Policy paper on implementation of Macroprudential Policy in Albania

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I. Executive summary

This paper aims to describe and review the status of implementation of the macroprudential policy in Albania.

Macroprudential policy is dedicated to the analysis and prevention of systemic risk, in both its cyclical and structural dimensions, as well as to strengthening the resilience of the financial institutions. The scope of macroprudential policy is the entire financial system and its interaction with the real economy. In bank-based financial systems, the focus is on the banking sector activity. In order to achieve its ultimate objective of financial stability, macroprudential policy aims at preventing several key risks, identified as intermediate objectives. In the European Union, these intermediate objectives have been identified by the European Systemic Risk Board (ESRB) and include risks arising from excessive credit growth and leverage, concentration of exposures, insufficient liquid assets and market illiquidity, contribution to systemic risk by systemically important financial institutions. To address such risks, several instruments, usually of a prudential nature, are used to bolster capital levels, improve funding and ensure quality of exposures for financial institutions.

In general, a central bank plays an active role in implementing the macroprudential policy. This reflects, on one side its exclusive functions in terms of independent implementation of monetary policy, promotion of payment systems, issuance of banknotes and management of international reserves; and on the other, its technical capabilities to collect, model and analyse relevant economic data. Its expertise is widely urged also when the macroprudential authority is legally operating outside the central bank. When the central bank is also the microprudential supervisor of banks (and potentially non-bank financial institutions) the rationale to assign to it macroprudential powers are even stronger. However more powers should come with greater responsibility and the latter is usually achieved through higher levels of transparency and accountability. In this case, procedures should be in place to determine how the central bank implements its policies to gain from exisiting synergies and mitigate possible conflicts between different policy areas.

The Albanian legal framework defines the Bank of Albania as the central bank of the country, which implements the monetary policy to achieve its main objective of price stability and, in pursuit of other objectives, acts as the supervisory, regulatory and resolution authority for banks operating in Albania, promotes the functioning of the payments system and sets out the rules on the prevention and management of systemic risk. Based on these functions and given the dominant share of the banking sector in the overall activity of the financial system, the Bank of Albania finds itself in the natural position of the public authority in charge with the implementation of the macroprudential policy. In carrying out this important task, as for its other policies, the Bank of Albania applies the principle of independence, recognising at the same time the importance of transparency and accountability, as well as of cooperation with other relevant authorities, local and foreign, to mitigate systemic risks and safeguard financial stability. Locally, other authorities with a relevant contribution to financial stability are the Albanian Government (Ministry in charge of finance), Financial Supervision Authority and Deposit Insurance Agency. Bank of Albania interacts with these authorities through the Financial Stability Advisory Group or by promoting bilateral cooperation.

The implementation of macroprudential policy at the Bank of Albania is a key instrument of Financial Stability function. The process follows a cycle that provides the identification and analysis of systemic risks, the selection and calibration of macroprudential instruments, the policy implementation and communication, and eventually the impact assessment and, when necessary, a revision of the implemented policies. Systemic risks are classified in accordance with the intermediate objectives selected by the ESRB and several indicators of these risks are identified. The analysis of systemic risks benefits from relevant data collection tools (regular reports, surveys, internal data-sharing) and other processes to monitor and analyse them (stress-tests, heatmap, cooperation with other departments, expert judgement). Discussions on the way the proposed macroprudential instrument may achieve its objective (the transmission channels) and how it may affect other economic policies of Bank of Albania occur at the internal Financial Stability Advisory Committee (FSAC). At a certain stage, discussions involve the banking industry and, if necessary, relevant public authorities. The selected macroprudential instrument is then prepared for implementation and is announced to the public with a decision of the Supervisory Council of Bank of Albania, or with a decision of the Governor as delegated by the Supervisory Council. Following the implementation, Bank of Albania continues to monitor the impact of the selected macroprudential instrument on the intermediate objective it aims to achieve. The abovementioned process is repeated if there is a need for further action by the macroprudential policy.

After the adoption of the Strategy on Macroprudential Policy in 2018, and the regular systemic risk analysis, the Bank of Albania has prepared the framework for the implementation of several macroprudential instruments. These include macroprudential capital buffers to increase resilience of banks against cyclical and structural systemic risks, but also measures to reduce risks associated with high levels of euroization. Bank of Albania has implemented the countercyclical capital buffer (CCyB), the capital conservation buffer (CCoB) and the capital buffer on systemically important banks, and is working to operationalize the systemic risk buffer (SyRB). In terms of de-euroization, regulatory measures have been taken to contain the size of foreign currency liabilities, raise minimum requirements for liquid assets in foreign currency, and improve risk awareness for foreign currency loans to unhedged borrowers. With a view to align standards of liquidity risk management with those of the European Union, the Bank of Albania also approved the framework for the implementation of the Liquidity Coverage Ratio.

Developments in the financial markets and the real economy require ongoing attention for the identification of vulnerabilities and risks. Interconnectedness among different segments of the financial system, developments in the non-financial asset markets and the interaction of the financial system with real economy, represent areas where vulnerabilities may exist and risks may arise. Under its macroprudential policy role, the Bank of Albania wants to expand its capacities to collect relevant and timely information from these areas, in order to develop tools for risk assessment and ultimately design effective macroprudential policy responses. In this regard, Bank of Albania is supporting interinstitutional cooperation and doing preparatory work for designing the framework of borrower-based macroprudential instruments, such as loan-to-value and debt-to-income limits. Finally, communication with relevant stakeholders is key to conceptualize an appropriate supervisory approach that recognizes benefits and understands risks associated from new developments related with Fintech and climate change.

The Bank of Albania considers that communication about the design and implementation of its macroprudential policy, in addition to fulfilling its accountability objectives, contributes to public knowledge about the assessement of financial risks. Such communication has the power to affect the attitude of the market participants and improve market discipline. The Bank of Albania aims to achieve the highest level of transparency in its macroprudential policy communication. This document contributes to the list of publications and other tools to which the Bank of Albania resorts to achieve its transparency goal regarding macroprudential policy implementation.

This policy paper is organized as follows: Section II it discusses the best international standard for an institutional framework on the implementation of macroprudential policy and the importance of coordination among various policies; Section III describes the institutional framework of macroprudential policy in Albania, the role played by Bank of Albania and other relevant public authorities, and the internal decision-making process at the Bank of Albania for the implementation of macroprudential policy; Section IV focuses on the tools and processes that the Bank of Albania uses to collect information and assess systemic risk, and how they may need to expand in order to monitor and address new risks; Section V describes the way the Bank of Albania has implemented its macroprudential policy through the use of various macroprudential instruments and in coordination with its other financial policies; and Section VI concludes by providing more details on the way Bank of Albania communicates about its macroprudential policy.

II. Financial Stability and Macroprudential Policy

2.1 Introduction

After the global financial crisis of 2008, the importance of macro-prudential policies in preventing systemic risks and safeguarding financial stability has been emphasized. The international experience so far shows the pivotal role of the central bank in the implementation of these policies, due to the synergies created through the functions it performs and the high level of independence with which it operates.

This document complements the Macroprudential Policy Strategy ('Strategy')[1] by providing a more detailed view on how macroprudential policy is implemented by the Bank of Albania, in accordance with international standards and the characteristics of the local financial system.

2.2 The role of macroprudential policy and nature of systemic risk

The financial system carries out some functions that are paramount for the economy such as channeling savings towards investments, facilitating payments and managing risks. Any failure of the financial system to carry out these functions results in high costs for the economic operators, with possible systemic implications for the financial stability of the country.

Macro-prudential policy (MPP) is dedicated to the analysis and assessment of systemic risk and includes the implementation of measures, primarily prudential ones, with a view to mitigating it.

Systemic risk represents the possibility of distress in the financial system that may lead to serious negative consequences for the functioning of the financial system and the real economy. Systemic risk may appear in both cyclical and structural dimensions.

