CENTRAL BANK OF CYPRUS

EUROSYSTEM

POLICY STRATEGY LINKING THE ULTIMATE OBJECTIVE OF MACROPRUDENTIAL POLICY OF SAFEGUARDING FINANCIAL STABILITY WITH THE INTERMEDIATE OBJECTIVES AND INSTRUMENTS OF MACROPRUDENTIAL POLICY AND OTHER RELATED MATTERS

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80 Kennedy Avenue, CY-1076 Nicosia, Cyprus
Postal Address: P.O.Box 25529, CY-1395 Nicosia, Cyprus
Telephone: +357-22714100 - Website: www.centralbank.gov.cy

List of abbreviations

BCBS	Banking Committee on Banking Supervision (of the Bank for International Settlements)
BIS	Bank of International Settlements
CBD	Consolidated banking data
CCyB	Countercyclical capital buffer
CCP	Central counterparty
CDS	Credit default swap
CET1	Core Equity Tier 1
CRD IV	Capital Requirements Directive IV
CRE	Commercial real estate
CRR	Capital Requirements Regulation
DSTI	Debt Service-to-income
EBA	European Banking Authority
ECB	European Central Bank
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
EURIBOR	Euro interbank offered rate
FMLI	Financial market liquidity indicator
FSB	Financial Stability Board
FSIs	Financial soundness indicators
G-SII	Global systemically important institution
GDP	Gross Domestic Product
HQLA	High quality liquid asset
IMF	International Monetary Fund
LCR	Liquidity coverage ratio
LGD	Loss given default
LIBOR	London interbank offered rate
LTD	Loan-to-deposit
LTI	Loan-to-income
LTSF	Loan-to-stable funding
LTV	Loan-to-value
MBS	Mortgage-backed security
NPL	Non-performing loan
NSFR	Net Stable Funding Ratio
OIS	Overnight index swap
O-SII	Other systemically important institution
PD	Probability of default
RWA	Risk weighted asset
SCR	Sectoral capital requirements
SII	Systemically important institution
SRB	Systemic risk buffer

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1. Introduction

The Recommendation of the European Systemic Risk Board ("ESRB") of 4 April 2013 on the intermediate objectives and instruments of macroprudential policy (Recommendation ESRB/2013/1) includes, *inter alia*, the following recommendation:

Recommendation C1 – The macroprudential authorities are recommended to define a policy strategy that:

a) Links the ultimate objective of macroprudential policy, i.e. contributing to the safeguarding of the stability of the financial system, with the intermediate objectives and the macroprudential instruments under their direct control or recommendation powers;

b) Establishes a sound framework for the application of instruments under their direct control or recommendation powers to pursue the ultimate and intermediate objectives of macroprudential policy. This should include appropriate indicators to monitor the emergence of systemic risks and to guide decisions on the application, deactivation or calibration of time-varying macroprudential instruments as well as an appropriate coordination mechanism with relevant authorities at the national level;

c) Fosters the transparency and accountability of macroprudential policy.

In the timeline for the follow-up to Recommendation ESRB/2013/1, macroprudential authorities are requested to communicate a report to the ESRB, the European Banking Authority ("EBA") and the Council of the European Union explaining the measures undertaken in order to comply with Recommendation C1.

This report outlines how the Central Bank of Cyprus (CBC) has complied with Recommendation C1.

Defining financial stability is key for the design of macroprudential policy and operational frameworks, as well as for the early identification of market failures and the development of the most appropriate macroprudential instruments for reducing the build-up of systemic risks and vulnerabilities.

A broad range of definitions exists on financial stability. According to the ESRB, financial stability is defined as "a precondition for the financial system to provide credit, supporting sustainable economic growth"[1]. The European Central Bank (ECB) defines financial stability as a condition in which the financial system – which comprises financial intermediaries, markets and market infrastructures – is capable of withstanding any shocks and the unravelling of financial imbalances. This mitigates the likelihood of disruptions in the financial intermediation process that are severe enough to significantly impair the allocation of savings to profitable investment opportunities[2]. Annex 1 presents a number of financial stability definitions that exist in literature.

The above definitions imply that a stable financial system exists if the financial system:

- can transfer resources efficiently and smoothly from savers to investors;
- assesses financial risks and they are priced reasonably accurately and are well mitigated; and

[1] ESRB (2013) "Recommendation on intermediate objectives and instruments of macroprudential policy".
[2] ECB (2011) "Financial Stability Review".

- is in a condition to comfortably absorb financial and real economic surprises and shocks[3].

Therefore, the identification of the main sources of risks and vulnerabilities is key for safeguarding financial stability.

The global financial crisis has highlighted the need for macroprudential oversight in order to prevent and mitigate the build-up of systemic risks in the financial system; where systemic risk is defined as the risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy[4]. Consequently, the establishment of a sound macroprudential policy framework, alongside micro-prudential supervision, enhances the effectiveness of macroprudential oversight and the resilience of the financial system against systemic risks, thus providing the necessary conditions for economic growth.

In response to the global financial crisis, a number of initiatives were taken. Firstly, the ESRB was formed and was charged with the responsibility of the macroprudential oversight of the European Union financial system. The ESRB has *inter alia* issued a recommendation on the macroprudential mandate of national authorities (Recommendation ESRB/2011/3) and a recommendation on the means of implementing macroprudential policy through the establishment of intermediate objectives and instruments (Recommendation ESRB/2013/1). Moreover, the Capital Requirements Regulation (CRR)[5] and the Capital Requirements Directive IV (CRD IV)[6] envisage a set of macroprudential instruments to prevent and mitigate systemic risks.

At the national level, the CBC, as the designated national macroprudential authority, is responsible for the macroprudential oversight of the financial system with the ultimate objective of contributing to the safeguarding of the stability of the financial system, as explicitly stated in the *Central Bank of Cyprus Law, 2002 - (No. 3) 2014*. The *Central Bank of Cyprus Law* require the CBC to identify, monitor and assess risks to financial stability and implement policies to prevent or mitigate those risks when conducting its macroprudential oversight of the financial system. In addition, the CBC is the designated national authority responsible for the implementation of the macroprudential instruments available in the CRR/ CRD IV[7].

Within the Single Supervisory Mechanism, the ECB also has a macroprudential supervisory mandate and may propose stricter requirements than those taken by the national macroprudential authorities.

