NATIONAL BANK OF THE REPUBLIC OF NORTH MACEDONIA

Central Banking in the Aftermath of the Global Economic Crisis

Anita Angelovska Bezhoska[*]

Abstract

The worldwide financial crisis revealed that some of the basic consensuses concerning the macroeconomic policy framework and the roles of the central banks were no longer tenable. This prompted rethinking of central bank objectives, strategies and policy instruments, with particular focus on the interactions between monetary and financial stability policies. This paper sheds some light on the flaws exposed during the crisis, debates within the academia and policy-making community and new evolving thinking about the roles and responsibilities of the central banks. The paper also reflects on the crisis' bearing on the roles and responsibilities of the National Bank of the Republic of North Macedonia. In the last decade, legal framework and operational practices were amended to strengthen financial stability mandate and macro prudential policy toolkit of the central bank, to enhance financial stability coordination among regulatory agencies, as well as to improve micro prudential supervision. To support monetary and financial policy decision making, statistical framework was significantly upgraded. Furthermore, given the importance for preserving financial stability, a focus was placed on financial education and consumer protection.

Key words: central bank, crisis, monetary policy, fiscal policy, macro prudential mandate

JEL Classification Numbers: E42, E58

---

[*] National Bank of the Republic of North Macedonia. The views expressed in this paper are those of the author and do not necessarily represent the views of the National Bank of the Republic of North Macedonia.

This paper was published in the Contributions, Section of social sciences, XLIX 1-2, Macedonian Academy of Sciences and Arts, 2019.

1. Macroeconomic policy framework and the role of the central banks in the pre-crisis period

In the pre-crisis period, monetary policy was commonly thought of largely having one goal-price stability and one instrument-interest rate. High inflation in 70's and theoretical work on "inflationary bias" of the discretionary fiscal policy was conducive to strengthening of the independence of the central banks and setting a low and stable inflation as their primary objective, if not exclusive. Across advanced and emerging economies, there was a wide support for "inflation targeting" as the most appropriate monetary strategy for achieving price stability, implying that central bank commits to stabilize inflation and announces numerical inflation objective, which is treated as a target. In practice most of the central banks implemented so called "flexible inflation targeting" that allowed achieving inflation target over some time horizon, not immediately, which in a short-term allowed them to implement policies to stabilize output around its natural level. This framework was underpinned by the short-term interest rate as a main policy instrument, based on the assumption that monetary policy affects price stability mostly through short-term interest rates and not through the monetary and credit aggregates.

It was also considered that price stability leads to zero output gap, i.e., to most optimal economic activity. Through activities aimed at achieving price stability, monetary policy acts countecyclicaly and contributes in keeping output close to its potential. Hence, a notion that there is no trade-off between stabilizing inflation and stabilizing output ("divine coincidence") and that low and stable inflation contributes to optimal output growth.

Given the effectiveness of the monetary policy in achieving price stability and optimal output, the need for having active fiscal policy diminished. Effectiveness of the monetary policy, underpinned also by the development of the financial markets, meant a lower need of having another cyclical tool. Other arguments for lower reliance of fiscal policy were also time lags for its implementation and effectiveness, political constraints or high debt levels and shallow domestic government debt markets in some economies. Thus, unlike in the period of 60's and 70's when fiscal policy was on an equal footing with the monetary policy, in the last two decades before the crisis it mostly played a secondary role in a stabilization policy mix. This view was at the root of the process of establishment of the fiscal rules that effectively diminished the cyclical power of the fiscal policy and helped in consolidating public finances. In this context, the question of coordination between monetary and fiscal policy was not in the focus of the policymakers.

Financial regulation and supervision were commonly not treated as a macroeconomic instrument. They were primarily focused on the stability on the individual financial institutions rather than the stability of the whole financial system, although measures with macro prudential features were also used before the crisis, especially in the emerging economies. Within the central banking community, it was widely accepted that there is a natural dichotomy between monetary policy and financial regulation policy so that they can be conducted independently. Monetary policy should focus on price stability that also leads to output stability, while financial regulation should focus on promoting financial stability. Thus, despite the awareness of the possible adverse implications of financial disturbances for the whole economy, the macro modeling frameworks of the central banks did not explicitly incorporate financial frictions as a factor that can affect business cycle and inflationary developments. This view was also supported by the research (Bernarke, Gertler and Gilchrist, 1999; Bernarke and Gertler, 2001) advocating that stabilization of inflation and output will most likely stabilize asset prices and reduce the probability for asset price bubbles.

