ESRB
European Systemic Risk Board
European System of Financial Supervision

EUROPEAN CENTRAL BANK
EUROSYSTEM

Notification template for borrower-based measures

Please send/upload this template to:

- macropru.notifications@ecb.europa.eu when notifying the European Central Bank (ECB);
- DARWIN/ASTRA when notifying the European Systemic Risk Board (ESRB).

This notification will be made public by the ESRB once the relevant authorities have adopted and published the notified macroprudential measure[1].

E-mailing/uploading this template to the above addresses constitutes official notification; no further official letter is required. In order to facilitate the work of the notified authorities, please send the notification template in a format that allows the information to be read electronically.

1. Notifying national authority and scope of the notification		
1.1	Name of the notifying authority	Bank of Greece.
1.2	Country of the notifying authority	Greece.
1.3	Type of borrower-based measure	Please select one of the measures listed below: ☒ Debt-service-to-income (DSTI) ☐ Loan-to-income (LTI) ☒ Loan-to-value (LTV) ☐ Debt-to-income (DTI) ☐ Loan maturity ☐ Other (please provide a short, name-like description here and provide more details in Section 2)
1.4	Type of notification	What do you intend to notify? ☒ Activation of a new measure ☐ Change to an existing measure ☐ Extension of an existing measure ☐ Termination of an existing measure

[1] On request by the notifying authority, it may be agreed with the Head of the ESRB Secretariat that this notification, or a part thereof, should not be published for reasons of confidentiality or financial stability.

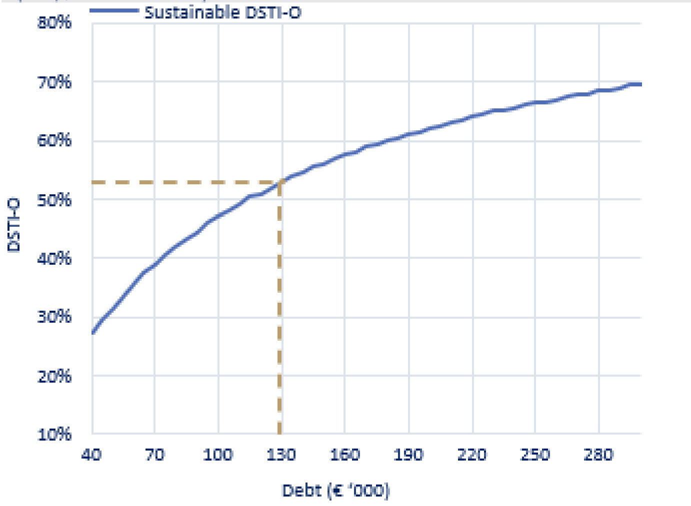
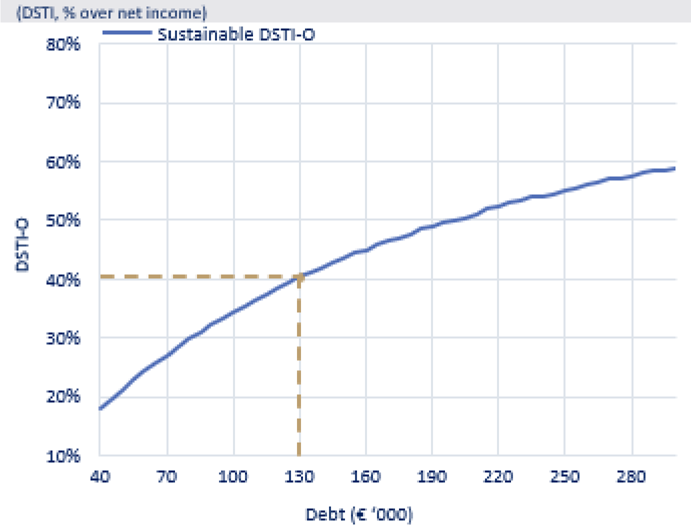
2. Description of the measure		
2.1	Description of the measure	*Provide a detailed description of the measure, including:* - *The nature and value(s) of the restrictions imposed by the measure, as applicable. If the measure varies depending on certain characteristics of the loan or borrower, please specify all such cases.* *Whether exceptions from the measure are allowed. If so, please specify the nature and size(s) of the exceptions, as applicable.* On 8 March 2024, the Bank of Greece Executive Committee (Executive Committee Act (ECA) 227/1/08.03.2024) introduced binding borrower-based measures regarding loans and other credit to natural persons secured by residential real estate located in Greece, namely a cap on the loan-to-value at origination ratio (LTV-O ratio) at 90% for first-time buyers (FTBs) and 80% for second and subsequent buyers (SSBs) as well as a cap on the debt-service-to-income at origination ratio (DSTI-O ratio) at 50% for FTBs and 40% for SSBs. • The proposed measures shall not apply to: ➢ non-performing loans (NPLs) under Article 47a of Regulation (EU) No 575/2013; ➢ forborne loans under Article 47b of Regulation (EU) No 575/2013; ➢ loans disbursed in the context of housing policy schemes and green transition programmes; ➢ portfolios of re-performing loans purchased by credit institutions from NPL servicers licensed under Law 5072/2023. • Credit providers are allowed to exempt 10% of the total number of new loans approved and at least partially disbursed in each quarter from each of the abovementioned caps.
2.2	Definition of the measure	*Please provide a detailed definition of each variable used in the construction of the indicator, which is subject to the restrictions, as applicable (e.g. define what constitutes the value of the loan (L) and what counts towards valuation of the collateral (V) for an LTV indicator).*