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[3] ECB's website: https://www.ecb.europa.eu/pub/fsr/html/index.en.html

[4] *Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24/11/2010 on European Union macroprudential oversight of the financial system and establishing a European Systemic Risk Board.*

[5] *Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.*

[6] *Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.*

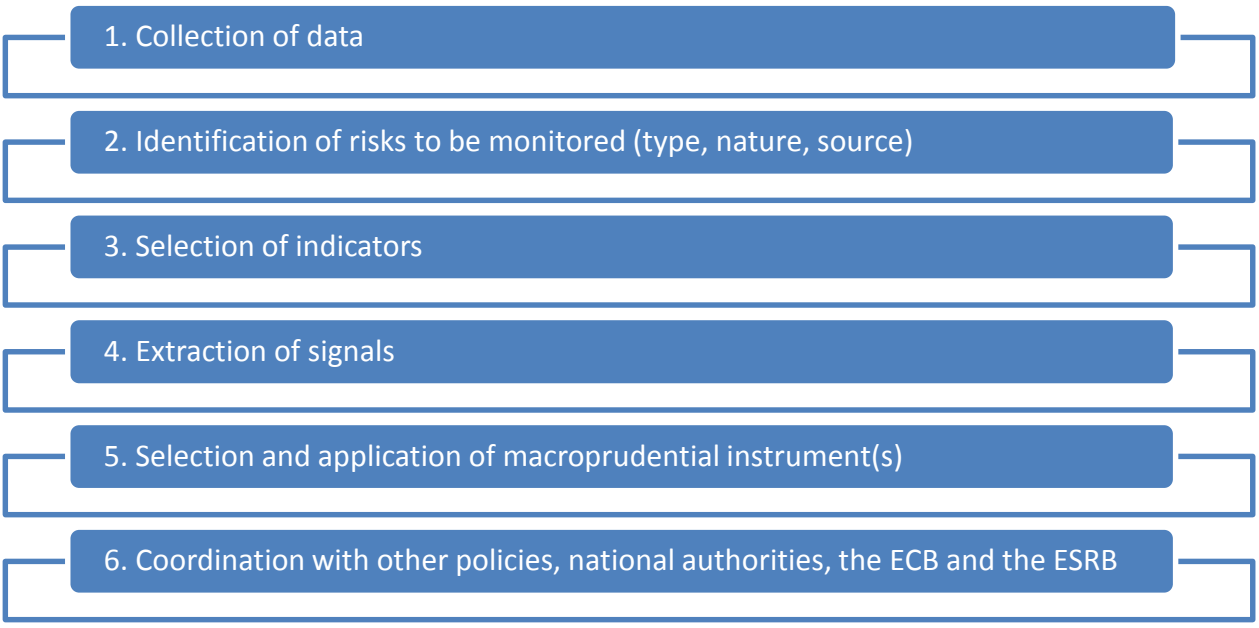
[7] Transposed into Cyprus law through the *Macroprudential Oversight of Institutions Law, 6(I) 2015*.

2. Establishing a sound framework of macroprudential policy

2.1 The macroprudential policy implementation process

Macroprudential policy focuses on the stability of the financial system as a whole. This can be achieved by preventing the creation and distribution of systemic risk in the financial system and thereby reducing the probability of occurrence of financial crises with large real output losses for the whole economy. Therefore, macroprudential policy aims at preventing financial instability, and mitigating the impact of financial instability in cases where prevention fails. **Figure 1** outlines the key steps for the implementation of an effective macroprudential policy by the CBC.

Figure 1: The macroprudential policy implementation process



2.2 Introducing the ultimate objective and defining systemic risks

The ultimate objective of the macroprudential oversight of the financial system is to contribute to the safeguarding of the stability of the financial system as a whole, *inter alia* by strengthening the resilience of the financial system and decreasing the build-up of systemic risks, thereby ensuring a sustainable contribution of the financial sector to economic growth.

In order to achieve financial stability, macroprudential policies aim to focus on systemic risks. In accordance with the International Monetary Fund (IMF), the Bank of International Settlements (BIS) and the Financial Stability Board (FSB)[8], systemic risk can be defined as the risk of disruption to financial services that is:

i. Caused by the impairment of all parts of the financial system; and
ii. Has the potential to have serious negative consequences for the real economy.

For analytical purposes, systemic risk can be separated into two specific dimensions: time dimension and cross sectional dimension.

[8] IMF-BIS-FSB (2009).

i. The *time dimension* reflects the evolution of systemic risk over time. This represents a cumulative, amplifying mechanism that operates within the financial system, as well as between the financial system and the real economy. This mechanism, or pro-cyclicality, is based on a collective tendency by economic agents, both financial and non-financial, to increase risk exposures excessively during the boom phase of a financial cycle and to become overly risk-averse during the bust stage.

ii. The *cross-sectional dimension* reflects the distribution of risk in the financial system at a given point of time. If pro-cyclicality sets the destabilising mechanism in motion, the cross-sectional dimension provides further impetus and magnifies the impact of financial distress. Distress may also arise as a result of severe problems in the financial system without a build-up of weaknesses over time. It depends on the size of institutions, concentration and substitutability of their activities and the interconnectedness between them.

3. Linking the ultimate objective to the intermediate objectives

To achieve this ultimate objective of contributing and ensuring financial stability, intermediate objectives of macroprudential policy were established as required under Recommendation A of the ESRB Recommendation ESRB/2013/1. These macroprudential intermediate objectives are the operational specifications of the ultimate objective. The macroprudential intermediate objectives were established on the basis of underlying market failures and the specific structural characteristics of the financial system of Cyprus that could give rise to systemic risks. Identifying intermediate objectives on the basis of specific market failures allows for a clearer classification of macroprudential instruments; ensures an economic base for the calibration and use of those instruments; and fosters accountability. The CBC periodically assesses the need for establishing additional intermediate objectives, in light of the experience gained in operating the macroprudential policy framework, structural developments in the financial system and the emergence of new types of systemic risks.

4. Establishing a sound framework for the application of instruments

CBC will undertake comprehensive and rigorous analysis of systemic vulnerabilities. In particular, in the assessment of *time-dimensional* systemic risk, the following vulnerabilities will be considered:

- Economy-wide vulnerabilities from an excessive growth in total credit;
- Sectoral vulnerabilities from growing credit to the household sector;
- Sectoral vulnerabilities from exposures to the non-financial corporates sector;
- Vulnerabilities from excessive maturity and foreign exchange mismatches within the financial sector.

Assessment of *cross-sectional dimension* of systemic risk will consider vulnerabilities from linkages within and across key classes of intermediaries and market infrastructures.

Signals provided by various indicators are combined to guide whether a macroprudential instrument should be activated/deactivated. The CBC undertakes to apply the following approach for deciding on the activation/deactivation of macroprudential measures. Colour-coding classification will be based on standard deviation thresholds:

i. When all or most of the indicators are flashing “yellow” or “green”, careful monitoring will be undertaken;

ii. When most indicators are flashing “yellow”, the CBC will consider a gradual activation of risk mitigating measures;

iii. When some indicators are flashing “red” and others “green”, alternative policy actions will be considered as the macroprudential instruments already specified may not be so effective;

iv. When all or most of the indicators are flashing “red”, there is a strong indication for proceeding with the activation of macroprudential instruments. However, expert supervisory judgement will also be exercised, taking into account all available information and the specific Cyprus’ circumstances.