Confidence in the prevailing macroeconomic framework was supported by the economic developments during the so-called "Great Moderation" period. From the early 80’s until 2007 most of the advanced and emerging economies experienced both low and stable prices, and solid economic growth rates with moderate output fluctuations. This was a welcome period of relative calm and contained the longest economic expansion since the World War II.

2. Main lessons learned from the crisis

The collapse of the Lehman Brothers in 2008 and subsequent worldwide financial and economic crisis put at the surface many flaws in the traditional macroeconomic setting. The crisis revealed facts that undermined some of the basic assumptions underpinning the traditional views.

It became obvious that price and output stability is not a guarantee for financial stability. In fact, the benign economic environment prior to the crisis may have been one of the contributing factors for underestimation of the financial stability risks as visible through declining risk premiums and loosening of the credit standards. Declining costs and abundant liquidity have promoted risk-taking and build-up of vulnerability of the financial system pinpointing to the fact that loose monetary policy can encourage excessive risk-taking and pose a risk for financial stability, a mechanism called by Borio and Zhu (2008) "risk-taking channel of monetary policy". Excessively low interest rates are conducive to a search for higher yields that is often associated with higher-risk investments. In addition, low interest rates, in principle, increase asset value including the collateral value, thus increasing the borrowing capacity of the economic agents, which can lead to overleveraging and probably more defaults in the medium term.

The imbalances in the financial sector tend to have stronger and long-lasting effects on the economy. The deep recession was not followed by strong recovery, but with rather slow and gradual pick up in economic activity. As Reinhart and Reinhart (2010) claim the economic recessions that follow financial crisis do commonly last longer as deleveraging weights on the balance sheet of the borrowers for a longer period and thus negatively affects the economy for a prolonged period.

The crisis showed that traditional monetary toolkit is not adequate for dealing with shocks with such magnitude. Central banks strongly reacted to the collapse of the aggregate demand by reducing the policy interest rates close to zero, which proved not to be enough to stabilize financial markets, support faster economic recovery and achieve inflation objective. The strength of the financial shock was stronger than expected emphasizing the zero lower bound constraint for the monetary policy. Most probably, if central banks had more room (higher policy interest rate before the crisis period), they would have relaxed monetary stance further. In the pre-crisis period, it was considered that zero lower bound could pose constraints for the monetary policy, but infrequently and will be short-lived. In addition, markets are segmented with specialized investors, and their withdrawal caused specific markets to completely freeze up, which required more targeted measures, than policy rate, to keep them functioning.

Against this background, central banks had to resort to other unconventional instruments. These measures included providing liquidity to non-bank institutions, quantitative easing in which their balance sheets notably increased (thereby increasing the interest rate and credit risks exposure), managing expectations by commitment to a low policy rate for an extended period, intervening on foreign exchange markets or experimenting with negative interest rates. In addition, the crisis asked for an approach that is more aggressive thus deviating from the principle of gradualism in implementing monetary policy.

Constraints of the monetary policy and strength of the economic crisis required more active fiscal policy, which increased risks for fiscal crisis. Strong monetary reaction was accompanied with countercyclical fiscal packages and, in some cases, bailing out of financial institutions, which were deemed important for preserving financial stability. Expansionary fiscal measures, though needed for stabilization of the economy, led to rising public debt and questioned the standard metrics of the sustainability of public finances.

3. Central banking after the crisis (implications for the policies)

Lessons learned from the crisis invigorated rethinking of some of the basic premises of the traditional macroeconomic framework, including monetary policy. Although many of the elements of the pre-crisis consensus concerning the role of the macroeconomic policies and institutional set up seems still hold, yet there are areas that have been reassessed and changes of legal frameworks made. Whether the list of objectives of the central banks needs to be extended, the definition of price stability changed or inflation target raised given the zero lower bound constraint, are some of the issues that have been widely discussed among academics and policymakers. Also, there have been debates whether inflation targeting remains the preferred monetary strategy and whether the non-conventional instruments need to become conventional or more broadly whether the monetary policy arsenal is adequate for possible new downturn.

