REAL ESTATE CYCLES IN GERMANY

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ABSTRACT

This paper examines real estate cycles in Germany. The active management aspects for a property portfolio are highlighted, as well as the impact of current market trends on the real estate cycle.

Keywords: Property cycles, active portfolio management, market trends, Germany.

DEFINITION OF REAL ESTATE CYCLES

Real estate cycles have been the subject of much research over the last ten years throughout the world. Researchers approach cycle analysis from different viewpoints which can be classified into the macroeconomic, microeconomic and finance view. A fourth view that has hardly been studied is the management view. This view examines if and how cycles can be integrated into the management aspects of real estate.[1]

Real estate cycles are a multi-faceted subject. One way to define them is to stick to a clear-cut definition, like that of the Royal Institution of Chartered Surveyors (RICS), which uses a single indicator as a point of reference:

> *"The property cycle is taken as recurrent but irregular fluctuations in the rate of all-property total return, which are also apparent in many other indicators of property activity, but with varying leads and lags against the all-property cycle."*[2]

One of the advantages of such a definition is that it is clear, unambiguous and has a direct interpretation from the management point of view. Unfortunately, in Germany there is incomplete data for constructing a performance history.[3] Moreover, the all-property yield is a conglomerate of independent movements, which are expressed in one figure only. This potentially leaves important, but contrary movements of income and price undocumented. Another drawback of this definition is the attribute "recurrent but irregular", as it may be difficult to find a time series which does not show this pattern in one way or another. It is important to note that the choice of any referential variable may vary with the intended use.

The second way to describe real estate cycles is through identification of some of its stylized facts, which may consist of single and multivariate movements, their first and higher moments, leads, lags and other patterns of all those variables that seem appropriate for characterization. The majority of cycle descriptions follow this approach. Pyhrr, Roulac and Born (1999) suggest a common terminology established in physics and engineering and the use of the terms "peak", "trough", "amplitude" and "phase", in analogy to the idealized cycle of a sine wave-curve.

The difference to the "reference-cycle"-approach, however, is not terminology but the description of several variables and their coincident movements, instead of a single referential variable. The advantage is that the variables used can be chosen in terms of data availability (e.g. demand for space, absorption, construction figures, rents or vacancy rates).

Figure 1 shows in a simple tabular schedule, how stylized facts may be used to describe phases of the real estate cycle using first order movements only.[4]

Figure 1: Stylized facts - phases of a real estate cycle

↑↑ = strongly increasing
↑ = increasing
↓ = decreasing
↓↓ = strongly decreasing
↓= = decreasing / constant
↗ = slowly increasing

phases in their lapse of time	demand for space	absorption	increase in supply of new space	rents	vacancy
overbuilding	↓	↓	↑↑	↓	↑
market adjustment	↓↓	↓=	↑	↓↓	↑↑
market stabilisation	↗	↑	↓	↗	↓
development/ constructon	↑↑	↑↑	↓↓	↑	↓↓

RECOMMENDATIONS FOR THE MANAGEMENT DECISION PROCESS

The management decision process

The management aspects are now analyzed with regard to the potential for active management considering real estate cycles and the implementation in practice. As Figure 2 shows, there seem to be a lot of disparities.[5]

The authors estimate that cycle management has been partially incorporated into portfolio management, marketing, real estate analysis and appraisal and that it only plays a minor role in public real estate management, facilities management and construction project management.[6]

The aspects with the subjectively largest disparity – namely real estate finance and project development - are analyzed in more detail.

