PUBLIC VERSION

NOTIFICATION OF MEASURE TAKEN PURSUANT TO ARTICLE 458 OF THE CAPITAL REQUIREMENTS REGULATION

With reference to Article 458 of the Capital Requirements Regulation (CRR)[1], the Board of the FIN-FSA hereby notifies the European Parliament, the Council, the Commission, the European Systemic Risk Board (ESRB) and the European Banking Authority (EBA) of its decision of [26 June 2017] to apply the article in question, concurrently submitting relevant information on the decided measure and evidence regarding: the changes in the intensity of macroprudential/systemic risk; the reasons why the changes to the intensity of macroprudential/systemic risk could pose a threat to financial stability in Finland; justification of why Article 124 and 164 of the CRR and Articles 101, 103, 104, 105, 133, and 136 of Directive 2013/36/EU (CRD) cannot adequately address the macroprudential/systemic risk identified, taking into account the relative effectiveness of those measures; description and calibration of the measure; explanation as to why the measure is deemed by the FIN-FSA to be suitable, effective and proportionate to address the change in the intensity of macroprudential/systemic risk; as well as assessment of the positive/negative impact of the draft measure on the internal market.

Notifying authority: The Finnish Financial Supervisory Authority (FIN-FSA)

Specification of measure: At its meeting on [26 June 2017], the Board of the Financial Supervisory Authority (FIN-FSA) decided on *a credit institution-specific minimum level of 15% for the average risk weight on housing loans applicable to credit institutions that have adopted the Internal Ratings-Based Approach*, based on Article 458 of the CRR.

Timing of the measure: The minimum level would come into force on [1 January 2018].

Addressees of notification: The European Parliament, the Council, the Commission, the European Systemic Risk Board (ESRB) and the European Banking Authority (EBA)

Attachment: FIN-FSA Board decision of 26 June 2017

Ingress: The FIN-FSA has identified changes in the intensity of macroprudential/systemic risk in the financial system with the potential to have serious negative consequences for the financial system and the real economy in Finland. The FIN-FSA considers that these changes in the intensity of macroprudential/systemic risk would be best addressed by means of stricter national measures, as specified in Article 458 of the CRR. The FIN-FSA's intention to introduce a credit institution-specific minimum level of 15% for the average risk weight on

[1] 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

housing loans has been communicated to the public on 27 March 2017. In order to justify its decision, the FIN-FSA submits the following relevant quantitative and qualitative evidence[2]:

Evidence regarding the changes in the intensity of macroprudential/systemic risk;

The Finnish financial system and real economy are, by structure, vulnerable to the macroprudential/systemic risk associated with elevated household indebtedness and, in particular, the large stock of housing loans.

The key structural vulnerabilities include historically high household indebtedness, banks' large exposures to housing loans with low internal ratings-based (IRB) model risk weights, banks' relatively high dependence on wholesale funding and covered bonds with housing loans serving as collateral, and the highly concentrated and interconnected banking sector, which is interlinked with the Nordic financial system and its elevated risks related to housing markets.[3]

The most important factor affecting the build-up and elevated level of vulnerabilities is the high indebtedness of the household sector. At end-2016, the debt-to-income ratio of the household sector was 126.9%, compared to 67.5% at end-2000.[4] In particular, growth in the stock of housing-related debt relative to households' annual disposable income has continued without material interruptions since the late 1990s, irrespective of the cyclical situation.

Two structural changes in the 2000s have contributed to the accumulation of housing debt: the average maturity of new housing loans is now longer and the average loan size (relative to income) is larger than in the late 1990s and early 2000s. The average maturity for new loans in April 2017 reached 19.4 years, an increase from 18.5 years in April 2015, with the average for the stock reaching 20.8 years. The average size of new loans is growing and amounted to EUR 106,000, with the borrow-specific loan size in the stock being EUR 61,000.

Furthermore, the debt and related risks are unevenly distributed among households. More than a quarter (27%) of housing debt is borne by households whose total debt is over four times higher than their annual monetary income. The corresponding figure for 2002 was less than 11%.

The fact that the majority of housing loans are tied to variable interest rates increases the vulnerability of households that are heavily indebted relative to their income. Depending on the loan amortization method, a rise in the reference rate either increases the monthly debt

[2] In order to prepare the notification two teleconferences with representatives of the ESRB, the EBA and the Commission were held on 7-8 June 2017.

[3] Wholesale funding represents over 50% of the total funding in the Finnish banking sector. Covered bonds are one important source for wholesale funding and this portion of the total funding has been around 8% to 10% during 2014–2016. The share of wholesale funding has decreased slightly from its peak (61.2%) in Q3/2014 being 52.2% in Q4/2016. The value of issued covered bonds has constantly remained above EUR 30 bn.

[4] Data for households' debt-to-income ratio is available at http://www.stat.fi/til/rtp/2016/04/rtp_2016_04_2017-03-31_tau_002_en.html.

service costs (annuity loan or fixed amortization loan) or lengthens the loan repayment period (fixed-instalment loan). Finland is also gradually reducing the share of housing loan interest payments deductible in taxation, from the earlier 100% to 25% by 2019. This will increase household interest expenses in the future. Should the general interest rate level rise, the reduction of tax deductibility will have a more pronounced effect on households' interest expenses.