The fact that price and output stability does not always preserve financial stability, and the fact that financial instability can have long-lasting effects on economy and prices, have questioned the view on dichotomy between monetary and financial stability. There have been discussions if and to what extent monetary policy should consider asset prices (financial stability) and whether it should consider all asset prices as not all asset bubbles are associated with financial instability. The focus is more on credit-driven asset bubbles, which bursting can have devastating effects on the balance sheet of the financial institutions, impair credit activity and overall economy. Some economists argue that monetary policy shall take into account asset prices to the extent they affect consumer prices, which mostly takes place via wealth channel (higher asset prices imply higher wealth, creditworthiness and higher consumption). There is also a view for "leaning against the wind" in a sense that monetary policy should take into account asset prices even if they do not currently affect consumer prices, but there are assessments that risks are building up and may endanger financial stability in the long run. This implies that monetary policy may be tighter in a short-term leading to lower inflation and output, but help in avoiding bubbles that can negatively affect growth and inflationary developments later down the road. Some economists even advocate for incorporating assets prices in the consumer prices and thus explicitly reacting to asset price development.

Still, given that the policy rate has a broad-based effect across whole economy, there is a wide understanding that better device for dealing with the vulnerabilities in the financial system is financial stability toolkit, at least as a first line of defense. Seems better to affect excessive risk taking and leverage through more targeted measures such as be capital ratios, loan to value ratio, or debt to income ratio, and have a monetary policy primarily focused on consumer inflation (though financial considerations may be part of the monetary policy decision-making). This requires that traditional set of prudential instruments tilted mostly towards individual financial institutions is enlarged with prudential measures focused on system-wide financial stability risks (macro prudential tools). Individual banks balance sheets can have different implications for the financial stability depending on their interconnectedness and state of the economy.

Several studies point to an increasing use of macro prudential instruments in the last decade (Budnik and Kleibl 2018; Cerutti, Claessens and Laeven, 2018). The accelerated use of these instruments is more evident in advanced economies reflecting to a great extent post-crisis regulatory overhaul (Basel III and EU Capital Requirement Regulation and Directive) aimed at strengthening the resilience of the financial system. It is also evident that even micro prudential approach started increasingly incorporating macroeconomic assessments.

Such a policy setting-monetary policy primarily focused on price inflation and macro-prudential policy focused on financial stability, underlines a need for close coordination of monetary and macro prudential policy. As close coordination can be better achieved if both policies are responsibility of a central bank, there is an ongoing process of centralization of macro prudential regulation and supervision in the central banks. Central bank legal frameworks have been amended to explicitly state the financial stability as one of their objectives, but subordinated to the price stability, and explicitly stipulate the macro-prudential instruments that can be used for financial stability purposes. Opponents of this process claim that this way mandates of central banks are becoming more complex as there might be a trade off between inflation and financial stability objective, at least in the short-run.

Despite the discussions about the price stability definition, and reviews of policy frameworks in some central banks, so far major changes have not been made in this regard. Obviously zero–lower bound poses constraints for the monetary policy that has stimulated discussions for higher inflation targets (higher than 2%) or for moving to price levels or average price level targets. Concerning the monetary policy instruments, the crisis showed that if strong shocks happen, conventional instruments may not be enough and non-conventional instruments are needed. In the current context, when global growth has been slowing down and main policy rate is at or close to zero, exit from the unconventional policies will most probably take some time pointing to the issue of adequate monetary policy buffers for the next downturn.

While the crisis was not a result of a poor quality of statistics that hampered policymaking, still the effective implementation of monetary and financial stability policies asks for enriched data sets. Highly globalized world characterized by strong interconnectedness among economies, as well as strong interlinkages between different sectors within the economies, in particular interconnectedness between financial sector and non-financial corporations asked for more comprehensive, granular and timely data sets. Enriched data sets will contribute for timely identification of the rising risks and calibrating adequate policies to prevent creation of imbalances. Post-crisis international efforts in improving statistics, including the statistics within the remit of the central banks, are reflected in G20 Data Gaps initiative that refer to four key segments: build-up of risk in the financial sector, cross-border financial linkages, vulnerability of domestic economies to shocks, and improving communication of official statistics.

If prior to crisis one of the key pillars of the macroeconomic policy framework was a policy mix of active monetary and rather passive fiscal policy, the strength of the crisis underlined a necessity of having also an active fiscal policy for stabilization purposes. This reinforces a need of countercyclical fiscal policy, i.e. creating fiscal space during good times so that it can be used for smoothing downturns. Against this background a lot of efforts have been put in reinforcing counter cyclicality, such as adopting or strengthening of fiscal rules, establishing fiscal councils, instituting credible medium-term budgetary frameworks and debt management strategies, as well as improving fiscal automatic stabilizers. Furthermore, if both policies are to be used for stabilization purposes, a need of establishing a good coordination between the policies comes to the fore.

