

# Interdisciplinary Approach of Real Estate Education

by

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# 1 Introduction

Up to the beginning of 1990 real estate related subjects and problems in the economic sciences in Germany have received little attention. As an indication of this neglect one need only consider the absence of contributions in relevant compendia, manuals or text books of business administration and economics.

Only the fields building economics and housing economics concern themselves with real estate related subjects, mainly however with questions about individual functions or institutions. A comprehensive scientific frame of reference for a specialist field, which concerned itself with real estate, real estate companies, the uses of real estate, real estate economics and adjacent sectors, did not exist.

The neglect of the theoretical foundation however is extremely unsatisfactory for practical needs in the long run, since as in other sectors of business administration subjects concerned with real estate cannot dispense with a scientific foundation for real estate decisions.

This paper describes the reasons for the scientific neglect of the real estate business in Germany, the constitution of real estate economics as a scientific discipline at **ebs** and the elements of real estate economics.

The concept has been developed at **ebs** independently in the early 90s without looking at foreign education approaches – and only in a later stage of academic research it became evident that the author shares many of the ideas of James A. Graaskamp.

## 2 Reasons for the Scientific Neglect of the Real Estate Business

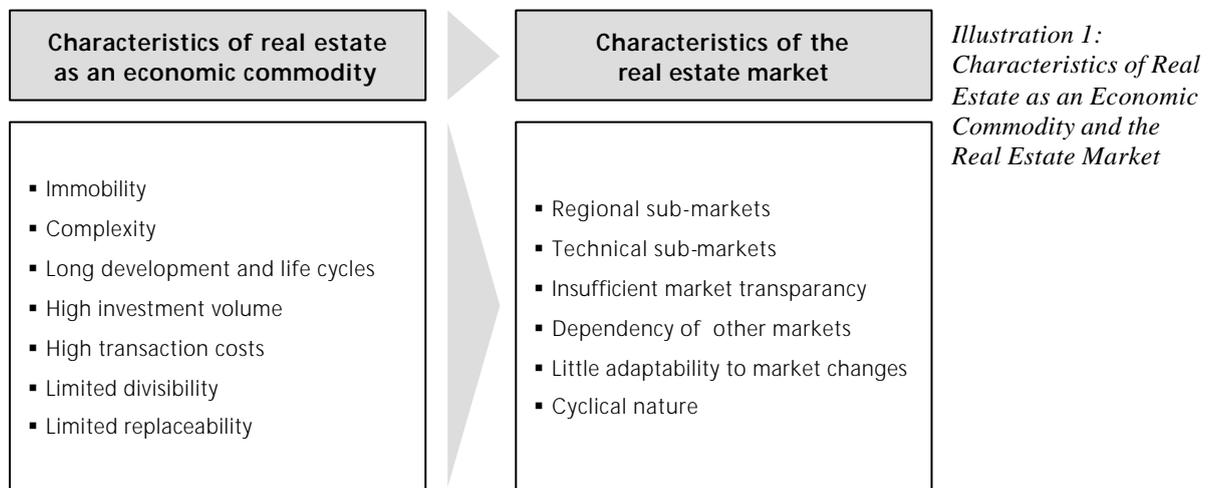
The reasons for the dissatisfactory state of development of scientific organization up to the early 90s are many in number.

The real estate business, like other bodies of experience in the economics and social sciences, touches on all kinds of aspects of real life. Here it is reasonable to assume that real estate related questions extend into many more dimensions than most bodies of experience. This multi-dimensionality, before we can comprehend it in its

entirety, requires a close interweaving of various areas of research. This hinders its scientific penetration, since “where individual disciplines overlap, the level of knowledge is usually lower than in individual subject disciplines” (Pfarr, 1984, p. 16).

This situation is impaired additionally by the particular characteristics of the economic commodity real estate and of the real estate market as such.

The real estate market differs considerably from the ideal picture of a perfect market. As a result of the peculiarities of real estate as an economic commodity (compare Illustration 1) the real estate market must be described as a special market, which is marked above all by a division into sub-markets, inadequate market transparency and little flexibility to adapt.



The specific commodity characteristics of real estate have the result that proven theoretical approaches in the economic sciences are in the end lacking in applicability and it is necessary to modify their contents.