A significant share of Finnish households' total assets consists of dwellings. The large proportion of housing wealth is explained, for example, by the fact that owner occupancy is notably more common in Finland than renting. In addition, real house prices have increased considerably over the long term, signalling growing regional differences. A fall in asset prices could reduce consumption particularly for heavily indebted households with a weak net asset position.

High loan-to-value (LTV) ratios at loan origination increase the risks related to falling house prices. According to a FIN-FSA sample-based survey conducted in Q2 2016, more than 33% of new housing loans were granted with a self-financing share of below 10%, and in many of these cases the loan exceeded the purchase price.[5] According to the most recent data (Q1/2017) the share of such loans is now 41%. High LTV ratios have been more general in the case of first-time home buyers. Based on data collected for the 2014 survey, the LTV for the total stock of mortgages was 58.2%. However, 2016 sample results imply that the increase in the LTV for the total stock has lately been significant. As of July 2016, a maximum LTV for new housing loans was introduced in Finland. The binding LTV ratio is currently 90% (95% for first-time buyers). This new macroprudential measure partly mitigates risks in relation to new lending, but it will not be not sufficient to address the risks related to the loan stock.

To some extent, current LTVs have been circumvented by borrowers using consumer credits. Also, insurance companies have introduced new, tailored credit risk guarantee products that are considered as eligible collateral in calculating LTVs. The Finnish "LTV" is in fact an "LTC" (loan-to-collateral), implying that all physical collateral and certain guarantees are eligible, not only the purchased property/real estate. In relation to other European countries' LTV limits, this makes the Finnish LTV/C regulation less effective in addressing household sector indebtedness. Currently, approximately 30% of the eligible LTC collateral base consists of collateral other than the purchased property.

Housing loans make up a significant share of euro-denominated loans granted by Finnish credit institutions to households and non-financial corporations. At end-2016, the share was about 47%, i.e. almost 10 percentage points higher than in the beginning of 2001.[6] When loans to housing companies (owned by households) are also considered, the share is approximately 55%.

[5] [redacted]

[6] Information on the share of housing loans in total MFI lending to households and non-financial corporations can be found at: https://www.suomenpankki.fi/en/Statistics/mfi-balance-sheet/tables/rati-taulukot-en/pt_yleison_lainat_ja_talletukset_en/.

Macroprudential risks and vulnerabilities related to housing loans and household indebtedness are systematically monitored and analysed by the Bank of Finland and the FIN-FSA. EU-level and international institutions, such as the European Systemic Risk Board (ESRB), the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF) have also taken notice of the macroprudential/systemic risks related to household indebtedness in Finland.

On 22 September 2016, the ESRB adopted warnings for eight EU Member States, including Finland, on medium-term vulnerabilities in the residential real estate sector. According to the warning, Finland's vulnerabilities are primarily related to high household indebtedness, with particular implications for the resilience of the banking sector.

The reasons why the changes to the intensity of macroprudential/systemic risk could pose a threat to financial stability in Finland;

A large share of Finnish banks' assets are residential mortgage loans and other housing-related loans. A severe and prolonged downturn in housing markets could increase banks' loan losses and weaken their solvency and potentially their ability to lend. Severe problems in housing markets could also hamper the funding of Finnish banks through covered bonds, the importance of which has strongly increased in recent years. Given the high concentration of the Finnish banking sector and the dependence of households and SMEs on banks, it is essential to ensure that Finnish banks' capital buffers against housing loan losses remain sufficient in all circumstances.

The three large banks systemically important for the Finnish financial system account for a majority of housing lending, i.e. over 80% of the stock of housing loans.[7] Two of these banks are directly interlinked with the Nordic banking sector, which may increase the significance of joint Nordic vulnerabilities related to housing markets. Shocks may emerge e.g. via loan supply and foreign trade. According to recent data, branches of foreign deposit banks operating in Finland account for 18% of the stock of loans to households and non-financial corporations.

The most significant branches are those of Nordea and Handelsbanken (both Swedish). There are two significant subsidiaries of Nordic banks operating Finland, namely Danske Bank and Nordea Mortgage Bank. [redacted] Also relevant are the recent warnings regarding risks in residential real estate issued by the ESRB to both Denmark and Sweden. In these warnings, the ESRB states that "…if risks were to materialise, there could be potential spill-over effects to other countries in the Nordic-Baltic region".

[7] For information on market shares in MFIs' housing lending to households, please refer to: http://www.finanssiala.fi/en/statistics/Banks_market_shares_2014.pdf. Data for 2016 is available in Finnish only: http://www.finanssiala.fi/materiaalit/FK-Pankkien-markkinaosuudet-2016.pdf.

Finnish banks depend on both deposits of the public and market funding for financing housing loans. Banks are acquiring a larger share of market funding via bonds secured by housing loans. These covered bonds currently account for over 31.1% of banks' market funding and for 40.6% of total bond funding (Q1 2017). The wider use of covered bonds is reflected in a higher level of bank asset encumbrance.