The *cyclical* dimension of systemic risk arises from the tendency of financial institutions to assume excessive risks in economic upswing periods, and to become overly risk adverse in downswing periods. Thus, in the upswing phase of the economic cycle, banks tend to be exposed to similar credit and liquidity risks, often based on the expansion of mismatch between assets and liabilities in their balance sheets. In the downswing phase of the economic cycle, banks tend to reduce their balance sheets through selling similar exposures or significantly restricting lending. The unsustainable financial developments during the upswing phase of the economic cycle may lead to hasty asset sales and a sharp decline of their prices, weakened balance sheets, stress on financial situation and credit contraction during the downswing. The negative economic impact can be further amplified through macro-financial linkages where tighter financial conditions lead borrowers to reduce debt levels (deleverage) resulting in further drops in consumption and investment.

The *structural* dimension of systemic risk stems from the distribution of risks across different parts of the financial system. It occurs when financial institutions are so large and/or so interconnected that when they are affected by an adverse economic or financial development, locally or cross-

[1] https://www.bankofalbania.org/Financial_Stability/Macro-prudential_policies/Macro-prudential_strategy/

border, the consequences may jeopardize the stability of the entire financial system. Interconnectedness includes the exposure of banks to each other, either directly or indirectly (for example, through common exposures to similar assets). Systemically important banks or other financial institutions, as well as the supporting financial infrastructure, are determining factors in this systemic risk dimension.

The ultimate objective of MPP is to contribute to the safeguard of the stability of the financial system as a whole (banks, investment funds, insurance, markets, etc.), by preventing and mitigating systemic risks and strengthening its resilience, thereby ensuring a sustainable contribution of the financial system to economic growth.

Given that systemic risk may affect the ultimate objective of financial stability in different ways and forms, MPP identifies intermediate objectives which, as defined by the European Systemic Risk Board (ESRB) recommendation[2], are:

a) *to mitigate and prevent excessive credit growth and borrowing.* Excessive credit growth has been identified as a key driver in financial crises, whereby funding through unsustainable borrowing serves as an amplification channel;
b) *to mitigate and prevent excessive maturity mismatch and market illiquidity.* Reliance on short-term and unsustainable funding may lead to the need for fire sales of assets, market illiquidity and spill-overs to financial institutions;
c) *to limit direct and indirect exposure concentrations.* Exposure concentrations increase the sensitivity of the financial system to shocks, both through the impact on balance sheets and through fire sales of assets and spill-overs to financial institutions;
d) *to limit excessive risk-taking by systemically important financial institutions.* This includes strengthening the resilience of such institutions;
e) *to contribute on safeguarding the stability of the financial infrastructure.* This relates to the processes and instruments that may be implemented to reduce credit, liquidity and operational risks in the payments and settlement systems or other similar critical infrastructure.

Regarding its scope, MPP should extend to the entire financial system and examine its interaction with the real economy. In practice, especially for the financial systems that are bank-based, the MPP focuses on the banking sector, main non-bank financial institutions and relevant financial infrastructure, whose stable performance is of critical importance for financial stability.

2.3 Central bank primary role in applying macoprudential policy

Traditionally, central banks are responsible for implementing monetary policy, have access to considerable resources used for macroeconomic and financial analysis, can immediately affect liquidity in the financial system, act as a lender of last resort, promote the developments and supervise critical infrastructure of payment systems and monitor financial markets including interbank and currency exchange markets. For these reasons, central banks are a natural choice to

[2] ESRB/2013/1.

take on the role of macroprudential authority, or to be the main contributor within the macroprudential authority when the latter is set up as an interinstitutional committee.

In cases where the central bank is also responsible for microprudential supervision it appears more obvious to identify itas the macroprudential authority. This role could be discharged by a Committee of its Board chaired by the Governor, where deputy governor(s) responsible for financial stability and microprudential supervision would also participate. In carrying out these tasks, the central bank would coordinate with the other national authorities relevant for preserving financial stability

When the central bank is not the microprudential supervisor, the macroprudential authority could more likely take the form of an interinstitutional committee with, again, a leading role of the central bank given its responsibilities for monetary policy, for monitoring macroeconomic and financial developments, for its analytical capacities and its broader responsibilities for financial stability[3].

2.4 Interaction between macroprudential policy and other financial policies

2.4.1 Interaction with monetary policy

The Global Financial Crisis of 2008 showed that price stability does not necessarily guarantee macroeconomic and financial stability. More specific policies, such as MPP, are needed in this regard aiming at reducing the frequency and impact of financial crises and safeguarding macroeconomic stability. Monetary policy and MPP have different objectives and instruments, but may interact also because of common transmission mechanisms.

Monetary policy can affect financial stability through several channels, where changes in monetary conditions:

a) change lending standards and affect probability of default of borrowers;
b) affect risk-taking of financial intermediaries; for example, low interest rates provide incentives for fast expansion of balance sheets and undermine prudent behavior, thus increasing the risk-taking appetite to maintain the level of income;
c) may adversely impact other markets through asset prices; for example, low interest rates can cause the rise of prices of financial assets that in turn cause the rise in the level of debt, which could increase the prices of non-financial assest, thus reinforcing the rising trend of the financial cycle. In open economies, a rise in interest rates can be accompanied by a higher level of inflows in foreign currency and an unwanted impact on the level of exchange rate.

On the other hand, MPP may compensate for possible unwanted effects of monetary policy. For example, applying a limit to the level of 'debt-to-income' ratio can reduce probability of default of borrowers due to the tightening of monetary policy. Capital requirements or limits on the debt level can help to control the leverage (and risk) from banks operating in a low interest environment.

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[3] On the leading role of central banks within the national macroprudential authority see Recommendation ESRB/2011/3.

Setting limits for Loan-to-Value (LTV) ratio can slow down the rise in prices of non-financial assets when accommodating monetary policy is conducive to higher asset prices. Applying limits on foreign currency lending can reduce systemic risk related with capital flows sensitive to the level of interest rates. Macroprudential policies can affect the composition and the level of production and inflation, as they impact the credit flows.

Currently, experience with a joint use of macroprudential and monetary policies to achieve financial and price stability is limited. As experience with the use and impact assessment of macroprudential instruments is still short, there is a risk that they can unduly interact with the use of monetary policy. On the other hand, there where the use of monetary policy is limited, the justification for the use of MPP may be stronger. As in the case of other economic policies, full reliance on MPP only, while possible in the short-term, is not recommended as financial stability risks usually require other structural or fiscal policies to be adequately addressed.

2.4.2 Interaction with microprudential policy

Differences between macro and microprudential policies should be well understood. The main objective of microprudential supervision is the safety and stability of single/individual bank (or any non-bank financial institution) as well as reducing probability and impact of a bank failure. The global financial crisis showed that the soundness of single financial institutions is necessary but not sufficient for the overall soundness of the financial system. Therefore, there is a need for MPP which aims at preserving the stability of the entire financial system by preventing the accumulation of systemic risk and improving its resilience.

Microprudential supervision can provide useful ground-up insights that inform macroprudential analysis and decisions, helping also with the effective enforcement of macroprudential measures across financial institutions. At the same time, macroprudential oversight can identify risks to which individual financial institutions may be exposed. Supervisors can then engage with these institutions on how to address the highlighted risks.

Although macro and micro prudential policies are closely interconnected, in the short term they can pursue objectives and use instruments that can be in conflict in certain situations. For instance, during a downswing, micro supervision may demand to raise capital levels in particular banks to better absorb possible credit losses, producing negative procyclical effects on lending for the entire system. Similarly, in an upswing, the need to address higher exposure to risks from a macroprudential perspective can appear in conflict with the sound financial situation of individual banks. Hence, it is useful to establish a process that allows for cooperation between micro and macroprudential policies and, if necessary, the determination of priorities at a given moment.

2.4.3 Interaction with the resolution framework

Implementing timely macroprudential measures that increase the resilience of banks (or other financial institutions) is certainly important for the resolution framework. Systemically important financial institutions (currently, banks) or those where resolution is advisable due to 'public interest' concerns are in the scope of both frameworks. If systemically important institutions are carefully identified and their resilience is increased through macroprudential measures, then the resolution framework for those institutions (resolution planning, intervention etc.) becomes less probable, more predictable and less costly. On the other hand, meeting the required level of capital buffers could prove more challenging in those situations where eligible liabilities are insuficient to meet minimum capital requirements and eligible liabilities (MREL) for resolution purposes. Again, timely information sharing among the two areas remains critical for effective policy responses.