Macroprudential instruments are relaxed when it is necessary to prevent the disruption to the provision of credit that could otherwise have serious adverse effects on the real economy. During periods of stress or when systemic risks abate, buffers that have been built-up during the economic upswing, may be reduced or fully released in order to absorb losses and/or support the provision of credit. Relaxation should not exceed the minimum safety levels of downturn conditions. The relaxation of macroprudential instruments is in line with the ultimate objective of macroprudential policy of safeguarding the stability of the financial system as a whole. Annex 2 presents an indicative list of indicators linked to the type of instrument (i.e. capital, household, corporate and liquidity instruments) and how these indicators may signal the relaxation of macroprudential policies[9]. Expert supervisory judgement plays a significant role in the assessment of these early-warning indicators before the relaxation of a macroprudential instruments is decided.

Further analysis needs to be conducted on the basis of practical application of macroprudential instruments to strengthen the macroprudential policy strategy. While further analysis will deepen the understanding of key indicators and transmission channels, it is imperative that expert supervisory judgement is also incorporated in the decision making process.

[9] IMF (2014) “Staff guidance note on macroprudential policy”.

In case new macroprudential instruments that cannot be implemented under the existing legislation are considered necessary, the CBC undertakes to consult with the Ministry of Finance with a view to evaluate whether any legislative amendment is required.

In addition, the CBC undertakes to report to the ESRB any change in the set of intermediate objectives and macroprudential instruments that are under its direct control or recommendation powers[10]. An underlying analysis supporting this change will also be provided.

4.1 Identifying and assessing systemic risks

The selection of the indicators to be monitored plays a crucial role in linking the intermediate objectives and instruments used, thereby ensuring that the ultimate objective of safeguarding the stability of the financial system as a whole is achieved. Taking decisive steps to identify systemic risks, reduces the bias towards inaction. Macroprudential instruments will be applied when vulnerabilities relative to the intermediate objectives are detected and/or where one or more indicators exceed a predetermined threshold value. Incorporating expert supervisory judgement and qualitative information can give further insight on the monitoring of indicators and the identification of areas for action.

It is important that multiple indicators are evaluated to assess the need for activation and tightening of measures or their relaxation. Combining the information received from multiple indicators is likely to provide better and stronger signals of vulnerabilities building up. The CBC is already collecting and periodically examining data related to leverage, credit growth, funding and liquidity, housing and property prices, for identifying emerging risks. Section 4.2 presents a non-exhaustive list of indicators per macroprudential instrument linked to the respective intermediate objective(s). These indicators are examined on a continuous basis. In addition to this set of indicators, the CBC compiles and submits on a regular basis to the ECB and to the IMF aggregate data and financial indicators for the Cyprus banking sector[11]. More specifically, the CBC provides the ECB with aggregate Consolidated Banking Data (CBD) and the IMF with aggregate Financial Soundness Indicators (FSIs). The CBD is reported on a quarterly basis and contains information on the profitability, balance sheet, asset quality and capital adequacy of the banking sector. The FSIs are also reported on a quarterly basis and contain aggregate data on profitability and the statement of financial position items for domestically-incorporated banks in Cyprus. Data on branches of foreign banks is also collected, although this information is not reported to the IMF.

The assessment by the CBC on the intermediate objectives will be based on all available sources of relevant information and will include a range of approaches: quantitative indicators and models, supervisory data and assessments, and other qualitative analysis, by incorporating supervisory discretion and expert judgement. Qualitative information can provide timely insight into trends and point to areas that deserve a more in-depth examination.

The decision-making process (activation, calibration and deactivation) will be based on the following ongoing surveillance/analysis:

- Undertaking historical distribution analysis and examining major increasing/decreasing trends and fluctuations;

[10] ESRB (2013) "Recommendation on intermediate objectives and instruments of macroprudential policy", ESRB Recommendation D.5.

[11] The Consolidated Banking Data (CBD) and Financial Soundness Indicators (FSIs) are available at http://www.centralbank.gov.cy/nqcontent.cfm?a_id=11786.

- Applying statistical clustering methods to the indicators and grouping institutions according to their scores for each indicator, where applicable;
- Comparison of cross-sectional averages and thresholds;
- Undertaking signalling approach and multivariate analysis (examining the correlation of a key variable with other variables), helping to identify early warning indicators and define "danger zones" that will adequately identify risks, capture turning points, trigger deeper analysis and guide policy responses with sufficient lead time in the cycle;
- Combining the signals provided by individual tools in order to obtain a reliable assessment of systemic risk, by analysing how shocks may spread across markets, sectors, countries, or regions;
- Undertaking sensitivity analysis to examine the impact on relevant sets of indicators by considering increases/decreases in variables, as well as the impact on the timing of the activation or relaxation of a buffer;
- Defining indicator thresholds based on the indicator industry average, empirical evidence and expert supervisory judgement.

The CBC is following a large number of indicators. As many of these indicators interact and it will be necessary to consider additional interactions as systemic risks evolve or new systemic risks are identified, trigger points for each indicator have not been set. Prudent trigger points shall be introduced at the operational level.

4.2 Instruments for preventing systemic risks and for mitigating their impact

Macroprudential instruments were selected by the CBC to address the intermediate objectives that were established by the CBC. Macroprudential instruments are the means by which the intermediate objectives and the ultimate objective of macroprudential policy are linked. In particular, macroprudential instruments help to reduce the build-up of vulnerabilities and to increase the resilience of the financial system. The establishment of a set of macroprudential instruments to be effectively applied when there is a call for macroprudential policy action is thus a precondition for the success of macroprudential policy. Therefore, under national law, the CBC is empowered with the development and application of appropriate macroprudential instruments for the macroprudential oversight of the financial system[12].

The CBC, as the designated authority for the purposes of applying the macroprudential instruments defined under the CRD IV, as transposed into national legislation[13] and the CRR, may issue directives addressed to the licensed credit institutions and investment firms. Furthermore, the introduction of any other macroprudential instrument is possible through the issuance of specific or general circulars or directives addressed to the components of the financial system as a whole or per group or per financial institution, financial undertaking or entity[14].

Table 1 links the macroprudential instruments that can be deployed to achieve each intermediate objective. The list is non-exhaustive. The core instruments of macroprudential policy are calibrated and used to deal specifically with systemic risk. The instruments have been selected on the basis of their:

(a) *effectiveness*, i.e. the degree to which the instrument can address market failures and achieve the ultimate and intermediate objectives;
(b) *efficiency, i.e.* the potential of the instrument to achieve the ultimate and intermediate objectives at minimum cost; and

[12] *Article 47A (6) of Central Bank of Cyprus Law, 2002 - (No.3) 2014.*
[13] *Macroprudential Oversight of Institutions Law, 6(I) 2015.*
[14] *Article 47A (7) of Central Bank of Cyprus Law, 2002 - (No.3) 2014.*

(c) the ability to target the "roots", not the symptoms, of systemic risk.

Table 1 sets out the intermediate objectives and the macroprudential instruments for each objective that have been established in accordance with Recommendation A of ESRB Recommendation ESRB/2013/1. The last column of Table 1 maps each macroprudential instrument to a set of key indicators, as presented in **Tables 2 – 14**. Since some of the indicators relate to more than one macroprudential instrument, these indicators have been grouped to facilitate the linkage and interaction between macroprudential instruments.

