Background

Taking preventive action by putting effective instruments in place for regulating real estate lending in Austria

1. Systemic risks from real estate financing

Real estate has a crucial economic and financial role in an economy. Real estate is the most important component of households' wealth, accounting for approximately 54% of Austrian households' total wealth (latest available data are of end-2014), with the European average lying between 50% and 70% (source: OeNB). Therefore, on the one hand, real estate price fluctuations generate wealth effects, which, in combination with housing costs, affect households' consumption and investment decisions. In addition, the construction industry is an important driver of the economy. On the other hand, real estate is often used as collateral in debt financing, which implies that changes in the value of real estate may have far-reaching effects.

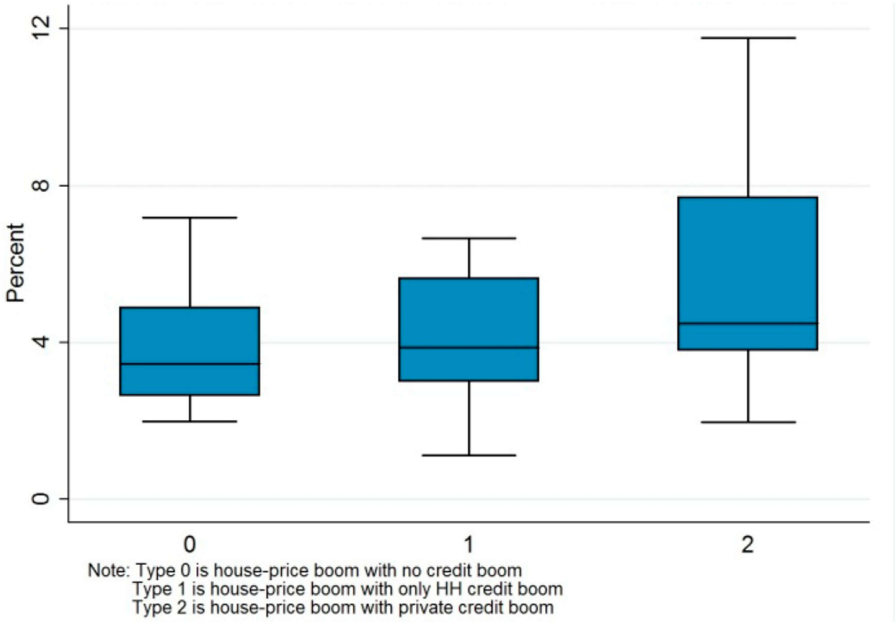
Interactions between the real economy and the financial sector may accelerate unsustainable real estate price and lending growth (Claessens et al., 2013), which in turn fuels real activity. According to an IMF cross-country analysis covering 50 countries, GDP, consumption and investment are economically and statistically significantly higher during a real estate boom (Cerutti et al., 2015). It has been shown that countries witnessing a real estate boom record average annual GDP growth rates of 4% to 5.8% (see chart), i.e. rates that are 1.25 to 2.5 percentage points above those posted by countries without a real estate boom. High loan-to-value (LTV) ratios, a low interest rate environment, high risk appetite and loose lending standards[1] as well as a positive demand shock contribute to reinforcing such an upward spiral.

Unsustainable real estate lending coupled with a real estate price boom often increases systemic risks affecting financial stability. This is due to borrowers' and lenders' heightened vulnerability to crises in both commercial and residential real estate markets (ESRB, 2014). Two-thirds of real estate booms analyzed by Cerutti et al. (2015) ended in a recession. A recession following a real estate boom is more likely and more severe if a credit boom occurred simultaneously with the real estate boom. The end of such an upward spiral may generate high economic costs; however, the developments of real estate price and credit growth vary to a large degree and it is difficult to predict the turning point. One-third of real estate booms do not

[1] This means that lenders base their decisions to grant loans on (overly) optimistic expectations regarding the future path of the value of the property used as collateral and borrowers' debt sustainability. These expectations may turn out to be unrealistic if economic conditions change.

end in a recession, and often they are not even followed by a real estate bust. Moreover, in the past, one-fourth of real estate booms were not accompanied by a credit boom. However, since 2000 there has been a general increase in the number of real estate booms, and more booms have led to a recession (Cerutti et al., 2015).

