



# HOW CAN MACROPRUDENTIAL POLICY MITIGATE CLIMATE-RELATED SYSTEMIC RISK?

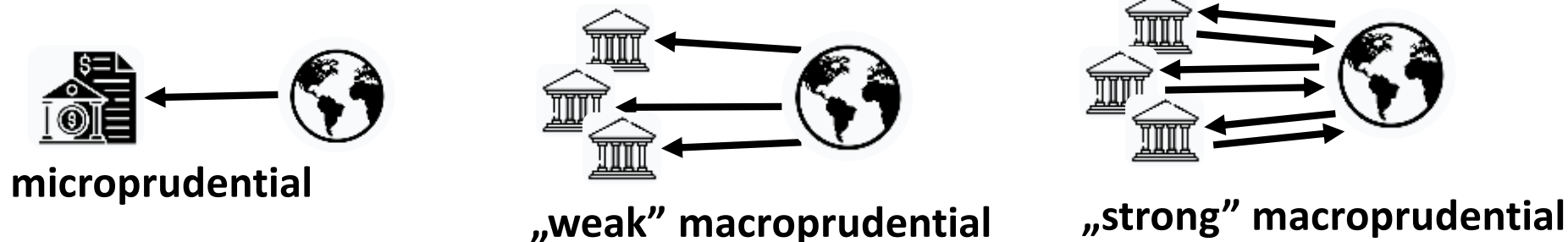
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# SINCE 2021, ENVIRONMENTAL SUSTAINABILITY HAS BEEN INCLUDED IN THE MNB'S STATUTORY OBJECTIVES



There is an ongoing debate whether prudential policy is suitable to shape the double materiality relation between the financial system and climate change.



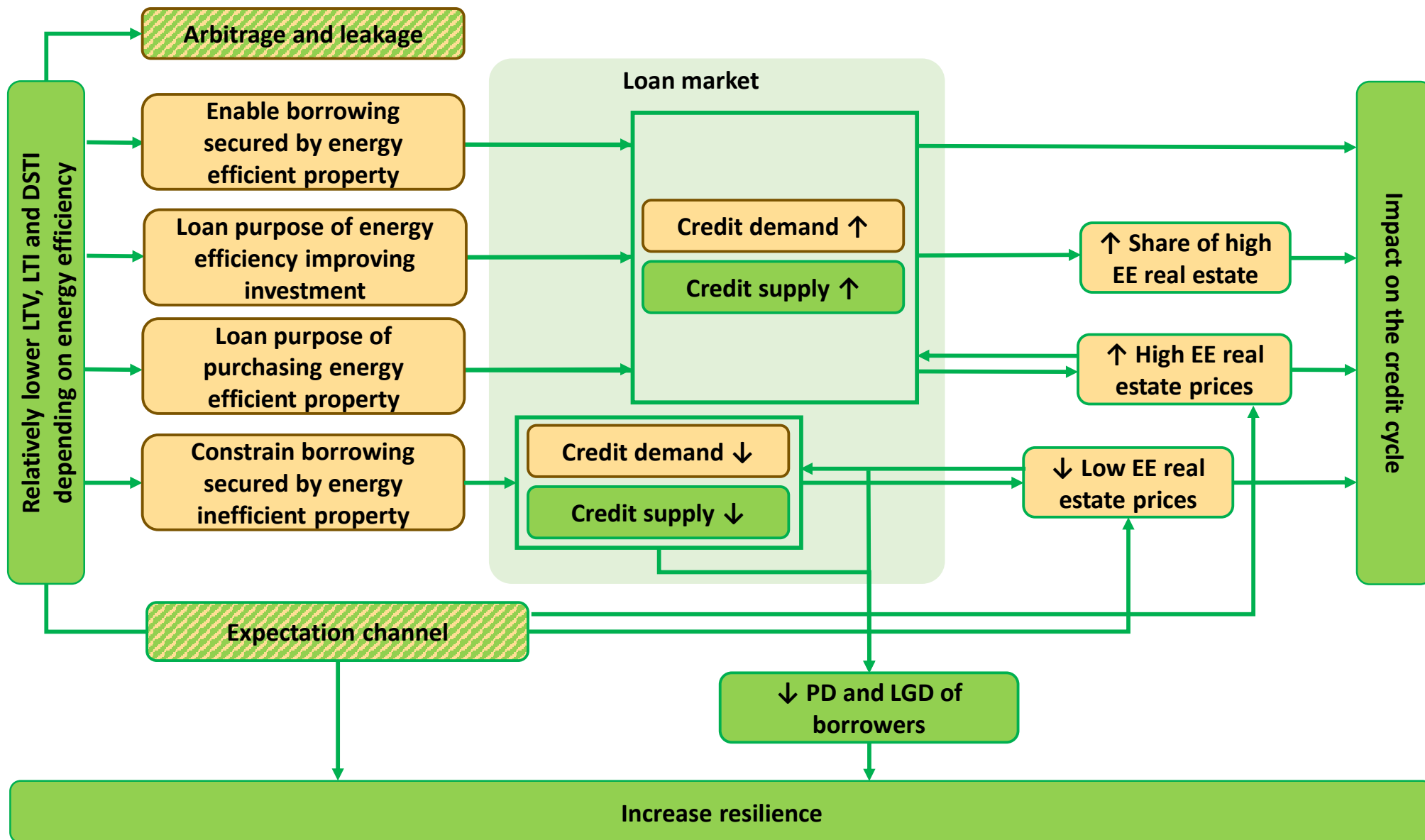
Coined by [Dafermos & Nikolaidi \(2022\)](#): „ [...] the environment poses risks to the financial system, but at the same time the financial system can affect environmental outcomes, which in turn affect the risks that banks are exposed to.” See also [Boissinot et al. \(2022\)](#) on systemic double materiality.