Table 1: Macroprudential instruments

Intermediate objective	Macroprudential instrument		Key indicators
1. Mitigate and prevent excessive credit growth and leverage	i.	Countercyclical capital buffer	Table 2
	ii.	Sectoral capital requirements (including intra-financial exposures)	Table 3 and Table 8
	iii.	Leverage ratio	Table 6
	iv.	Loan-to-value (LTV) ratio	Table 3
	v.	Loan-to-income (LTI) ratio / Debt (service)-to-income (DSTI) ratio	Table 3
	vi.	Systemic risk buffer (SRB)	Table 4
	vii.	Additional own funds requirements	Table 5
	viii.	Increased capital conservation buffer	Table 5
2. Mitigate and prevent excessive maturity mismatch and market illiquidity	i.	Macroprudential adjustment to liquidity coverage ratio (LCR)	Table 7
	ii.	Macroprudential restrictions on funding sources: Net stable funding ratio (NSFR)	Table 7
	iii.	Macroprudential un-weighted limit to less stable funding: Loan-to-deposit (LTD) ratio and Loan-to-stable funding (LTSF) ratio	Table 7
	iv.	Liquidity surcharge (general liquidity surcharge and liquidity surcharge for systemically important institutions (SIIs))	Table 7
	v.	Margin and haircut requirements	Table 11
	vi.	Public disclosure requirements	Table 12
3. Limit direct and indirect exposure concentration	i.	Sectoral capital requirements (SCR) (including intra-financial)	Table 3
	ii.	Systemic risk buffer (SRB)	Table 4
	iii.	Large exposures restrictions (including intra-financial)	Table 9
	iv.	(Sectoral) LTV ratio	Table 3
	v.	(Sectoral) LTI ratio / (Sectoral) DSTI ratio	Table 3
	vi.	Additional own funds	Table 5
	vii.	Public disclosure requirements	Table 12
	viii.	Central counterparties (CCP) clearing requirement	Table 10

4. Limit the systemic impact of misaligned incentives with a view to reducing moral hazard	i.	Global systemically important institutions (G-SII) buffer	Table 13
	ii.	Other systemically important institutions (O-SII) buffer	Table 14
	iii.	Leverage ratio	Table 6
	iv.	Systemic risk buffer (SRB)	Table 4
	v.	Additional own funds	Table 5
	vi.	Increased capital conservation buffer	Table 5
	vii.	Liquidity surcharge for SIIs	Table 7
	viii.	Public disclosure requirements	Table 12
5. Strengthen the resilience of financial infrastructures	i.	Margin and haircut requirements on CCP clearing	Table 10
	ii.	Public disclosures requirements	Table 12
	iii.	Systemic risk buffer (SRB)	Table 4

The list below outlines the tables of macroprudential instruments. Each table presents the key indicators that are being monitored under the respective macroprudential instrument(s).

Table 2: Countercyclical capital buffer (CCyB)
Table 3: Sectoral capital requirements (SCR), Loan-to-value (LTV) ratio, Loan-to-income (LTI) ratio, Debt service-to-income (DSTI) ratio
Table 4: Systemic risk buffer (SRB)
Table 5: Own funds requirement, Capital conservation buffer
Table 6: Leverage ratio
Table 7: Liquidity coverage ratio (LCR), Net stable funding ratio (NSFR), Loan-to-debt (LTD), Loan-to-stable funding (LTSF), General liquidity conservation buffer
Table 8: Measures for intra-financial sector exposures
Table 9: Large exposure restrictions
Table 10: Central counterparties (CCP) clearing requirement
Table 11: Margin and haircut requirements on Central counterparties (CCP) clearing
Table 12: Public disclosure requirements
Table 13: Global systemically important institutions (G-SII) buffer
Table 14: Other systemically important institutions (O-SII) buffer

Table 2: Countercyclical capital buffer (CCyB)

Instrument:	CCyB
Intermediate objective:	**1**
Instrument's objective:	CCyB's objective is to protect the banking system against potential losses when excessive credit growth or other cyclical systemic risks are associated with the build-up of systemic-wide risk, thereby supporting the sustainable provision of credit to the economy[15]. CCyB is built-up when aggregate growth in credit and other asset classes, with a significant impact on the risk profile of banks, are judged to be associated with the build-up of system-wide risk.
Category	**Indicator**
Bank balance sheet variables	Basel III (CRD IV/CRR) Common Equity Tier 1 (CET1) capital ratio Equity to Total assets Return on assets before tax Loan to deposit ratio Short-term wholesale funding ratio Debt service ratio Non-performing loans to total gross loans** Growth of banks' non-core liabilities
Real-economy variables	Credit (defined as debt claims of Cyprus' households and non-financial sectors) to Gross Domestic Product (GDP) ratio Credit-to-GDP gap Nominal GDP Real GDP* Consumer price index Unemployment rate Nominal M3 (M3 is the economic indicator used to forecast inflation (M2) plus large and long-term deposits) Real effective exchange rate Current account balance to GDP
Other credit-related variables	Nominal total credit to non-financial sector* Nominal total credit to non-financial corporations Nominal total credit to households Nominal bank credit to non-financial sector Nominal public debt to nominal GDP Debt service ratio: – for all agents – for non-financial corporations – for households
Market-based variables	Nominal three-month money market rate Nominal long-term interest rate (four to five years of forward looking interest rates) Nominal equity prices* Euro interbank offered rate (EURIBOR) to Overnight index swap (OIS) spread (i.e. the difference between the EURIBOR and overnight index swap rates) London interbank offered rate (LIBOR) to OIS spread (i.e. the difference between the LIBOR and overnight index swap rates)** Average bank CDS premia** Sovereign CDS premia**

[15] ESRB (2014b) "ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector".

	ECB's CISS indicator (composite indicator of systemic stress in the financial system)**
Property variables	Real residential property prices Nominal residential property prices Ratio of nominal residential property prices to nominal income Ratio of nominal property prices to nominal rent Nominal commercial property prices*
Frequency of assessment:	Quarterly review of indicators and assessment of buffer increase/decrease.

Notes:

1. Indicators marked with *: Consider these indicators in both the build-up and release phase;
   Indicators marked with **: Consider these indicators only in the release phase.
2. The CCyB is a CET1 buffer requirement on domestic exposures and is calibrated in intervals of 0,25% or multiples of 0,25%. The lower limit of the CCyB is zero (CRD Article 136(4)).
3. The credit-to-GDP gap has been recognised as a useful indicator by the Basel Committee on Banking Supervision (BCBS) (2010). Credit to GDP gap is the deviation of credit to GDP from its long-term trend. Credit to GDP gaps in excess of 2% signal the risk of banking crisis arising from excessive credit growth[16]. However, this indicator may not adequately capture the turning points and will need to be assessed together with other indicators (i.e. real estate price-based indicators, leverage and private sector indebtedness). A combination of strong credit developments (i.e. credit to GDP gap) and high real estate price growth raises concerns on the basis of excessive credit growth and leverage.

[16] ESRB (2014b) "ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector".