Banks have also invested in covered bonds issued by other Nordic banks and mortgage credit institutions. This increases the overall importance of housing loans and related debt securities on both sides of the bank balance sheets. Cross-ownership of debt securities and the concentration and interconnectedness of the Nordic banking sector may increase the cross-border contagion risks related to housing loans. The amount of covered bonds held by Finnish banks has declined as a result of the branchification of Nordea. Nordic banks' cross-holdings of covered bonds issued by other Nordic banks remain significant, however.

Finnish banks that use internal ratings-based (IRB) approaches currently estimate that unexpected credit losses on housing loans are low due to historical reasons, and therefore risk weights, derived from IRB models, are low as well. The average risk weight for housing loans of IRB banks domiciled in Finland is 7.9% (Q4 2016). From the perspective of macroprudential stability and according to Bank of Finland calculations, risk weights below 15% are, however, very low, considering the systemic risks relating to household debt accumulation both for the financial sector and the real economy. In a stress situation, the problems would not only lead to direct loan losses for banks but would also reduce consumption, thus generating second-round effects.

At end-March 2017, the total capital adequacy ratio of the Finnish banking sector amounted to 22.5% and the CET1 ratio to 20.0%. The leverage ratio was 6.7%.

Potential triggers for the materialisation of identified risks and vulnerabilities include cyclical factors such as a weaker-than-expected growth in the Finnish economy. In particular, a situation in which economic growth would pick up in other parts of the euro area, inducing pressure for interest rate increases, could affect house prices and trigger a downward trend. There is also a risk that severe housing market shocks in other Nordic countries could spread into the Finnish financial system and real economy.

Justification of why Article 124 and 164 of the CRR and Articles 101, 103, 104, 105, 133, and 136 of Directive 2013/36/EU (CRD) cannot adequately address the macroprudential/systemic risk identified, taking into account the relative effectiveness of those measures;

Article 124 of the CRR *(Exposures secured by mortgages on immovable property)* does not apply to banks using the internal ratings-based (IRB) approach.

Article 164 of the CRR *(Loss Given Default)* entitles competent authorities to, based on the data collected under Article 101 and taking into account forward-looking immovable property

market developments and any other relevant indicators, assess periodically, and at least annually, whether the minimum LGD values applied are appropriate for exposures secured by residential property or commercial immovable property located in their territory. Competent authorities may, where appropriate on the basis of financial stability considerations, set higher minimum values of exposure-weighted average LGD for such exposures.

An increase in the minimum LGD level would adversely widen the differences in risk weight levels between credit institutions domiciled in Finland. The need for an increase in the mortgage risk weights is not related to low LGD values. An increase in the minimum LGD level by applying Article 164 of the CRR would result in a (disproportionate) increase of risk weights for some banks that currently have average level or high risk weights.[8]

According to ***Article 101 of the CRD*** *(Ongoing review of the permission to use internal approaches)*, competent authorities shall review on a regular basis, and at least every 3 years, institutions' compliance with the requirements regarding approaches that require permission by the competent authorities before using such approaches for the calculation of own funds requirements. Where material deficiencies are identified in risk capture by an institution's internal approach, competent authorities shall ensure they are rectified or take appropriate steps to mitigate their consequences, including by imposing higher multiplication factors, or imposing capital add-ons, or taking other appropriate and effective measures.

With reference to Article 101 of the CRD, existing IRB models are based on valid statistical microprudential data, but do not take into account the additional systemic risk deriving from an overall high level of mortgage lending. The realisation of this systemic risk, involving the Finnish banking sector as a whole, would significantly weaken Finnish banks' capital adequacy levels and liquidity positions, also affecting consumer behaviour and generating second round effects for the real economy. Introducing a risk weight floor to address the problems in the Finnish real estate/mortgage market would guarantee that this inherent macroprudential/systemic risk is taken into account in the allocation of capital to the existing mortgage stock in a sufficient and uniform manner in all banks domiciled in Finland. Amending the parameters of IRB models by the SSM and the FIN-FSA would not, taking into account the timespan of the measure, constitute an effective means to address the current macroprudential/systemic risk.

[redacted] There is no evidence, however, that credit institutions with low average risk weights are underestimating the microprudential risk inherent in their exposures.

[8] The IRB risk weight formula is a linear function of the LGD parameter. Thus, an increase in the LGD, ceteris paribus, would multiply all the current risk weights by the same factor. Because of this linearity, the higher the initial risk weight of a loan is, the higher is the absolute increase in the risk weight resulting from the increase in the LGD. An increase in the LGD floor has a similar linear (or close to linear) unwanted impact on average risk weights at a bank level, if banks' initial average LGD levels are close to the current LGD floor of 10%. This is the case with Finland. Thus, looking at a bank level, an increase in the LGD has the biggest absolute impact for banks with the highest initial average risk weights in their housing loan portfolios. With regard to the banks with lowest average risk weights, an increase in the LGD would lead to an unwanted widening of differences in average risk weights between banks.