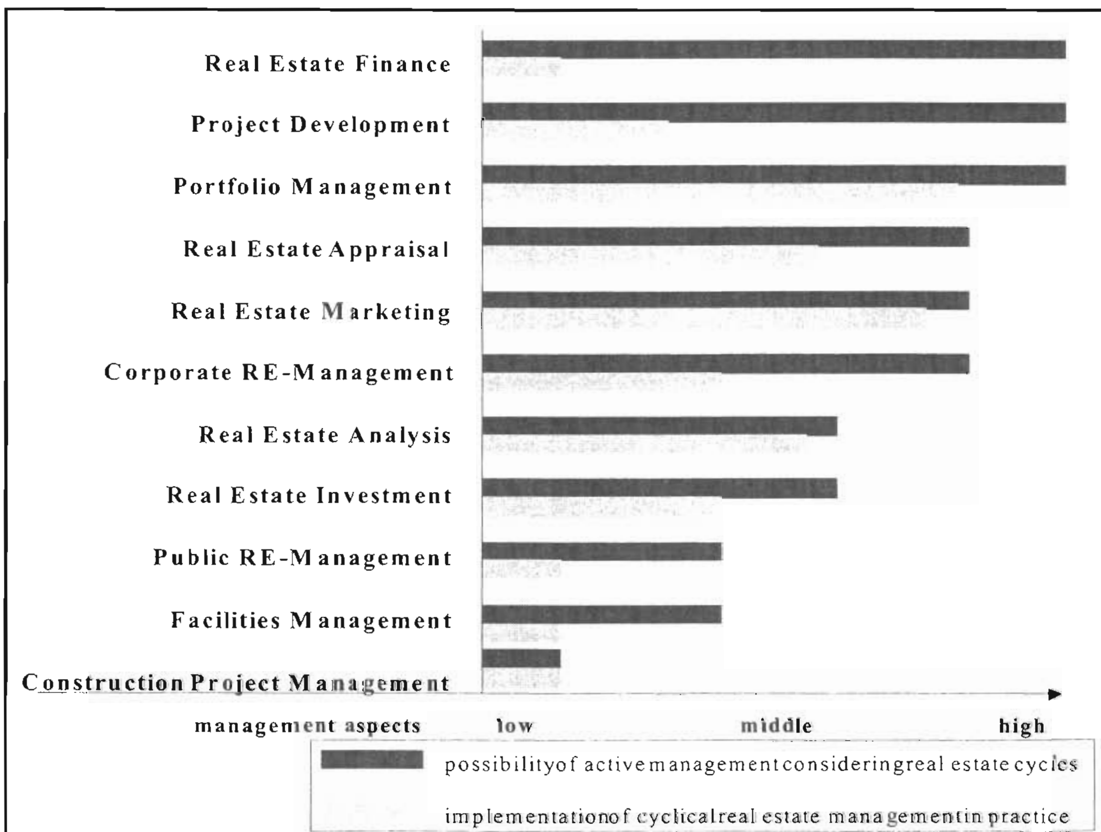
Real estate finance

German banks tend to fund real estate investment pro-cyclically, because:

- They have a lot of liquidity during boom phases.
- The main focus is not on the quality of the project, but on the creditworthiness of the developer.
- According to principal-agent theory, it is hard for a real estate loan to pass due diligence during a bust phase and relatively easy during a boom phase.

One way to get a loan, even during a recession, is by using innovative forms of financing and by letting the banks participate in the success of a developer or investor. In a recent study, Lucius and Iblher (2001) found that this alternative is hardly used in Germany.[7]

Figure 2: Real estate "cycle management"



An accumulated figure of approximately 70% of the participating 22 institutes attributed 3 to 5% or less of their business to innovative financing. German developers or investors, and among them especially the small and medium-sized ones, can ensure their loan financing only during times of expansion and therefore have little possibility to act counter-cyclically, although they may see this as a superior strategy.

Another innovative way to receive financing is real estate private equity (venture capital), which draws additional attraction out of the even stricter regulations of the

European mortgage market (due to the new Basel Capital Accord). In 2001, the first pure real estate venture capital company has been founded in Germany. Since this form is still unique, it cannot be measured or judged yet, with respect to what impact it will have on Germany's financing scene.