2.4.4 Interaction with fiscal policy

MPP can also interact with other public policies, like the fiscal policy. For example, fiscal interpretations that consider as "deductible for tax reasons" the interest payments on mortgages can compensate for or distort the impact of macroprudential measures that aim to address risks arising from developments in the residential real estate market. In addition, macroprudential measures that aim at reducing structural systemic risks related with the wide use of foreign currency in the financial system can be undermined if they are not accompanied by similar measures in the fiscal area related to the real economy. Macroprudential measures can affect trends in particular segments of the markets that also have an importance for public policies. For example, macroprudential measures that affect the Government debt securities market or the real estate market (like borrower-based measures) can be particularly sensitive and require a solid cost-benefit analysis followed by clear explanation and justification.

2.4.5 Interaction with competition policy

MPP may also have an impact on competition policy. For example, capital buffers for systemically important institutions which serve to internalize their higher contribution to systemic risk, could also prove helpful in restraining their growth in the future and hence provide more space for genuine competition in the market by smaller institutions, whith benefits for financial stability and consumers of financial services. This example also highlights the general importance of applying macroprudential instruments with a principle of proportionality, which pays due attention to the contribution of a certain institution, exposure, product etc. to systemic risk. On the other hand, having a market that is competitive and diversified, and hence not relying on a small number of institutions for providing financing to the economy, is certainly helpful for financial stability as it reduces volatility linked to stress episodes and provides for more market-based solutions to address concerns with risk developments. Macroprudential intervention in these situations is comparatively less needed in first instance and possibly more effective when applied as there is less room for avoidance by subject entities.

III. Institutional framework of macroprudential policy in Albania

3.1 Bank of Albania's role in implementing macroprudential policy in Albania

The legal framework[4] defines the Bank of Albania as the central bank of the country, which implements the monetary policy to achieve its main objective of price stability and at the same

[4] The primary functions of the Bank of Albania are mainly defined by the Law No. 8269, dated 23.12 1997, "On the Bank of Albania", as amended, (hereinafter, the Organic Law), the Law No. 9662, dated 18.12.2006 "On banks in

time, in pursuit of other objectives, acts as the supervisory, regulatory and resolution authority for the banks operating in Albania, promotes the functioning of the payments system and sets out the rules on the prevention and management of systemic risk.[5] Moreover, the Bank of Albania participates in the Financial Stability Advisory Group (FSAG)[6], which focuses on preventing and managing systemic risk in the financial system, in which the banking sector has a dominant share.

Table 1: Financial system in Albania

Table : Composition of financial system

Assets in % to GDP

Licensing and Supervisory Authority	*Financial system*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*H_I - 2020*
Bank of Albania	*Banking sector*	*88.1*	*92.1*	*94.8*	*97.6*	*97.3*	*100.5*	*99.4*	*96.0*	*95.5*	*99.4*
	NBFIs	*2.7*	*2.7*	*2.7*	*3.0*	*2.9*	*3.0*	*3.1*	*3.5*	*4.2*	*4.4*
	SLAs and their unions	*0.8*	*0.8*	*0.7*	*0.8*	*0.8*	*0.6*	*0.6*	*0.6*	*0.7*	*0.7*
Financial Supervisory Authority	*Insurance companies*	*1.5*	*1.6*	*1.7*	*1.9*	*2.1*	*2.1*	*2.1*	*2.1*	*2.2*	*2.6*
	Pension funds	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*
	Investment funds		*1.2*	*3.9*	*4.8*	*5.0*	*4.7*	*5.0*	*4.5*	*4.3*	*4.4*
Financial intermediation		***93.1***	***98.6***	***103.8***	***108.2***	***108.0***	***111.0***	***110.3***	***106.9***	***107.2***	***111.6***

Based on its functions and considering the dominant share of the banking sector in the overall activity of the financial system, the Bank of Albania finds itself in the natural position of being the public authority in charge with the implementation of MPP. The Law "On the Bank of Albania" and provisions in other laws provide the right of Bank of Albania to exercise its functions independently, in order to fulfil the objectives efficiently. The Bank of Albania applies the same principle of independence to the implementation of MPP, recognising at the same time the importance of transparency, accountability and cooperation with other authorities to mitigate systemic risks and safeguard financial stability.

3.2 Other Albanian authorities with contribution in financial stability

In the Albanian legal framework, the Financial Supervision Authority (FSA) is responsible for regulation and supervision of non-bank financial institutions, including insurance companies, investment funds, pension funds, stock exchanges and brokerages. The Deposit Insurance Agency (DIA) is responsible to manage and use the deposit guarantee fund, when Bank of Albania determines that it should pay out the insured depositors of a failed bank. In order to do this, the Agency manages an up-to-date and detailed information database on insured deposits of each

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the Republic of Albania", as amended (hereinafter, the Banking Law); and the Law no. 133/2016, dated 22.12.2016 "On the recovery and resolution of banks in the Republic of Albania".

[5] The Banking Law, Article 66/1.

[6] The Law No. 9572, dated 03.07.2006 "On Financial Supervisory Authority", as amended, Article 30. The members of the FSAG signed the Memorandum of Understanding on 10.03.2014.

bank, and needs to be ready to pay the insurance fund for eligible deposits when called upon. The Ministry of Finance has a genuine interest and plays a critical role for the development of financial markets in Albania. It can affect the activity of such markets directly through its budget financing operations and indirectly through legal acts it adopts regarding its activities on public revenues and expenditures or, more broadly, regarding the economic activity of businesses and households.

The cooperation between the Bank of Albania, the Ministry of Finance, the FSA and the DIA is realized mainly through the participation of these institutions in the Financial Stability Advisory Group (FSAG). This forum serves as an appropriate platform to exchange information, discuss the assessments on financial stability and the relevant risks, conduct impact assessments and coordinate attitudes related to actions or other issues relevant for MPP.

In addition to this, the Bank of Albania encourages bilateral relations also thorugh the implementation of cooperation agreements with the other regulatory agencies in order to urge their contribution in taking measures for risk mitigation in the segments of the financial system they directly supervise. Bank of Albania also communicates with the banking industry about its MPP positions for the purposes of risk assessment, instruments' calibration and their effective implementation.

3.3 Cross-border collaboration

The presence of foreign banks and non-bank financial institutions, as well as their significant share in the Albanian financial system, underline the need for cross-border cooperation. In the Albanian banking sector, banks with origin in the European Union account for more than half of the share of total assets and contribute with a similar figure to financial intermediation. In accordance with the needs, as well as the space that exist in the legal definitions of the relevant jurisdictions, the Bank of Albania seeks cooperation with the relevant European macro-prudential authorities. This space is expected to expand and increase the obligations of the parties, along the process of integration of Albania in the European Union. The principles of bilateral interest and the legal requirements will also facilitate the cooperation with other foreign authorities in the framework of MPP implementation.

3.4 Internal decision-making process in Bank of Albania

The implementation of MPP relies upon effective decision-making and communication process on the use of macro-prudential instruments. This process is informed upon the availability of relevant quantitative and qualitative information. The relevant structures of the Bank of Albania analyse risk developments based on the trend and levels of the relevant indicators and the experience with the use of the instruments. In this phase, legal issues and the interaction of macro-prudential actions with other policies are also assessed.