Articles 103-104 of the CRD *(Application of supervisory measures to institutions with similar risk profiles, Supervisory measures)* state that when competent authorities determine under Article 97 that institutions with similar risk profiles such as similar business models or geographical location of exposures are or might be exposed to similar risks or pose similar risks to the financial system, they may apply the supervisory review and evaluation process referred to in Article 97 (Pillar II) to those institutions in a similar or identical manner. Additional own funds may be required as a result of the assessment of systemic risk.

The Finnish mortgage loan stock is held by FIN-FSA-supervised entities, ECB/SSM-supervised entities and branches supervised by other Nordic supervisory authorities. Pillar II requirements introduced by the FIN-FSA or ECB/SSM apply to individual credit institutions registered in Finland. A large and growing part of the Finnish mortgage market is held by branches of foreign credit institutions, and Nordea, headquartered in Sweden, transformed the major part of its Finnish activities into a branch in early 2017. [redacted]

Using Pillar II requirements would call for coordination of these requirements among the authorities involved in order to adequately address the market-wide macroprudential/systemic risk highlighted. Article 458 of the CRR acknowledges reciprocation of the measures listed in the article though not presupposing it. A supporting framework for reciprocation of Article 458 of the CRR has been developed by the ESRB. In contrast, for Pillar II measures, no explicit legal foundation for the reciprocation of these measures exists in the CRD. [redacted]

Applying Pillar II measures to address the market-wide macroprudential/systemic risk as defined by the ESRB would not constitute an effective means, due to inherent uncertainty, incoherency and the lack of a framework for reciprocation. Also, in this particular case, publication of the macroprudential measure taken could have beneficial stability implications, while in the case of applying Pillar II measures, publication practices vary among Member States and supervisory institutions.

Article 105 of the CRD *(Specific liquidity requirements)* is outside the scope of the assessment.

Pursuant to ***Article 133 of the CRD*** *(Requirement to maintain a systemic risk buffer)* Member States may introduce a systemic risk buffer of Common Equity Tier 1 capital for the financial sector or one or more subsets of that sector, in order to prevent and mitigate long term non-cyclical systemic or macroprudential risks not covered by the CRR, in the meaning of a risk of disruption in the financial system with the potential to have serious negative consequences to the financial system and the real economy in a specific Member State.

An expert group established by the Ministry of Finance has recommended the introduction of the systemic risk buffer in Finland. The Ministry of Finance is in the process of compiling a Government proposal on the buffer, to be submitted to the Parliament in the coming weeks. The outcome of this process is uncertain, however. Introducing a risk weight floor pursuant to

Article 458 of the CRR is a temporary measure, and the future possible availability of a systemic risk buffer will be considered when the risk weight floor is reviewed in 2019.[9]

Article 136 of the CRD *(Setting countercyclical buffer rates)* stipulates that each designated authority shall calculate for every quarter a buffer guide as a reference to guide its exercise of judgment in setting the countercyclical buffer rate. The buffer guide shall reflect, in a meaningful way, the credit cycle and the risks due to excess credit growth in the Member State and shall duly take into account specificities of the national economy. It shall be based on the deviation of the ratio of credit-to-GDP from its long-term trend.

The countercyclical buffer rate in Finland is currently set at 0.0%. Aggregate credit-to-GDP data in combination with ancillary information imply that the buffer should remain at this level.

The countercyclical capital buffer is a cyclical measure, while the macroprudential/systemic threat confronting the Finnish financial system is currently mainly of a structural nature. The countercyclical buffer applies to the aggregate credit stock, whereas the macroprudential/systemic risk inherent in the Finnish financial system concerns mortgage and housing markets.

Furthermore, the FIN-FSA and Bank of Finland have publicly spoken in favour of introducing income-based instruments (loan-to-income, debt-to-income and debt service-to-income) as part of the national macroprudential tool-kit. Negotiations with the Ministry of Finance are ongoing with the aim of formulating a concrete proposal to be submitted for comments by the industry in the near future.

Description and calibration of the measure;

On [26 June 2017], the Board of the FIN-FSA decided on a credit institution-specific minimum level of 15% for the average risk weight on housing loans applicable to credit institutions that have adopted the Internal Ratings-Based Approach, based on Article 458 of the CRR. The minimum level would come into force on 1 January 2018. The measure covers housing loans for the purchase of housing property located in Finland and would be applied on a consolidated basis. The Act (878/2008) on the FIN-FSA Chapter 2, Article 10:1, 6 entitles the Board to decide upon the application of Article 458 of the CRR.

The Board of the FIN-FSA decided upon an average risk weight floor, due to fact that an average is seen as less intrusive in terms of its effects on credit pricing and risk-based

[9] Even if the proposal were to be given without delay, the legislation regarding the systemic risk buffer is not expected to become effective this year. The reading of the proposal by the Parliament will take place in the autumn at the earliest, and the outcome is subject to approval by the Parliament. [redacted] Even after a possible introduction of the systemic risk buffer, the impact of the requirement would be somewhat different from the risk weight measure. If the systemic risk buffer could be limited to residential real estate exposures, the effects of the buffer would deviate from those of a risk weight floor. In particular, setting a buffer would increase the absolute capital requirement more for the banks with higher (housing loan) risk weights while the risk weight floor aims to ensure sufficient capital for housing loans across the banking sector.

allocation of credit to the real economy, while still ensuring adequate aggregate capitalisation of the institutions in question. The risk weight floor is calculated as a weighted average of exposure at default (EAD) and will be reported on a quarterly basis.