Table 3: Sectoral capital requirements (SCR), Loan-to-value (LTV) ratio, Loan-to-income (LTI) ratio, Debt service-to-income (DSTI) ratio

Instruments:	**Sectoral capital requirements (SCR)** **Loan to Value (LTV) ratio** **Loan to Income (LTI) ratio** **Debt Service to Income (DSTI) ratio**
Intermediate objectives:	**1 and 3**
Instrument's objective:	➢ SCR: Additions to the capital held, increase banks' capacity to absorb losses stemming from real estate loans (i.e. impact on the credit cycle through the price of real estate credit); ➢ LTV: reduces the potential loss of the bank in case the borrower defaults (lower loss given default (LGD)) by restricting the borrower's share of debt-financing using real estate as collateral; ➢ LTI and DSTI: reduce the probability that the borrower will default (lower probability of default (PD)).
Risk driver	**Indicator**
General indicators	Aggregate credit: as a percentage of GDP Value added construction (normalised): as a percentage of GDP
Residential real estate	Household credit: as a percentage of GDP, in terms of level and/or as a cap Household debt-to-income ratio Nominal house prices: as a percentage of growth or as a gap House price to income: as a percentage of growth House price-to-rent: as a percentage of growth Investment in dwellings (normalised): as a percentage of GDP
Commercial real estate	Credit to non-financial corporations: as a percentage of GDP, in terms of level, growth rate and/or as a gap Commercial Real Estate (CRE) prices: as a gap or as a percentage of growth Investment in other buildings (normalised): as a percentage of GDP
Frequency of assessment:	Quarterly review of indicators and assessment of instrument(s) activation/deactivation.

Notes:
1. Given the different objectives and impact of these instruments, combining instruments will aid complementing each other and could reduce the risk of leakage and arbitrage.
2. Debt service ratio may be used as an early warning indicator as it tends to peak just before systemic banking crises occur (around one year before the start of a crisis)[17].
3. A combination of high LTV ratios and increasing asset prices can indicate a credit-driven asset price boom.

[17] Drehmann and Juselius (2012).

Table 4: Systemic risk buffer (SRB)

Instrument:	Systemic risk buffer (SRB)
Intermediate objectives:	**1, 3, 4 and 5**
Instrument's objective:	SRB is intended to prevent and mitigate long-term non-cyclical systemic or macroprudential risks. The SRB should only be used to address risks that are not already covered by Pillar 1 of the Capital Requirements Regulation.
Risk driver	**Indicator**
Indicators on amplification channels (based on three types of structural characteristics)	
i) Commonality institutions' exposures	
Sector/asset classes	Mortgages/total assets Domestic and foreign general government debt/total assets Asset-backed securities/total assets Herfindahl index[18] of sectors/asset classes
Geographical area	Cross-border claims/total assets Claims on single most important foreign country/total assets Herfindahl index of sectors/asset classes
Currency	Share of forex loans/total loans Loans in the most important foreign currency/total assets Share of households' and non-financial corporates' loans in foreign currency/total loans Herfindahl index of sectors/asset classes
Activity	(Proprietary) trading book/total assets
ii) Intra-financial sector contagion	
Balance sheet	Intra-financial sector assets/total assets Intra-financial sector assets by type of asset/total assets
Network effects	Mean geodesic distance (shortest path) between banks as a measure of "proximity" of banks in the network
Bank default	Number of banks failing due to contagion Probability of a simultaneous default by two or more large and complex banking groups Actual banking sector-wide losses/banking sector capital
iii) Financial sector concentration	
Concentration	Herfindahl index of total assets Herfindahl index of banks' turnover in particular markets Market share of Systemically Important Institutions (SIIs) related to the balance sheet of the total banking sector assets as a proportion of the aggregated lending to the private sector.
Indicators of importance of the financial sector to the real economy	
Importance of the financial sector or individual institutions	Total domestic assets/GDP Total assets worldwide/GDP Total bank credit/total credit Total retail deposits/GDP Resolvability
Frequency of assessment:	Annual review of indicators and annual assessment of instrument activation/deactivation.
Activation of SRB:	There is scope to apply an SRB when there is: • A high probability of (large) shocks; • Significant amplification channels;

[18] This is a measure of the size of firms in relation to the industry.

	• A high degree of importance of the financial sector to the real economy.
Determining buffer size:	• Stress testing may be used to assess the amount of potential losses arising from structural systemic risks and thereby use the results as a basis for determining the size of the SRB.

Notes:

1. Some of the drivers of structural systemic risk (i.e. interconnectedness, importance of the financial system), are strongly related to the criteria used for determining an institution's systemic importance.
2. The spectrum of indicators which may determine such distress is very broad. They include (cyclically-adjusted) measures of domestic non-financial sector indebtedness, current account and other macroeconomic imbalances, structural vulnerabilities of important markets or activities (e.g. residential property prices, share of limited recourse loans, unemployment rate).
3. Risks could also stem from the shadow banking sector, from foreign-owned banks and foreign banks' branches.
4. The above list of indicators is non-exhaustive (i.e. additional structural risks may need to be considered). Furthermore, changes in regulation should be considered within the qualitative assessment.
5. Qualitative and expert judgement will complement the abovementioned quantitative assessment. Qualitative criteria are based on "time-dependent" factors (i.e. behavioural reaction of the bank itself) and "reputational contagion" (behaviour of third parties).

Table 5: Own funds requirement, Capital conservation buffer

Instruments:	Own funds requirement Capital conservation buffer
Intermediate objective:	**1, 3 and 4**
Instrument's objective:	Higher own fund requirements and capital conservation buffers reduce broad-based systemic risk by increasing banks' resilience and their capacity to absorb future potential losses when existing levels of minimum requirements are considered insufficient. They can also help to mitigate and prevent excessive credit growth and leverage as they increase the internal cost of providing loans.
Category	**Indicator**
Long-term non-cyclical risk	These are set out in Table 4, SRB indicators.
Time-varying risk	These are set out in Table 2, CCyB indicators
Frequency of assessment:	Annual review of indicators and continuous assessment of own funds requirement.

Notes:

1. Own fund requirements and capital conservation buffer are constituents of Pillar 1.
2. The own funds requirement sets a minimum level of CET1 capital ratio of 4,5% of Risk Weighted Assets (RWA), a Tier 1 capital ratio of 6% of RWA and a total capital ratio of 8% of RWA.
3. The capital conservation buffer is a Common Equity Tier 1 "add-on" of 2,5% of RWA that provides additional loss-absorption capacity in stressed periods. The capital conservation buffer has been fully implemented in Cyprus with effect from 30 January 2015.
4. These two instruments can directly and uniformly apply to all exposures (in contrast with the Countercyclical Capital buffer (CCyB) which targets only domestic exposures).
5. Indicators may be related to bank's balance sheets (i.e. leverage, average risk weights) or the quality of their assets (e.g. valuations of assets, average and marginal LTV ratios, financial condition of banks).