The structures of the Bank of Albania involved in more direct and sequential manner in the implementation of the MPP include:

- *the Financial Stability Department* which monitors the systemic risk indicators, develops the methodologies of its assessment and the operationalization of macro-prudential instruments, proposes the instrument and the way it should be implemented to the Financial Stability Advisory Committee, monitors the impact of the measure, prepares reports and analyses on the trend of systemic risks and the assessment of the stability of the financial system;

- *the Financial Stability Advisory Committee* which assesses the trend of systemic risks, selects the macro-prudential instruments to be implemented, monitors the coordination of relevant discussion within the institution and the preparation of legal or sub-legal acts necessary for the implementation of the instrument, formulates the macro-prudential positions for the Governor or the Supervisory Council;

- *the Governor,* who communicates the position of the Bank of Albania on systemic risks and the stability of the financial system, and decides on the implementation of the designated macro-prudential instruments;

- *the Supervisory Council,* that takes into consideration and approves the reports and analysis of the Bank of Albania on the assessment of the financial stability situation, is informed about how the MPP is implemented, and approves the various sub-legal acts necessary for the implementation of the relevant instruments of MPP.

The assessment of the impact of the implemented macroprudential instruments must be performed regularly to better understand the transmission mechanism and the impact. This process includes the assessment of the degree to which objectives have been met, the impact of the instrument and whether there have been any unintended second-round effects or activities aiming to bypass it.

IV. Identification and assessment of systemic risk

MPP decisions are taken upon analysis of systemic risk developments. Systemic risk is assessed based on quantitative and qualitative information that is collected and organized by Bank of Albania. Several process are put in place to organize and analyse such information.

4.1 The quantitative assessment: quality of data

In order to support macroprudential analysis, a comprehensive set of quantitative data is collected from banks through regular financial reports. In addition, data are gathered within Bank of Albania through shared information among relevant policy areas and access to statistics produced internally.

Developments in the non-bank financial sector can also be relevant for financial stability. For example, the investment fund industry in stress periods could suffer from liquidity stress episodes and volatility in the securities markets. This could propagate through the financial system especially when investment fund industry is sizeable, with a significant level of interconnectedness and the framework for liquidity provision to this industry in stressful situations is inadequate or is missing. In Albania, this segment of the financial system is under the remit of FSA. The Bank of Albania is collaborating with the FSA to improve the availability and quality of data on investment funds, where structured data on redemptions, composition of investments, compliance with liquidity requirements, represent the minimum level of the necessary information.

MPP also looks at the developments in the real economy. To this end, more qualitative information is collected from direct communication with supervised entities, close following of reports issued by Institute of Statistics (INSTAT) and regular surveys with economic agents. For example, in order to get better information from hoseholds and businesses, through the technical support of INSTAT, Bank of Albania resorts to semmiannual surveys on the Financial Situation of Households and Non-financial Corporations. Furthermore, worldwide experience has demonstrated the importance of developments in the real estate market for financial stability due to the unique role that the real estate plays as an asset that can generate (when used as collateral) and attract (when used as investment target) financing from banks and the rest of the financial system, involving both households and businesses. This connection can end up propagating risks to financial stability arising from unsustainable developments that may warrant correction and result in losses to involved parties. The Bank of Albania can directly monitor developments in mortgages and, in a proactive manner, has developed a semiannual survey[7] focusing on the residential real-estate (RRE) market, which allows for the construction of RRE price index. Although necessary to reach a sound assessment on relevant developments in this market, more is needed to account for the complexities surrounding the relationship between finance and real estate. In this regard, cooperation with other authorities is needed to expand and improve the data quality (for example, by having access to real-estate market data from state administrative agencies) and develop a national and comprehensive index for prices in real estate market for both residential and commercial real estate. Such cooperation may require a clearer legal support and could be facilitated by specific interinstitutional agreements or memorandums of cooperation.

Having better quality data allows for timely identification of systemic risk distribution in the financial system and improve the scope of MPP.

4.2 The qualitative assessment

Ensuring good data is a perpetuating effort. But having good data and information, although necessary, may prove not sufficient to implement effective economic policies. The data must be interpreted correctly. In order to achieve this, experts must seek and apply a broader view that includes verifying and testing the quality of data, comparing the current information with historic trends, substantiate it with similar developments in other jurisdictions or local markets, assess whether the data show a cyclical pattern or a structural change, find solid reasons that mostly explain them, assess whether a response is warranted and how to design it. More intelligence is

[7] The survey (in Albanian) is published at BoA website: https://www.bankofalbania.org/Stabiliteti_Financiar/Analiza_dhe_studime/Vrojtime/

gathered through dialogue with industry, other domestic and foreign authorities, and international financial institutions.

At the Bank of Albania a process is in place to ensure the quality of data and draw on comments and opinions from several areas which help when drafting macroprudential analysis and relevant reports. The same is true also for assessing the impact and the need of revision of macroprudential measures. The process allows for discussions at both technical and management level. It is understood that through this process the macroprudential analysis is enriched and the decision-making process is improved.

4.3 The role of stress tests in the Bank of Albania's macroprudential framework

Central banks and bank supervisors rely on stress tests as a supervisory and macroprudential tool to help determine and assess potential sources of vulnerabilities and risks in financial institutions, in the event of a severe change in the macroeconomic setting or other exceptional but plausible situations (tail risk). Stress tests provide a framework for both (1) assessing the resilience of individual banks and the banking system and (ii) quantifying their capital needs. In addition, stress-tests may serve as a pre-emptive supervisory tool to encourage banks to identify vulnerabilities and develop risk mitigation plans.

Mainly, stress tests can be designed in two ways. The first one is the 'bottom up' approach, where bank's supervisor will set up the adverse scenario(s) and the bank will estimate the impact of such scenario(s) on its balance sheet, including on its capital. The second approach is the 'top down' one, where the supervisory authority runs the entire process based on the selected scenarios, applicable models and the data regularly collected by banks.

Bank of Albania is running both bottom-up and top-down stress-tests for solvency risk, and also liquidity stress-test for liquidity risk. Currently, the bottom-up stress-test is done annually and involves 5 banks that account for around 65% of total assets of the banking sector. Bank of Albania provides to participating banks the shocks to macroeconomic variables and to variables related to credit risk and market risk (exchange rate, interest rates), as well as other relevant methodological information. Banks are expected to asses the impact of such shocks on their financial performance and their capital position. A summary of results of the stress-test is shared within Bank of Albania with relevant departments (Supervision and Resolution departments).

In addition, Bank of Albania also performs top-down stress-tests and sensitivity analysis, including for each bank, every quarter. For top down stress-test shocks to macroeconomic indicators are provided by the Monetary Policy, Monetary Operations department and the Research department. Through a financial model, the macroeconomic shocks are translated to shocks in credit and market indicators, which later impact the level of financial performance and capital of banks. Results of the stress test are shared with other relevant departments, and a summary is published in the Financial Stability Report. Sensitivity analysis which assess banks sensitivity to predetermined shocks in non-performing loans, exchange rate and interest rate, and a combination of all, is also run regularly and shared similarly within the bank.

Liquidity risk stress-test is run annually with all banks. In this exercise, banks report to Bank of Albania assets and liabilities, in relevant currencies, divided by pre-determined maturity buckets, as well as respective incoming and outgoing flows and the level of liquid assets in relevant currencies. For the purpose of stress-testing, Bank of Albania assesses the extent to which the bank is capable of coping with shocked outgoing flows, given its adjusted contractual inflows or additional use of its counterbalancing capacities (assets with maturity over 12 months that it can liquidate if needed). Again, the results are shared with relevant departments in the bank but are not published.

Bank of Albania may conduct more stress-tests as and when necessary. More recently, Bank of Albania is working toward developing the stress-testing framework for contagion risk arising from interconnectedness between banks and other non-bank financial institutions and combine them with a single top-down solvency one.

4.4 Bank of Albania's macroprudential heatmap

In order to assess developments of the systemic risk in the financial system and the economy and to inform macroprudenial decisions, during 2018 the Bank of Albania developed a list of quantitative indicators covering the first 4 intermediate objectives.