This is confronted however by a lack of readiness to differentiate in the economic sciences. The “(...) inadequate differentiation exists in economics and business administration therein, that the existence of practically important features of branches of economics and types of companies serving different purposes are only considered insufficiently or even denied” (Oettle, 1991, p.14). Economics, although it became occupied with the production factor “land” at a very early stage, has devoted its attention primarily to the other two factors of production “labor” and “capital”.

Business administration has focused from a historically scientific perspective in the specialization of the subject firstly on the special features of single branches of

business. As a result specialized business administration for industry, trade, the banking business, the insurance business and the transport industry were developed, but not a special field “real estate business administration”.

Only building economics respectively building business economics, and housing economics have come into existence. The knowledge gained by both these disciplines can be of use for the economic subjects connected with real estate, but are not able to cover a large part of the reality in the real estate business.

It seemed therefore the right time to connect the foundation of the **ebs** REAL ESTATE ACADEMY with the conception of a scientific discipline for which a new term in German Language "Immobilienökonomie" (here translated somewhat loosely as “real estate economics”) has been created.

### **3 Constitution of Real Estate Economics as a Scientific Discipline**

The choice of the term "Immobilienökonomie" (real estate economics) should illustrate the broad, interdisciplinary approach. In what follows below, first the constituent features and after that the supporting framework of the scientific discipline will be sketched in.

#### **3.1 Characteristics of the Research Field Real Estate Economics**

In this definition the main features of this specialist field can be sketched as follows:

In the foreground of real estate economics stand the explanation and design of real decisions of economic subjects concerned with real estate. The target of the scientific endeavor is to support these decision processes and to contribute to their improvement. Therefore real estate economics investigates, with a problem-focused view, the actual premises and conditions, under which institutions, objects, functions and processes in real estate related questions work together. In doing so real estate economics fulfils a practically applied function in that it does not understand its statements as pure information about reality, but press for the implementation of their recommendations in specific management action.

Real estate economics concerns itself with all kinds of real estate (housing, commercial, industrial and special real estate) over their whole life cycle. Here the

knowledge gained by housing economics and building economics is adopted into the scientific program of real estate economics.

Real estate economics considers on the one hand companies in building, real estate and finance; on the other hand private households, companies and the public authorities must be involved which have to rely upon the use of space in order to cover their own needs.

Since industry, trade and service companies increasingly consider real estate under economical aspects and as a potential source of income, growing importance is also being attached to the management of company-owned real estate (corporate real estate management) and the management of real estate in public ownership (public real estate management). The explanations above make it clear once again that real estate economics reaches far beyond a claim to be a special, sector-related business administration.

Finally the opening of real estate economics to other research disciplines can be named as a further constituent feature. Although business administration forms the foundation of real estate economics, only through the involvement of economics, law, spatial planning, architecture and engineering can real estate economics matters be understood adequately under all their many aspects. In this context it cannot be assumed that the knowledge gained in those scientific disciplines can be taken over from them without problem; rather is an independent investigation of the research results from those specialist disciplines necessary. Conversely real estate economics can of course also be a cause of appropriate scientific efforts in neighboring disciplines and make contributions to these disciplines.

### **3.2 The “House of Real Estate Economics” as an Illustration**

To help visualize the scientific concept, the House of Real Estate Economics was assembled in around 1993. As in real life the building has been changed several times. Illustration 2 shows the present situation. This helps to differentiate between management, institutional, typological and interdisciplinary aspects, all of which will be examined in more detail in the following.

# 4 Elements of the Scientific Discipline Real Estate Economics

## 4.1 Interdisciplinary Aspects

The fundament of real estate economics is business administration, but not until the integration of the disciplines economics, law, spatial planning, architecture and engineering does the “House of Real Estate” acquire the necessary stability. Finally interdisciplinary references serve to provide space for the mentioned multi-dimensionality of real estate within the framework of a scientific investigation.