Chart: Average GDP growth during a real estate price boom



Source: Cerutti et al. (2015). Note: For a detailed definition of a "boom," see Cerutti et al. (2015), page 13: According to the authors, two conditions must be met: "(i) the real growth rate of credit (house prices) is greater than 10 (5) percent, or two standard deviations of the country-specific distribution of credit (house prices) real growth rates in a given quarter; and (ii) the real growth rate of credit (house prices) is above 10 (5) percent or one standard deviation of the country-specific distribution of credit (house prices) real growth rates for a period of at least two years."

Corrections of real estate overvaluations can be attributed to demand, supply or interest rate shocks or changes in expectations. For instance, due to an economic downturn or rising interest rates, a growing number of borrowers may be unable to pay back their loans, leading to a mounting pressure to sell the property used as collateral. This will reinforce price corrections in the real estate market. Financial institutions are then likely to face high costs caused by elevated write-off rates in lending, which in turn will limit the scope for lending and lead to higher prices of new credit. These developments, coupled with an increased volume of nonperforming loans, will negatively affect investment behavior and economic activity, setting in motion a downward spiral.

In view of the strong rise in real estate prices in Austria, the Financial Market Stability Board (FMSB) has directed considerable efforts toward the analysis of potential risks emanating from real estate financing[2]. An overvaluation of real estate prices has been identified above all in Vienna; however, past credit growth has not been found to be excessive even when property price growth was steepest. Nevertheless, housing loans are the loan category that has posted the highest growth rates in Austria since the financial crisis, albeit growth has still been moderate. At the same time, the low interest rate environment might be driving a structural change that may go hand in hand with an easing of lending standards. Therefore, the FMSB considers it necessary to expand the macroprudential toolkit as a preventive move to stay capable of acting in an event of rising systemic risk connected with a real estate price boom (see also press release of the seventh FMSB meeting[3]). Raising market participants' risk awareness could be a desired side-effect of this initiative.

2. Effectiveness of macroprudential tools in regulating real estate financing

Supervisory authorities have at their disposal microprudential and macroprudential tools to fulfill their mandate of maintaining financial stability. Under the Supervisory Review and Evaluation Process (SREP), microprudential tools are designed to address individual risks of individual financial institutions. Macroprudential tools address systemic risks and are used to mitigate the probability and costs of crises. Therefore, macroprudential instruments must be used preventively during upswings.

In the area of real estate financing, the toolkit of macroprudential supervisors is limited to lender-based instruments as defined in the Capital Requirements Regulation and Capital Requirements Directive (CRR/CRD)[4]**, which increase the risk-bearing capacity of banks.** These

[2] For further information, analyses and data on real estate markets and prices, see https://oenb.at/en/Monetary-Policy/real-estate-market-analysis.html. For information about the FMSB's sixth meeting, see https://www.fmsg.at/en/publications/press-releases/sixth-meeting.html .

[3] https://www.fmsg.at/en/publications/press-releases/seventh-meeting.html.

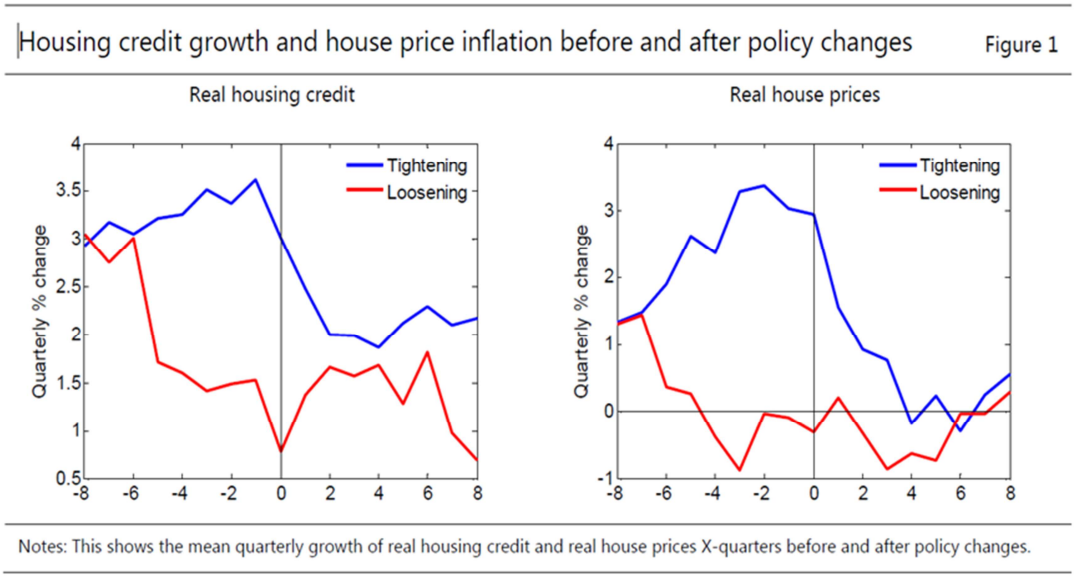
[4] **Lender-based instruments in line with the CRR/CRD:**