Selected indicators related with the risks arising from *excessive credit growth and leverage* (first intermediate ovjective) include growth parameters of bank credit, the weight of stock bank credit to Gross Domestic Product (GDP) and the deviation of this ratio from its long-term level (credit-to-GDP gap). The focus is on credit granted by banks to private sector (households and businesses), as this is the dominant channel of credit creation in Albania. Furthermore, other indicators related with the sectoral and currency composition of credit are selected. The intention is to understand and identify which of the sectors is providing the main contribution to the potential excessive credit growth, and then tailor possible correcting measures. Last but not least, selected indicators refer to the performance of the real estate market. It is well recognized in literature that growth in real estate markets is very often financed with bank credit. When such growth turns out to be unsustainable, credit quality turns souer and translates in bank losses. In order to understand developments in the real estate market, the Bank of Albania has developed and monitors a specific price index for residential real estate, as well as the trends of bank credit for real estate.

As to the second intermediate objective related with risks arising from *maturity mismatches and market illiquidity*, the selected indicators monitor changes in the level of liquid assets as well as in maturity gaps between assets and liabilities. The adequacy of liquid assets is assessed against the short-term liabilities of the banking sector, and is calculated according to domestic and main foreign currencies. Given that the liquidity position of banks depends also on the availability of eligible unpledged assets they can be used as collateral to procure liquid funds, this indicator is included in the monitoring list. Maturity gaps between assets and liabilties on various time brackets (short-to-medium term) are collected regularly from banks in order to assess how the gaps are developing and the extent to which the value of liquid assets could cover the value of net contractual flows (if necessary). The feature of 'liquidity' for any liquid asset will depend on the depth and competitiveness of the market where such asset is issued and traded. In this case selected indicators focus on the parameters of the foreign exchange and money markets, where currency can be exchanged or securities can be traded. The level of exchange rate spreads or of the interest rates on securities transactions (captured on repurchase agreements or trades in the secondary market) are of particular relevance in this case.

Selected indicators for the third objective aim at providing signals for risks arising from *direct and indirect concentrations of bank exposures*. Such concentrations are monitored versus bank solvency parameters, other non-bank financial institutions, economic sectors, foreign jurisdictions, different currencies and big economic entities. When comparing such concentration of exposures versus bank solvency parameters, the focus is on their size versus various capital and balance sheet elements, and how it complies with existing regulatory requirements. The level of exposure concentrations versus other elements, are usually assessed versus historical average levels.

The forth objective deals with possible risks arising from *the dominant position of the banking sector in the economy and the financial market*. The more dominant the position, the higher the contribution banks give to systemic risk and the need to prevent and manage such risks. The selected indicators for this objective include those that provide information on the position of total assets of banks in relation to GDP, to total assets of the financial system, or others that indicate how concentrated is the activity of systemically important banks and of the banking sector as a whole.

For each selected indicator in each of the intermediate objectives, warning thresholds were identified based on historical trends or using appropriate statistical methods. These thresholds would serve as signaling levels for the increase/decrease of systemic risk, and possibly as trigger points for the activation/deactivation of macroprudential instruments.

The indicators allow for the construction of the Macroprudential Heatmap which represents a color-coded tool informing for the level of systemic risk with a 'point-in-time' or 'through-the-cycle" perspective. The 'point-in-time' approach provides for the current level of selected indicator and allows for the assessment of its change on the last 6 and 12 months.