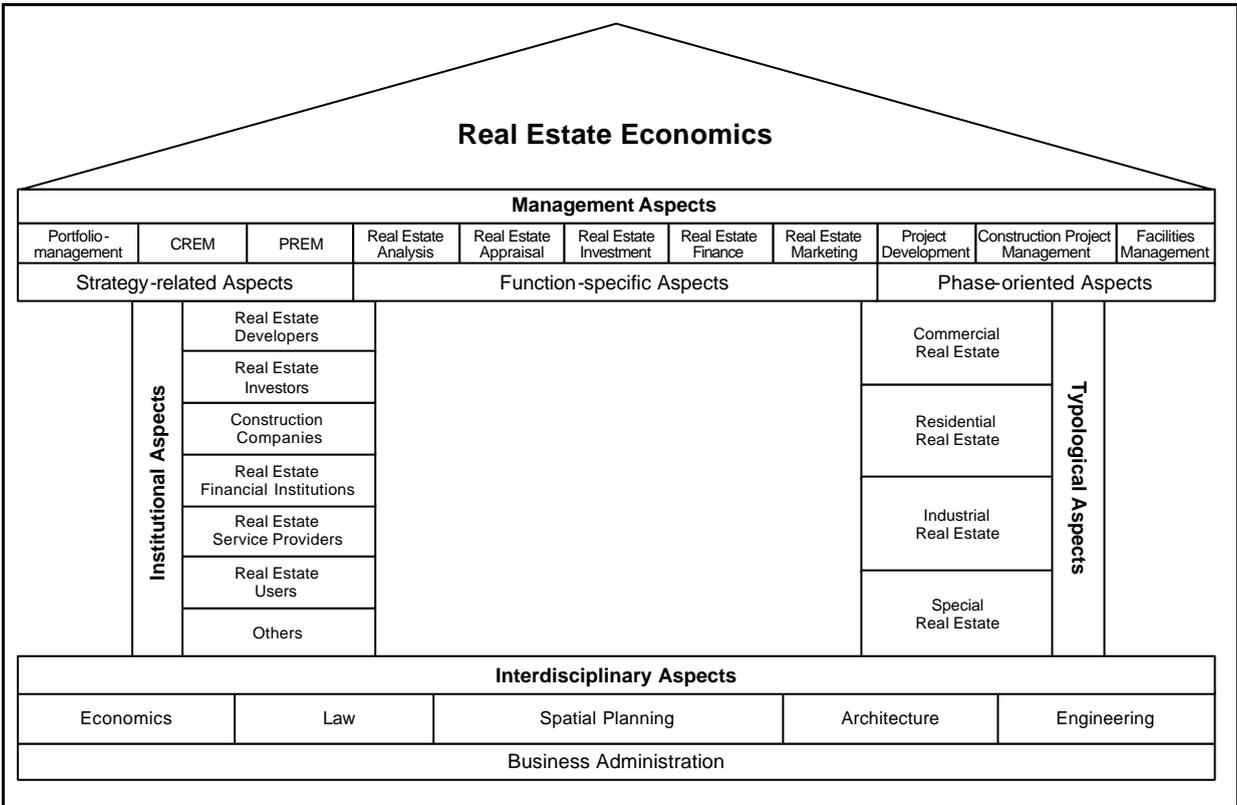


Illustration 2: Framework for Real Estate Economics as a Scientific Discipline (“House of Real Estate Economics”)

The application of *business administration* addresses above all the management of economic subjects concerned with real estate.

The specific leadership aspects of the management of real estate companies include – as with other companies too – planning, organization and control. Planning concerns itself primarily with company and real estate related objectives and also basic strategies of real estate companies. Organization is concerned in the first instance with the design of the structure and process elements. Control has as its task to contribute to the meeting of the company’s objectives regarding processes as

well as results. Balance sheet and profit and loss statement are the most important instruments of commercial accounting; this represents “the core of commercial responsibility” (Leffson, 1982, p. 56).

The specific configuration of the individual aspects differs more or less strongly according to the type of real estate company.

*Economics* may generate important knowledge for the management of the company. Decisions about real estate are influenced to a considerable degree by macro economical factors such as inflation rate, interest rate levels, rates of tax, and exchange rates. Many questions at the interface between economics and real estate economics have been only inadequately researched in Germany, such as the connection between overall commercial and real estate cycles or the effects of certain economic policy instruments on the real estate business.

The interfaces between real estate economics and *law* are wide-ranging and diverse. Most activities concerned with real estate have to do with contracts. Particularly the legal aspects of land register law, private property law, law of tenancy, public planning and building law, private building law, residential property law, the property management law, estate agent law and the tax law must all be considered. Laws and ordinances have an effect on the business administrative decisions of real estate management and affect as well the specific functional and phase-oriented aspects as the strategy-related aspects.