- **Setting higher risk weights** (under the Standardized Approach) **and raising minimum loss given default values** (under the IRB Approach) pursuant to Article 124 and Article 164 CRR.
  - measure with micro- and macroprudential components; the European Banking Authority (EBA) is currently developing corresponding standards (RTS);
  - under the IRB Approach, indirect influence on risk weights via the LGD;
  - action to be taken directly by the FMA.
- Implementing **higher risk weights for targeting asset bubbles** in the residential and commercial property sectors pursuant to Article 458 CRR and Article 22a no. 6 BWG (Austrian Banking Act):
  - increase in risk weights under the Standardized Approach and under the IRB Approach;
  - simplified implementation procedure for increases up to 25%.
- **Systemic risk buffer**: direct increase of capital requirement (currently no sector differentiation, which rules out requirements that apply specifically to real estate financing).
- **Countercyclical capital buffer:** direct increase of the capital requirement applicable to all domestic risk positions (currently no sector or regional differentiation possible).

instruments are designed to promote the buildup of additional capital for the purpose of loss absorption during economic downturns by increasing risk weights and/or prescribing additional capital buffers. These measures imply higher total financing costs for lenders. Additionally, they may steer lender behavior into a certain direction by reducing the relative attractiveness of real estate loans in the credit portfolio. The direct effect of higher risk weights and/or higher capital ratios on credit pricing (higher prices) and thus on real estate loan supply is small; however, it would take disproportionately higher risk weights to achieve effective price changes. According to an estimate by the Basel Committee on Banking Supervision (BCBS, 2010), a general rise in banks' capital ratios by 1 percentage point increases loan spreads by an average of 13 basis points. Based on this estimate and the functioning of the transmission mechanism, as outlined above, only a small direct effect on loan and real estate price growth can be expected. What is more, the effect on the risk appetite of commercial lenders is uncertain and has been hardly explored by the literature. Banks may be inclined, particularly under fierce competitive pressure, to take on higher risks instead of fully passing on increased capital costs to their borrowers (Igan, 2012). This has been confirmed by the countercyclical capital buffer used in Switzerland, which – unlike the one in the EU – can be applied specifically for mortgage loans and which triggers increased capital requirements for this credit segment (Basten and Koch, 2015).

International studies show that borrower-based instruments, which are not available in Austria yet, have proven their effectiveness in limiting real estate price bubbles and credit growth and mitigating risks resulting therefrom. These instruments include limits on the loan-to-value (LTV) ratio, debt service-to-income (DSTI) ratio and debt-to-income (DTI) ratio. Various cross-country analyses (e.g. McDonald, 2015; Morgan et al., 2015; Darbar and Wu, 2015) demonstrate the effectiveness of such instruments. For example, an econometric panel data analysis, which looked into 17 Asian and 6 European countries (plus Canada), came to the conclusion that LTV and DTI limits – in times of an economic upswing – reduce annual credit growth by an average 1.5 percentage points and annual real estate price growth by 3 percentage points (McDonald, 2015). An easing during an economic downturn, on the other hand, has only a small effect or no effect at all (see chart). The effectiveness of these instruments is higher when real estate credit growth and real estate price growth are strong and/or real estate prices are high. A country's level of development, exchange rate regime and size of financial sector do not have a significant impact on the results according to this study.

Chart: Impact of macroprudential measures on credit and real estate price growth



Source: McDonald (2015).