Table 2: 'Point-in-time' representation of the Macroprudential Heatmap

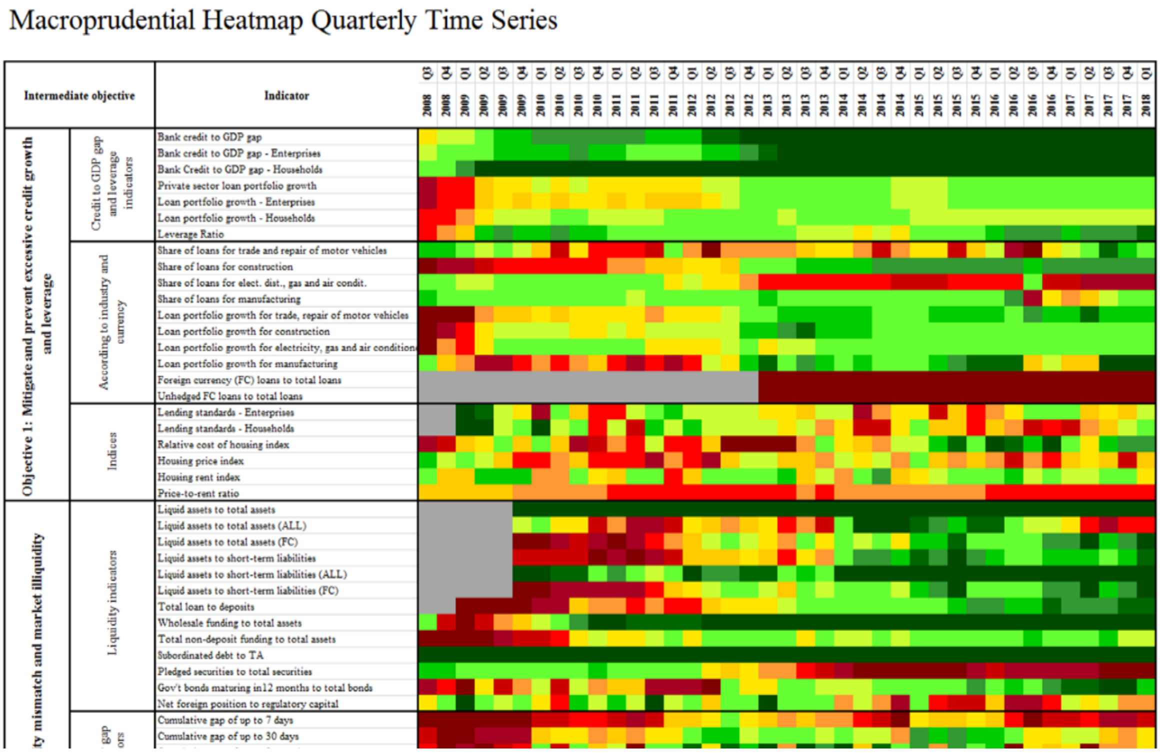
Macroprudential Heatmap

>1.5 SDs below	>1.0 SDs below	>0.5 SDs below	>0.5 SDs above	>1.0 SDs	>1.5 SDs

		Indicator	Threshold	Risk level	Latest observation	Latest observation date	Change since 6 months ago	Annual change
Objective 1: Mitigate and prevent excessive credit growth and leverage	Credit to GDP gap and leverage indicators	Bank credit to GDP gap	Literature, fixed at 2 pps		-11.6 pps	Mar-18	↓ -1.1 pps	↓ -1.5 pps
		Bank credit to GDP gap - Enterprises	Literature, fixed at 2 pps		-9.2 pps	Mar-18	↓ -1.1 pps	↓ -1.6 pps
		Bank Credit to GDP gap - Households	Literature, fixed at 2 pps		-2.3 pps	Mar-18	↓ 0.0 pps	↑ 0.1 pps
		Bank credit to GDP	No threshold		38.4%	Mar-18	↓ -1.5 pps	↓ -2.1 pps
		Bank credit to GDP - Enterprises	No threshold		26.2%	Mar-18	↓ -1.5 pps	↓ -2.2 pps
		Bank credit to GDP - Households	No threshold		12.2%	Mar-18	↓ 0.0 pps	↑ 0.1 pps
		Private sector loan portfolio growth	Expert judgment, fixed at 10%		-1.4%	Mar-18	↓ -2.1 pps	↓ -3.7 pps
		Loan portfolio growth - Enterprises	Expert judgment, fixed at 10%		-4.2%	Mar-18	↓ -3.2 pps	↓ -5.8 pps
		Loan portfolio growth - Households	Expert judgment, fixed at 10%		5.1%	Mar-18	↑ 0.4 pps	↑ 1.1 pps
		Leverage Ratio	Historical average		9.2%	Mar-18	↑ 0.2 pps	↑ 0.5 pps
	According to industry and currency	Share of loans for trade and repair of motor vehicle	Historical average		33.3%	Mar-18	↑ 0.8 pps	↓ -0.4 pps
		Share of loans for construction	Historical average		12.7%	Mar-18	↓ -0.2 pps	↓ -0.1 pps
		Share of loans for elect. dist., gas and air condit.	Historical average		14.3%	Mar-18	↑ 0.2 pps	↑ 0.8 pps
		Share of loans for manufacturing	Historical average		14.6%	Mar-18	↓ -0.9 pps	↓ -2.2 pps
		Loan portfolio growth for trade, repair of motor vel	Historical average		-3.1%	Mar-18	↓ -0.9 pps	↑ 1.9 pps
		Loan portfolio growth for construction	Historical average		-2.4%	Mar-18	↓ -0.9 pps	↑ 3.1 pps
		Loan portfolio growth for electricity, gas and air co	Historical average		3.8%	Mar-18	↓ -1.2 pps	↑ 2.9 pps
		Loan portfolio growth for manufacturing	Historical average		-14.9%	Mar-18	↓ -4.7 pps	↓ -26.2 pps
		Foreign currency (FC) loans to total loans	Literature, fixed at 36%		55.9%	Mar-18	↓ -1.2 pps	↓ -2.5 pps
		Unhedged FC loans to total loans	Expert judgment, fixed at 0%		24.4%	Mar-18	↓ -1.4 pps	↓ -2.2 pps
	Indices	Lending standards - Enterprises	Historical average		-7.6	Mar-18	↓ -3.2 pt	↑ 4.3 pt
		Lending standards - Households	Historical average		-4.4	Mar-18	↓ -10.3 pts	↓ -23.0 pts
		Relative cost of housing index	Historical average		65.6	Mar-18	↓ -9.9 pts	↓ -17.2 pts
		Housing price index	Historical average		161.3	Mar-18	↓ -2.8 pts	↓ -2.0 pts
		Housing rent index	Historical average		79.3	Mar-18	↑ 6.5 pts	↑ 2.3 pts
		Price-to-rent ratio	Historical average		2.2	Mar-18	↓ 0.0 pts	↓ -0.1 pts
	indicators	Liquid assets to total assets	Expert judgment, fixed at 20%		31.9%	Mar-18	↑ 2.8 pps	↑ 0.8 pps
		Liquid assets to total assets (ALL)	Historical average		40.4%	Mar-18	↑ 1.8 pps	↓ -2.1 pps
		Liquid assets to total assets (FC)	Historical average		25.3%	Mar-18	↑ 3.3 pps	↑ 2.4 pps
		Liquid assets to short-term liabilities	Historical average		43.1%	Mar-18	↑ 4.2 pps	↑ 2.6 pps
		Liquid assets to short-term liabilities (ALL)	Expert judgment, fixed at 40%		53.4%	Mar-18	↑ 4.0 pps	↑ 2.6 pps
		Liquid assets to short-term liabilities (FC)	Historical average, plus 1 st. dev.		34.8%	Mar-18	↑ 4.3 pps	↑ 3.0 pps

The 'through-the-cycle' approach provides a long-term view on the development of the selected indicator(s), allowing for a better assessment on the cyclical and structural changes of the banking and economic activities as well as for the need of a MPP response.

Table 3: 'Through-the-cycle" representation of the Macroprudential Heatmap



The list of systemic indicators is to be reviewed regularly, to make sure the indicators remain relevant for monitoring the developments of systemic risks. The analysis of the selected indicators and the Heatmap is currently an internal document of the Bank of Albania which is produced every 3 months. Bank of Albania will aim to publish a summary of the analysis in the near future.

4.5 New sources of systemic risk: fintech and climate change

In the last years, opportunities and risks stemming from increasing use of information technology on the provision of financial services (Fintech) and those arising from climate change are attracting stronger attention from the financial industry and the supervisors. By progressing with the adoption of Fintech, the financial industry aims at becoming more efficient while the supervisors may want to achieve additional objectives like better access of the public to financial and payment services, at potentially lower costs. On the other hand, Fintech may bring important risks associated with the adoption and the use of new technologies and new instruments which rely on a significantly less formalized cyber environment. In addition to financial and knowledge investments, the financial industry must adopt new procedures that transform the way financial services are provided for customers and ensure their safety. In parallel, the supervisors must build a regulatory framework to ensure that Fintech opportunities and risks are well-understood and managed by the financial industry, and that the consumer is provided with the Fintech services in a transparent and safe manner.

Climate change seems like a more distant challenge for the financial industry in Albania. However, the country has experinced situations related with climate events like flooding and droughts before that provide an initial information on what could be the scale of the impact should such events increase their frequency and severity in the future. Although the exposure is expected to be larger in the insurance industry, other segments of the financial system are not immune. It is very plausible that in extreme situations, adverse climate events may cause havoc in the economy and produce significant stress or even systemic concerns for the financial industry.

Bank of Albania intends to dedicate more attention to both issues. Currently, we are communicating with the banking industry and monitoring developments regarding the extent of the adoption of Fintech services. Although we have not faced particular challenges from this process so far, we are mindful that the process has the potential to develop fast and requires sufficient knowledge, flexibility and the ability to manage it effectively. Opportunities and risks arising from Fintech and from climate change can be managed adequately only based on the effective cooperation among all the regulators. In this regard, Bank of Albania will support initiatives to improve cooperation with the FSA and the Government on these topics.

V. Implementation of macroprudential policy in Albania

When it comes to the implementation of the MPP, the Bank of Albania is focused on: a) understanding MPP and determining Bank of Albania's role in this policy area; b) strenghtening the framework for the assessement of systemic risk; c) building the framework for the adoption of MPP instruments/tools; d) developing impact assessment capacities on MPP instruments that can be used.

5.1 Strategy of Macroprudential Policy

Bank of Albania's Strategy[8] document on MPP, adopted in August 2017, offers an overall operational framework for the implementation of the MPP. More specifically, the Strategy aims at:

a) linking the ultimate objective of MPP with the intermediate objectives and macro-prudential instruments;
b) establishing a sound framework for the application of macro-prudential instruments, including the indicators to monitor the performance of systemic risk and guide decisions related with the application, recalibration or deactivation of macro-prudential instruments;
c) explaining the decision-making process, as well as the process of inter-institutional and public communication at the Bank of Albania, regarding MPP implementation.

5.2 Intermediate objectives and policy tools

Macro-prudential instruments used to address the overall spectrum of systemic risk, can be divided in two groups:

a) Capital and liquidity instruments, that operate by improving the resilience of bank balance sheets, in the case of structural capital requirements, and helping to maintain bank credit supply in unfavourable economic conditions, in the case of countercyclical requirements. Countercyclical capital buffer and intruments to expand the stock of liquid assets, like requirement on Liquidity Coverage Ratio, are examples of such instruments;

b) *Other instruments,* that mostly operate by improving the resilience of borrowers, typically households. Examples include limits on credit, such as maximum levels on "loan value/collateral value" (LTV) ratio, on "debt service/to income" (DSTI) ratio, or "loan value/to income" (LTI), which aim to strengthen the stability of borrowers against unfavourable shock in asset prices and income, and indirectly positively affect the stability of banks, through increased payment discipline.

The Bank of Albania has under its direct control one or more instruments for each intermediate objective of MPP for the banking sector identified in line with the Recommendation ESRB/2013/1. The table below shows a non-exhaustive and amendable list of instruments that may be used, their transmission channels and the way they are assigned to various intermediate objectives.