The calibration of the minimum level for the average risk weight is based on the objective that the size of the capital buffer generated by the risk weights should cover potential loan losses resulting from a severe financial and housing market crisis. The Finnish financial crisis of the 1990s, housing crises experienced by other European countries during the Global Financial Crisis, model-based loan loss simulations as well as macro-prudential stress tests have been used as benchmarks for the calibration.

To guide the calibration, the following calculations have been undertaken. First, an estimate has been made as to how high risk weights should have been to compensate for the housing loan losses experienced by the Finnish banks in the 1990s banking crisis. Second, using the Bank of Finland macroeconomic model, a simulation of the impact of similar shocks that hit Finland in the 1990s was made and transformed onto the balance sheets of the current banking sector. Third, calculations were made in order to specify the level of risk weights that would cover housing loan losses in the adverse scenario of the ECB's Comprehensive Assessment stress test. Fourth, in the most recent calculations the potential impact of equal-sized economic shocks that hit Spain and Ireland during the Global Financial Crisis on Finnish banks' housing loan losses was estimated.[10]

Calculations signalled that an average risk weight of approximately 15% would be sufficient to cover the loan losses stemming from such severe risk scenarios, though risk weights implied by the different calculations varied. The analysis supporting a 15% level was based on Finland-specific data, using statistical models and shocks to account for the systemic elements. Given the wide range of outcomes from the quantitative calculations, the assessment was supported by qualitative factors and international comparisons.

An impact analysis was performed for the various levels of the minimum average risk weight floor. [redacted]

During the first preparations of the risk weight floor in 2016, assessments pointed to the need of setting the risk weight floor at 10(-15)%. At that time, the calibration was based on a relatively cautious macroprudential stance. Later, analytical work conducted on the level of sufficient risk weights and their effects provided new elements of support for a change in the calibration of the floor. Also, given that the performance and the outlook of the Finnish

[10] The systemic component was reflected in the statistical relationships of the macro, financial and credit loss variables. All the direct and indirect effects, including second round effects were implicitly taken into account by assuming that the statistical relationships between the variables continue to prevail. The Finland-specific scenario was also assumed to run over 3 years during which losses accumulate. IRB models typically assume a one year period for the losses to occur. The scenario and associated GDP developments do not appear extreme when taking a 25 year perspective including the largest GDP movements that Finland has experienced over this time span[redacted]

economy have recently improved, the potential negative repercussions on the real economy potentially arising from an increase in risk weights have become lower.

The average risk weights of the biggest mortgage lenders applying the IRB approach in Finland are below 15%. According to international comparisons, the average risk weights of Finnish banks are among the lowest in the EU.[11]

[redacted]

Credit institutions' current capital buffers cover the change in required capital in all cases. The impact depends on whether banks will cover the increased requirements by acquiring new capital or by reducing their voluntary capital buffers. The impact on the capital adequacy ratios and CET1 ratios of the institutions concerned are estimated to be between 0–1 percentage points. The FIN-FSA expects that the credit institutions are willing to retain their voluntary capital buffers. While the capital adequacy ratios for the banking sector have increased over the past few years, this has partly been due to changes in risk weights. The planned measure would support bank capital levels and cross-country comparability. The measure is likely to have only a minor impact on banks' average funding costs, [redacted], at its extreme. The impact on bank loan margins and the demand for bank loans is perceived as minor.[12]

Additional factors support setting the level of the proposed risk weight floor at approximately 15%. In particular, household indebtedness relative both to GDP and disposable income has continued to increase and has doubled in the last two decades. As a result, households may be more vulnerable to housing market crises than before. The recent global financial crisis showed that highly indebted households may significantly reduce their consumption if house prices fall, thus affecting the real economy and resulting in major (indirect) loan losses.

Though the outlook of the Finnish economy has improved slightly, economic fundamentals have not improved significantly, implying that a relatively cautious macroprudential stance could be appropriate, which is reflected in the calibration of the proposed measure.

Explanation as to why the measure is deemed by the FIN-FSA to be suitable, effective and proportionate to address the change in the intensity of macroprudential/systemic risk;

As regards the *suitability* of the macroprudential measure, the key vulnerability in the Finnish financial system is the historically high household indebtedness. The potential of this measure or any other macroprudential action to directly reduce household indebtedness is limited, but the credit institution-specific minimum level of 15% for the average risk weight on housing loans of credit institutions that have adopted the internal ratings-based approach would

[11] [redacted]

[12] Also empirical literature and experiences from countries that have tightened macroprudential policies (e.g. Switzerland, Sweden and Norway) seem to suggest that an increase in capital requirements has, at most, a minor impact on bank lending.

ensure that the banks have sufficient additional capital to cover loan losses resulting from a severe financial crisis. Since the identified macroprudential/systemic risk involves the market as a whole, it is appropriate to address the risk through a market-wide macroprudential measure.