In May 2021, MNB received a sustainability mandate:

*“(1) The primary objective of the MNB shall be to achieve and maintain price stability.  
(2) Without prejudice to its primary objective, the MNB shall support the maintenance of the stability of the system of financial intermediation, the enhancement of its resilience, its sustainable contribution to economic growth; furthermore, the MNB shall support the government’s economic policy and its policy related to **environmental sustainability**, using instruments at its disposal.”*

*Article 3 of Act CXXXIX of 2013 on the Magyar Nemzeti Bank*

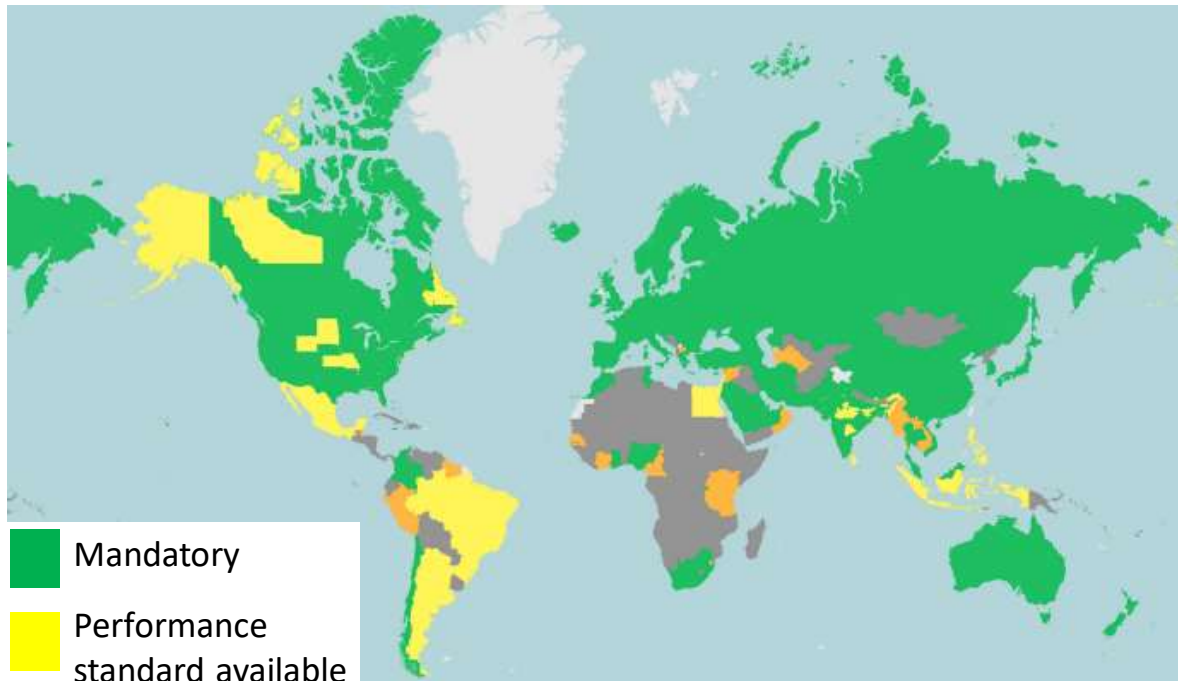
# THEORETICAL RATIONALE FOR APPLYING BBM AGAINST CRFR



**Conceptual background**

*Green hypotheses for green mortgage lending suggest that loans secured by energy-efficient (EE) real estate have a lower PD and LGD*