[8] https://www.bankofalbania.org/Financial_Stability/Macro-prudential_policies/Macro-prudential_strategy/

Table 4: Macroprudential instruments to achieve the intermediate objectives

Intermediate objective	***Instruments[9]***	***Transmission channels***
Mitigation and prevention of excessive credit growth and borrowing	**Countercyclical capital buffer (CCyB)**	Increases the resistance of banks; it may decrease the credit growth rate because of the higher funding costs, depending of the phase of the financial cycle;
	Changes of the coefficient risk for risk-weighted assets	Limits excessive credit growth (overall and sectorial), by preventing risks; increases the capacity of banks to absorb losses.
	Limits on: - "loan value/collateral value" ratio (LTV); - "loan value/income" ratio (LTI); - "debt service/income" ratio (DSTI);	Sets direct limits on lending; strengthens the resistance of borrowers (decreases probability of default – LTI, DSTI) and banks (decreases the loss given default, LTV), mitigates the pro-cyclicality in credit for real estate (LTV); mitigates the fast growth of consumer credit (DSTI), for example loans for vehicles or those financed with credit card;
	Imposition of capital buffers for systemic risk	Increases the capacity of banks to absorb losses; it may affect the financial cycle trend through the increase of funding costs;
	Imposition of the leverage ratio	Limits unsustainable borrowing in banks; it acts as a security mechanism against the complexity of assessing risk weighted assets.
Mitigation and prevention of excessive maturity mismatch and market illiquidity.	**The change of the reserve requirement rate[10]**	Increases the resistance of banks and improves the liquid assets composition, including by currency;

[9] In bold, are those instruments for which Bank of Albania has prepared the regulatory framework or has implemtented them, as of the date of publicatin of this document.

[10] The reserve requirement rate is an instrument traditionally used for monetary policy purposes. Because of the impact it has on the decrease of liquidity risk and the improvement of the resistance of the banking sector, in this case it is included as an instrument of macro-prudential policy.

	Change in minimum level of liquid assets and on their composition; Limits in the "credit/deposit" ratio; **Adoption of the "liquidity coverage" ratio (LCR)** and "net stable funding" ratio (NSFR)	Limits the duration gap; limits the use of unsustainable forms of funding; Strengthens the funding basis of banks, against stressed outflows; may affect the financial cycle if demands cause the need to move towards liquid assets.
Limitation of direct and indirect exposure concentrations	**Systemic Risk Buffer (SyRB)** [present in the legal framework but currently not yet activated] **The imposition of limitations or capital requirements for large exposures (by counterparty, sector, currency, geographic location)**	Increases banks capability to absorb losses; increases the funding costs and limits concentrations Increases the resistance of banks against risk (strengthen their capacity to withstand losses).
Limitation of excessive risk taking by systemically important financial institutions.	**Imposition of capital buffers for banks with systemic importance**; the imposition of more specific requirements for liquidity risk	Decrease the probability and size of the impact of the failure of banks with systemic importance; strengthens the resistance of banks

The extensive number of instruments allows for them to be used pre-emptively and in a specific manner, alone or in combination (multi-pronged manner) to realize any single objective.

If Bank of Albania's surveillance and impact assessment identify a material systemic risk that could adversely impact the financial stability, Bank of Albania will take policy action (use macroprudential tools) to mitigate the risk or build resilience against it. Surveillance and impact assessment will continue afterwards to review the effectiveness of the policy tools and monitor if there are any unintended consequences. Where necessary, policy adjustments will be made to improve policy outcomes. This continuing monitoring process is also necessary to identify new or emerging risks and vulnerabilities.

5.3 Macroprudential instruments implemented at the Bank of Albania and future work

The regulation no. 41/2019 "On macroprudential capital buffers"[11] introduced in the Albanian legal framework the Capital Conservation Buffer (CCoB), the Countercyclical Capital Buffer (CCyB), the buffer for systemic banks (O-SII) and the Systemic Risk Buffer (SyRB). All these buffers will be held

[11] https://www.bankofalbania.org/Financial_Stability/Macro-prudential_policies/Instruments_of_Macroprudential_Policy/test/

in instruments of Core Equity Tier 1 capital (CET1), applied as "additions" to mandatory capital requirements, namely 'Pillar I + Pillar 2 + MREL' and expressed in percent of Risk Weighted Exposures.

The Bank of Albania has started to apply macroprudential capital buffers in accordance with the regulation and has published methodologies for implementing countercyclical capital buffer[12] and capital buffer for systemic banks[13].

Except for the level of the CCoB that is determined by the regulation[14], all other buffers are announced through a decision of the Governor. The buffer level should be met no later than 6-12 months from the announcement date when increasing or in less than 6 months (including immediately) when releasing. Starting from end of June 2019, the Governor has issued quarterly decisions for the CCyB[15]. On March 2020 banks have officially reported for the first time the extent of capital buffer fulfillments. The regulation foresees that maximum levels of capital buffers as set in the regulation will be reached[16] by January 2024 at the earliest.

The regulation determines the concept of the combined capital buffer as the ratio between net available capital and the combined buffer requirement. This ratio should have a value of at least 100%. The level of the ratio should be reported to Bank of Albania by banks every quarter by the end of March, June, September and December.

In addition, the regulation determines the relation between the combined buffer and the payment distribution and what happens when, due to the payment distribution, the bank is at risk of no longer meeting the combined buffer ratio or deepening its deficit. In such situations, the bank has to consult the Bank of Albania in advance, provide all the requested information and present a plan to recover the capital position. Bank of Albania still holds the right to overrule any bank decision and completely refuse any payment distribution.

5.3.1 Implementation of the CCyB

The Countercyclical Capital Buffer (CCyB) aims at promoting a sustainable provision of credit to the economy by making the banking system less pro-cyclical and more resilient. To this aim, the CCyB should be built in times of excessive credit growth in order to reduce banks' procyclical behaviour, and released in times of stress allowing banks to use the buffer to absorb losses and at the same time reducing the risk of a credit crunch.

The regulation requires the CCyB for Albania to be set by the Bank of Albania, based on selected indicators which fairly reflect the Albanian credit cycle and include, without limitation, the "ratio of credit to GDP gap" as the main reference indicator. The CCyB should normally have a value between

[12] Same link as above.
[13] Same link as above.
[14] The regulation also determines CCoB levels for the period 2020-2024. It starts at 0.5% from March 2020, and then, growing each year by 0.5%, it should be 2.5% from January 1st, 2024. The buffer level should be met no later than 6-12 months from the announcement date.
[15] All decisions of the Governor are published in the Bank of Albania website, along with respective justifications.
[16] This is the case for CCoB, while maximum levels for CCyB and for capital buffer on systemically important banks, will depend on the trends of the financial cycle and banks's marks on systemic importance.

0-2.5% (unless a higher figure is justified by Bank of Albania) and its level should be assessed quarterly. The regulation also determines the way institution-specific CCyB is calculated: each bank has to identify relevant credit exposures in Albania and foreign jurisdictions, and apply the CCyB rate in all these jurisdictions. Normally, the CCyB rate for a particular jurisdiction is the one announced by the macroprudential authority of that jurisdiction however, in case of acute risks arising from exposures on that particular foreign jurisdiction, the Bank of Albania has the right to apply a higher CCyB rate under certain conditions.

As required in the regulation, the Bank of Albania prepared the methodology for the implementation of CCyB. This methodology explains in detail the calculation of the 'credit-to-GDP gap' as primary buffer guide, the contribute of the 'complementary early warning indicator' as the secondary buffer guide, other information that supports the expert judgement regarding the calibration of the CCyB, as well as other issues related with the communication of the CCyB. The methodology is published on the Bank of Albania website.[17]

5.3.2 Implementation of the O-SII buffer

The macroprudential capital buffer for systemically important banks (O-SII) aims at preventing the building up of systemic risk arising from misaligned incentives and moral hazard linked to the 'too-big-to fail' issue. It applies only to most relevant banks, which are identified based on factors that include size, interconnectedness, substitutability and complexity.

When classifying the systemically important banks, the Bank of Albania uses 5 baskets: for banks falling in the first basket the O-SII buffer will be 0.5% (increasing linearly by the same step and with a transitional phase ending in 2023), while for banks falling in the fifth (open) basket the O-SII buffer can be as high as 3% (starting from 1st January 2024).

As requested by the regulation, Bank of Albania developed the methodology for the determination of systemically important banks and the respective O-SII buffer, and published it on its website[18]. The methodology determines what factors are considered for identifying systemic banks, and describes the calculation of the Systemic Importance Mark (SIM) for each bank. The distribution of SIMs allows for the calculation of its systemic threshold and of boundary values for each of the 5 systemic baskets. Finally the range of O-SII buffer (from 0.5% to 3%) is mapped to the 5 baskets.

The determination of the systemically important banks and their respective O-SII buffers is done once a year, during the first quarter.

