

The ESRB template on the O-SII buffer

1. Notifying national authority					
1.1 Name of the notifying authority	Magyar Nemzeti Bank (MNB)				
2. Description of the measure					
2.1 Concerned institution or group of institutions	Institution		LEI code		
	OTP Bank Nyrt.		529900W3MOO00A18X956		
	UniCredit Bank Hungary Zrt.		Y28RT6GGYJ696PMW8T44		
	Kereskedelmi és Hitelbank Zrt.		KFUXYFTU2LHQFQZDQG45		
	Magyar Takarékszövetkezeti Bank Zrt.		2594004MC7VOKSK7Z633		
	Raiffeisen Bank Zrt.		5493001U1K6M7JOL5W45		
	ERSTE BANK HUNGARY Zrt.		549300XWJHRKLHU2PS28		
	CIB Bank Zrt.		549300MSY5NIVC0BME80		
	MKB Bank Zrt.		3H0Q3U74FVFD2SHZT16		
The measure is applied on the highest level of consolidation.					
2.2 Level of the buffer applied	Institution		Level of the buffer applied		
			From 1 Jan. 2018	From 1 Jan. 2019	From 1 Jan. 2020
	OTP Bank Nyrt.		1.000%	1.500%	2.000%
	UniCredit Bank Hungary Zrt.		0.500%	0.750%	1.000%
	Kereskedelmi és Hitelbank Zrt.		0.500%	0.750%	1.000%
	Magyar Takarékszövetkezeti Bank Zrt.		0.250%	0.375%	0.500%
	Raiffeisen Bank Zrt.		0.250%	0.375%	0.500%
	ERSTE BANK HUNGARY Zrt.		0.250%	0.375%	0.500%
	CIB Bank Zrt.		0.250%	0.375%	0.500%
MKB Bank Zrt.		0.250%	0.375%	0.500%	
The final buffer levels did not change compared to the notification last year. The buffer levels for 2019-2020 are indicative, as the MNB carries out the identification exercise and the setting of capital buffer rates every year.					
2.3 Name of the EU ultimate parent institution	Institution		Ultimate EU Parent Institution	LEI code of Parent Institution	
	OTP Bank Nyrt.		OTP Bank Nyrt.	529900W3MOO00A18X956	
	UniCredit Bank Hungary Zrt.		UniCredit S.p.a.	549300TRUWO2CD2G5692	
	Kereskedelmi és Hitelbank Zrt.		KBC Group NV	213800X3Q9LSAKRUWY91	
	Magyar Takarékszövetkezeti Bank Zrt.		Magyar Takarékszövetkezeti Bank Zrt.	2594004MC7VOKSK7Z633	
	Raiffeisen Bank Zrt.		Raiffeisen Bank International AG	9ZHRYM6F437SQJ6OUG95	
	ERSTE BANK HUNGARY Zrt.		Erste Group Bank AG	PQOH26KWDF7CG10L6792	
	CIB Bank Zrt.		Intesa San Paolo S.p.A.	549300UM31PJ24TTSR94	
	MKB Bank Zrt.		MKB Bank Zrt.	3H0Q3U74FVFD2SHZT16	

2.4 Names of subsidiaries	<p>Until the date of submission of this notification the following subsidiaries of OTP Bank Nyrt. are notified as O-SIIs:</p> <ul style="list-style-type: none"> • OTP Banka Hrvatska d.d. (Croatia) (LEI code: 5299005UJX6K7BQKV086) • OTP Bank S.A. (Romania) (LEI code: 529900W3MOO00AI8X956) • DSK Bank EAD (Bulgaria) (LEI code: 529900GEH0DAUTAXUA94) <p>For a list of subsidiaries, see OTP Bank's Annual Report 2016, p. 160. available: https://www.otpbank.hu/portal/en/IR/Reports/Annual</p> <p>Other institutions identified as O-SIIs for Hungary do not have any foreign subsidiary identified as O-SII, moreover they do not have relevant foreign presence through subsidiaries in any other country.</p>
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3. Timing of the measure

3.1 Timing of the Decision	The decision was taken by the Financial Stability Council of MNB on 20 October 2017.
3.2 Timing of the Publication	The intended date of the publication is 30 November 2017.
3.3 Disclosure	The names of the identified institutions, their O-SII scores and their effective O-SII capital buffer requirement will be published on the internet webpage of the MNB.
3.4 Timing of Application	The determined buffers will be applicable from 1 January 2018.
3.5 Phasing in	The phase in period for the O-SII buffer requirements runs from 1 January 2017 until 1 January 2020. For the expected institution specific buffer rates for 2019 and 2020 see the table in box 2.2.
3.6 Review of the measure	<p>The MNB shall annually review the group of institutions identified as O-SIIs and their respective O-SII buffer requirements.</p> <p>(Sections 89 (3) and 90 (3) <i>b</i>) of the Hungarian Banking Act; Article 131(6) of the CRD IV).</p>

