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Response to the third consultative document of the New Basel Capital Accord

Dear Sir or Madam

We welcome the opportunity to comment on the third consultative document of the New Basel Capital Accord (NBCA) published in April 2003. First of all we want to make clear that we limit our remarks to those areas of the NBCA that deal with the treatment of commercial real estate; especially our focus lies on the Supervisory Rating Grades for Income-Producing Real Estate Exposures and High-Volatility Commercial Real Estate Exposures, Annex 4, Table 2 of the NBCA. Within this specific area we only concentrate on one issue which is not yet considered adequately, i.e. the issue of sustainability and quality of buildings and of real estate projects.

Our Chair of Sustainable Management of Housing and Real Estate at the University of Karlsruhe mainly concentrates on the integration of ecological and economical aspects in the development and management of real estate. We strive to solve the question how to consider a building's ecological quality within the instruments, tools and everyday practice of the real estate industry (e.g. portfolio analysis and management, property valuation, facility management, etc.).

The three main reasons for writing this response are as follows:

- To explain why a building's degree of sustainability (in terms of building quality, environmental performance, user comfort, adaptability, etc.) has to be considered when determining a building's or property project's probability of default.
- To show that the banking profession, or to be more precise, the Basel Committee on Banking Supervision now has got the possibility to foster sustainable development among real estate projects around the world to an extent no other organisation or government has ever been able before.
- To contribute to the realization of the United Nations Environment Programme (UNEP) and the Statement by Financial Institutions on the Environment & Sustainable Development.¹

¹ See <http://unepfi.net/fii/english.htm>

Within this self commitment 192 members of the financial services industry (e.g. Citigroup, Barclays Group, HSBC, Lloyds, UBS, Credit Suisse, Deutsche Bank, etc.) state that “We recognize that identifying and quantifying environmental risks should be part of the normal process of risk assessment and management, both in domestic and international operations.” (Paragraph 2.3) and
“We encourage the financial services sector to develop products and services which will promote environmental protection.” (Paragraph 2.7)

We strongly believe that by attaching more importance to the quality and degree of sustainability of buildings and of real estate projects within the NBCA the worldwide real estate industry would be driven towards more sustainable development and would produce better and more user friendly buildings. This, in return, would help to reduce the probability of default of loans secured by real estate assets.

For this reason we have written the following proposal on the extension and modification of the Supervisory Rating Grades for Income-Producing Real Estate Exposures and High-Volatility Commercial Real Estate Exposures. We hope that you are interested in discussing the raised issues and offer our assistance to clarify all upcoming questions.

Yours sincerely

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Dipl. Bw. (BA) David Lorenz B.A., M.Sc.

Karlsruhe, den 24. Juli 2003

Proposal on the extension and modification of the Supervisory Rating Grades for Income-Producing Real Estate Exposures and High-Volatility Commercial Real Estate Exposures, Annex 4, Table 2 of the New Basel Capital Accord

Buildings are one of the major causes of damage to the earth. Buildings account approximately for one half of all environmental impact and the transport needed to get to them and to move supplies from rural to urban areas accounts for the other half of the remaining energy consumption. Thus, the urban scene with its complex matrix of buildings, activities, services and transportation consumes 75 per cent of the world's energy resources and produces the vast bulk of its pollution and climate changing gases.¹

Probably the single biggest challenge currently facing the worldwide real estate industry is the issue of sustainability. Growing concerns about global warming and climate change but also portfolio managers' anxiety about enormous building operating and maintenance costs have raised the importance of applying building technologies and forms of design which have less negative impact on the environment and which result in more energy efficient and user friendly buildings. At the moment there is a new kind of real estate development and construction project approaches emerging among the participants of the real estate industry. Sustainable or so called 'green' development integrates social and environmental goals with financial considerations in real estate projects of every scale and type.² In general, sustainable or 'green' buildings aim to lessen their global and local impact through:

- Energy and resource efficiency
- Conservation of non-renewable energy and scarce resources
- Minimized life-cycle ecological impact of energy and materials used
- Use of renewable energy and materials that are sustainably harvested
- Protection and restoration of local air, water, soils, flora and fauna
- Reduced human exposure to noxious materials
- Provision of good indoor climate and air quality
- Provision of occupants' safety, health and comfort

Furthermore, there are numerous business and economic benefits of sustainable buildings. These are as follows:³

Reduced capital and operational costs: The commonly held belief that more sustainable buildings cost significantly more in terms of their capital cost is not well founded and based on experience with 'bolt-on' design solutions like shading or water-recycling systems, etc. This belief reflects a wariness of the unknown amongst construction professionals in general and quantity