5.3.3 Implementation of the Systemic Risk Buffer

The regulation defines the scope and purpose of the systemic risk buffer (SyRB). Given that the international experience with the systemic risk buffer is still limited, the approach of the regulation is to maintain flexibility on its potential use, although keeping its scope on structural systemic risks. The SyRB can be applied to part or the entire list of banks, to part or all the local or foreign

[17] https://www.bankofalbania.org/Financial_Stability/Macro-prudential_policies/Instruments_of_Macroprudential_Policy/test/
[18] Same link as above.

exposures of a bank, at same or different level among banks. For systemically important banks, the SyRB will be applied if Bank of Albania assesses that structural risks are not sufficiently dealt with the O-SII buffer. When the SyRB is applied to systemically important banks, the amount of 'O-SII + SyRB' should not exceed 4% of risk weighted exposures. The SyRB should have a minimum level of 1% and increase in multiples of 0.5% with a maximum level of 3%, to be reached no earlier than 1st January 2024. The SyRB shall be normally announced during the first quarter of the year, and be reviewed at least every two years.

Work on how to implement the SyRB is ongoing at the Bank of Albania.

5.3.4 Liquidity Coverage ratio (LCR)

Regulation no. 27 of March 28, 2019, "On Liquidity Coverage Ratio" provides the framework for the LCR, which is under the remit of the Supervision Department. The LCR is set at a minimum of 100% in total and at a minimum of 80% for all significant foreign currencies[19]. The ratio represents the ratio of liquidity buffer (Level 1 + Level 2 assets) to net liquidity outflows during a distressed period of 30 days. Banks are required to set internal limits in their internal policies and procedures for LCR in *lek* and each significant foreign currency and to report in the Bank of Albania on a monthly basis for monitoring purposes.

On a solo basis, banks have to comply with the minimum level of LCR starting from March 1, 2020, with some transitory period beyond that for total foreign currency indicator. On a consolidated basis, banks have to comply with the minimum level of LCR (total and foreign currency) from January 1, 2022.

5.4 Combination of different macroprudential instruments

Within macrorudential policy, it is understood that combining different macroprudential instruments to achieve a certain objective could be beneficial in terms of efficiency and effectiveness. It can improve the scope of MPP and accelerate impact of applied instruments by, for example, reducing the possibility of circumvention by subject entities. On the other hand, if not carefully evaluated, the combination of different macroprudential instruments can cause excessive impact and/or other undue externalities.

In order to avoid this, it is necessary to carefully map the objective with the right instruments, have a solid understanding of the transmission channels of the selected measures, ensure proper calibration of instruments and pay attention to correct timing of implementation. Market behavior should be guided through good communication on implementation and expectations and a sufficient monitoring system should be in place. Finally, the implementing rules should support quick or automatic adjustment mechanisms that would reduce probability or extent of adverse impact and allow for correction in due time.

[19] Significant foreign currency is considered the currency where liabilities in that currency represent more than 5% of total liabilities of the bank.

5.5 Future work

Bank of Albania intends to work on expanding and improving its macroprudential toolkit, in parallel with financial market and risk developments. In this regard, the shorter term focus is on operationalizing the SyRB and building the regulatory framework for the use of borrower-based instruments such as the LTV and DTI limits.

As to the SyRB, Bank of Albania will take note of recent changes introduced as the part of the CRD V and work for amending regulation 41/2019 to increase flexibility in the usage of SyRB. If necessary, a methodology for implementing the SRB will be adopted.

Regarding borrower-based measures, Bank of Albania aims at establishing the main framework that would allow for their use if need arises. This should allow to better address possible risks arising from the interaction between finance and developments in the real-estate markets. As a preparatory step, Bank of Albania has started to collect data on the practices of banks regarding the current use of such instruments. This will help with the determination of limits and threshholds when these instruments are implemented.

5.6 Interaction of policies in Bank of Albania

When combining instruments to address different objectives pertaining to different economic policies, attention should be given to the way such policies interact in the various phases of the financial/business cycle. At the Bank of Albania procedures are in place to ensure cooperation between respective policy areas.

The interaction between MPP and monetary policy is unavoidable, necessary and occuring all the time. At the Bank of Albania, this interaction is facilitated by the participation of a representative of each department in both the Monetary Policy Advisory Committee and the Financial Stability Advisory Committee. The goal is to make the decisionmaking of Bank of Albania on the respective areas of policy as informed as possible based on the timely and regular exchange of relevant information on how policies could interact in achieving Bank of Albania’s targets. The cooperation between the Financial Stability Department and Monetary Policy and Research functions of the Bank of Albania is also occurring regularly during the stress-testing exercise. Usually, Monetary Policy and Research departments have high expertise in developing relevant macro-economic scenarios based on advanced modelling capabilities. Through the resort to specific models, these scenarios are used by the Financial Stability Department to translate them in shocks to the activity of the banking sector, with the purpose of assessing the latter’s resilience.

The interaction and coordination with microprudential supervision occurs as part of the Financial Stability Advisory Committee proceedings or directly. Representatives of both departments participate in joint working groups established to perform specific analysis or to develop regulatory acts. Opinions are required and exchanged regularly on topics that are of mutual interest and relevant to financial stability objectives. Access to similar datasets is carefully considered and currently ensured. Examples of close cooperation among the two areas include measures that affect the capital position of banks and the interaction between requirements on regulatory capital and macroprudential capital buffers.

Bank of Albania is the resolution authority for banks that operate in the country, and a specific department is responsible for preparing and implementing the framework. Cooperation with the Resolution function is facilitated by the fact that the Resolution department is also a member of the Financial Stability Advisory Committee. In addition, joint working and permanent groups among Supervision, Resolution and Financial Stability departments operate to provide solutions to issues that concern each of the parties.

Regarding the interaction of macroprudential policy with fiscal policy, this is common in several directions that include providing access to government data that are relevant for assessment of systemic risk and also enhancing effectiveness of macroprudential policy instruments through complementary measures by government agencies. In addition, fiscal policy decisions may affect macroprudential objectives and policies, and discussing them in anticipation, is necessary and important. With this in mind, a policy cooperation platform under the Financial Stability Advisory Group is already in place. Currently, an example where the cooperation is envisaged relates with the implementation of the de-euroization Strategy.

VI. Communication and accountability

Communication in the field of MPP (macro-prudential communication) informs the public on the work of the Bank of Albania in this regard and represents an important contribution to safeguarding financial stability, having the power to affect the attitude of the participants in the market and improve market discipline. Through communication on MPP, the Bank of Albania fulfils its accountability obligation onregarding the exercise of its macroprudential powers and contributes to the awareness of the public on systemic financial risks.

Macro-prudential communication, covers at least these parts: a) MPP organization; b) systemic risk monitoring; and c) macro-prudential policy implementation.

Table 5: Public communication of MPP

MPP organization	**Systemic risk monitoring**	**Macro-prudential measures**
Mandate	Identified risks and their importance assessment	Type of each measure
Objectives	Indicators	Need and level of each measure
Decision-making process		Scope
Available instruments		Date of implementation

The Bank of Albania aims at regularly informing the public on its activities in the framework of financial stability and MPP. The information is provided through the publication of: the Financial Stability Report and other periodical reports; the Governor’s report to the Albanian Parliament and other official communications; special assessments on systemic risk trends in the financial system;

methodological papers on the use of MPP instruments for the mitigation of these systemic risks; press releases; speeches or presentations by Bank of Albania's representatives. The main platform for macro-prudential communication of the Bank of Albania is its website20.

In the communication on MPP, as well as on the other policies that it pursues, the Bank of Albania shall preserve in any case its credibility. To this end, and considering the priority of maintaining financial stability, the Bank of Albania shall make every effort to ensure that macro-prudential communication is as open, clear, reasoned and timely as possible, based on the most complete information available. At the same time the Bank of Albania is aware of the need to avoid disclosing prematurely sensitive information that may jeopardize financial stability.

[20] https://www.bankofalbania.org/Financial_Stability/Macro-prudential_policies/