4. Reason for O-SII identification and activation of the O-SII buffer

4.1 Scores of concerned institution or group of institutions, as per EBA guidelines on the assessment of O-SIIs (Article 131.3)	<p>The MNB identified the O-SII institutions according to its methodology determined and published in 2015. First, the scoring methodology described in EBA/GL/2014/10 Title II (6-8) was carried out, applying only the mandatory indicators of Annex 1 of the guidelines. Second, the scores calculated in the first step according to Title II were reweighted and according to Title III weighted optional indicators were added resulting in the final complete indicator set. The final scores are derived from the equally weighted (i.e. a 20 percent weight for each) arithmetic mean of the indicator category scores.</p> <table border="1"> <thead> <tr> <th>Institution</th> <th>Size</th> <th>Importance</th> <th>Complexity</th> <th>Inter-connectedness</th> <th>Overall score (Title II)</th> <th>Additional optional indicators (Title III)</th> <th>Final overall score</th> </tr> </thead> <tbody> <tr> <td>OTP Bank Nyrt.</td> <td>3 399</td> <td>2 773</td> <td>3 377</td> <td>1 782</td> <td>2 832</td> <td>2 080</td> <td>2 682</td> </tr> <tr> <td>UniCredit Bank Hungary Zrt.</td> <td>824</td> <td>956</td> <td>892</td> <td>722</td> <td>848</td> <td>1 341</td> <td>947</td> </tr> <tr> <td>Kereskedelmi és Hitelbank Zrt.</td> <td>848</td> <td>841</td> <td>694</td> <td>452</td> <td>709</td> <td>852</td> <td>737</td> </tr> <tr> <td>Magyar Takarékszövetkezeti Bank Zrt.</td> <td>674</td> <td>575</td> <td>250</td> <td>1 074</td> <td>643</td> <td>528</td> <td>620</td> </tr> <tr> <td>Raiffeisen Bank Zrt.</td> <td>598</td> <td>704</td> <td>521</td> <td>470</td> <td>574</td> <td>694</td> <td>598</td> </tr> <tr> <td>ERSTE BANK HUNGARY Zrt.</td> <td>614</td> <td>604</td> <td>539</td> <td>496</td> <td>563</td> <td>493</td> <td>549</td> </tr> <tr> <td>CIB Bank Zrt.</td> <td>489</td> <td>410</td> <td>290</td> <td>322</td> <td>378</td> <td>598</td> <td>422</td> </tr> <tr> <td>MKB Bank Zrt.</td> <td>630</td> <td>450</td> <td>216</td> <td>265</td> <td>390</td> <td>447</td> <td>402</td> </tr> </tbody> </table> <p>Note: The standard overall score according to Title II can be calculated by taking the arithmetic mean of scores in size, importance, complexity and interconnectedness categories.</p>	Institution	Size	Importance	Complexity	Inter-connectedness	Overall score (Title II)	Additional optional indicators (Title III)	Final overall score	OTP Bank Nyrt.	3 399	2 773	3 377	1 782	2 832	2 080	2 682	UniCredit Bank Hungary Zrt.	824	956	892	722	848	1 341	947	Kereskedelmi és Hitelbank Zrt.	848	841	694	452	709	852	737	Magyar Takarékszövetkezeti Bank Zrt.	674	575	250	1 074	643	528	620	Raiffeisen Bank Zrt.	598	704	521	470	574	694	598	ERSTE BANK HUNGARY Zrt.	614	604	539	496	563	493	549	CIB Bank Zrt.	489	410	290	322	378	598	422	MKB Bank Zrt.	630	450	216	265	390	447	402
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**4.2 Methodology
and indicators
used for
designation of the
O-SII
(Article 131.3)**