Given the roots of the crisis and the importance of having adequate safeguards for consumers, in the post-crisis period consumer protection has gained a lot of importance. There have been wide perceptions that market failures in protecting consumers (especially in the mortgage loans segment) were one of the contributing factors for the crisis. With a view of enabling financial consumers to make well-informed decisions, which is one the preconditions for preserving financial stability, in increasing number of cases policymakers have adopted new consumer protection legal frameworks and have strengthened the supervisory functions, including the supervisory functions of the central banks in this segment. The new legal frameworks helped in closing existing gaps in key segments, such as disclosure requirements, business conduct, internal dispute resolution and external out of court resolution procedure. Within the EU, implementation of the Payment Services Directive 2 and Payments Account Directive made significant progress in consumer protection in the payments area.

Strengthened legal and supervisory framework in most cases meant increased responsibilities of the central banks in the consumer protection area. Establishment of stronger institutional structure with cross-sector coverage usually took the form of integration of consumer protection function spread across number of agencies into one agency. There have been different practices across countries, but in some cases integration was done within the central banks. They have been entrusted with consumer protection role across the whole financial system (not just for banking system), with a view of having more efficient, consistent and activity-based implementation of consumer protection regulation. Increasing number of central banks have created separate departments for consumer protection, outside of prudential supervision, in charge of onsite and offsite oversight, monitoring the market trends, collecting and analyzing complaints data, and with regulatory responsibility.

One of the venues for increased consumer protection is financial literacy and education. This is even more relevant given the last decade's proliferation of the new innovative financial services offered by new fintech companies, emerging in segments such as payments, lending, crowdfunding, financial advisory etc. The tighter regulatory grip on traditional sources of finance, on the one hand, and promotion of new alternative sources of finance and advancement of technology, on the other hand, have underpinned the emergence of new financial products and services. This promotes higher financial inclusion, but also exposes consumers to new risks, underlining the need for financial literacy. Thus, in the last decade central banks have increasingly focused on financial inclusion, literacy and education.

Increased roles and responsibilities of the central banks that go beyond their traditional monetary mandates call for strengthening of the governance of the central banks. Given the argument for central bank independence-countering inflationary biases and low credibility of the policy makers as they lead to higher inflation without output gains-preserving independence of the central banks is even more important at the current juncture. As already discussed, during the last decade, central banks have gained more active role in the areas of macro prudential regulation and supervision, crisis management, consumer protection, financial education and micro prudential supervision for all financial institutions has increasingly been integrated within the central banks. New additional roles entrusted to central banks increase the concentration of power with the central banks that may be appealing to politicians.

Other factors also underline a need for strong central bank independence. Unconventional monetary policy measures such as asset purchases, including government securities, seem have blurred the lines between the monetary and fiscal policies. Weaker public finances warrant strengthened independence of the central banks. High public debt levels may mean increased temptation for fiscal authorities to rely on monetary policy to generate additional inflation to inflate the debt. Also, the understanding that fiscal policy will most probably play a more active stabilization role in the forthcoming period points to a need of closer coordination, which in principle requires strong independence. This has reopened the discussions surrounding the legitimacy, the precise scope, independence and democratic accountability of central banks.

A strengthened governance that will provide an assurance for the central bank independence is particularly relevant when considering macro prudential policies and unconventional instruments. One of the arguments for the independence of the central banks has been the assumption that it has a broad-based effect across economy and its distributional effects are minor or non-existent. But new unconventional instruments tend to have rather higher redistributive effects because they are targeted to specific markets or instruments. Thus, whenever regulatory requirements are tightened, central banks can expect strong resistance from governments (Tucker, P. 2018). Active role in the financial stability area, by its nature, calls for strong cooperation and coordination with other financial regulators, especially the ministry of finance. Stronger interaction is needed for financial stability decisions than for monetary policy decisions. Overall, preserving and strengthening independence is of a paramount importance in maintaining credibility of the central banks, which is a key precondition for effectiveness of the monetary policy. However, high independence does not mean isolation, but rather goes hand in hand with higher accountability and transparency.