→ This risk difference may be factored in the BBM limits



**Global status of building energy codes in 2022**

Source: [IEA: Energy Efficiency 2022](#)

**Beyond enforcement, modelling and calibration may also necessitate additional data for comprehensive risk assessment (e.g. flood maps, or household energy expenses)**

## Regulatory reporting requirements

- Transactional data collected through the credit register involves key energy efficiency variables
- Enriched set of variables to describe collateral RE

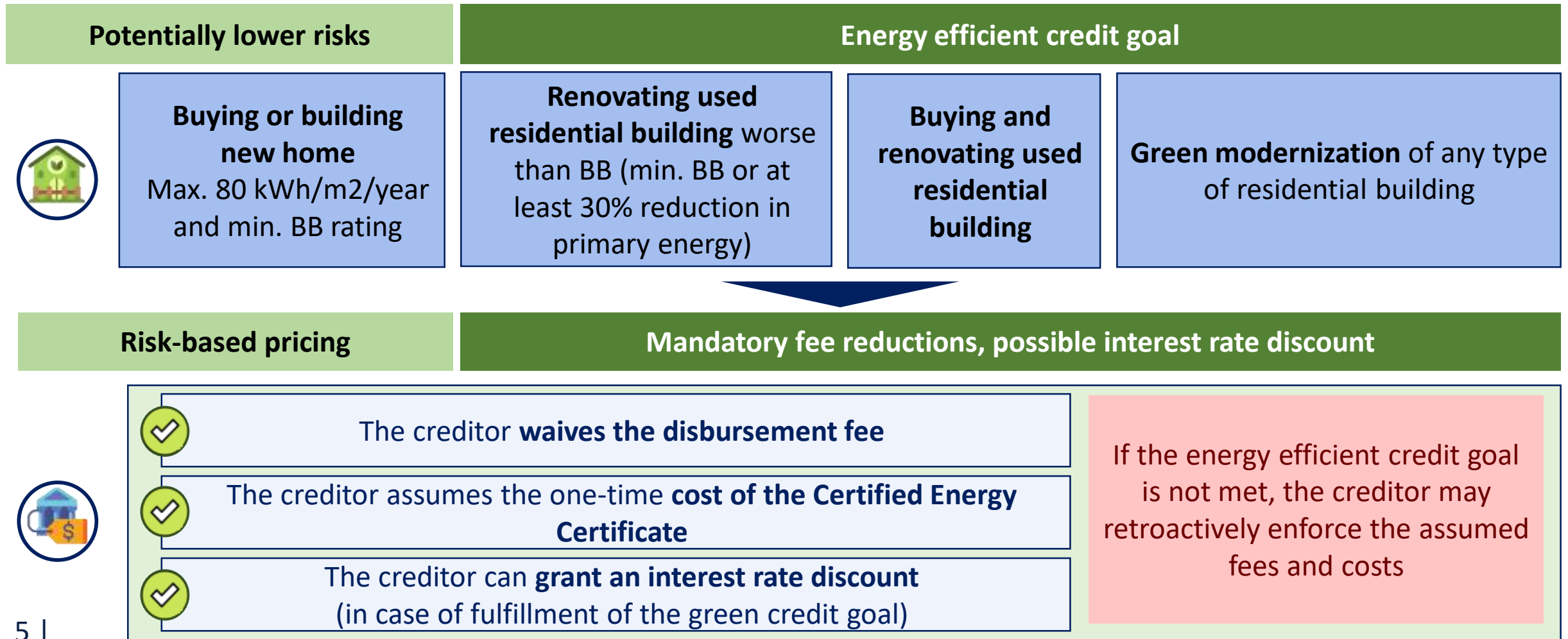
## Lenders' access to data

- Both legal and technical conditions should be ready to support mass data queries from a database of energy certificates