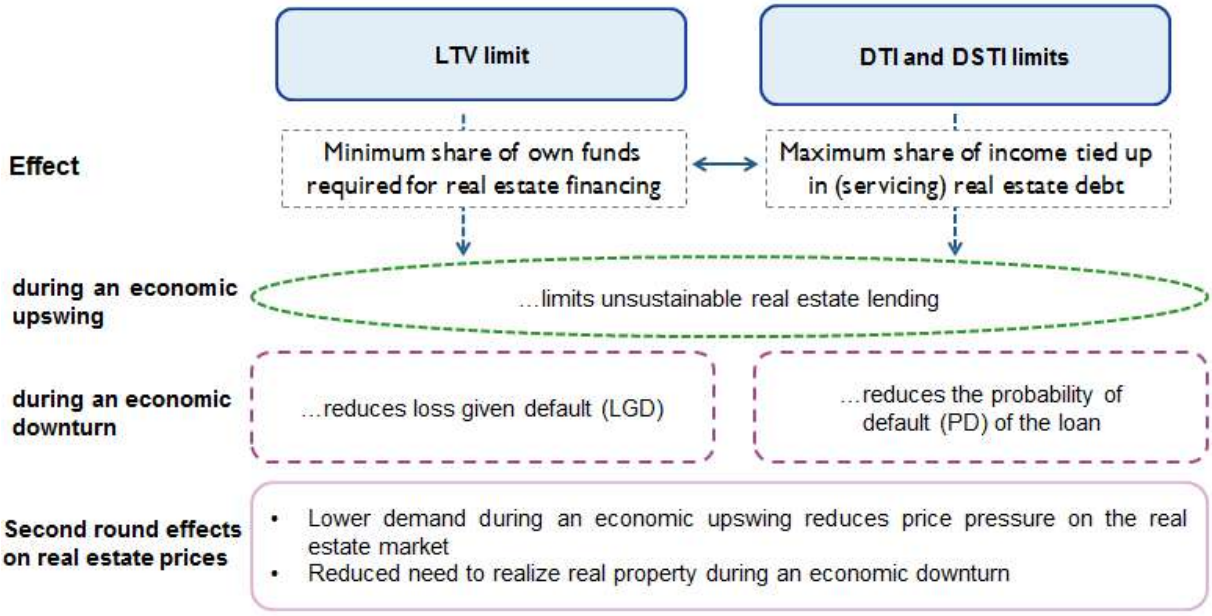
Borrower-based instruments must be applied preventively and target the interface between lender and borrower at the point in time at which the loan is granted. As they directly influence lending standards and conditions they have an immediate impact on credit supply and demand. The individual borrower-based instruments work as follows (see also chart):

a. **Imposing a limit on the loan-to-value (LTV) ratio:** An LTV limit reduces the extension of unsustainable real estate loans, as it imposes a minimum of own funds required for real estate acquisitions. A lower LTV limit can also improve lenders' risk-bearing capacity by reducing the loss given default of loans. Thereby the financial system is better equipped to sustain an increase in loan defaults, in particular if accompanied by a slump in real estate prices. In case of overvalued, rising real estate prices, systemic risks may still occur if no additional measures are taken, as the LTV ratio is subject to a downward bias and the LTV limit is less effective.

b. **Imposing a limit on the debt-to-income (DTI) ratio:** The DTI limit is complementary to the LTV limit and is targeted at a sustainable debt-servicing capacity, i.e. at ensuring that borrowers will be able to service their debt even in the event of a temporary or permanent reduction of income. A DTI limit can reduce unsustainable lending also in an environment of rising real estate prices, as incomes grow more slowly during an upswing than real estate prices. Moreover, reducing borrowers' probability of default strengthens the resilience of the financial system and increases the shock absorbing capacity of the entire economic system.

c. **Imposing a limit on the debt service-to-income (DSTI) ratio**: The mode of action of the DSTI limit corresponds to that of the DTI limit. The choice between applying a DSTI or a DTI limit depends on the specific circumstances. Owing to the low interest rate environment and the large share of floating rate loans in Austria, the development of interest rate scenarios is important for the application of this measure. Based on the results of such interest stress tests, the consequences of a possible general rise in interest rates are factored into the loan agreement from the beginning. To ensure that macroprudential supervision can take targeted action both instruments (b and c) should be at its disposal.

Chart: Effect of LTV, DTI and DSTI limits



Source: OeNB.

The three above-mentioned instruments are complementary. While DTI and DSTI limits are supposed to reduce the probability of default, an LTV limit mitigates the potential loss if the collateral (property) has to be realized.