Have there been changes to CB independence in the post crisis period? The commonly used indices to assess the legal independence of the central banks do not suggest that the central bank independence has decreased after the crisis (Dincer and Eichengreen, 2014; Bodea and Hicks, 2015). Still, the indices capture legal and not the de facto independence, which might be different as observed in practice. Nowadays, public criticism from politicians is becoming a more common practice. A survey of Blinder et al. (2017) of governors and academics points that only 9% of the governors felt that central bank independence decreased after the crisis, but about 40% of the academics perceived threats to central bank independence.

4. National Bank of the Republic of North Macedonia in the aftermath of the financial crisis

Lessons learned from the crisis had their bearing on the roles and responsibilities of the National Bank of the Republic of North Macedonia (henceforth: NBRNM). Although the effects that the Macedonian economy felt were relatively mild, which largely can be explained by sound fundamentals and macroeconomic policies in the period preceding the crisis, yet the crisis put at the surface some weaknesses. Clear legal central bank macro prudential mandate and toolkit, explicit mandate and mechanisms for resolution of problematic banks, good coordination among regulatory agencies, as well as strengthened consumer protection are some of segments that needed to be addressed. Furthermore, it emphasized the importance of having more granular and higher-quality data sets on a timely basis that can support evidence-based financial stability decision. Adequate statistical data sets, together with more flexible monetary policy toolkit, are also valuable inputs for better understanding of the monetary transmission mechanism and adequately calibrating monetary policy instruments and the monetary policy stance.

To strengthen financial stability and macro-prudential mandate of the NBRNM, legal framework was amended in the period following the crisis. Contribution to financial stability was explicitly stipulated as an objective of the central bank, but subordinated to the primary objective-price stability. Through preserving stability of the banking system, which is a dominant segment in the financial system, central bank contributes to overall financial stability. For pursuing financial stability objective, some macro-prudential tools at disposal of the central bank are explicitly prescribed, such as risks capital buffers.

Given the fragmented supervisory and regulatory system, composed of 5 regulatory agencies responsible for different segments of the financial system, inter-institutional coordination was enhanced. Based on the Memorandum of Understanding, Financial Stability Committee, comprising of the NBRNM and the Ministry of Finance, was created to regularly monitor system-wide financial sector developments and risks, enhance exchange of information, coordinate institutional efforts in preventing excessive build-up of financial risks and coordinate activities during a financial crisis. Furthermore, Inter-Institutional Body for Financial Stability, comprised of all financial regulators, was created, though as an informal working group, with an objective of improving exchange of data and information, and discussing financial stability developments, need for amendment of the existing legal framework and other relevant supervisory topics.

Despite some progress in establishing macro prudential framework in the period following the crisis, there is a need for further notable improvement. In this vein, there are ongoing efforts to strengthen the legal macro prudential mandate and expand the macro prudential toolkit of the central bank for preserving the stability of the banking system. The Financial Stability Committee is envisaged to be enlarged to encompass all regulatory agencies and act as a legally instituted body in charge of monitoring and discussing risks across the whole financial system, undertaking activities for crises preparedness, coordinating macro prudential policies, issuing recommendations for macro prudential measures to all regulators on "comply-or-explain" basis and managing financial crisis. To support strengthened macro prudential mandate, further efforts are placed in upgrading the operational capacity of the central bank, in particular in systemic risks analysis, stress testing, crisis preparedness and filling in financial data gaps. Also, to strengthen resolution powers and tools of the central bank, a new law on resolution is underway.

Traditional micro prudential regulation has been strengthened as well, although room for further upgrade remains. Macroeconomic assessments are increasingly becoming part of the micro prudential supervision, especially in the segments of stress testing to match macroeconomic risks and specific banks risks, and the business model assessments. This helps in assessing the balance sheet risks of individual institutions and setting adequate regulatory requirements, such as capital or liquidity requirements. For systemically important banks, steps have been taken to intensify supervisory oversight and control, regardless of the risk assessment.

Consumer protection is another segment that in the last decade has gained more importance and regulation was enhanced, although challenges remain. Post-crisis solid growth of consumer lending that increases the indebtedness of the households (although from relatively low levels), and especially recent double-digit growth of financial companies' lending, emphasizes a need for stronger consumer protection. The regulatory framework needs to be more comprehensive covering all financial services, establishing stronger requirements for transparency and disclosure, preventing irresponsible market practices and setting standards for complaints resolution in line with best international practices. The new Payment Services Law, which has been under preparation, incorporates Payment Services Directive 2 and other EU directives in the payments segment and its adoption is expected to make an important headway for protection of consumers.

