Real estate and sustainability:
A future with yield potential

UBS Global Asset Management, Global Real Estate Research & Strategy – Switzerland October 2014

Sustainable real estate complies with changing tenant requirements and offers protection against volatile energy prices. This means they are gaining in importance as part of the performance optimization and stabilization of real estate portfolios.

Real estate the focus of the sustainability debate

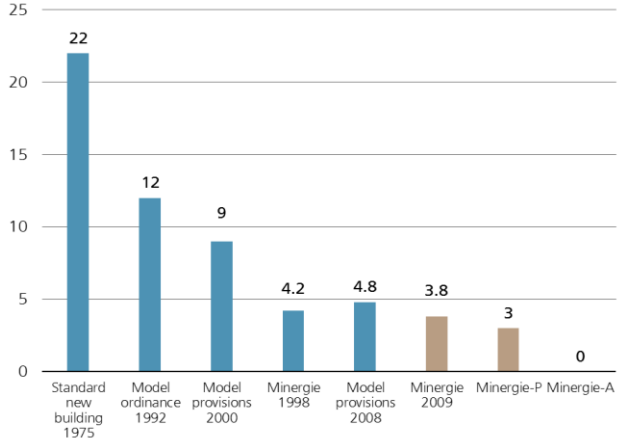
The publication of the Brundtland report is considered to be the starting point of the global sustainability debate. In the report, which was published in 1987, the concept of sustainability was described as follows: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Real estate is one of the biggest driving factors for the realisation of such generational equity. According to the United Nations Environment Programme (UNEP), properties are globally responsible for 30% of CO_2 emissions, 30-40% of energy consumption, 40-50% of raw material consumption and 25% of wood consumption. And from a global perspective, these values are likely to continue to rise. Given that the growth of emerging countries is helping to make the economy more service sector-oriented, the overall number of office, logistics and retail trade properties is growing.

In Switzerland, the real estate sector's potential to achieve energy and emission reductions was recognized early on. Due to new building standards, the required energy limit value has been continuously reduced. In Switzerland, an average building constructed in 1975 consumes 22 litres of heating oil equivalent per m² per year. For a new building in accordance with the Minergie-P standard, this value is just 3 litres per m² per year. Thanks to the Minergie-A standard, the construction of zero-energy houses has already become a reality.

Diagram 1: Continuous reduction of the required energy limit value thanks to new building standards

Litres of heating oil equivalent per m²



Source: Wohnen Journal, June 2011

In light of this enormous savings potential, numerous building labels and certificates have emerged in the real estate sector. These provide uniform standards for the measurement and optimization of sustainability efficiency. From an investor's point of view, this is a welcome development as it serves to promote comparability and transparency.

Harmonization of the certificate jungle

At present, there is a whole range of different building labels (cf. diagram 3). There are significant differences between the certificates in terms of content, as some are geared towards country-specific standards, guidelines and building practices. The label of the DGNB (German Sustainable Building Council) also takes economic aspects such as lifecycle costs, space efficiency and flexibility into account. The American LEED standard (Leadership in Energy and Environmental Design) might seem comparatively more user-friendly and transparent when it comes to adding up criteria points, but it does not take any economic aspects into consideration. In addition, it is even more difficult to gain an overview due to the fact that there are also often different quality levels within a certification system. For instance, in Switzerland the widely-used Minergie standard varies between Minergie, Minergie-P and Minergie-A based on the energy consumption value. If non-hazardous and ecological building materials are used, the eco rating is also awarded.

Given the level of complexity in this rapidly expanding certificate jungle and the high degree to which real estate investment markets have become internationalised, a harmonization process is both desirable and conceivable. In the future, a few internationally recognised standards are likely to be enforced.

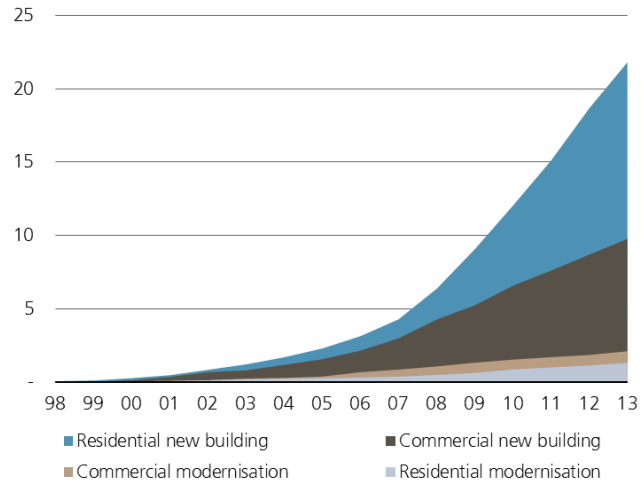
Dynamic growth of sustainable real estate

The demand among investors for sustainable investment properties has grown considerably in recent years. According to a Switzerland-wide study carried out in 2013, 67% of investors take sustainability into account when purchasing an office property. In 2009 it was just 43%[1]. As certified investment properties can hardly be traded at present, the demand is predominantly satisfied by certified new buildings. In Switzerland, a total of 3,570 Minergie-certified properties with a total energy reference area (ERA) of 4.2 million m² were newly built in 2013. This means that certified buildings make up a considerable 25% of the total volume of new buildings. The dynamic development in the sustainable real estate sector is

[1] Corporate Real Estate & Sustainability Survey - CRESS 2012 / 2013

likely to persist in Switzerland, with the federal government and cantons speeding up the renewal of building stock by means of subsidies and regulations.