*Spatial planning* has the task of putting in order and develop certain areas (regions), on the one hand according to the needs of people such as dwelling, work, education, supply, recreation, traffic and social communication, and on the other hand according to their natural, economic and social resources. Spatial planning is mostly understood as an umbrella term for urban planning, regional planning and national state planning. The “Bird’s Eye View” of the spatial planner and the individual perspective of the project developer lead in practice quite often to problems in the realization of real estate projects. Between spatial planning and real estate economics there also exists a need for interdisciplinary research; current issues of great relevance are for instance the mediation process, urban entertainment centers, and public private partnership.

The discipline *architecture* concerns itself primarily with the design of building structures. Real estate economics criteria such as economic feasibility and requirements of users have played only a small part up till now in this specialist area. This conflict of interest can be attributed to the artistic self-conception of architects on the one hand and the economic interests of project developers, investors and occupiers of space on the other hand. For interdisciplinary research this opens up an interesting field of research such as for example the investigation of the relationship between high-grade architecture and real estate value appreciation.

*Engineering* is a wide-ranging discipline, which not only includes the classical fields of civil and land surveying engineering (geodesy), but increasingly also the field of technical building services, which is of importance for facilities management. Themes such as ecological building, cost-effective building, optimization of costs in use lie at the interface to real estate economics.

## **4.2 Institutional Aspects**

As shown in Illustration 3 and Illustration 4 there exists a wide spectrum of companies in the building, real estate and financial sectors, the management of which is marked through particular features. For example planning, organization and control and also accounting differ more or less considerably according to the company, depending on whether for example a project developer, an investor, a real estate manager or real estate agent is being considered.



Illustration 3: Overview of Professions according to institutions



Illustration 4: Overview of Professions according to Fields of Activity

### 4.3 Typological Aspects

The real estate typological aspects include the analysis, structuring and solution of problems, which arise from involvement with individual kinds of real estate. A strongly simplified system distinguishes in this connection between commercial, residential, industrial and special real estate. Each type of real estate and the occupants allocated to it have special requirements of real estate management.

### 4.4 Management Aspects

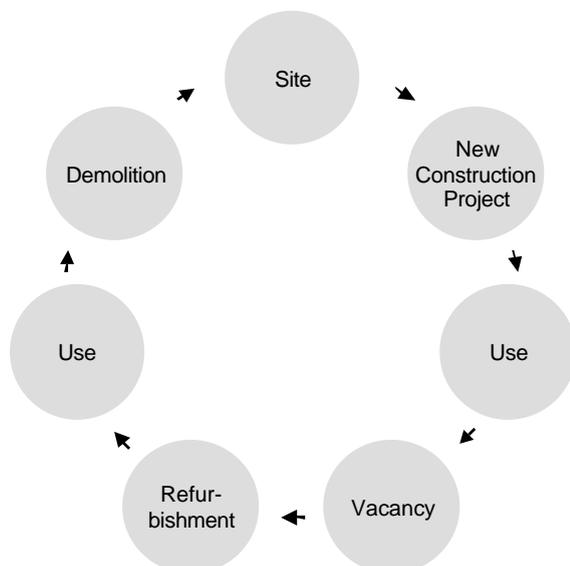


Illustration 5: Life Cycle of Real Estate

Within this category a distinction can be made between phase-oriented, function-specific and strategy-related aspects. Whereas phase-oriented aspects stand for the temporal determinant in the life cycle of real estate (compare Illustration 5), the functional approach regards real estate-related particularities of business

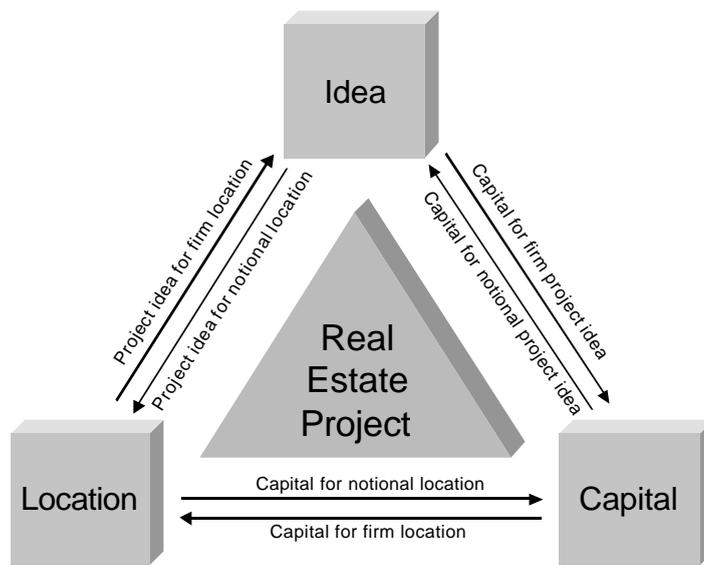
administrative functions. Strategy-related aspects on the other hand concern themselves with the portfolio management of investors and corporate and public real estate management. The particular management aspects are briefly described in the following.

