agencies, have developed and applied a methodology for the identification of Domestic Systemically Important Banks (DSIB); and the banking agencies have recently approved regulations regarding the inclusion of a conservation capital buffers and a leverage ratio, as well as, the announcement of potential future countercyclical capital buffer and capital surcharge for systemic banks.

113. The RR policy has been the only tool applied with a macroprudential approach. The successive changes adopted by the CBBH of the RR ratios and on the calculation base were done with the purpose to mitigate the credit booming and credit crunch before and after the global financial crisis. In this regards, since the end of 2004 the CBBH had increased -in successive steps- the RR rate from 5.0 percent to 18.0 percent, during a period of fast credit growth and significant capital inflow. In October 2008, in the midst of the global financial crisis, the CBBH started to cut the RR rates, and started to differentiate between deposits and borrowed funds with original contractual maturity of up to one year (currently at a rate of 10 percent) and with more than one year (with a current rate of 7 percent). Additionally, the funds borrowed to non-resident with written agreement and the funds of an entity government intended for development projects were excluded from the base of calculation since November 2008 and May 2009 respectively.

114. The annual FSR prepared by the CBBH is comprehensive and well done, but should be made public earlier. This report contains information on the macroeconomic environment and specific sections on the household and legal entities situation, financial intermediaries (including the aggregate results of stress test), and financial infrastructure. The 2013 version of the FSR was published in September 2014, far from the reporting date. The delays in publishing the report are associated with data collection (public debt, macroeconomic variables, and audited information of banks, among others) and, especially, the slow process of competitive bidding for printing the report. The Financial Stability Unit (FSU) of the CBBH, in charge of the elaboration of the report, has been working on shortening the process. The posting of the report at the CBBH´s website before it is printed could reduce the lag in two months, and if accompanied by a dissemination strategy[18] may increase the interest on reading it, reinforcing the communication process.

115. The banking agencies produce reports on the condition of the banking system in their entity, which are mainly descriptive. BARS and FBA publish quarterly and annual reports on the banking system. These reports provide numeric data of the financial system, without including an analysis and evaluation of the main risks. These reports, that provide information of the system at the entity level, are the most commonly used by banks (many of the banks that had been interviewed ignored the existence of the FSR of the CBBH).

116. The methodology for assessing DSIB was based on the document of the BCBS and adapted to the specific characteristics of BiH, as well as to the information available. The joint work between the CBBH and both banking agencies ended in an agreed Memorandum where it was

[18] Similar to the activities performed when the Annual Report of the CBBH is disclosed.

described the variables (and the rationale) considered for measuring size, interconnectedness, substitutability and complexity of banks, and including the weights assigned to each one. Complementing the methodology, it was agreed to set the thresholds for determining the list of DSIB, which were finally calculated by the CBBH and distributed to the 2 banking agencies. Nor the methodology neither the list of DSIB was made public.

117. On mid-2014, both banking agencies approved new decisions on their regulation on capital in line with aspects of Basel III, including the potential approval in the future of a countercyclical capital buffer. The new regulation on capital includes a 2.5 percent of RWA above core capital and total capital as a conservation capital buffer. It has been established that if a bank has Core Capital and Total Capital below 8.5 and 14.5 percent, respectively, is not allowed to pay dividends,[19] with limited impact only in some banks.[20] The regulations included a time schedule for the increase of the minimum participation of the core capital in total capital[21] and a minimum leverage ratio (not risk weighted) of 6 percent. Another aspect included in the capital regulation, with a macroprudential approach, was the announcement that a countercyclical capital buffer and a systemic risk buffer may be prescribed by the banking agency in the future, which will demand (especially for the countercyclical buffer) significant analytical effort and collection of data.

118. The design of a macroprudential framework for BiH should rely on the existing cooperation among the CBBH, FBA and BARS. The examples of how common projects were performed by the CBBH and both banking agencies have shown the benefits and comparative advantage of developing, in conjunction, different tools to assess risks and vulnerabilities (e.g., stress test, methodology for DSIB, among others). The same case would be for other tools and indicators, as well as, for the design and calibration of macroprudential policies (including microprudential regulations with macroprudential impact). The framework for the aforementioned joint work was the MoU for the *"Coordination of Banking Supervision and Cooperation and Exchange of Information"* dating from 2008.

119. The proposal of a macroprudential framework should be aligned as much as possible to international standards, contemplating the legal framework and constrains in BiH. The framework proposed (included in the Attachment) builds on the MoU on Coordination already in force, which could be amended to include the settings and process for the assessment of systemic risks and vulnerabilities; selection and calibration of macroprudential tools to address financial stability; and defining the timing of macroprudential tools. The CBBH Governor and FBA and BARS

[19] In cash on the basis of common shares to the bank's shareholders, awards from the part of the bank's profit to members of the bank's bodies and key categories of employees whose professional activities have significant influence on the risk profile of the bank, nor can they repurchase their own shares.

[20] 17 out of 27 banks would not have limitations in the payments of dividends. The criteria is not fully in line with Basel III, since does not consider the possibility of partial limitations on dividends payments for banks whose capital is located within the capital buffer.