Improvements in the institutional structure for consumer protection are also needed. The consumer protection supervisory framework is fragmented, with central bank being responsible for banks and savings houses, a function that is performed as a part of the prudential supervision. A consideration should be given to reducing the institutional fragmentation, as well as to separating function of consumer protection and prudential supervision within the central bank given the possible trade-offs between these two functions. In addition, consumer protection can be strengthened by setting up a dedicated institution for complaints and dispute resolution as more efficient, cheap and more convenient out of court resolution mechanism for consumers, such as financial ombudsman.

As one of the instruments for better consumer protection is financial literacy, central bank has vested efforts in the segment of financial literacy and education. Despite establishment of a separate unit within the central bank, inter institutional cooperation and coordination was strengthened through establishment of a Coordinating Body for Financial Education composed of all regulatory and supervisory agencies. Initially, Coordinating Body was responsible only for financial education activities, but this year its mandate was broadened to encompass also financial inclusion. Publication of a number of brochures and books, organization of many workshops and other educational events aimed at increasing the awareness of the features and risks of different financial products, and establishment of a system for regularly measuring and monitoring the financial literacy are some of the activities that are regularly performed. Currently, the NBRNM is coordinating activities for preparation of a national strategy for financial literacy and inclusion.

As crisis emphasized a need of having more granular and comprehensive data, the central bank embarked on further upgrading the quality and timeliness of the existing data sets, as well as establishing completely new statistics. The set of financial stability indicators was broadened to provide more comprehensive information on buildup of financial stability risks, monetary statistics was improved to bring it fully in line with the latest European standards, granular foreign investment securities statistics was established, which was subsequently supplemented with data on domestic securities. As crisis showed that risks could emerge not only in the banking system, but also in shadow banking, since 2012 central bank started producing statistics on non-bank financial institutions. Significant progress was made in setting up the statistics that will help in better understanding the interlinkages among different sectors in the economy- financial accounts statistics, which publication is expected at the beginning of 2020. Many endeavors were also made to improve dissemination and communication with the public, including statistical press releases and creation of analytical tools for easier and more convenient access to data by external users. Owing to these activities, which further elevated the quality of the statistics bringing it closer to the highest international standards, in 2019 we became 18th member country of the highest International Monetary Fund statistical standard-SDDS plus.

New responsibilities and tasks entrusted to NBRNM have even more underlined the importance of its independence. Commonly used indices for assessment of the central bank independence indicate that the independence of the NBRNM increased in the period following the crisis. The assessments, which are based on legal provisions, indicate that throughout the years its independence has increased and that the current legal framework provides high level of independence (Angelovska-Bezhoska, 2017; Jankovski, 2010). Yet, there is a further room for enhancement in some areas, such as policy formulation (foreign exchange regime is shared responsibility between the NBRNM and Ministry of Finance) and the process of appointment of non-executive members of the Council of the NBRNM (non-executive members are appointed by the parliament on a proposal of the government). The provisions of the Law on administrative servants pertaining to the central bank also pose constrains for its financial and operational independence and need to be abolished.

5. Conclusion

The worldwide financial crisis has notably changed the central banking. The fact that price and output stability does not always preserve financial stability and the fact that financial instability can have long-lasting effects on economy and prices clearly underline the importance of preserving financial stability. Still, given that monetary policy rate has a broad-based effect across whole economy, there is a wide understanding that the financial stability toolkit is a better device for dealing with the vulnerabilities in the financial system, at least as a first line of defense. In this vein, central bank legal frameworks have been amended to explicitly state the financial stability as one of their objectives, but subordinated to the price stability, and explicitly stipulate the macro-prudential instruments that can be used for financial stability purposes. This requires stronger coordination between monetary and financial stability policies and strengthened coordination among financial regulatory agencies. For more effective implementation of monetary and financial stability policies efforts have been put to increase comprehensiveness, quality and timeliness of the statistical systems. Given the roots of the crisis and the importance of having adequate safeguards for consumers, consumer protection and financial education have gained a lot of importance, as well.