		Definitions are drawn from and aligned with the ESRB Recommendation on closing real estate data gaps (ESRB 2016/14 as amended by the ESRB 2019/3). Within the scope of our national discretion please take note of the following: • For housing under construction, the LTV-O is calculated by considering the total approved loan amount and the expected value upon completion of the RRE property that is being constructed. This corresponds to the prevailing market practice. • The L component may be adjusted for the presence of cash collateral (i.e. subtracted). • The total amount of all outstanding RRE loans - disbursed or not - which are secured by 'senior liens' on the property are deducted from the value of the property (V). • For the calculation of the DSTI-O ratio, 'I' represents the total annual disposable income of all the signatories of the loan / credit agreement (borrower, co-borrower, guarantor) as registered by the credit provider at loan origination. In the same vein, "DS' represents the annual debt servicing costs of the total debt of all the signatories of the loan / credit agreement. • The definition of disposable income for natural persons is in line with the ESRB definition and the relevant information is derived from tax receipts. In this vein, the only deviation relates to rental income, where the gross rental income is factored in (the net rental income is not available). For the avoidance of doubt, in cases of a grace period or a period of reduced payments, "DS" is computed once regular repayment of the debt has commenced. *Please include:* a) *Value of the loan/debt (for loan/debt-to-income), or value of the loan/debt instalments (for loan/debt service-to-income indicators)* - *What types of loans are included?* Loans and other credit to natural persons.

		b) Value of the collateral - *What type of collateral can be included?* Residential real estate located in Greece can be included as collateral for the abovementioned loans or other credit. *c) Income* - *Is it gross or net income? What types of incomes are considered? If average income is considered, how long is the period considered?* Disposable income per ESRB definition (see above).
2.3	Legal basis and process of implementation of the measure	*Specify the legal basis and process of implementation of the measure. Please include:* - *how the notified measure is implemented;* - *whether or not the notified measure is legally binding (e.g. a recommendation);* According to Article 133A of Greece's Banking Law (Law 4261/2014), the Bank of Greece has the power to enact borrower-based macroprudential measures to be implemented by institutions, financial institutions and financial sector entities established and operating in Greece, as well as branches in Greece of institutions or entities incorporated in EU or non-EU countries, in connection with loans or other credit to natural or legal persons secured by real estate located in Greece. The notified measure has been adopted by means of ECA 227/1/08.03.2024 and has a legally binding nature.
2.4	Coverage	*a. Which types of credit providers will be covered by the measure? e.g. credit institutions (including local branches of foreign credit providers), certain other financial institutions (e.g. pension funds, insurance companies, investment funds), etc.* *Please specify whether coverage of the measure is limited based on the type of activity of the credit provider, e.g. to mortgage credit providers.* The perimeter of the notified measure includes institutions (i.e. credit institutions or undertakings, within the meaning of points (1)(a) and (b) of Article 4(1) Regulation (EU) No 575/2013), financial institutions (within the meaning of point