# MARKET-BASED GREEN FUNDING CAN BE SUPPORTED BY CERTIFIED CONSUMER-FRIENDLY HOUSING LOANS (CCHL)



The MNB is planning to incorporate green aspects into the CCHL framework to contribute to the disbursement of green loans and increase the energy efficiency of the domestic building stock



# THE SUITABILITY OF ESTABLISHED BUFFER FRAMEWORKS COULD PROVE LIMITED TO INTEGRATE CRFRS



**Countercyclical capital buffer (CCyB):** firstly, the CCyB can be used to protect the banking system against the risks of cyclical excess credit growth and allows for “soft landing” in the event of a crisis. Secondly, the instrument might mitigate the fluctuations of the financial cycle.

- What is the likelihood of a green bubble, a financial down-turn deepened by extensive exposure to CRFRs, or clear systematic dependence between credit outflow and emissions?
- The integration of CRFR risk measures into the cyclical risk monitoring of CCyB would have to be solved



**Systemically important banks' buffers (G-SIIB/O-SIIB):** limit the severe contagion effects stemming from the insolvency or stress of systemically important institutions, curtailing the misaligned motivation of managers and owners of capital arising from the moral hazard problem.

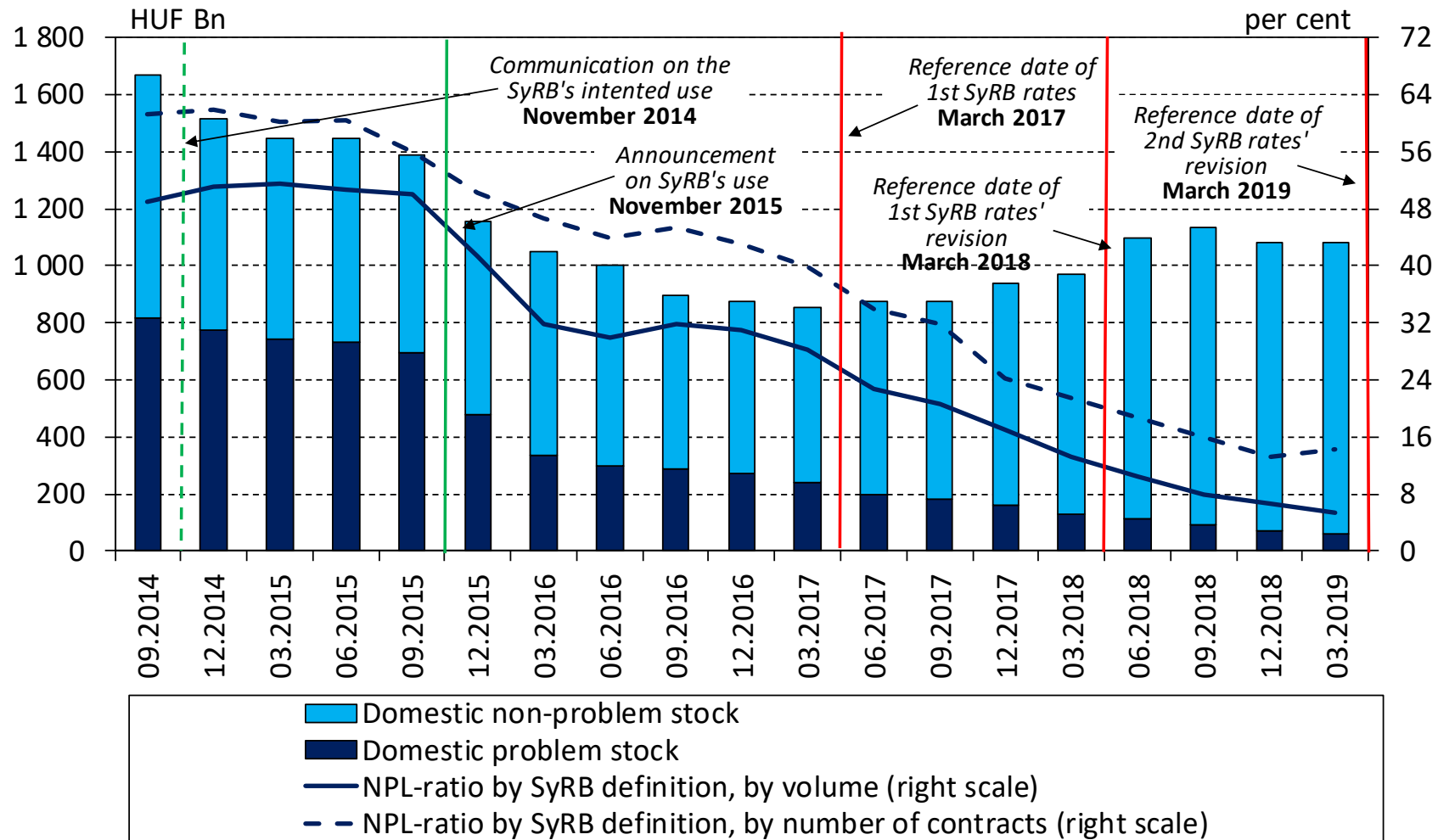
- The prominent or difficult to substitute role of a bank in sustainable lending or in the transition of polluting companies may be reflected in the identification of systemic importance
- Some calibration methods take into account the stress probability, which may also reflect CRFRs
- Even the misaligned incentive problem has been associated with CRFRs, see [Cherbonnier and Hege \(2022\)](#)