Table 6: Leverage ratio

Instruments:	Leverage ratio
Intermediate objectives:	**1 and 4**
Instrument's objective:	➢ *Cyclical perspective*: to tackle systemic risks from excessive credit and leverage. A higher level of capital can help to mitigate deleveraging in a downturn and stabilise the flow of credit to the economy. ➢ *Structural perspective*: to tackle systemic risks arising from misaligned incentives and "too big to fail" issues surrounding Systemically Important Institutions (SIIs). The leverage ratio increases the resilience of large, complex and interconnected institutions against higher model risk and uncertainty;
Category	**Indicator**
Balance sheet variables	Debt Service to Income ratio Leverage on individual loans or at the asset level Increasing wholesale funding ratio (non-core funding) Asset price deviations from long-term trends
Frequency of assessment:	Quarterly review of indicators.

Notes:

1. Leverage ratio is considered as a complementary measure alongside risk-weighted capital requirements (Basel III capital framework and Capital Requirements Regulation).
2. Leverage ratio is expressed in terms of Core Equity Tier 1 capital to total exposures (i.e. before applying risk weights).
   Total exposures comprise of the following:
   i. Assets excluding derivatives and credit derivatives measured at accounting value;
   ii. Add-on for counterparty credit risk for securities financing transactions (i.e. repos);
   iii. Derivatives measured at replacement cost and an add-on for future exposure;
   iv. Off-balance sheet items, weighted using credit conversion factors between 10% and 100%.
3. The CRR sets out a timeframe with a view to implementing a leverage ratio requirement in the EU as of 2018 (i.e. by 1 January 2018 banks will be subject to both the risk-weighted capital requirements and the leverage ratio).

Table 7: Liquidity coverage ratio (LCR), Net stable funding ratio (NSFR), Loan-to-debt (LTD), Loan-to-stable funding (LTSF), General liquidity surcharge, Liquidity surcharge for systemically important institutions (SIIs)

Instruments:	**Liquidity coverage ratio (LCR)** **Net stable funding ratio (NSFR)** **Loan to deposit (LTD)** **Loan to stable funding (LTSF)** **General liquidity surcharge** **Liquidity surcharge for systemically important institutions (SIIs)**
Intermediate objective:	**2 and 4**
Instrument's objective:	➢ LCR promotes the short-term resilience of a bank's liquidity risk profile by ensuring that it has an adequate stock of unencumbered High Quality Liquid Assets (HQLA) that can be easily and immediately (less than 30 calendar days) converted into cash[19]. ➢ NSFR measures the proportion of long-term assets which are funded by long-term stable funding. ➢ LTD and LTSF can both be used as structural and a cyclical instrument. ➢ The general liquidity surcharge discourages excessive reliance on short-term market funding. ➢ Liquidity surcharge for SIIs addresses negative externalities or spillovers stemming from excessive liquidity risk or maturity transformation by SIIs, including moral hazard. It could be used as a buffer on top of the minimum requirement for the LCR or the NSFR.
Category	**Indicator**
Market illiquidity	
Structural	• Medium/long-term averages of market liquidity metrics (i.e. bid-ask spreads, turnover, trade volumes and/or security issuance).
Cyclical	• Market liquidity metrics, e.g. bid-ask spreads, turnover, trade volumes, and/or securities issuance. • Standard deviation of market liquidity metrics, correlation between market liquidity metrics and credit default swap (CDS) index for banks • Bank funding indicator capturing breakdown of issuance of secured vs. unsecured borrowing • CDS spreads (large banks) • Interbank interest rate spreads, including LIBOR-OIS spread and EURIBOR-OIS spread
Crisis	• ECB financial market liquidity indicator (FMLI) and its components, e.g. for equity and bond markets • Market liquidity metrics, e.g. bid-ask spreads, turnover, trade volumes, and/or securities issuance. • Standard deviation of market liquidity metrics, correlation between market liquidity metrics and CDS index for banks • CDS spreads (large banks) • Interbank interest rate spreads, including LIBOR-OIS spread and EURIBOR-OIS spread
Maturity mismatch (funding risk)	
Structural	• Central bank lending • Weighted average maturity of assets and liabilities • LTD and/or LTSF (e.g. deposits and capital and long-term debt)

[19] ESRB (2014b).

	• Simple generic core funding ratio: [deposits + capital + long-term debt]/total liabilities (or loans) • Simple generic asset liquidity ratio: liquid assets/total assets
Cyclical	• Weighted average maturity of assets and liabilities • LTD and/or LTSF (e.g. deposits + capital + long-term debt) • Simple generic core funding ratio: [deposits + capital + long-term debt]/total liabilities (or loans) • Simple generic asset liquidity ratio: liquid assets/total assets • Bank funding indicator capturing breakdown of issuance of secured vs. unsecured borrowing
Crisis	• Central bank lending • Bank funding indicator capturing breakdown of issuance of secured vs. unsecured borrowing
Liquidity/cash hoarding	
Structural	• Central bank lending
Crisis	• Interbank interest rate spreads, including LIBOR-OIS spread and EURIBOR-OIS spread • Central bank lending
Concentration risk	
Structural	• Composition of bank funding
Cyclical	• Composition of bank funding
Currency mismatch	
Structural	• Net open position in foreign currencies/total assets; alternatively foreign currency liabilities/total assets, foreign currency swap rates
Cyclical	• Net open position in foreign currencies/total assets; alternatively foreign currency liabilities/total assets, foreign currency swap rates
Crisis	• ECB financial market liquidity indicator (foreign currency component) • Exchange rate volatility • Foreign currency swap rates volatility
Frequency of assessment:	Quarterly review of indicators and assessment of instrument activation/deactivation.
Note: 1. The indicators have been grouped in relation to the type of systemic liquidity risk (structural and cyclical liquidity risks and liquidity crises) which they correspond to. In practice, the different types of systemic liquidity risk may overlap.	

Table 8: Measures for intra-financial sector exposures

Instruments:	Measures for intra-financial sector exposures
Intermediate objective:	**1 and 3**
Instrument's objective:	To reduce systemic risk from exposures towards the financial sector (or sub-sectors) by changing the prudential requirements on risk exposures to other banks, investment firms, insurers, a range of funds and other regulated and unregulated financial institutions.
Category	**Indicator**
Bank balance sheet variables	Loan to Deposit ratio Intra-financial lending growth Intra-financial borrowing growth Intra-financial exposures to total banking book Intra-financial exposures to total bank assets Derivatives growth Over-the-Counter (OTC) derivatives growth Largest exposures to financial sector entities over the same entities' CET1 capital
Non-balance sheet variables	Domestic banking sector size to GDP Size of foreign branches to GDP Financial corporate debt to GDP ratio Financial corporate debt to GDP gap Non-bank financial debt to GDP ratio Non-bank financial debt to GDP gap Activities in shadow banking (i.e. issuance of securitised products and assets under management)
Market variables	Real estate valuations: Residential price to rent ratio and/or gap Commercial market yields Real estate lending terms: Residential mortgage loan to value ratio Residential mortgage loan to income ratio Commercial real estate mortgage loan to value ratio Spreads on new lending: Residential mortgage Commercial real estate
Frequency of assessment:	Quarterly review of indicators and annual assessment of the measures for intra-financial exposures increase/decrease.