The measure is designed to address the problem that risk weights, in a significant part of housing loans granted by banks using an internal ratings-based approach, are insufficient to cover the negative impact of a systemic residential real estate market crisis following, for example, an asset price bubble. This negative impact may emerge through direct housing loan losses on banks or in the form of indirect effects on the real economy with further impact on housing and other household lending and on non-financial corporate lending. Sufficient levels of capital in banks mitigate the impact of price volatility in the residential real estate market, for example due to accumulation of asset price bubbles or changes in house prices as a result of changes in economic fundamentals.

The purpose of the planned measure is to target potential asset bubbles in the residential real estate sector by strengthening the resilience of the banking sector as part of the financial system pursuant to ESRB recommendations on macroprudential policy (ESRB/2011/3 and ESRB/2013/1). It is motivated to strengthen and ensure the resilience of the banking sector against asset bubbles at an early stage. House prices are under pressure in Finland due to the historically high level of household indebtedness, regional developments and the risk that euro area interest rates increases are not fully supported by domestic economic developments. If measures aimed at strengthening the resilience of the banking sector were to be taken at a late stage of an asset bubble, its mitigating impact would be limited. [redacted][13]

Introducing a credit institution-specific minimum level of 15% for the average risk weight on housing loans is also supported by the fact that there is no evidence of clear differences between risks in banks' housing loan exposures, while the observed risk weights are heterogeneous between the Finnish banking groups. From a macroprudential point of view, individual banks' risk weights do not reflect the inherent systemic risk. A credit institution-specific minimum level of 15% for the average risk weight on housing loans would ensure that all banks are sufficiently capitalised against macroprudential/systemic risks arising from the residential real estate markets, while current risk weight levels are motivated by the idiosyncratic risks related to bank-specific housing loans.

Concerning the scope of the measure, the measure is focused on housing loans, since the macroprudential/systemic risk confronting the Finnish financial system according to the ESRB, the OECD and the IMF relates to residential real estate and mortgage markets. This issue in particular was emphasised by the ESRB in its risk warning addressed to Finland in November 2016.

In the context of its warning to Finland (ESRB/2016/08) the ESRB notes the "planned initiatives to strengthen capital adequacy requirements for mortgage exposures" among other

[13] [redacted]

policy measures implemented in Finland with regard to the residential real estate market. The assessment regarding the measures states that “while these policy measures are appropriate given the nature of residential real estate vulnerabilities in Finland, they may not be sufficient to fully address them”. According to the ESRB, “Finnish banks have large mortgage portfolios with lower risk weights compared to their European peers”. It should be noted that the high level of household indebtedness referred to in the ESRB warning would be likely to intensify possible detrimental effects of a residential real estate boom-bust cycle on the banking sector.

The introduction of a risk weight floor may, as a side effect, create incentives to grant riskier housing loans, since these are in relative terms less affected by the measure, implying that risk weight add-ons could constitute a more effective option compared to a floor. However, considering the amount of losses generated by mortgage portfolios in the past, the FIN-FSA does not currently perceive this to be a problem. Also, a risk weight floor provides the credit institutions with a higher degree of discretion in fulfilling the requirement.

Considerations have also been given to the structural vs. cyclical nature of the systemic risk in question. Ensuring bank resilience by strengthening bank capital through more robust risk weights would in itself have a positive impact on financial stability that is not dependent on the financial cycle. At the same time, the underlying systemic threat includes both structural and cyclical elements. As the core aim of the measure is to address macroprudential risks emerging out of possible asset price bubbles in the residential real estate sector, the measure would be targeting a systemic risk of a cyclical nature. The high levels of household indebtedness and other vulnerabilities in the Finnish financial system, however, are key structural factors amplifying the potential impact of a housing loan crisis.

The *effectiveness* of the measure is assessed according to its capacity to ensure the resilience of the banking sector and to prevent or mitigate a systemic crisis in the residential real estate and mortgage markets. On this point, the measure ensures that the absolute level of own funds in the banking sector will be higher at any given level of risk-weighted capital ratios. It also implies that the absolute levels of own funds of the banks will stay at a sufficient level even if the banks reduce their voluntary capital buffers.

In addition, the measure could have a moderating impact on the credit cycle in the residential mortgage market, and thereby on the residential real estate market, affecting slightly the probability of an emerging asset price bubble. The effectiveness of the measure will also be promoted through communication, as applying Article 458 of the CRR is a clear signal to the public regarding the risks in the Finnish housing and mortgage markets.

Furthermore, the measure can be considered to be effective as a result of its scope. Covering credit institutions domiciled in Finland and supervised by the FIN-FSA and those supervised by the ECB/SSM as well as branches of foreign credit institutions with housing loan stocks (in accordance with the established framework for reciprocation) constitutes an effective response to the corresponding macroprudential/systemic risk. Currently, Swedish macroprudential risk weight measures, for example, do not apply to housing loans issued by Swedish banks’ branches in Finland, though in ESRB and IMF risk assessments, the risk of

a Scandinavian housing crises spilling over to the Finnish housing market and banking sector is a key concern.