¹ Edwards, B., *Sustainable Architecture*, Butterworth-Heinemann Ltd., Oxford, 1999

² Remarkable examples for sustainable real estate projects can be found on the website of the Rocky Mountain Institute, Colorado, USA: <URL:<http://www.rmi.org/sitepages/pid199.php>>

³ Wilson, A. et al., *Green Development: Integrating Ecology and Real Estate*, John Wiley & Sons, New York, 1998

surveyors in particular. If the decisions on sustainable building features are made very early in a project and if a 'whole-building-strategy' is applied then mechanical systems can be downsized or even eliminated. Consequently, the energy features do *not* increase capital costs (and the loan amount). Energy efficient features can lead to significantly reduced operational costs which increases the net operating income. This in turn can lead to a higher return on investment and building valuation. Operating savings that are passed on to the tenant can result in favourable leasing arrangements and higher occupancy or absorption rates.

Marketing and image benefits: Developers, investors and owners of environmental friendly buildings derive enormous marketing benefits from their attention to environmental and community issues. If a company or any kind of organization is linked with a responsible attitude towards employees and the environment their external image gets a big boost because often the media promotes what they are doing. And positive press coverage is the best kind of promotion available.

Reduced liability risks:

The U.S. Environmental Protection Agency has ranked 'sick buildings' as one of the top five environmental threats to human health. In an increasingly litigious society more and more occupants of buildings claim that they are suffering from what is called 'Sick-Building-Syndrome' or 'Building-Related-Illness'. Because it is very difficult to establish that any particular party is at fault, plaintiffs often sue everybody who is involved: building owners, architects, contractors and manufacturer of products used in buildings. Therefore sustainable or 'green' buildings are sometimes able to reduce the risk of litigation and liability.

Increased productivity: This could be one of the most striking reasons for a company or organization to rent, lease or buy a sustainable office building. According to a study by the Rocky Mountain Institute⁴ productivity gains of six to sixteen percent, including decreased absenteeism and improved quality of work, from energy-efficient design. Since companies spend an average of 70 times as much money (per square foot per year) on employee salaries as on energy, an increase of just one percent in productivity can nearly offset a company's entire annual energy cost.

The problem with some of these benefits is that they are very hard to measure, although they are obvious. Nonetheless, we hope that we have been able to demonstrate that sustainable buildings or real estate projects are **less risky** than 'ordinary' ones because they are more cost efficient, effective, profitable and marketable. Relating to the NBCA this means, that **sustainable buildings should deserve lower risk weights!**

For this reason we have looked at the Supervisory Rating Grades for Income-Producing Real Estate Exposures and High-Volatility Commercial Real Estate Exposures. At the moment the rating criterion 'Asset characteristics' is subdivided into *Location, Design and condition* and *Property is under construction*. We consider this classification to be extendable because the quality of the asset and the quality of the design and construction process (both form the basis for future cash flows) are not considered appropriately. Therefore, we propose to replace the criterion *Design and condition* by the following five criteria:

- *Functional quality and adaptability*
- *Technical quality*
- *Ecological quality*
- *Life-cycle-costs / Whole-life-costing*
- *Design and image*

Furthermore, we propose to extend the criterion *Property is under construction* and to also regard the *Quality of the design and construction process*.

⁴ Rocky Mountain Institute, *Greening the Building and the Bottom Line - Increasing productivity through energy-efficient design* [online], Available at: <URL: <http://www.rmi.org/images/other/GDS-GBBL.pdf>>

We propose that, in order to achieve the Rating Grade *Strong* within these new criteria, the building or the construction project should/must fulfil the following requirements:

Functional quality and adaptability: The property's configuration, furnishing and fittings fully satisfy current client demand and user requirements. The property can be adapted to possible future requirements easily and without huge expenditure and is highly competitive with new properties.

Technical quality: The property's structural and technical condition (e.g. construction, building envelope, technical equipment, fittings, etc.) is excellent. Maintenance activities have been carried out on a regular basis and are documented.

Ecological quality: The management and operation of the property leads to minimal global and local environmental impact. There are no risks for the local environment and occupants' health. User safety and comfort are high due to features like natural ventilation, cooling, shading and lighting, etc. and due to minimal human exposure to noxious materials.

Life-cycle-costs / Whole-life-costing: Life-cycle-costs are minimal; especially energy, operating and maintenance costs are minimal compared to average costs for similar buildings and adequate information about the property's overall performance is available.