The crisis had its bearing on the roles and responsibilities of the NBRNM. In the last decade, legal framework and operational practices have been amended to strengthen financial stability mandate and macro prudential policy toolkit of the central bank, to enhance financial stability coordination among regulatory agencies, as well as to improve micro prudential supervision. To support monetary and financial policy decision making, the statistical framework was significantly upgraded. Furthermore, given the importance for preserving financial stability, a focus has been put on financial education and consumer protection. Despite the progress, there are ongoing efforts to further enhance the legal framework and operational practices.

Increased roles and responsibilities of the central banks that go beyond their traditional monetary mandates have even more underlined the necessity of central bank independences. The commonly used indices to assess the independence, although they reflect only de jure independence, do not suggest that the central bank independence has decreased after the crisis. In the case of North Macedonia, commonly used indices point to an increase in independence, although there are still some areas that need to be addressed.

Many lessons have been learned and many changes in the legal frameworks have been made with a view of having more effective macroeconomic framework, which among other benefits, will ensure stable and resilient financial systems that is of key importance for the price and output stability. Still, with all the re-profiling of the central banking, the environment remains challenging and the conduct of policies seems more complex. Higher uncertainty and risks surrounding the global growth prospects, growing financial imbalances, reduced monetary and fiscal policy buffers, "missing inflation" puzzle will continue to pose challenges for the conduct of the macroeconomic policies emphasizing the need for structural policies to improve fundamentals and the resilience of the economies.

References

Angelovska-Bezhoska, A. (2017). Central Bank Independence-the Case of the National Bank of Republic of Macedonia, Journal of Central Banking Theory and Practice.

Bernanke, B. S., and Gertler, M. (1999). Monetary Policy and Asset Price Volatility, Federal Reserve Bank of Kansas City conference on New Challenges for Monetary Policy, Kansas City.

Bernanke, B. S., and Gertler, M. (2001). Should Central Banks Respond to Movements in Asset Prices? American Economic Review Volume 91, pages 253-57.

Blanchard, O., Dell'Ariccia, G., and Mauro, P. (2010). Rethinking Macroeconomic Policy, IMF Staff Position Note.

Blanchard, O., Dell'Ariccia, G., and Mauro, P. (2013). Rethinking Macro Policy II: Getting Granular, IMF Staff Discussion Note.

Blinder, A., Ehrmann, M., de Haan, J., and Jansen, D. (2016). Necessity as the Mother of Invention: Monetary Policy after the Crisis. NBER Working Papers 22735, National Bureau of Economic Research, Inc.

Bodea, C. and Hicks, R. (2015). Price Stability and Central Bank Independence: Discipline, Credibility and Democratic Institutions. International Organization, 69(1), 35-61.

Borio, C. and Zhu., H. (2008). Capital Regulation, Risk-taking and Monetary Policy: A Missing Link in the Transmission Mechanism? Working Paper No. 268, Bank for International Settlements.

Budnik, K, and Kleibl, J. (2018). Macroprudential Regulation in the European Union in 1995-2014: Introducing a New Data Set on Policy Actions of a Macroprudential Nature, European Central Bank Working Paper 2123.

Cerrutti, E., Claessens, A. and Laeven, L. (2017). The Use and Effectiveness of Macroprudential Policies: New Evidence. Journal for Financial Stability, Volume 28, pages 203-224.

Dincer, N.N., and Eichengreen B. (2014). Central Bank Transparency and Independence: Updates and New Measures. International Journal of Central Banking, 10(1), 189-253.

International Monetary Fund. (2011). Macroprudentaial Policy – an Organizing Framework – Background Paper.

International Monetary Fund. (2018). The IMF' Annual Macroprudential Policy Survey – Objectives, Design, and Country Responses.

Jankoski, B. (2010). Trends and Challenges of the Contemporary Central Banking- a Case Study for National Bank of the Republic of Macedonia. Saarbrucken: VDM Verlag Dr. Muller Gmbh & Co.KG

Khan, A. (2017). Central Bank Legal Framework in the Aftermath of the Global Financial Crisis, IMF Working Paper, WP/17/101.

Mishkin, F.S. (2013). Central Banking after the Crisis, Working Papers Central Bank of Chile 714.

Reinhart, C.M., and Reinhart. V.R. (2010). After the Fall. Federal Reserve Bank of Kansas City Economic Symposium.

Stella, P. (2010). Minimizing Monetary Policy. Stellar Consulting LLC Bank for International Settlements 9th Annual Conference Luzerne, Switzerland.

Tucker, P (2018). Unelected Power: the Quest for Legitimacy in Central Banking and the Regulatory State. Princeton University Press.