[21] The capital regulation establishes that most deductions are performed to total capital, while some of them should be done to core capital. As a consequence of the current distortion, which should be amended, there are banks whose core capital is above the total net capital.

directors will discuss macroprudential issues at least quarterly, while the conclusions reached will be considered by each institution for its implementation according to their responsibilities established in their respective legal framework, respecting the constitutional and regulatory framework. The SCFS will be regularly informed by the CBBH, FBA and BARS the activities performed, the conclusion achieved and regulations implemented with macroprudential impact, as well as, those systemic risks and vulnerabilities that could be better addressed via fiscal policies.

120. The accountability will be achieved via the publication in the FSR of the activities done by the CBBH, FBA and BARS, as well as the disclosure of the text of the MoU. CBBH Financial Stability Report will include a section describing the activities, conclusions achieved and macroprudential policies implemented in the reference period. Additionally, the content of the new (updated) MoU will be disclosed in the corresponding web site of each of the three institutions.

121. One of the priorities of the CBBH, FBA and BARS should be the definition and collection of additional information for the assessment of vulnerabilities and design of macroprudential tools. It is relevant to make a diagnosis of the data gap, to start filling it with collecting of the information needed. Some examples could be: the data related with Loan To Value (LTV) and Debt to Income (DTI) ratios applied by banks, indicators of level of indebtedness of household and corporates, currency mismatch in the debtor´s balance sheets (for those who have loans in foreign currency or indexed to a foreign currency), among others. Some of this information could be collected by the banking agencies requiring it to the banks, while other could be obtained by the CBBH itself (e.g., credit registries) or other sources.

122. Also, CBBH, FBA and BARS should exchange their views and reach to conclusions on the tools to be used for the identification of systemic risk, as well as, the best instruments to address them. The experience of the banking agencies, with their contact with banks and the regulation and supervision of them, and the system wide overview of the CBBH should be complemented to select the most suitable tools for the assessment of the systemic risk. Once they are identified, the next step would be to analyze the best instrument to mitigate it.

123. Once a conclusion on the macroprudential toolkit has been achieved, it has to be calibrated. This process involves the calculation of the thresholds and the consequences of breaching them (for example, having a LTV above certain level could trigger a higher RWA. Additionally, the other element to define is when the macroprudential tool (or the microprudential tool with macroprudential impact) will be activated and deactivated.

124. In all cases, and according to the legal framework, the final implementation and putting in place will rely in the corresponding institution. If the conclusion arrived consists in a change on the reserve requirements, the institution that should implement it would be the CBHH, while if it corresponds to a prudential regulation, the institution in charge would be each banking agency. Finally, if the conclusion is that the risk should be tackled with fiscal policies, any of the institutions (CBBH, FBA or BARS) should raise the issue in the next SCFS meeting.

Appendix I. Macroprudential Framework

The note summarizes the proposal for a macroprudential framework suitable for the institutional framework of Bosnia and Herzegovina.[22]

A. Framework

1. Macroprudential policies should be underpinned by broader cooperation between CBBH, FBA and BARS. In this context, the *MoU on "Coordination of Banking Supervision and Cooperation and Exchange of Information"*[23] would provide a useful platform for discussing and adopting macroprudential policy measures.

2. The aforementioned MoU contemplates (Art. 7) the cooperation in respect of financial stability: *"Cooperation in respect of financial stability shall include an exchange of data relevant to financial stability analysis and participation in discussions in that respect and proposing measures to improve the situation and strengthen financial stability."*

3. To achieve the stated objectives, the MoU could be amended by adding the following features:

- Assessment of Systemic Risks and Vulnerabilities;
- Selection and calibration of macroprudential tools to address financial stability. The tools should also cover microprudential regulation for macroprudential purpose; and
- Defining the timing (i.e., activation and deactivation) of macroprudential tools.

B. Setting and Process

4. Based on the amended MoU, macroprudential analysis and policy will be performed among CBBH, FBA, and BARS with the following characteristics:

- With tools to monitor system-wide risks, the CBBH would be best placed to handle technical work to assess systemic risks and vulnerabilities, based on inputs from FBA and BARS.

[22] This proposal is not the first best solution following best international standards, but this option would fit in the institutional framework of Bosnia and Herzegovina while following international standards.

[23] Signed on June 2008 by CBBH, FBA and BARS.

- Subsequently, the CBBH, BARS and/or FBA would propose macroprudential measures, which will be discussed with the representatives of the three institutions. Further calibration and timing will be carried out until a proposal among CBBH, BARS and FBA representatives is agreed.

- CBBH Governor and FBA and BARS Directors will discuss macroprudential issues at least quarterly. The conclusions reached will be considered by each institution for its implementation according to their responsibilities established in the respective legal framework.

- SCFS will be regularly informed about the coordinated work on macroprudential topics performed by CBBH, FBA and BARS, the conclusions reached, as well as those systemic risks and vulnerabilities that could be better addressed via fiscal policies.

- The CBBH Financial Stability Report will include a section—endorsed by CBBH, FBA and BARS—on relevant conclusions and macroprudential policies implemented in the reference period.

C. Disclosure

5. The content of the new (updated) MoU will be disclosed in the web site of each institution (CBBH, FBH and BARS).