		(26) of Article 4(1) Regulation (EU) No 575/2013) and financial sector entities (within the meaning of point (27) of Article 4(1) Regulation (EU) No 575/2013) established and operating in Greece, as well as branches in Greece of such institutions or entities incorporated in EU or non-EU countries. *b. Which types of borrowers will be covered by the measure?* The notified measure is applicable to natural persons.
		c. Which types of lending will be covered by the measure? e.g. mortgage loans, consumer loans that are provided to consumers with a mortgage, consumer loans, debt securities issued and overall debt of non-financial companies, etc. Loans or other credit to natural persons secured by residential real estate located in Greece. The proposed measures shall not apply to: ➢ non-performing loans (NPLs) under Article 47a of Regulation (EU) No 575/2013; ➢ forborne loans under Article 47b of Regulation (EU) No 575/2013; ➢ loans disbursed in the context of housing policy schemes and green transition programmes; ➢ portfolios of re-performing loans purchased by credit institutions from NPL servicers licensed under Law 5072/2023.
2.5	Calibration	*Provide information on how the measure was calibrated, including the main assumptions used therefor.* For the calibration of the DSTI-O cap, we used the concept of sustainable DSTI-O (DSTI-O$_{_s}$), which represents the maximum DSTI-O value ensuring a positive financial reserve under stress (FR$_{_s}$) for any given debt level. This

		approach follows the calibration proposition of Hejlováa et al. (2021). The financial reserve under stress is affected by the net income, the subsistence costs, the maintenance costs of the property under consideration and the debt service, as shown in the expression below. $\boldsymbol{FR_{\_s} = net\ income_{\_s} - subsistence\ costs - debt\ service_{\_s} - property\ maintanance\ cost,}$ where: - net income is inferred for various DSTI-O values; - subsistence costs are derived from the 2023 Household Budget Survey (Hellenic Statistical Authority - ELSTAT), varying based on household size (two members for FTBs and four members for SSBs); - property maintenance costs are calculated as 0.5% of the property's value, which is determined based on the debt size, assuming an 80% LTV-O; - debt service is influenced by the interest rate, amortization schedule, and loan maturity. We assume a linear amortization schedule. The baseline interest rate scenario is based on the average interest rate for new mortgage loans disbursed in August 2023. Given the elevated interest rates, further stress testing of interest rate assumptions was not deemed necessary. The baseline loan maturity scenario is determined by the average maturity of newly originated RRE loans in Q2 2023. The charts below illustrate the DSTI-O$_{_s}$ levels for various debt levels. The DSTI-O cap is set for a representative debt size per individual, assumed to be €130,000.

		Debt & level of sustainable DSTI-O, first-time buyer (DSTI, % over net income)  Source: Bank of Greece calculations. **Debt & level of sustainable DSTI-O, second and subsequent buyers** (DSTI, % over net income)  Source: Bank of Greece calculations. Considering that Greek banks uphold prudent lending standards and that real estate loan disbursements remain subdued, both in absolute figures and compared to pre-GFC levels, we have chosen to minimise the impact on new real estate loan disbursements. At the same time, we aim to provide sufficient flexibility for banks in implementing the measures while also encouraging prudent lending standards going forward. Therefore, we allowed an exemption for 10% of the total number of new loans approved and at least

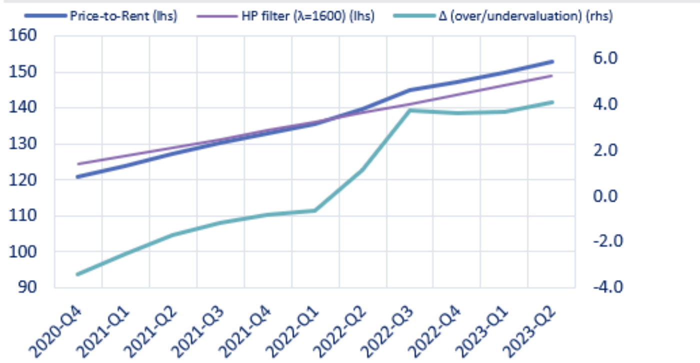
partially disbursed in each quarter to exceed the imposed DSTI-O ratio caps.

The LTV-O calibration also draws on the work of [Hejlováa et al. (2021)](). We recognize that LTV-C values exceeding 100% result in credit losses for institutions in the event of default. LTV-C may exceed 100% during market price corrections, especially in an overvalued RRE market. We define the sustainable LTV-O level (LTV-O$_{_s}$) as the LTV-O that ensures LTV values remain below 100% even during a market price correction. The anticipated price correction can be estimated by the current and prospective level of overvaluation in the RRE property market. Thus, the LTV-O$_{_s}$ is given by the following expression:

$$LTV\text{-}O_{\_s} \leq 100\% - overvaluation$$

To determine the current level of overvaluation, we computed the difference between the price-to-rent ratio and its long-term average.