These instruments also interact with financial regulation and consumer protection, the institutional framework and structural factors that significantly influence (unsustainable) credit and real estate price growth (ESRB, 2015b). In Austria, they include tax law, subsidy structures in the area of financing and housing, consumer protection, the Mortgage Bank Act, the Building Society Act and the Mortgage Bond Act, as well as provisions of the Austrian Banking Act and the CRR and legal provisions governing the insurance sector and other financial intermediaries.

Some areas of the Austrian mortgage lending sector already stipulate certain conditions tied to the LTV ratio. For instance, Article 10 of the Building Society Act prescribes that the value of

building loans must not exceed 80% of the market value of the real property pledged as collateral. Moreover, Article 11 Mortgage Bank Act stipulates that a mortgage bond may only be collateralized by a mortgage loan whose amount does not exceed 60% of the value of the mortgaged property. These restrictions would be affected if an LTV limit imposed for macroprudential reasons were to be lower than the current limits for mortgage bonds and building loans. Therefore, legislative procedure would need to determine that stricter macroprudential measures shall take precedence over relevant legislation, as referred to above, during the period for which these measures apply. Even if such a scenario cannot be excluded ex ante, it should be noted that the existing LTV limits have been set at a conservative level. The Mortgage and Immovable Property Credit Act (HIKrG), which entered into force in March 2016, lays down specific criteria for determining a borrower's creditworthiness for the purposes of consumer protection. These criteria include guiding principles and qualitative requirements for LTV and DSTI ratios in mortgage lending[5]. Macroprudential measures would complement these criteria with binding limits.

Potential regulatory arbitrage must be minimized by specifying ancillary requirements and precisely defining measures to be taken. Possible ancillary requirements are described in item 2 of the attached Advice; they have been devised on the basis of other countries' practical experience and the latest ESRB report (ESRB 2015b). The ESRB has emphasized the need to prevent possible circumventions that are happening through shifts to the nonbanking sector (ESRB 2015b). Hence, the requirements must be applied to all commercial lenders – including insurance companies and other financial intermediaries.

The FMSB hereby notes that Austria's macroprudential supervision toolkit lacks important and internationally widely used instruments to effectively address systemic risks in connection with real estate loans. The supervisory toolkit is limited to lender-based instruments. However, as explained above, the direct effect emanating from such instruments on lending and real estate prices is limited. The preventive creation of a legal basis for the potential application of borrower-based instruments would ensure that appropriate instruments are available if the need arises.

[5] Article 9 HIKrG among other things prescribes that credit assessments are to be carried out on the basis of necessary, sufficient and appropriate information on the relevant consumer's income and other financial and economic characteristics and that credit assessments must not be limited primarily to the finding that the value of the immovable property or building on third-party land to be pledged as collateral is higher than the loan amount or the assumption that the collateral will increase in value.

3. Application of borrower-based instruments at the international level

At the international level, borrower-based instruments have proven suitable and efficient in addressing systemic risks associated with real estate lending. Numerous countries have already established these instruments, most often combining them (see table), or have issued recommendations for their introduction to the responsible authorities. For example, on June 30, 2015, Germany's Financial Stability Committee recommended to the German Federal Government to create the legal basis for an application of borrower-based instruments. The objective of these efforts is to create minimum standards for loan financing of residential properties and limiting threats to financial stability that might arise from excessive leverage and price bubbles on the real estate market (AFS, 2015).

Table: Borrower-based measures in Europe

LTV limits *(For the sake of brevity and clarity, no information on the detailed application of these instruments is given here)*	DSTI or DTI limits *(For the sake of brevity and clarity, no information on the detailed application of these instruments is given here)*
– Cyprus (2013): 70-80%	⟷ Cyprus (2013): DSTI 35-60%
– Denmark (ongoing): 95%	
– Estonia (2015): 85%	⟷ Estonia (2015): DSTI 50%
– Finland (2016): 90-95%	
– Hungary (2015): 45-80% (depending on currency)	⟷ Hungary (2015): DSTI 10-60% (depending on currency and income)
– Ireland (2015): 70-90%	⟷ Ireland (2015): DTI 3.5
– Latvia (2014): 90-95%	
– Lithuania (2011): 95%	⟷ Lithuania (2011): DSTI 40%
– Malta (2008): 80%	
– Netherlands (2012) 106% → 2018: 100%	⟷ Netherlands (2013): DSTI 10-38% (depending on income and interest rate level)
– Norway (2011): 85%	
– Poland (2014) 95% → (2017) 80-90%	⟷ Poland (2013): DTI (demand for bank-internal DSTI limit)
– Romania (2011): 60-95% (depending on currency)	⟷ Romania (2011): DSTI must be stressed (currency, interest rate and income shock)
– Slovakia (2014): 90-100%	⟷ Slovakia (2015): DSTI (demand for bank-internal DSTI limit)
– Sweden (2010): 85%	
– Czech Republic (2015): 90-100%	– UK (2014): DTI 4.5