- a. The MNB followed the EBA/GL/2014/10 guidelines on the assessment of O-SIIs. FINREP data were used for every available case following the guidelines' instructions, but it had to be supplemented by supervisory data reported to MNB for a significant number of institutions. Since last year the set of significant institutions for which the FINREP data is available has expanded, which has made the scores more comparable to those of international peers, but also resulted in moderate changes in the scores of some O-SIIs.
- b. The MNB did not modify the threshold. Every institution identified as O-SII is above the 350 bps threshold calculated according to EBA/GL/2014/10 Title II.
- c. The MNB followed a two-step identification methodology in accordance with the guidelines. First, all of the institutions which scored equal or higher than 350 bps using the 10 mandatory indicators following the standard identification methodology described in EBA/GL/2014/10 Title II were selected as O-SIIs. Second, a supplementary method was applied in accordance with Title III (13-14) to include the 5 Optional indicators listed below in point d. These indicators were included in order to provide a more robust and relevant country specific representation of systemic risks in relation to systemic importance. Optional indicators have been quantitatively assessed by aggregating the indicators in a supplementary, additional criterion group. The supplementary criterion group was added to the 4 standard criterion groups with an equal weighting amongst the groups (i.e. 20 percent group weight for every mandatory and for the one supplementary group). In the supplementary criterion group weights for Optional indicators were assigned according to a sum of squares type concentration index. Higher weights were assigned to the Optional indicators which were characterized by higher values of the concentration index. In this way critical activities pursued by fewer important institutions with considerable market shares are deemed to be more important systemically.
- d. The optional indicators taken from Annex 2 of the guidelines which have been found relevant are the following:
 - d1. Off-balance sheet items – market share based indicator aggregating outstanding credit facilities, guarantees and other off-balance sheet items carrying credit risk.
 - d2. Share in clearing and settlement system – summarizes information about the market share of retail customers' transactions in the clearing system (based on the volume and number of transactions).
 - d3. Assets under custody – market share in outstanding assets under custody.
 - d4. Interbank claims and/or liabilities – centrality based analysis transformed into an additive indicator of unsecured interbank loans and deposits.
 - d5. Market transaction volumes or values – centrality based analysis transformed into an additive indicator of FX swap transactions between credit institutions.
- e. The Optional indicators add substantial information about critical financial activities which are the least likely to be represented by the mandatory indicators. These indicators were selected based on analysis of correlations between basic and supplementary indicators and further expert judgement. Also these indicators proxy critical functions with high country specific importance and problematic substitutability for agents of the real economy (d1. and d2.) or the financial system (d3.) and help to describe financial interconnectedness of credit institutions including network analysis approach highlighting the most important inter-bank market segments (d4. and d5.).
- f. The scores resulting from the weighted aggregate of the optional indicators are listed in the Table of 4.1 for every institution (see column Additional optional indicators (Title III)). There is no institution which has been identified as O-SII solely as a result of the inclusion of the Optional indicators and which has not

	<p>been identified as an O-SII based on the standard (Title II) indicators and scores in step 1 (see point c. about the two-phases identification process followed by the MNB). The inclusion of Optional indicators is motivated by their contribution to the accuracy of the representation of relative systemic importance as the buffer calibration is based on the final scores.</p> <ul style="list-style-type: none"> g. No credit institution domiciled in Hungary has been excluded because of its total asset size. h. See the annexed excel file. i. Non-bank institutions have not been included in the calculation, because their sectoral and institutional-level systemic importance has been assessed as marginal.
<p>4.3 Supervisory judgement</p>	<p>The group of O-SIIs was identified by the quantitative approach presented above.</p>
<p>4.4 Calibrating the O-SII buffer</p>	<p>The MNB set the O-SII buffer requirements according to its methodology determined and published in 2015. The first step of the calibration is based on the formation of homogeneous groups in systemic importance to which the assignment of identical buffer rates can be justified. Following this approach three groups have been distinguished. As a general principle, institutions identified as O-SIIs are assigned at least a buffer rate of 0.5 percent. MNB assigns the maximum 2 percent buffer rate to the group with the highest score. Buffer rate calibration is undertaken based on the final scores resulting from the identification process. Different methods have been applied to support group formation. Peer analysis was also utilized for within-country and international comparison. Cluster analysis on different levels of the decomposed final score (indicator category score components (listed in the Table in 4.1) and indicators were examined) was applied to minimize within group variance and to assess the sensitivity of different grouping alternatives. The BCBS (2013) equal expected impact approach has been used to group institutions based on a probabilistic model (the final scores proxied the external impact and the distribution of the return on risk-weighted assets represented the probability of loss incidences).</p> <p>As a second step, expert judgement has been brought in to check the validity of the results and to highlight hardly quantifiable aspects of the calibration.</p> <p>The 2017 revision of the identification and the re-estimation of the calibration did not reveal any significant changes in the scores or in the buffer rates suggested by the calibration methods. Therefore, the buffer levels applicable for 2018 are the same as the indicative values communicated in last year's notification.</p>
<p>4.5 Effectiveness and proportionality of measure</p>	<p>The O-SII buffer is a targeted prudential instrument provided by CRDIV to decrease the probability of failure and the consequent system wide impact of those institutions which pose the greatest systemic risk as a combination of their size, the criticality of the financial functions they provide, and their highly connected positions. The increased resilience may impede the emergence of financial contagion caused by the default of highly interconnected institutions. It can safeguard the continued provision of critical financial services after taking massive losses, as market substitution of critical financial services in case an O-SII failure may not be feasible in the short run. Moreover, the potential burden imposed by the default of these institutions on bondholders, the industry and in extreme cases on the government budget also motivates the introduction of a preventive regulatory instrument (complementing the efficient recovery and resolution system in place in Hungary).</p> <p>Buffer rates have been assigned to different institutions proportionally by classifying O-SIIs into three groups according to their expected impact represented by their scores (see 4.4). The highest buffer rate was assigned to OTP Bank Nyrt., which has a size above one-third of the whole market, it plays a prominent role in intermediating funds to and from the real</p>