Diagram 2: Minergie boom in the new property sector
Development of Minergie-certified areas in millions of m²



Source: Minergie Association
Remark: Energy Reference Area (ERA) of all Minergie standards

Sustainability pays off

Sustainable building requires higher initial investments. The additional investments compared with conventional new buildings fluctuate significantly due to the different certification levels and standards. For the Minergie standard, building costs typically increase by 2-5%. For the LEED standard, the additional costs of 3-7% on average are slightly more from a Swiss viewpoint, as the system is not based on SIA standards[2]. Essentially, the higher the desired certification level, the more the building costs increase. A new apartment building that meets the Minergie-P standard may well incur additional costs of 11-14%[3]. Additional costs are also normally far higher when it comes to renovations, which is why Minergie has been predominantly used in new buildings to date.

However, the additional costs are countered by positive effects in terms of income. International studies show that sustainable real estate reports higher occupancy rates (+10%) and rent levels (+3-7%) in comparison with conventional buildings[4,5]. Equally, a part of the additional costs incurred by construction can be amortized by savings in energy costs. In addition, sustainability labels have a proven positive influence on credit conditions.

In view of the competitive advantages with regard to rental and operating costs, it is hardly surprising that sustainable real estate generates higher prices than conventional buildings on the Swiss transaction market. For residential investment properties, the market premium amounts to 3.5%[5]. For office properties, there is an increased willingness to pay of 5.6% on average[6].

The higher rental income and market prices of sustainable properties generally correspond to the higher level of construction costs. This means that the returns that can be achieved with sustainable real estate investments hardly differ from those of conventional properties at present. However, in addition to returns, the risk factor must also be taken into consideration. Sustainable real estate not only reduces the risk of vacancy but also increases resaleability in the long term. In addition, sustainable real estate provides protection against volatile energy prices, which in turn has a stabilising influence on the real estate portfolio. This aspect is likely to be increasingly reflected in lower risk premiums for sustainable real estate or higher risk surcharges for conventional properties in the future. In both cases, this amounts to a relative appreciation in the value of sustainable investment properties. Sustainable real estate is therefore likely to be increasingly important for the performance optimization of real estate portfolios in the future.

[2] Swiss Association for Sustainable Real Estate (SGNI), 22/01/2014

[3] Analysis of the Additional Costs of MINERGIE-P Buildings, FHNW Institute of Energy in Building (IEBau) and Stokar and Partner AG, 03/2010

[4] Piet Eichholtz, Nils Kok, John M. Quingley, Doing well by doing good? Green office buildings, Institute of Business and Economic Research, 05/2009

[5] Sustainability and Valuation of Real Estate, NUWEL Guide on the Integration of Sustainability Aspects in Property Valuation, 15/05/2011

[6] Corporate Real Estate & Sustainability Survey - CRESS 2012 / 2013

Marcin Paszkowski
Real Estate Research & Strategy – Switzerland

For further information please contact
Global Real Estate Research & Strategy – Switzerland
Marcin Paszkowski
+41-61-288 94 43
marcin.paszkowski@ubs.com

Diagram 3: Energy certificates at a glance

Certificate	Country	Exists since	Number of certified properties	Evaluation system	Special characteristics	Link
Minergie	Switzerland	1998	27,800 (mainly residential properties)	Classification according to Minergie, Minergie-P, Minergie-A Eco rating for the use of ecological building materials	There are guidelines for 12 building categories. Various requirements for the renovation of old buildings and for new buildings	www.minergie.ch
DGNB (German Sustainable Building Council)	Germany	2009	330 certificates (exclusively commercial properties) 260 pre-certificates	Classification according to points system in the following classes: bronze, silver and gold	Sociocultural criteria such as technical and process qualities are also integrated here.	www.dgnb.de
LEED (Leadership in Energy and Environmental Design)	USA	1998	52,500 certified and registered projects (in particular business properties) 84% of which are in the USA.	Classification according to points system in the following quality classes: certified, silver, gold and platinum	Eight versions for various types of use	www.usgbc.org
BREEAM (Building Research Establishment's Environmental Assessment Method)	UK	1990	250,000 (in particular residential buildings) 1,000,000 are registered for certification	Classification according to points system in the following quality classes: pass, good, very good and excellent	Nine standard versions for various types of use as well as customised versions for different properties	www.breeam.org
Green Star	Australia	2007	600 (in particular business properties) Approximately 800 are registered for certification	Evaluation of the building performance with star system: 4 stars: Best practice 5 stars: Australian excellence 6 stars: World leadership	The interior decoration of the property, which is often the responsibility of the tenants alone, is also taken into account. Regular examination even after completion (not just the actual state upon construction)	www.gbca.org.au
HQE (Haute Qualité Environementale)	France	1990	1,080 (all types of use)	Categorises building quality into three levels: Base, performant and très performant	The management system during certification as well as the sustainable quality of the building are evaluated.	www.assohqe.org
CASBEE (Comprehensive Assessment System for Building Environmental Efficiency)	Japan	2002	200 (all types of use; as of February 2013)	Measures the "Building Environmental Efficiency" C (poor) B, B+ and A S (excellent)	Consists of four evaluation tools (planning, new building, existing buildings, renovation) in accordance with the real estate lifecycle. In particular, takes problems and aspects related to Japan and Asia into account.	http://www.ibec.or.jp/CASBEE/english/overviewE.htm

Source: Websites of the respective certification authorities, October 2014