However, setting the risk weight floor at 15% is, according to FIN-FSA and Bank of Finland preliminary calculations, roughly equivalent to increasing the risk-weighted capital requirement by 1 percentage point. The Ministry of Finance's calculations therefore suggest that the risk weight floor would only have a small impact on GDP.

In measuring the effectiveness of the proposed measure, the FIN-FSA and Bank of Finland will monitor, in particular, the impact of the measure on bank capitalisation in terms of the amount of own funds, risk-weighted capital ratios and leverage ratios. The potential unintended consequences on bank lending and loan margins will also be assessed.

As regards *proportionality*, the measure is seen as proportionate as it ensures the resilience of the banking sector against mortgage lending risks while not having a large impact on limiting mortgage lending, which could, in turn, have an adverse effect on the recovery in the real economy.

Proportionality is also ensured by the floor-type nature of the measure. As explained above, the major impact of the measure would be on the part of the banking sector that has not fully considered the macroprudential/systemic risk accentuated by the high level of indebtedness in the household sector. At the same time, it would prevent other banks that use the internal ratings-based approach from adopting disproportionate risk weights and would invite more consistency. Limiting only the average risk weights of banks' housing loans, the measure allows for necessary flexibility in banks' lending behaviour while improving their resilience.

Moreover, proportionality is supported by the fact that the measure applies to banks using the internal ratings-based approach only. The measure does not apply to those banks using the standard approach with higher risk weights. At the same time, the measure provides guidance to those banks changing their approach for calculating risk weights into the internal ratings-based approach by setting out the authority's view on the appropriate level of risk associated with mortgages.

The measure is aligned with the macroprudential/systemic risk as specified by the ESRB, and only has a direct impact on lending in residential real estate markets, not on lending to the non-financial corporate sector. Its impact on the granting of corporate loans is thereby expected to be limited.

Assessment of the positive/negative impact of the draft measure on the internal market;

The overall impact of the macroprudential measure on the EU internal market is positive. By introducing a credit institution-specific minimum level of 15% for the average risk weight on housing loans of credit institutions that have adopted the internal ratings-based approach, the

resilience of the Finnish banking sector will improve, implying a more stable financial environment supporting the functioning of the internal market as well as continuous economic growth. The measure is particularly motivated by the November 2016 ESRB risk warnings regarding the conditions in residential real estate and mortgage markets in Finland and other Nordic countries.

The cross-border effects of the measure have been assessed in accordance with ESRB Recommendation (ESRB/2015/2) on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures. Possible spillover channels operating via risk adjustment and regulatory arbitrage have been identified ex ante, by focusing on i) cross-border effects in the form of leakages and regulatory arbitrage resulting from the implementation of the macroprudential measure in Finland (inward spillovers) as well as on ii) cross-border effects of the measure on other Member States (outward spillovers).

No foreign banks active in Finland are already subject to additional (earmarked) capital requirements imposed on Finnish housing loans exposures by their home supervisors. Moreover, based on statistical information and other evidence available, the share of direct cross-border lending and the role of non-banks in the Finnish housing loan market is negligible.

The analysis implies that the probability of *inward spill-overs* emerging is limited. In principle, risk adjustment and regulatory arbitrage could appear by actors increasing mortgage lending through the shadow banking sector or expanding lending from foreign actors to Finland. Given the fact that the risk weight floor of 15% is moderate and foreign authorities most probably will reciprocate the measure, incentives for such channelling appear low.

As regards *outward spillovers*, these effects are expected to be limited, as the measure applies only to housing loans for purchases of dwellings located in Finland.

Overall, in a cross-border context, the macroprudential measure would consequently strengthen the resilience of the Finnish banking sector against shocks from abroad and reduce the risk of possible contagion of financial instability from Finland to other Member States. Given the level of housing loan risk weights in Finland relative to other Member States, the measure would contribute to a higher degree of coherence as regards the regulatory treatment of housing loans within the EU.

In order to address negative cross-border spillovers and potential negative impact on the internal market, the FIN-FSA will request foreign macroprudential authorities to reciprocate the measure. The issue of reciprocation has been preliminary discussed with other Nordic authorities. A Memorandum of Understanding applies to the Nordic-Baltic macroprudential network. Reciprocation would limit potential incentives for institutions to transform activities from subsidiaries into branches in order to avoid the measure.

In addition, the FIN-FSA will ask the ESRB to issue a recommendation to this end. The FIN-FSA will propose a threshold to the ESRB for reciprocation in accordance with the new

principles for the reciprocity framework. While the reciprocation of measures pursuant to Article 458 of the CRR is voluntary, it is expected that reciprocity measures will be taken by all authorities materially concerned.