	<p>economy, it is highly interconnected with the financial system and it operates with the greatest degree of cross-border complexity among domestic systemically important institutions. All other institutions identified as O-SIIs exceed 4.8 percent of the total asset size of the sector, they contribute significantly to the supply of financial products and services to the real economy, they are deeply interconnected with other credit institutions, and they have considerable share in financial transactions carried out through the major institutions of the domestic financial infrastructure.</p> <p>The extended phase-in period introduced in 2016 is still expected to leave enough time for the build-up of the capital buffer without hampering the ability of the banking system to sustainably contribute to economic growth.</p>
5. Cross-border and cross-sector impact of the measure	
<p>5.1 Assessment of cross-border effects and the likely impact on the internal market (Recommendation ESRB/2015/2)</p>	<p>a. Based on the assessment of the transmission channels of cross-border risk adjustment and regulatory arbitrage provided by the ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector (Chapter 11) the possible negative cross-border impact of the measure is expected to be limited.</p> <p>b.</p> <ul style="list-style-type: none"> o Inward spillovers: The possible cross-border impact (leakages and regulatory arbitrage) is expected to be limited in Hungary. o Outward spillovers: The MNB still does not expect material negative cross-border effects on other Member States and on the Single Market. The increased resilience of the O-SIIs is beneficial for their stakeholders in other Member States and contributes to the functioning, financial integration and harmonized regulation of the single market. Within the identified O-SIIs only OTP Group has substantial cross-border activity. OTP Group's increased capitalization on a consolidated basis shall improve its subsidiaries' resilience. Also, the consolidated basis of the buffer requirement mitigates incentives for cross-border substitution of activities. Five of the eight identified O-SIIs are foreign parents' subsidiaries operating in Hungary. Due to the phase-in period introduced in 2016 we expect these subsidiaries to be able to accumulate the necessary capital on their own, therefore, in most cases capital transfer from parents will not be required.
<p>5.2 Assessment of leakages and regulatory arbitrage within the notifying Member State</p>	<p>Although systemically important institutions face higher capital buffer requirements than other institutions, further institutions are going to be automatically identified as O-SIIs if they grow significantly in size, in providing critical financial functions or in their interconnectedness. Consequently O-SII buffer requirements are going to be imposed on them following the regular yearly revision of systemic importance (or in case any unique incidence may render the revision necessary in-between the regular yearly reassessments). Furthermore, any cross-sectoral leakage, which may increase the systemic relevance of non-bank financial institutions (e.g. investment firms) will be evaluated regularly and taken into account when identifying systemic institutions.</p>
6. Combinations and interactions with other measures	
<p>6.1 Combinations between G-SII and O-SII buffers (Article 131.14)</p>	<p>The MNB has not identified any institutions as G-SIIs within its jurisdiction. On the other hand one institution identified as O-SII by the MNB is the subsidiary of an institution subject to G-SII buffer. (see 6.3.) The MNB did not set higher buffer rate for any of the institutions concerned than their parents' buffer rates.</p>
<p>6.2 Combinations with SRB buffers (Article 131.14 + Article 133.5)</p>	<p>The MNB applies the SRB and the O-SII buffers for mitigating different kind of systemic risks. Therefore the SRB is not applied to mitigate risks related to those targeted by the O-SII buffer. The SRB and the O-SII buffer are cumulative as the SRB applies only to domestic exposures in Hungary.</p>