Price-to-rent ratio evolution and estimated level of RRE over/undervaluation (Q4 2020 - Q2 2023)



Source: Bank of Greece calculations.
Note: The level of over/undervaluation in the RRE market is approached by the difference between the price-to-rent ratio from the long-term average.

Given the strong expansionary phase of the RRE market in Greece and the foreseen phase-in period of almost a year, we set an LTV-O of 80% for SSBs and an LTV-O of 90% for FTBs. The differentiation between SSBs and FTBs is based on social cohesion purposes.

Similar to the reasoning for the DSTI-O ratio calibration, we allowed an exemption for 10% of the total number of new loans approved and at least partially disbursed in each quarter to exceed the imposed LTV-O ratio caps.

3. Timing for the measure		
3.1	Timing for the decision	*What is the date of the official decision of the notified measure?* 08/03/2024
3.2	Timing for publication	The Executive Committee Act of the Bank of Greece adopting borrower-based measures was published in the Government Gazette of the Hellenic Republic on: 15/03/2024
3.3	Disclosure	The decision was disclosed on 21/03/2024 on the Bank of Greece website by means of a press release https://www.bankofgreece.gr/en/news-and-media/press-office/news-list/news?announcement=491c0d72-bc75-45a4-8fc2-6effd43c34c9 which also contains a link to the text of the Executive Committee Act [in Greek].
3.4	Timing for the application	What is the intended date for application of the measure? What is the intended timeline for phase-in of the measure, if relevant? 01/01/2025
3.5	End date (if applicable)	Until when is it presumed that the measure will be in place? If applicable, please give an end date. Click here to enter a date.
4. Reason for activation of the measure		
4.1	Description of the macroprudential risk	Credit growth and leverage.

4.2	Indicators used for activation of the measure	*Provide the indicators triggering activation of the measure. Provide the data on which the decision is based if possible (preferably in an Excel file).* The decision to implement a DSTI-O cap stemmed from the observed rise in the weighted average DSTI-O level and the growing proportion of loans with elevated DSTI-O ratios (exceeding 60%) since the commencement of data collection on RRE loans. Similarly, the motivation for introducing an LTV-O ratio cap was based on the estimated level of overvaluation, as detailed in the calibration section above (refer to paragraph 2.5).
4.3	Effects of the measure	*Provide your assessment of the effects of the measure on your domestic banking system, other parts of the financial system, the real economy and financial stability in your country.* We expect the measures to encourage Greek banks to maintain prudent lending standards regarding RRE loans. According to the literature, the introduction of BBMs is expected to improve household resilience, enhance the quality of bank mortgage portfolios over time, and support bank solvency ratios (Jurca et al. 2020, Neugebauer et al. 2021, Giannoulakis et al. 2023). We conducted an impact assessment based on RRE loan disbursements of the four significant institutions for the period January 2022 – December 2023 (the four SIs represent approximately 95% of the total). Specifically, the DSTI-O cap would imply a small reduction in RRE loan production between 1% and 5% of the aggregate number of loans disbursed in the period January 2022 – December 2023, especially when factoring in the 10% exemption. Similarly, for the LTV-O cap, the estimated reduction ranges from 0% to 5%. Taken together, the cumulative impact of both measures would not exceed 10% of the total RRE loan production.
5.	**Sufficiency, consistency and non-overlap of the policy response**	

5.1	Sufficiency of the policy response	*For a macroprudential policy to be 'sufficient', the policy responses must be deemed to significantly mitigate, or reduce the build-up of, risks over an appropriate time horizon with a limited unintended impact on the general economy.* *Note that the ESRB will use this assessment of the macroprudential stance as relevant input in assessing the sufficiency of the macroprudential policy in the Member State.* *Please provide any additional information that the ESRB should consider in assessing the sufficiency of the policy response.* Greek banks currently apply prudent lending standards in RRE loans. For instance, the average LTV-O stood at 63% in 2022 and the first 9 months of 2023, and the average DSTI-O increased only slightly to 32% in the first 9 months of 2023 from 31% in 2022. Moreover, the current banks' credit policies seem to have in place caps at similar levels with the ones that are being set by the implemented measures. Hence, the implemented caps (i.e. their calibration) are deemed sufficient to mitigate any build-up of RRE-related risks in the medium term. In addition, RRE loan disbursements remain low both in absolute terms (2023: €1 billion, 2022: € 1.1 billion) and in relative terms (compared with the pre-crisis period - €10-12 billion annually for the period 2005-2007). Moreover, housing loan balances are still contracting on an annual basis since repayments are higher than new disbursements. Hence, our objective with BBMs is not to limit loan disbursements but to maintain prudent lending standards.