#### 4.4.1 Phase-oriented Aspects

The phase-oriented aspects of real estate management can be distinguished into real estate project development, construction project management, and facilities management by their temporal sequence, while there are tight interdependencies between these phases.

*Illustration 6:  
Starting Points of a Project Development*

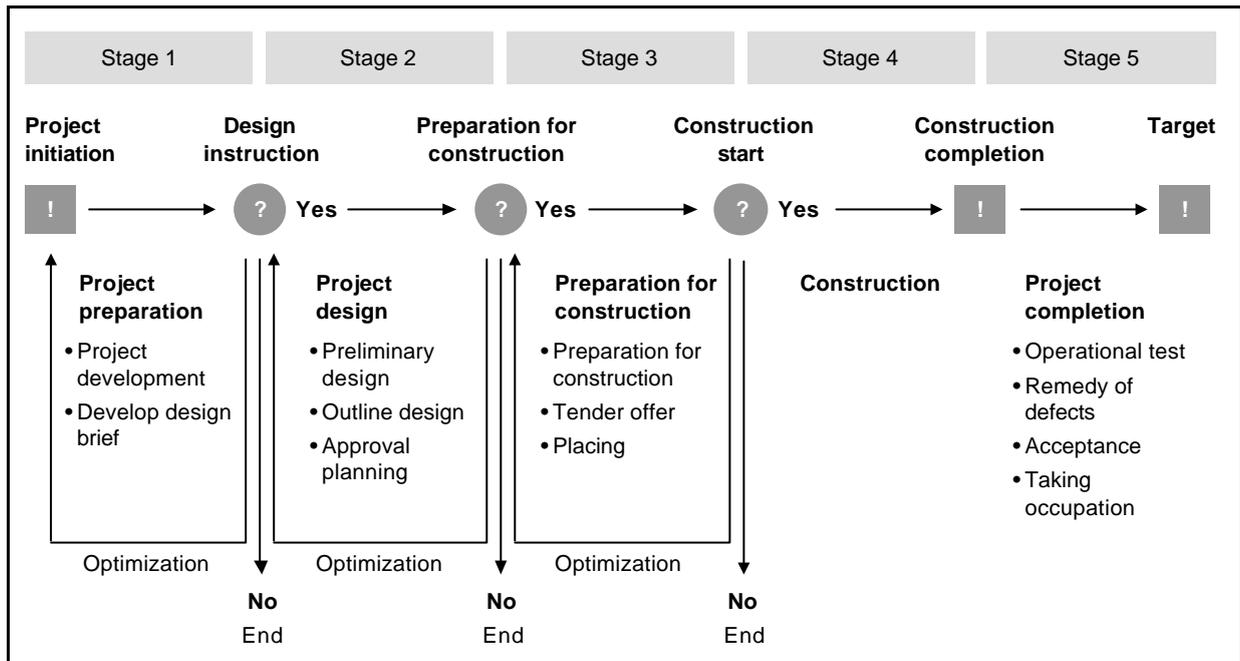
“Real estate project development means to combine the factors location, project idea, and capital in a way that results in a micro-economically profitable and at the same time macroeconomically socially and environmentally reconcilable investment” (Diederichs, 1996, p. 29).



Source: BONE-WINKEL, S. 44

Here, the cooperation between politicians and public administration on one hand, and project developers on the other hand is gaining importance; it is denoted as “Public Private Partnership”. Illustration 6 gives a review of possible starting points of a project development.

*Construction project management* comprises all economic, legal and technical as well as organizational and scheduling tasks for the consequential execution of a real estate project (compare Illustration 7). In this process costs, quality, and completion dates constitute the central criteria.