Notes:

1. The measures can be used in a countercyclical manner (i.e. to mitigate and prevent excessive credit growth and leverage) by absorbing related losses during a downturn, as well as to address structural developments (i.e. excessive exposures to certain types of financial entities).
2. Measures may include:
   i. Increasing micro-prudential capital requirements (i.e. via floors in the Standardised Approach (SA) or multipliers/parameters floors in the Internal Ratings-Based (IRB) approach);
   ii. Tightening the large exposures limits.

Table 9: Large exposures restrictions

Instruments:	Large exposures restrictions
Intermediate objectives:	**3**
Instrument's objective:	To reduce systemic risk from concentration and interconnectedness.
Category	**Indicator**
Concentration risk	Large exposures over total credit
Exposure to specific economic sector	Sectoral exposure over capital
Counterparty risk	Largest exposures of an institution over the institution's equity
Frequency of assessment:	Quarterly review of indicators

Notes:
1. An authority can achieve tightening of large exposure limits using Article 458 of the CRR.
2. A counterparty exposure incurred by a bank is defined as "large" if its value is equal to or exceeds 10% of the bank's eligible capital. The limit for large exposures is 25% of the bank's eligible capital. For exposures to other banks, the value shall not exceed 25% of the bank's eligible capital or EUR 150 million, whichever is the higher under certain conditions.
3. Measures for large exposure restrictions include:
   i. Reducing the 10% threshold for labelling counterparty exposures as "large" or the 25%/EUR 150 million cap for counterparties, or groups of connected counterparties;
   ii. Reducing the limit or removing exemptions for large exposures;

Table 10: Central Counterparties (CCP) clearing requirement

Instruments:	CCP clearing requirement
Intermediate objectives:	**3**
Instrument's objective:	➢ Simplifies network interconnectedness and reduces the potential for contagion; ➢ Centralises risk management; ➢ Provides greater transparency.

Notes:
1. Assessment of CCP clearing requirements may involve the regular review of data and relevant CCP information published by the European Securities and Markets Authority.

Table 11: Margin and haircut requirements on Central counterparties (CCP) clearing

Instruments:	Margin and haircut requirements on CCP clearing
Intermediate objectives:	**2 and 5**
Instrument's objective:	Haircuts and margins play a role in enhancing the robustness of the system by decreasing or limiting the leverage in the financial system or in particular market segments, e.g. the non-bank sector. In particular, they cover credit risk, i.e. to protect themselves against the risks stemming from a default of their counterparty.
Notes: 1. Margins and haircuts requirements are considered whenever a decline in the value of the collateral is expected over the interval between its last revaluation and the time by which it can reasonably be assumed to be liquidated in the event of a participant's default. 2. Liquidity risk indicators (referred in Table 7 – Market illiquidity section) help to assess the liquidity risk profile of collaterals.	

Table 12: Public disclosure requirements

Instruments:	Public disclosure requirements
Intermediate objectives:	**2, 3, 4 and 5**
Instrument's objective:	To discourage excessive risk-taking and increase transparency to market participants when systemic risks are high.
Notes: 1. The measures on public disclosures include: i. higher frequency of disclosures; ii. higher granularity (i.e. by sector or location of exposures); iii. requiring comparable formats for disclosure or disclosure on readily accessible media.	

Table 13: Global systemically important institutions (G-SII) buffer

Instrument:	**Global systemically important institutions (G-SII) buffer**	
Intermediate objective:	**4**	
Instrument's objective:	Aimed to strengthen the resilience of G-SIIs, and thereby the resilience of the financial system, by increasing their loss-absorption capacity. The financial system is better able to withstand both institution-specific and sector-wide shocks.	
Identifying global systemically important institutions (G-SIIs)		
Category	**Indicator**	**Indicator weighting**
1. Size (20%)	Total exposures as defined for use in the Basel III leverage ratio	20%
2. Interconnectedness (20%)	Intra-financial system assets Intra-financial system liabilities Securities outstanding	6,67% 6,67% 6,67%
3. Substitutability/financial institution infrastructure (20%)	Assets under custody Payments activity (payments made in the reporting year – excluding intragroup payments) Underwritten transactions in debt and equity markets	6,67% 6,67% 6,67%
4. Complexity (20%)	Notional amount of OTC derivatives Level 3 assets Trading and available-for-sale securities	6,67% 6,67% 6,67%
5. Cross-jurisdictional activity (20%)	Cross-jurisdictional claims Cross-jurisdictional liabilities	10% 10%
Frequency of assessment:	Annual review of indicators and assessment of instrument activation/deactivation.	

Note:
1. The CRD methodology is followed in identifying G-SIIs. In accordance with CRD IV, there are at least five subcategories of G-SIIs. The lowest sub-category is assigned a G-SII buffer of 1% of the total risk exposure amount. The buffer assigned to each sub-category shall increase in gradients of 0,5% of the total risk exposure amount. The highest sub-category of the G-SII buffer is subject to a buffer of 3,5% of the total risk exposure amount.

Table 14: Other systemically important institutions (O-SII) buffer

Instrument:	**Other systemically important institutions (O-SII) buffer**	
Intermediate objective:	**4**	
Instrument's objective:	The objective is to reduce moral hazard and make O-SIIs more safe.	
Mandatory indicators: Identifying national (other) systemically important institutions (O-SIIs)		
Category	**Indicator**	**Indicator weighting**
1. Size (25%)	Total assets	25%
2. Importance (including substitutability/financial system infrastructure) (25%)	Value of domestic payment transactions Private sector deposits from depositors in the EU Private sector loans to recipients in the EU	8,33% 8,33% 8,33%
3. Complexity/cross-border activity (25%)	Value of OTC derivatives (notional) Cross-jurisdictional liabilities Cross-jurisdictional claims	8,33% 8,33% 8,33%
4. Interconnectedness (25%)	Interbank liabilities Interbank assets Debt securities outstanding	8,33% 8,33% 8,33%
Frequency of assessment:	Annual review of indicators and assessment of the level of the O-SII buffer.	

Notes:
1. In accordance to the EBA's guidelines, institutions with a score equal to or higher than 350 basis points should be automatically designated as O-SIIs.
2. In addition to the mandatory framework, supervisory judgement is exercised by considering both qualitative and quantitative factors not captured in the cause-effect relationship of the framework.
3. In line with the CRD, banks may be assessed with respect to their degree of systemic importance at the individual, sub-consolidated or consolidated basis.
4. A set from the optional indicators (as included in EBA's Guidelines, 2014) may be incorporated in the assessment.

The CBC periodically reviews the effectiveness and efficiency of the macroprudential instruments selected in achieving the ultimate and intermediate objectives of macroprudential policy. The Financial Stability Department is responsible for informing the Board of the CBC on the effectiveness and efficiency of the instruments. In particular, the Financial Stability Department will regularly provide an analysis to the Board of the CBC on how the set of macroprudential instruments is selected, as well as the social costs they may entail when imposing restrictions on entities and activities (a cost-benefit analysis). This analysis should focus on the source of systemic risk and the aim is to limit negative spillovers. If based on the review, the establishment of new macroprudential instruments is considered to be necessary, the CBC accordingly designs the appropriate instruments.