**Systemic risk buffer (SyRB):** The SyRB can be used flexibly by national authorities to address one or more cyclical and structural, sectoral, subsectoral and system-wide risks that are not covered already by the CCyB and G-SII/O-SII buffers.

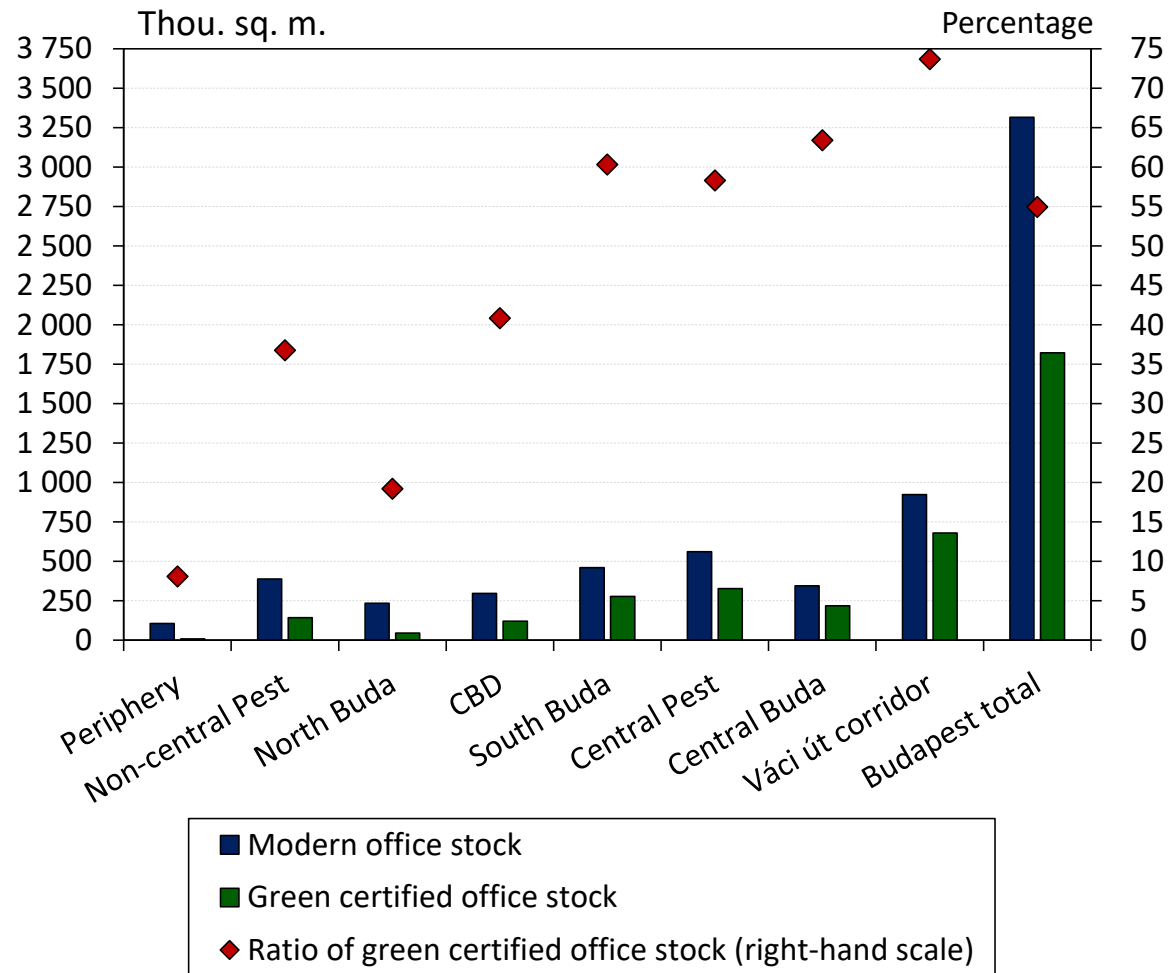


# ASSISTED BY FAVOURABLE MARKET CONDITIONS, THE SYRB HELPED TO DECREASE CRE-RELATED RISKS



The use of the SyRB was effective in incentivising banks to clean-up problem CRE project exposures, but the MNB wants to extend the preventive attributes of the requirement to diminish the risks of excessive CRE financing.

# CHALLENGES OF INTEGRATING A GREEN SUPPORTING/PENALTY FACTOR INTO SECTORAL SYRB



**Green office space in the Budapest office market**

## Establishing green/brown exposure categories

**Heterogeneous availability of building ratings**

Coverage of some markets (primarily office) is encouraging, while others (e.g. industrial-logistics) are not covered at all

## Reliability of the ratings

- Rating systems (BREEAM, LEED) are priced in by the market
- No expert consensus on climate impact

## Identifying brown assets

- Scarce expert data, unsatisfactory geo coverage
- Potentially complex set of risk indicators, costly estimation
- Special status (gov. ownership)



# THE MODIFICATION OF MFAR REGULATION SUPPORTS ACHIEVING GREEN GOALS AND FINANCIAL STABILITY



From 1 July 2021, green mortgage-backed funds can be taken into account in the calculation of the MFAR with a preferential weighting.