Source: ESRB (2015a). As at December 2015.

ESRB, ECB and IMF also recommended equipping macroprudential supervisors with borrower-based instruments. In the course of the so-called Article IV consultation in 2015[6], for example, the IMF reiterated its recommendation that macroprudential supervisors in Austria should be equipped with such instruments.

[6] This recommendation was already voiced during the 2013 FSAP and the 2014 Article IV consultation.

4. Principles for applying and evaluating the measures

It seems advisable to create a precautionary legal basis for these instruments in advance, in order to be ready if their application should be necessary and also to base the determination of their need of application on solid empirical data.

Instruments shall only be applied for the purpose of safeguarding financial stability and therefore avoiding excessive leverage. The application of the measures should be minimally intrusive – in particular in the area of nonprofit and subsidized housing construction. Therefore, any recommendations the FMSB might issue to the FMA on an active application of macroprudential instruments and any decision by the FMA to apply borrower-based instruments must only ever take place with the objective of safeguarding financial stability. The measures serve to meet the intermediate objective of mitigating and preventing excessive credit growth and leverage[7].

While macroprudential policy generally faces the conflicting objectives of short-term economic stimulation and long-term stability, the possible application of macroprudential instruments poses no additional conflict with the objectives of nonprofit and subsidized residential construction in Austria. While nonprofit residential construction and housing subsidies aim at ensuring affordable housing[8] for the population, macroprudential supervision has the objective – in the area of residential construction – to reduce unsustainable debt and associated risks for the Austrian financial system to ensure sustainable economic development[9].

Any decision to apply borrower-based instruments must be based on a risk analysis, a risk-adequate calibration and an ex ante impact analysis. On this basis, the principles of a theory- and evidence-based supervisory policy and the transparency of decisions can be ensured. As the measures are targeted at reining in real estate lending on the basis of (un)sustainability indicators, a reduction of credit growth in this area is deemed a desired effect. To the extent that economic, consumption and investment growth are the result of unsustainable lending, short-term constraints in these areas are also a desired effect of the measures. In the long term, such macroprudential measures contribute to a more sustainable economic development.

[7] See marginal no. 7 of the macroprudential policy strategy for Austria.

[8] The nonprofit residential construction sector achieves this objective by creating nonprofit-oriented companies, subsidizing housing by means of financing aids and reducing construction costs through different measures (e.g. repayable and nonrepayable housing subsidies, income-dependent supply-side subsidies); see also Bauer (2008) and Schwebisch (2008).

[9] See also "The macroprudential policy strategy for Austria," https://www.fmsg.at/en/publications/strategy.html

The measures have a preventive effect. They are used in times when systemic risks build up because of high credit growth, larger risk appetite or strong real estate price increases. As systemic risks decline, any imposed limits should also be loosened or lifted again.

The decision on the application of the instruments takes place under uncertainty. Even if the FMSB and the FMA aim to reduce uncertainties on the basis of risk analyses and impact estimates, they cannot be wholly eliminated, even if one works with the best data and models.

5. Data requirements

Supervisory reporting currently lacks detailed data at the individual bank and nonbank level that are indispensable when applying borrower-based measures; they are necessary for calibrating envisaged measures, making ex ante impact assessments and monitoring implemented measures. An effective and risk-adequate implementation of the measures hinges on a solid data basis.