*Illustration 7: Real Estate Project Development and Construction Project Management*

*Facilities management* incorporates tasks in the framework of the provision of technical, commercial, and infrastructural services for properties (compare Illustration 8); it goes beyond the isolated consideration of buildings however, in that the integration of people, buildings, installations and equipment are involved in order to support the purpose of the company and to guarantee it effectively.

With the rapid development in information and communication technologies, with changed concepts of workplaces and needs for organizing space, and with the increasing complexity of building services there has been a withdrawal from sometimes reactive property management, in favor of which has superseded an integrated, dynamic facilities management.

Since – considered over the whole period of life of the real estate – the by far overwhelming part of the costs are incurred in the usage phase, and the possibilities of controlling the costs are low in this stage, experience in facilities management must be incorporated into real estate project development and into construction project management (compare Illustration 9).

**Facilities Management**

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**Facilities Management**

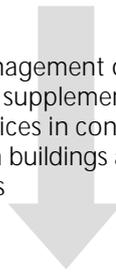
... Operating of real estate and technical installations



... Administration activities connected with buildings and sites



... Management of space and supplementary services in connection with buildings and sites



- Commissioning
- Operating
- Maintaining
- Decommissioning

- Contracting
- Accounting
- Controlling

- Room and space planning
- Inventory
- Central services

*Illustration 8:  
Scope of Functions of  
Facilities Management*

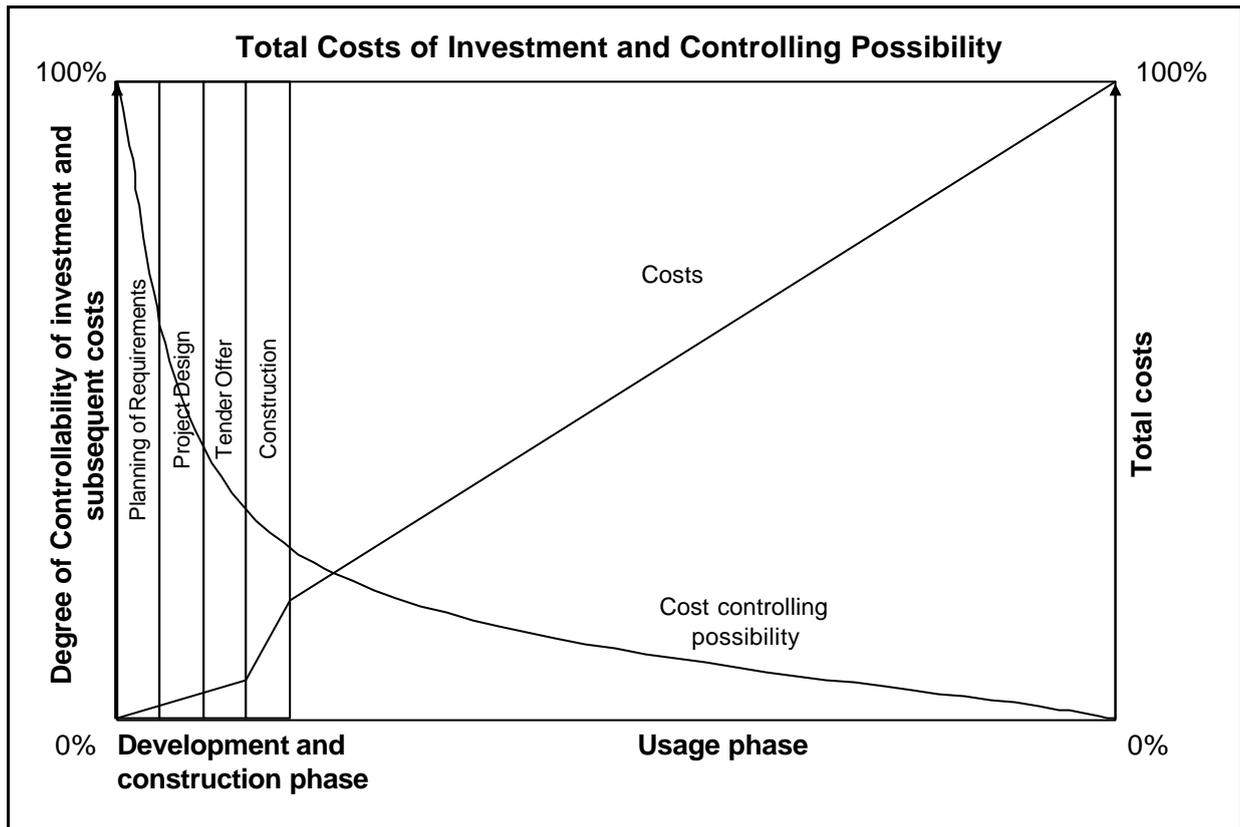


Illustration 9: Total Costs of Investment and Controlling Possibility

#### 4.4.2 Function-specific Aspects

The term function-specific aspects of real estate management describes the analysis of real estate, appraisal of real estate, real estate investment, real estate finance and real estate marketing. design