Annex with related charts

Chart 1. Household indebtedness

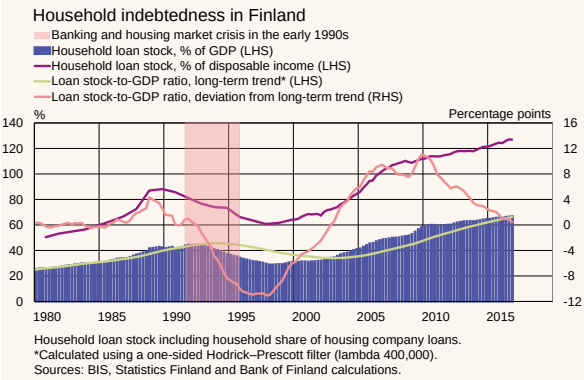

Chart 2. Housing loans: new drawdowns and annual growth rate of the stock

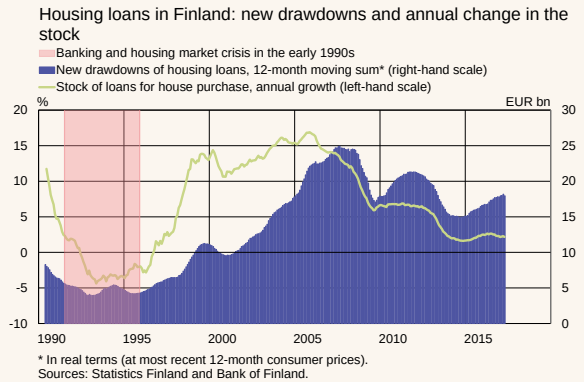

Chart 3. Average interest rate on new drawdowns of housing loans

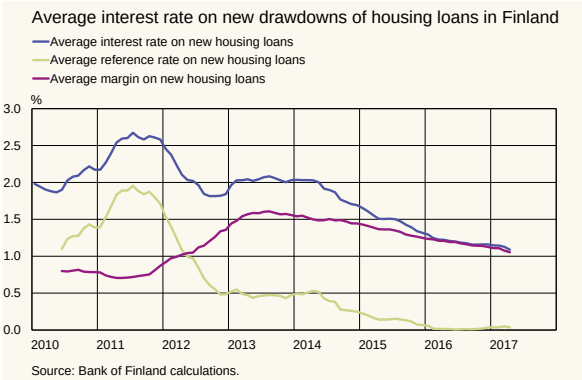

Chart 4. Capital adequacy ratios for the banking sector

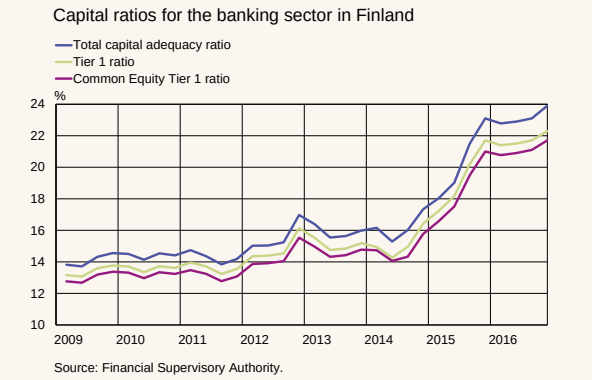

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Chart 6. House price ratios

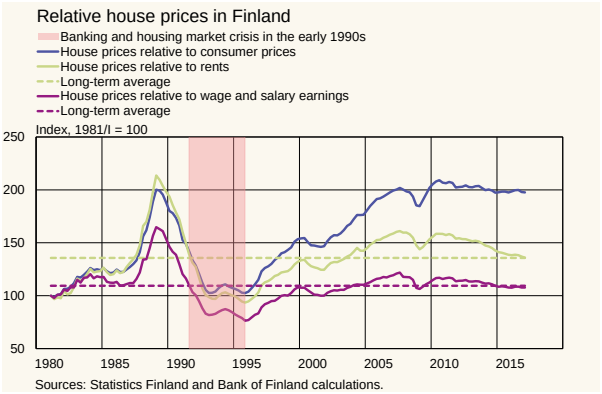
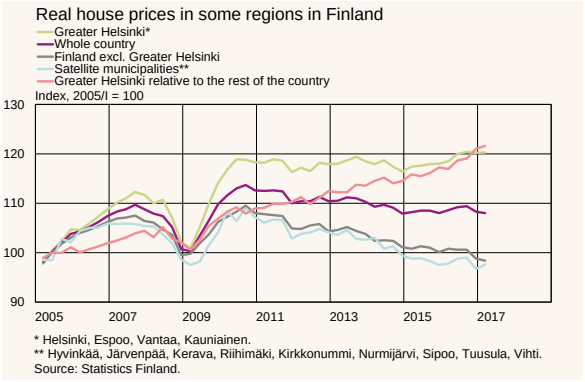


Chart 7. Real house prices in different regions



* Helsinki, Espoo, Vantaa, Kauniainen.
** Hyvinkää, Järvenpää, Kerava, Riihimäki, Kirkkonummi, Nurmijärvi, Sipoo, Tuusula, Vihti.
Source: Statistics Finland.