For banks, supervisors can obtain some, albeit incomplete data from the OeNB survey on mortgage lending which has been regularly conducted since 2015, the Asset Quality Review (2014), the EBA Transparency Exercises and the Central Credit Register. These data, however, are only available for a few credit institutions, for certain reference dates, and they relate only partially to contents that can be directly used for the purposes of applying borrower-based instruments. Additional data on the borrower perspective is provided by the Eurosystem Household Finance and Consumption Survey (HFCS), which also includes data on Austrian households. Moreover, the OeNB has been conducting a survey on mortgage lending since 2015. Based on a representative sample of banks, this survey collects key data on new mortgage loans granted for the purpose of real estate financing. These data include information on distributions of LTV, DSTI and DTI ratios in connection with risk parameters (e.g. risk weight, probability of default and loss given default). Yet necessary data on real estate lending by nonbanks are not available.

To be able to fully assess financial stability risks stemming from real estate financing and, above all, to be able to actively use borrower-based instruments, credit information must be reported by all commercial lenders. Even if the necessity to apply such instruments is not on the immediate horizon, a timely creation of the required legal basis ensures an improved data basis for necessary decisions. As an element of supervisory reporting, such a data basis would also need to enable supervisors to monitor any measures that have been implemented. The

indicators to be collected would be data that banks are already documenting to satisfy other legal requirements or general due diligence requirements.[10]

[10] The OeNB survey on mortgage lending mentioned above could be a starting point for related supervisory reporting.

6. References

Ausschuss für Finanzstabilität. 2015. Empfehlung zu neuen Instrumenten für die Regulierung der Darlehensvergabe zum Bau oder Erwerb von Wohnimmobilien. AFS/2015/1.

Basten, C. and C. Koch. 2015. Higher Bank Capital Requirements and Mortgage Pricing: Evidence from the Countercyclical Capital Buffer (CCB). BIS Working Paper No. 511.

Bauer, E. 2008. Wohnbauförderung und Wohnungsgemeinnützigkeit nach 1945. In: Lugger/Holoubek (eds.). Die österreichische Wohnungsgemeinnützigkeit. p. 121ff.

BCBS. 2010. An assessment of the long-term economic impact of stronger capital and liquidity requirements.

Cerutti, E., J. Dagher and G. Dell'Ariccia. 2015. Housing Finance and Real-Estate Booms: A Cross-Country Perspective. IMF Staff Discussion Note 15/12.

Claessens, S and M. Ayhan Kose. 2013. Financial Crises: Explanations, Types, and Implications. IMF Working Paper 13/28.

Darbar, S. and X. Wu. 2015. Experiences with macroprudential policy – five case studies. IMF Working Paper 15/123.

ESRB. 2014. The ESRB Handbook on operationalizing macro-prudential policy in the banking sector.

ESRB. 2015a. Overview of national measures in the EU/EEA notified to the ESRB, or of which the ESRB is aware, and that are of macro-prudential interest. 28 December 2015.

ESRB. 2015b. Report on residential real estate and financial stability in the EU. December 2015.

Igan, D. 2012. Dealing with real estate booms and busts. In: BIS. 2012. Property markets and financial stability. Proceedings of a joint workshop organized by the BIS and the Monetary Authority of Singapore. September 2011.

McDonald, C. 2015. When is macroprudential policy effective? BIS Working Paper No. 496.

Morgan, P., P. J. Regis and N. Salike. 2015. Loan-to-value policy as a macroprudential tool: the case of residential mortgage loans in Asia. Asian Development Bank Institute Working Paper No. 528.

Schwebisch, G. 2008. Nachhaltige Immobilienfinanzierung im Spannungsfeld der Kapitalmarktvorschriften. In: Lugger/Holoubek (eds). 2008. Die österreichische Wohnungsgemeinnützigkeit. p. 269ff.

ADVICE

on the establishment of a legal basis for additional macroprudential instruments to regulate lending for the purpose of acquiring and developing real estate in Austria

Vienna, June 1, 2016

FMSG/2/2016

The Austrian Financial Market Stability Board (FMSB) issues the following advice to inform the Federal Minister of Finance in line with the provisions of no. 37 of the macroprudential policy strategy[11].