*Real estate analyses* constitute areas and instruments of information which directly and indirectly determine the success potential of a building:

- Location analyses investigate the long-term effective characteristics of the micro and macro location. The location factors are distinguished between “hard”, i.e. relatively easily measured, and “soft”, i.e. criteria that are difficult to quantify.
- Building analyses concentrate on the architectural and technical design of the building installations with regard to their standard of specifications, flexibility in use and space efficiency.
- Market analyses concern themselves with the short to medium-term supply and demand situation in sub-markets, which may be geographical or technical

divisions of the market. The object of the investigation is the determination of market rents or purchase prices, absorption rates and periods.

- Analyses of competition integrate location, building and market analyses, in which the relative market position of a property is determined in comparison with its direct competitors.

*Real estate appraisal* concerns itself with the determination of the market value, the insurance value or the loan value of real estate, notably the traditional German procedures have come increasingly under the influence of Anglo-American valuation methods. The attempts at harmonization by TEGOVA and IVSC also increasingly deserve recognition.

*Real estate investment* can be defined as the planning and control of long term placing of financial means in real estate. The difference between investment analysis for real estate and for other investment goods lies particularly in the longer time of use of real estate, in the greater weight of the return on disposal and in the importance of taxation for real estate decisions. Since real estate above all compete among institutional investors with other possibilities of investment, property yields must be calculated so methodically that a sensible comparison with share and fixed income yields is possible.

*Real estate finance* includes first of all the obtaining and management of financial means for real estate. The objects of consideration are both traditional forms of financing (e.g. loans secured on real estate) and also innovative forms of financing (e.g. real estate leasing, cash flow related lending, participating mortgages and convertible mortgages). Here there is a field of research, which is scientifically well covered, and has been given attention for a long time particularly by the disciplines banking and insurance business administration.

*Real estate marketing* includes essentially the transfer of the marketing policy instruments (product, placement, pricing and promotion policy) to projected or existing buildings, although a fundamental distinction must be made between letting and sales marketing. The literature on real estate marketing is largely lacking a strategic orientation at present; yet this is an absolute necessity in view of the long life of the commodity real estate and the present situation in the real estate markets.

### 4.4.3 Strategy-related Aspects

The term strategy-related aspects of real estate management describes three fields which deal with long term decisions of property and non-property companies.

*Real estate portfolio management* includes the systematic planning, control and checking of an inventory of sites and buildings with the intention of building up success potential. Real estate portfolio management addresses primarily institutional real estate investors – these are mainly open-ended real estate funds, insurance companies and pension funds and also publicly traded real estate companies. The introduction of the German Property Index (German initials DIX) has considerably increased the transparency of the real estate market and makes real estate performance measurement as well as benchmarking possible for institutional investors as part of their portfolio analysis.

*Corporate Real Estate Management (CREM)* can be understood as a management concept for the real estate assets of non-property companies. At its core it has a special process which, starting from the strategic goals of the company, aims to contribute through systematic planning, controlling and checking of all real estate related activities to the competitiveness of the company. In more recent times **ebs** has completed research which investigates the connection between CREM strategies and shareholder value.

With the public authorities too – Germany's largest real estate owner – awareness of the asset and cost effectiveness of the real estate portfolio is growing. The corresponding management concept is described by analogy with CREM as *public real estate management (PREM)*.

## 5 Conclusion

The interdisciplinary approach, developed by the **ebs** REAL ESTATE ACADEMY and by the endowed chair of real estate economics in the tradition of James A. Graaskamp, constitutes an invitation to the other disciplines to go the same route. In addition economics, law, spatial planning, engineering and architecture have to open themselves up to questions of real estate economics. This will not only bring the science further but also enhance the technical communication among professionals

in the construction, real estate and finance sectors as well as adjacent branches and thus in the end increase effectiveness and efficiency.

# Appendix

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