Design and image: The property is favoured due to its design and image and is highly competitive with new properties.

Quality of the design and construction process: An internal or external quality management system is applied during the design and construction process. The construction process leads to minimal global and local environmental impact.

An overview on all Rating Grades for the rating criterion 'Asset characteristics' and proposed classifications can be found on page 4 and 5, Annex A.

Of course, the classification given above is a proposal and clarification may be necessary. Furthermore, to support the classification system referrals could be made to the newly developed ISO-Norm TC 59/SC17, which deals with sustainability in building construction and the assessment of environmental performance. However, we would be very pleased to assist you in developing a sound and clear classification of building characteristics for the NBCA.

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Annex A: Proposed rating grades and classifications for the rating criterion ‘Asset characteristics’

	Strong	Good	Satisfactory	Weak
Asset characteristics				
Location	Property is located in highly desirable location that is convenient to services that tenants desire.	Property is located in desirable location that is convenient to services that tenants desire.	The property location lacks a competitive advantage.	The property’s location, configuration, design and maintenance have contributed to the property’s difficulties.
Functional quality and adaptability	The property’s configuration, furnishing and fittings fully satisfy current client demand and user requirements. The property can be adapted to possible future requirements easily and without huge expenditure and is highly competitive with new properties.	The property’s configuration, furnishing and fittings largely satisfy current client demand and user requirements. The property can be adapted to possible future requirements relatively easy and without huge expenditure and is competitive with new properties.	In general the property’s configuration, furnishing and fittings satisfy current client demand and user requirements. The property can be adapted to possible future requirements but only with an effort and considerable expenditure.	The property’s configuration, furnishing and fittings do not satisfy current client demand and user requirements. The property cannot be adapted to possible future requirements.
Technical quality	The property’s structural and technical condition (e.g. construction, building envelope, technical equipment, fittings, etc.) is excellent. Maintenance activities have been carried out on a regular basis and are documented.	The property’s structural and technical condition (e.g. construction, building envelope, technical equipment, fittings, etc.) is appropriate. Maintenance activities have been carried out on a regular basis and are documented.	The property’s structural and technical condition (e.g. construction, building envelope, technical equipment, fittings, etc.) is adequate. Maintenance activities have been carried out sporadically.	Weaknesses exist in the property’s structural and technical condition.
Ecological quality	The management and operation of the property leads to minimal global environmental impact. There are no risks for the local environment and occupants’ health. User safety and comfort are high due to features like natural ventilation, cooling, shading and lighting, etc. and due to minimal human exposure to noxious materials.	The management and operation of the property leads to limited global environmental impact. Risks for the local environment and occupants’ health can be neglected. User safety and comfort are appropriate.	The management and operation of the property leads to limited global environmental impact. Risks for the local environment and occupants’ health can be neglected. User safety and comfort are adequate.	The management and operation of the property leads to considerable global environmental impact. Risks for the local environment and occupants’ health and safety exist.

<p>Life-cycle-costs / Whole-life-costing</p>	<p>Life-cycle-costs are minimal; especially energy, operating and maintenance costs are minimal compared to average costs for similar buildings and adequate information about the property's overall performance is available.</p>	<p>Life-cycle-costs are low; especially energy, operating and maintenance costs are lower than average costs for similar buildings. Adequate information about the property's overall performance is available.</p>	<p>Life-cycle-costs are average; especially energy, operating and maintenance costs are average compared to costs for similar buildings.</p>	<p>Life-cycle-costs are high; especially energy, operating and maintenance costs are above average.</p>
<p>Design and image</p>	<p>The property is favoured due to its design and image and is highly competitive with new properties.</p>	<p>The property is appropriate in terms of design and image and is competitive with new properties.</p>	<p>The property is adequate in terms of design and image.</p>	<p>Weaknesses exist in the property's design and image.</p>
<p>Property is under construction / Quality of the design and construction process</p>	<p>Construction budget is conservative and technical hazards are limited. Contractors are highly qualified and an internal or external quality management system is applied during the design and construction process. The construction process leads to minimal global and local environmental impact.</p>	<p>Construction budget is conservative and technical hazards are limited. Contractors are highly qualified and an internal or external quality management system is applied during the design and/or construction process. The construction process leads to limited global and local environmental impact.</p>	<p>Construction budget is adequate and contractors are ordinarily qualified. The construction process leads to limited global and local environmental impact.</p>	<p>Project is over budget or unrealistic given its technical hazards. Contractors may be under qualified. The construction process leads to considerable global and local environmental impact.</p>