Advice

The Federal Minister of Finance is hereby advised that

1. the preventive creation of a **legal basis for additional macroprudential instruments** is necessary to enable the Austrian Financial Market Authority (FMA) to impose limits on loans granted by commercial lenders[12]
    - that are collateralized with real property located in Austria and that are intended for financing the construction, redevelopment or acquisition of real property in Austria, or
    - that serve "speculative immovable property financing" within the meaning of Article 4 para. 1 no. 79 CRR in connection with real property or land for such real property in Austria,

   upon recommendation by the Financial Market Stability Board or on its own initiative, taking into account other federal acts (e.g. Austrian Banking Act, Mortgage Bank Act, Building Society Act, Mortgage Bond Act, the Covered Bond Act as well as consumer protection legislation [HIKrG]) and union law (e.g. CRR), with the objective of strengthening financial stability in Austria:

    a. **Imposing a limit on the loan-to-value ratio** (LTV limit): Imposing a limit on the ratio of the sum total of all new real estate loans granted to a borrower to the total market

[11] No. 37 of the macroprudential policy strategy reads as follows: "Austrian macroprudential supervisors are committed to identifying important instruments that are not yet in place but necessary to meet the agreed objectives and to inform the Federal Minister of Finance of such instruments."

[12] To prevent regulatory arbitrage it is important that all lenders shall be covered by the new legal basis to be created.

value (at the time of conclusion of the loan contract) of all real properties pledged as collateral for these new loans by the borrower.

b. **Imposing a limit on the debt-to-income ratio** (DTI limit): Imposing a limit on the ratio of the sum total of all debt capital outstanding under a real estate borrower's debt financing arrangements, including the new loan to be granted, to annual disposable income (after tax), or, in the case of legal persons, to annual inflows of funds, at the time of conclusion of the loan contract.

c. **Imposing a limit on the debt service-to-income ratio** (DSTI limit): Imposing a limit on the ratio of the annual total of all debt service payments under a real estate borrower's debt financing arrangements to annual disposable income (after tax), or, in the case of legal persons, to annual inflows of funds, at the time of conclusion of the loan contract; in the case of bullet loans, the calculation of this ratio is to assume repayment in installments; in the case of bullet loans with repayment vehicles, the underlying savings plans must be included in the calculation.

2. the legal basis to be prepared should enable the FMA to impose the following **ancillary requirements** when applying the instruments designated above:

   a. **Amortization requirements:** (1) imposing a specific period during which a specified share of a new real estate loan must be amortized, and/or (2) imposing a limit on the maximum maturity of new real estate loans.

   b. **Exemptions:** (1) exempting a specific share of new real estate loans (weighted by volume and/or number of loans) from one or more requirements and/or ancillary requirements, and/or (2) defining a limit for loan amounts (de minimis threshold) up to which one or more requirements and/or ancillary requirements shall not apply.

   c. **Restrictions:** possibility to limit the instruments' scope of application to (1) specific geographical areas and (2) specific loan purposes, e.g. construction, redevelopment and acquisition of privately used residential property, commercially used residential property or commercial real estate.

3. the legal basis to be created should enable supervisors, in line with the principle of legality, **to take measures against regulatory arbitrage** on the part of lenders (inter alia by taking into consideration the ancillary requirements listed under item 2);

4. the legal basis to be created should make it possible to take into account the needs of nonprofit and subsidized housing construction;

5. the legal basis to be created should lay down that the FMA, **prior to the application** of one or more of the instruments designated above, must seek an **expert opinion** (risk analysis,

risk-adequate calibration and ex ante impact assessment taking into consideration the assessment of cross-border effects outlined in ESRB Recommendation ESRB/2015/2) from the **Oesterreichische Nationalbank (OeNB)** and that the FMA can prescribe the application of the instruments by the issue of a decree upon consent by the Federal Minister of Finance. Legislative procedure shall lay down that stricter macroprudential measures shall take precedence over limits under other relevant legislation during the period for which these measures apply. As regards foreign banks, reciprocity of measures should be aimed for;

6. the legal basis to be created should prescribe an **ex post impact assessment** of any measures taken. Such an assessment should be carried out by the OeNB in line with Article 44c para. 4 Nationalbank Act (Nationalbankgesetz 1984) to evaluate the impact of measures taken in relation to their objective – strengthening financial stability in Austria – as well as possible cross-border effects; this assessment should provide the FMSB with a basis for deciding on a possible recommendation about a risk-adequate adjustment of the measures to be carried out by the FMA. The results of the impact assessment, including the applied methodology and suggestions for the possible adjustment of measures should be published online – to the extent permissible;

7. the legal basis to be created should equip the **FMA with adequate powers to impose sanctions** on lenders for noncompliance with applied measures. To make the monitoring of compliance easier, appropriate supervisory reporting structures should be put into place.