Greening of real estate market



Incentive for issuing green mortgage bonds



More green (less risky?) loans



Improve the energy efficiency characteristics of the housing stock

$$\text{MFAR} = \frac{\text{issued mortgage bonds} + \text{refinancing loans} + 1.5 * (\text{green mortgage loans} + \text{green refin. loans})}{\text{net stock of residential forint mortgage loans with residual maturity of more than one year}}$$

New investors granting stable funding



Green investments, diversified and stable funding for banks, more developed mortgage bond market



Strengthening financial stability

# GREEN SUPERVISORY POLICY: GREEN PREFERENTIAL CAPITAL TREATMENT TO SUPPORT THE GREENING OF BANK'S PORTFOLIOS



## Supported Activities



Green bonds



Renewable energy



Sustainable agriculture



Energy efficiency



Electromobility



Loan given through green frameworks



Sustainable commercial and residential buildings

## Capital discount



5% or 7% of total discount



Reduces Pillar II capital requirement



Cap at 1.5% of total RWA

## Exposure amount under the programme by 2023Q2\*



HUF 83 billion (EUR 223 million) green bond



HUF 460 billion (EUR 1 240 million) green corporate loan



HUF 112 billion (EUR 301 million) green housing loan

\*EUR values based on exchanges rate on 2023.06.30.