4.3 Coordination with the relevant authorities

In deciding the most appropriate macroprudential measures to be used for addressing systemic risks, cooperation is needed between the relevant authorities. In particular, cooperation is required between the authorities that are responsible for the application of macroprudential and micro-prudential policies, as both policy types complement each other and thereby have a key role in building up a more robust and sustainable financial system.

In accordance with the national laws[20], the CBC may designate and/or develop, in cooperation or coordination with other competent authorities of the Republic, the surveillance approaches for identifying the financial institutions and structures that are systemically relevant for the Republic, and to determine or recommend on the perimeter of national legislation. The Memorandum of Understanding[21] between the CBC, the Cyprus Securities and Exchange Commission, the Insurance Companies Control Service and the Ministry of Finance provides the forum for the cooperation for the safeguarding of the stability of the financial system[22]. Subject to the provisions of national laws[23] and the Regulations in force within the framework of the ESRB and the ECB-SSM, the CBC may issue special or general instructions or guidelines to financial institutions, which it may publish as it may deem necessary. The CBC also has recommendation powers in the application of macroprudential tools.

EU-wide coordination of national macroprudential policy is key in the prevention / mitigation of cross-border spillovers. The CBC may cooperate and exchange any data and information with other competent authorities in the Republic and in Member States and with competent authorities of the European Union, including the ECB and ESRB, or with competent authorities of third countries, ensuring confidentiality and that considerations are fully respected[24]. In addition, CBC may develop and apply the appropriate instruments for carrying out its tasks, for the purpose of implementing the recommendation of the ESRB, for the purpose of implementing the recommendations or decisions of the ECB in accordance with European Union legislation[25]. The CBC needs to inform the ESRB prior to the application of macroprudential instruments at national level if significant cross-border effects on other Member States or the single market are to be expected.

[20] *Article 47A (4) of Central Bank of Cyprus Law, 2002 - (No.3) 2014 and Macroprudential Oversight of Institutions Law, 6(I) 2015.*
[21] *Memorandum of Understanding (November 2007).*
[22] http://www.centralbank.gov.cy/nqcontent.cfm?a_id=11784.
[23] *Article 5A of Central Bank of Cyprus Laws, 2002 - (No.3) 2014.*
[24] *Article 47A (5) of Central Bank of Cyprus Laws, 2002 - (No.3) 2014.*
[25] *Article 47A (6) of Central Bank of Cyprus Laws, 2002 - (No.3) 2014.*

In accordance to Article 5 of the SSM Regulation[26], refering to supervised entities and groups established in the relevant participating Member State in close cooperation, the CBC has to inform the ECB 10 working days prior to taking macroprudential decisions. The macroprudential decisions can be taken only if the ECB does not object in writing within five working days. Such objection shall be in writing, stating the reasons for the objection.

[26] *Article 5 of Regulation (EU) No 468/2014 of the European Central Bank, 16 April 2014.*

5. Transparency and accountability of macroprudential policy

Transparency and clear communication of policy decisions to the public is a central element of accountability. Strong accountability is achieved by following a transparent framework both *ex ante* on the policy strategy adopted and *ex post* on how the strategy is actually applied and therefore guiding expectations about the macroprudential authority's actions. The CBC has introduced additional disclosures on macroprudential policy decisions[27], whereby the CBC:

- Makes public any macroprudential policy decisions and its motivation in a timely manner, unless there are risks to financial stability in doing so, and sets out and publishes the macroprudential policy strategies;
- May make public and non-public statements on systemic risks;
- Informs the House of Representatives for any macroprudential policy decisions and the justification, timely, as well as the macroprudential policy strategies as determined by the CBC. The CBC shall submit an annual report on the macroprudential policy of the previous year to the House of Representatives.

Given the mandate of the CBC on the disclosure of macroprudential policy decisions, the CBC will be publishing information on CCyB buffer rates, O-SII scores and O-SII buffer rates.

Ex ante transparency is achieved by the publication of intermediate objectives, the macroprudential instruments used to address specific risks and the possible indicators which guide the activation/relaxation of macroprudential instruments.

Ex post transparency is further achieved by publishing values of indicators.

[27] *Article 47A (8-10) of Central Bank of Cyprus Laws, 2002, - (No.3) 2014.*

Annexes

Annex 1: Financial stability definitions

"Financial stability is a precondition for the financial system to provide credit, supporting sustainable economic growth."[28]
"Financial stability can be defined as a condition in which the financial system – intermediaries, markets and market infrastructures – can withstand shocks without major disruption in financial intermediation and in the effective allocation of savings to productive investment."[29]
"Financial stability, in the field of insurance and pension funds, can be seen as the absence of major disruptions in the financial markets, which could negatively impact insurance undertakings or pension funds."[30]
"…to strengthen the financial system in order to be capable of withstanding shocks and the unravelling of financial imbalances while fostering economic growth.[31]*"*
"…financial stability is a condition where the financial system is able to withstand shocks without giving way to cumulative processes, which impair the allocation of savings to investment opportunities and the processing of payments in the economy."[32]
"A financial system is in a range of stability whenever it is capable of facilitating (rather than impeding) the performance of an economy and of dissipating financial imbalances that arise endogenously or as a result of significant adverse and unanticipated events"[33]*.*

[28] ESRB (2013) "Recommendation on intermediate objective and instruments of macroprudential policy".
[29] ECB's website.
[30] EIOPA (2014) "Financial Stability Report".
[31] ESMA (2014) "ESMA Annual Report 2014".
[32] Padoa-Schioppa (2002).
[33] Schinasi (2004).

Annex 2: Indicators signalling the relaxation of macroprudential instruments

Table 15: Indicative list of indicators for the relaxation of macroprudential instruments[34]

Macroprudential instrument	Indicators
Capital instruments	• High frequency indicators of balance sheet stress (i.e. increases in bank CDS spreads) • Increases in lending rates/spreads • Slowing in the credit growth • Increasing default rates and NPLs/arrears • Indication of worsening credit supply from lending surveys
Household instruments	• Decreasing house prices • Decreasing real estate transactions • Increasing spreads on household loans • Decreasing prices of mortgage backed securities (“MBS”) • Slowing net household loan growth (change in stock) • Slowing growth of new household loans (flow) • Increasing household NPLs/arrears
Corporate instruments	• High frequency indicators, (i.e. corporate CDS spreads, bond yields) • Increases in lending rates/spreads • Decreasing corporate loan growth • Increasing corporate default rates/NPLs/arrears • Indication of worsening credit supply from lending surveys
Liquidity instruments	• Increasing spread between interbank rate and policy/swap rate • Increasing funding costs in the wholesale market • Increased recourse to central bank liquidity windows • Swap rate of local currency against foreign exchange and foreign exchange implied volatility • Reversal of gross capital inflows

[34] IMF (2014) “Staff guidance note on macroprudential policy”.

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