5.2	Consistency of application of the policy response	*For a macroprudential policy to be 'consistent', the policy instruments must be deemed to meet their respective objectives, as outlined in ESRB/2013/1[2], and they must be implemented in accordance with the common principles set out in the relevant legal texts.* *Note that the ESRB assessment of consistency will consider whether the same systemic risks are addressed in a similar way across and within the Member States over time.* *Please provide any additional information that the ESRB should consider in assessing the consistency of the policy response.* Regarding macroprudential instruments, so far the Bank of Greece has only implemented an O-SII buffer rate, which clearly addresses different risks (namely moral hazard). The Bank of Greece has not yet activated the CCyB, the SyRB or other sector-specific macroprudential measures. Hence, the implementation of BBMs for addressing credit growth and leverage is consistent.
5.3	Non-overlap of the policy response	*For a policy instrument to be 'non-overlapping', it should aim to address a systemic risk that either differs from the risk addressed by other active tools in the same Member State, or to be complementary to another tool in that Member State which addresses the same systemic risk.* - *Are other policy instruments used to address the <u>same</u> systemic risk?* - *If yes, please explain the need for more than one instrument to address the same systemic risk and how the different instruments interact with each other.* See answer above.
6. Cross-border and cross-sector impact of the measure		

[2] Recommendation of the European Systemic Risk Board of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy (ESRB/2013/1) (OJ C 170, 15.6.2013, p. 1).

6.1	Assessment of cross-border effects and the likely impact on the Internal Market (Recommendation ESRB/2015/2[3])	*Assessment of the cross-border effects of implementation of the measure.* *a. Assessment of the spillover channels operating via risk adjustment and regulatory arbitrage. The relevant indicators provided in Chapter 11 of the ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector[4] and the* [*Framework to assess cross-border spillover effects of macroprudential policies*]() *of the ECB Task Force on cross-border spillover effects of macroprudential measures can be used.* *b. Assessment of the:* ○ *cross-border effects of implementation of the measure in your own jurisdiction (inward spillovers);* ○ *cross-border effects on other Member States and on the Single Market of the measure (outward spillovers);* ○ *overall impact on the Single Market of implementation of the measure.* The measure applies only to loans and other credit to natural persons collateralised by RRE located in Greece. Moreover, the four Greek SIs represent approximately 95% of new disbursements. Hence, cross border effects are anticipated to be negligible.
6.2	Assessment of leakages and regulatory arbitrage within the notifying Member State	*Referring to your Member State's specific characteristics, what is the scope for "leakages and regulatory arbitrage" in your own jurisdiction (i.e. circumvention of the measure/leakages to other parts of the financial sector)?* *Is there scope for "leakages and regulatory arbitrage" in other jurisdictions?* Currently only credit institutions provide RRE loans to natural persons in Greece. To the extent that the measures also cover other credit providers, no leakages or regulatory arbitrage is anticipated.
6.3	Request for reciprocation	*Do you intend to ask the ESRB to issue a recommendation to other Member States to reciprocate the measure?* *Choose an item.* *- If yes, please provide in Section 6.4 the justification for that reciprocity.*

[3] Recommendation of the European Systemic Risk Board of 15 December 2015 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures (ESRB/2015/3) (OJ C 97, 12.3.2016, p. 9).
[4] Available on the ESRB's website at www.esrb.europa.eu.

		- If no, what are the reasons for not requesting reciprocation? We do not intend to ask for a reciprocation of the measure (see above rationale on cross-border effects).
6.4	Justification for the request for reciprocation	*To request reciprocation, please provide the following:* *a. a concise description of the measure to be reciprocated;* *b. the financial stability considerations underlying the reciprocity request, including the reasons why the reciprocity of the activated measure is deemed necessary for its effectiveness;* *c. the proposed materiality threshold and justification for that level.* *If the ESRB deems the request for reciprocation to be justified, the description provided will form the basis for translation into all EU official languages for the purposes of an update of ESRB Recommendation 2015/2.* Not applicable.
7. Miscellaneous		
7.1	Contact person(s)/mailbox at notifying authority	Nikolaos Stavrianou e-mail: nstavrianou@bankofgreece.gr Phone contact: 0030 210 3205123 Katerina Lagaria e-mail: klagaria@bankofgreece.gr Phone contact: 0030 210 3205077
7.2	Any other relevant information	
7.3	Date of the notification	22/03/2024