Project development

Developers hardly have a chance to invest counter-cyclically because of the pro-cyclical behavior of the banks. Three main types of developers can be categorized according to their sensitivity towards cycles. These are trader, investor, and service developers. In Germany, however, the species "service developer" is a practically non-existent phenomenon. The investor-developer only has a small to medium sensitivity towards cycles, since he retains enough capital resources. Also, he can make use of a buy-and-hold strategy: buy at some point and sell some 20 years later, when the market conditions are favorable.

The trader-developer has a time horizon of two to four years only. He is very sensitive to real estate cycles, since his investment goals have a mainly speculative motive. Only small companies among the trader-developers, which act proactively and which are able to shorten the decision-process, can deal successfully with the cycle. At the end of boom phases, companies like these focus on consulting or property management. At the end of bust phases, they restart initiating their projects.[8]

Market tendencies and their effects on cycles

In order to be able to react properly to future real estate cycles, it is necessary to anticipate future developments and their impact. Figure 3 shows some important tendencies and their possible softening or enforcing influence on future cycle amplitudes of the real estate markets.

Figure 3: Market tendencies and their effects on cycles

Trend	Expected impact on cycle amplitude: softening	Expected impact on cycle amplitude: enforcing
Globalization	"think global" prevents undocking of regional market developments	internationalization of cycles increases; local speculative bubbles receive international liquidity
Securitisation	higher potential of anti-cyclical development	extension of timelags
Venture Capital/ Private Equity	Venture Capitalists provide anti-cyclical VC	Venture Capitalists act as cyclical as banks
Transparency	• better market understanding • "more rational" participants	---
Conclusion	• these trends only include parts of the causes of real estate cycles • the effects are often contrary	

The result of these reflections is that there is no consistent expectation towards the development of real estate cycles in the future. Most of the aspects show softening, as well as enforcing, impacts. The exception may be market transparency, which has improved and will continue to improve worldwide along with a better understanding of the markets through education of the participants, which may lead to a more "rational" behavior.[9]

ENDNOTES

1. See Schulte, Karl-Werner (2001). "Real Estate Education in Germany", In Karl Werner Schulte (ed.) *Real Estate Education Throughout the World: Past, Present and Future,* Boston 2001, p. 125-147.

2. See Royal Institution of Chartered Surveyors (RICS). (1994). "Understanding the Property Cycle, Main Report: Economic Cycles and Property Cycles", London (1994), p. 9.

3. The German Real Estate Index "DIX" provides only data for the last five years. Moreover, its portfolio reaches only now a volume that is representative for the whole market.

4. See Rottke, Nico, and Martin Wernecke (2001/2002). "Management im Immobilienzyklus", 16 Folgen, In *Immobilien Zeitung*, Juni 2001 – Januar 2002, issue 5. First order movements are those of the overall level of the variable in question, e.g. in terms of first differences or simply the sign of first differences. Higher order movements include variances, autocorrelations and cross-correlations, which may describe the temporal pattern of cyclical movements very precisely, but are, if at all, hardly to interprete by the real estate practioner.

5. This analysis is based on an estimation of the authors for Germany. It is approximately proved by empirical evidence in a follow-up article "Real Estate Cycles and the Management Decision Process - A Survey of the Application Potential and Reality in Germany", which has been presented on the ERES conference 2002 in Glasgow.

6. Rottke and Wernecke (2001/2002), issue 16.

7. See Lucius, Dominik, and Felix Iblher (2001). "Innovative Financing in Germany – A Financial Desert?", Paper presented at the 1st conference of the International Real Estate Society (IRES), July 25-28, 2001, Girdwood, Alaska., p. 12-13.

8. Rottke and Wernecke (2001/2002), issue 14.

9. See Schulte, Karl-Werner, and Rottke, Nico (2002). "Transparency in the German Real Estate Market - a Comparison with the U.S. and the U.K."; Paper presented at the 9th Annual Conference of the European Real Estate Society, 4-7 June 2002, Glasgow, U.K.