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## Abridged Report

'The use of Basel II-compliant property ratings for achieving favourable lending conditions for high-quality and environmentally friendly housing estates and refurbishment projects'

Short title: Favourable lending conditions through positive property rating

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## **1.** Goals of the research project

The introduction of new capital adequacy rules (called Basel II) within international banking practice will lead to a more risk-oriented calculation of lending conditions for private and corporate borrowers; i.e. more favourable lending conditions for borrowers with high solvency or creditworthiness and disadvantageous lending conditions for borrowers with inferior creditworthiness. The same applies for loans secured by property assets. In this case, lending conditions will depend on both creditworthiness of the borrower and the quality of the property collateral. In the past, banks have developed sophisticated rating instruments which enable them to predict the probability of default of individual or corporate borrowers subject to a wide range of rating criteria and/or performance information. However, similar and equally sophisticated rating instruments for property assets are not yet in place. Thus, banks are currently developing and implementing internal rating systems in order to assess property risk profiles, to predict the probability of default as well as the bank's loss in the event of the default of loans secured by property assets. Since property rating results will impact on lending decisions and conditions it is important for the actors of property markets to be aware and informed of the functioning of property rating systems and of new informational requirements imposed by a change in the banks' property financing processes.

For this reason, the research project investigated the consequences resulting from the implementation of new banking capital adequacy rules for different actors of property markets. Hereby, the focus was placed on an investigation of the processes and functioning of the banks' internal property rating systems as well as on current and future informational requirements. This was done in order to enable property borrowers to optimally prepare themselves for a change in property financing processes. In addition, the research project investigated the rationale for and the possibilities and consequences of integrating sustainability issues (such as environmental and social advantageousness of building solutions) into property financing processes and into the determination of lending conditions.

## 2. Research tasks

In order to accomplish the goals of this research project it was first of all necessary to investigate and portray the current legal requirements for granting property loans in Germany. In addition, it was necessary to describe the basic functioning of new capital requirements and the treatment of loans secured by property assets. Based on this analysis the following research tasks have been carried out: (1) Description of impacts from Basel II on selected actors of property markets; (2) Description of methodological basics and of fields of application of rating in general and of property rating in particular; (3) Critical discussion of existing and accessible rating criteria and measurement standards applied within property ratings; (4) Description of interrelationship between property rating results and financing conditions; (5) Explanation of interdependency between property rating results and financing to the implementation of the principles of sustainable development in property and construction; (6) Provision of suggestions for the quantification of sustainability issues and for their integration into property rating processes; and (7) Formulation of recommendations for selected actors.

## **3.** Summary of results

The analysis of the current legal requirements for granting property loans in Germany has shown that these rules are undergoing major changes for several reasons. It can be concluded that also before the implementation of Basel II, the decision for granting a property loan and the conditions offered to borrowers depend on the performance and quality of the property as collateral as well as on the creditworthiness of the borrower. However, the banks' capital adequacy requirements for loans secured by property assets are not dependant on the risks associated with both borrower and property. This will be changed with the implementation of Basel II from 2007 onwards and will therefore further strengthen the dependency between financing conditions and the risks associated with borrower and property. Basel II consists of three pillars: minimum capital requirements, supervisory review process and market discipline. The first pillar, minimum capital requirements, is the decisive one since it determines how much equity capital a bank must hold for granting a particular loan. In order to determine these minimum capital requirements basel II allows banks to adopt two different approaches: (1) the stan-

dardised approach; and (2) the internal rating based approach (IRB approach). The IRB approach is further subdivided into a foundation approach and an advanced approach. The rules for the treatment of loans secured by property assets differ between these approaches and depending on the type of property (e.g. housing, office) and the type of borrower (e.g. private or corporate borrower) Basel II either offers advantages or disadvantages in comparison to current capital adequacy rules. Particularly under the IRB foundation approach minimum capital requirements for the financing of commercial property assets and projects can be substantially higher.

From the banks' point of view the advanced IRB-approach is considered the most advantageous one since it allows banks to determine all components for calculating minimum capital requirements by themselves. However, a precondition for the use of this approach is the development and implementation of property rating systems that have to be tested and approved by the national banking supervisory authorities. At the moment, the development of three types of property rating systems can be observed. These are: (1) Combined rating systems that consist of a borrower rating component tailored to the particularities of property clients and of a property rating component that is focused on the property to be financed. (2) Property rating systems that focus on the property to be financed without aiming to assess the credit standing of the borrower. (3) Rating systems that solely focus on determining the banks' loss in the event of a property loan default.

This research project has been focused on the analysis of property ratings that focus solely on the property to be financed. In this regard it could be shown that several banks in Germany are currently pursuing rating approaches based on a proposal made by the European Group of Valuers' Associations (TEGoVA). It could also be shown that existing (and accessible) rating criteria and measurement standards give considerable room for interpretation. Therefore, the authors made several suggestions for the further improvement of measurement standards and argued that these standards should be improved by taking into account a performance-based approach for the description of property assets. This would allow aligning expected user requirements more closely with building characteristics and attributes and would therefore give a better indication of the risks associated with the property collateral.

Property ratings are currently implemented within financing processes in order to create chances and risk profiles of property assets. Within a second step these ratings shall also serve for the determination of minimum capital requirements which is, however, not yet possible due to a lack of information on property characteristics and attributes associated with historical credit data. Banks are currently building up respective databases but results are not yet available or published. As a consequence, it was only possible to describe but not to quantify the relationship between property rating results and the determination of lending conditions.

Also within the scope of this research project the authors have explored questions relating to the implementation of the principles of sustainable development within the property and construction industries. The constituents of sustainable buildings have been identified and it has been shown that these buildings offer several advantages which make them superior to conventional ones (e.g. lower operating costs, improved marketability, longer useful life-spans, more stable cash flows, reduced exposure to increasingly stringent environmental legislation and significantly increased occupant productivity and well-being). Therefore, it has been argued that sustainable buildings offer a risk-reduction potential while conventional ones are exposed to additional risks from 'unsustainability'. This should be reflected within property ratings. The analysis of existing property rating systems has shown that certain aspects of a building's contribution to sustainable development are already taken into account. For example, TEGoVA's rating system already contains the rating criterion 'ecological sustainability'. The authors have shown that existing rating systems are also capable of addressing other sustainability aspects through a modification or re-interpretation of measurement standards. In addition, suggestions have been made for the introduction of further rating criteria that would allow addressing additional environmental and health related questions.

Finally, the authors have formulated several recommendations for selected actors such as lenders, borrowers, property professionals, as well as for designers, architects and engineers.

In summary, existing property rating systems are capable of assessing and communicating the advantageousness of sustainable buildings and treating unsustainability as additional risk factors. This may finally lead to preferential conditions for such sustainable buildings in general. Areas of further research consist in the further development of measurement standards, in the investigation of interrelationships between borrower rating and property rating and between property rating results and actual lending conditions.