	<p>Two credit institutions (Raiffeisen Bank Zrt. and CIB Bank Zrt.) are required to maintain SRB effective from 1 July 2017. The institution-specific SRB rates were determined based on the ratio of domestic problem commercial real estate exposures to domestic Pillar I. capital requirement determined using data of 31 March 2017. Credit institutions have to maintain an SRB calculated by multiplying their SRB rate with their domestic RWA. (For further information see the http://www.mnb.hu/en/financial-stability/macprudential-policy/the-macroprudential-toolkit/instruments-to-limit-excessive-exposure-concentrations)</p> <p>SRB and O-SII buffers are applied on the highest consolidation level achievable under the jurisdiction of the MNB. This means that for the Hungarian banks with foreign parent institutions it is applied on a sub-consolidated level.</p>																								
<p>6.3 O-SII requirement for a subsidiary (Article 131.8)</p>	<table border="1"> <thead> <tr> <th data-bbox="432 629 794 696">Institution</th> <th data-bbox="794 629 1110 696">EU Parent Institution</th> <th data-bbox="1110 629 1262 696">Final O-SII buffer</th> <th data-bbox="1262 629 1394 696">G-SII buffer</th> </tr> </thead> <tbody> <tr> <td data-bbox="432 696 794 745">UniCredit Bank Hungary Zrt.</td> <td data-bbox="794 696 1110 745">UniCredit S.p.a.</td> <td data-bbox="1110 696 1262 745">1%</td> <td data-bbox="1262 696 1394 745">1%</td> </tr> <tr> <td data-bbox="432 745 794 795">Kereskedelmi és Hitelbank Zrt.</td> <td data-bbox="794 745 1110 795">KBC Group NV</td> <td data-bbox="1110 745 1262 795">1.5%</td> <td data-bbox="1262 745 1394 795">-</td> </tr> <tr> <td data-bbox="432 795 794 862">Raiffeisen Bank Zrt.</td> <td data-bbox="794 795 1110 862">Raiffeisen Bank International AG</td> <td data-bbox="1110 795 1262 862">2%</td> <td data-bbox="1262 795 1394 862">-</td> </tr> <tr> <td data-bbox="432 862 794 907">ERSTE BANK HUNGARY Zrt.</td> <td data-bbox="794 862 1110 907">Erste Group Bank AG</td> <td data-bbox="1110 862 1262 907">2%</td> <td data-bbox="1262 862 1394 907">-</td> </tr> <tr> <td data-bbox="432 907 794 958">CIB Bank Zrt.</td> <td data-bbox="794 907 1110 958">Intesa San Paolo S.p.A.</td> <td data-bbox="1110 907 1262 958">0.75%</td> <td data-bbox="1262 907 1394 958">-</td> </tr> </tbody> </table>	Institution	EU Parent Institution	Final O-SII buffer	G-SII buffer	UniCredit Bank Hungary Zrt.	UniCredit S.p.a.	1%	1%	Kereskedelmi és Hitelbank Zrt.	KBC Group NV	1.5%	-	Raiffeisen Bank Zrt.	Raiffeisen Bank International AG	2%	-	ERSTE BANK HUNGARY Zrt.	Erste Group Bank AG	2%	-	CIB Bank Zrt.	Intesa San Paolo S.p.A.	0.75%	-
Institution	EU Parent Institution	Final O-SII buffer	G-SII buffer																						
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Raiffeisen Bank Zrt.	Raiffeisen Bank International AG	2%	-																						
ERSTE BANK HUNGARY Zrt.	Erste Group Bank AG	2%	-																						
CIB Bank Zrt.	Intesa San Paolo S.p.A.	0.75%	-																						
<p>6.4 Interaction with other measures</p>	<p>O-SIIs are subject to intensified supervisory attention and appropriate resolution planning, but currently there are no other measures applied to mitigate risks covered by the O-SII buffer.</p>																								
<p>7. Miscellaneous</p>																									
<p>7.1 Contact person(s) at notifying authority</p>	<p>Contact person(s) for further inquiries (name, phone number and e-mail address)</p> <p>Mr. Péter Fáykiss <i>Director, Macroprudential Directorate</i> Phone: +36 (1) 428 2600/2239 Email: faykissp@mnb.hu</p>																								
<p>7.2 Any other relevant information</p>																									