Principles of Real Estate Investment & Finance

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Dr. Dipl. Ing. Dipl. Kffr. Annette Kämpf-Dern, MBA, is professor and the chair of Real Estate Development & Management at HafenCity University Hamburg since 2014. Before, she was head of Real Estate Management & Development in the real estate research institute of Prof. Pfnür at the Technical University Darmstadt.

Preceding her PhD from the TU Darmstadt in 2010, she had worked in the industry for 16 years, leading a subsidiary of a project developer, heading strategic management projects at the Boston Consulting group and founding her own asset and property management company.

Her areas of expertise are thus asset and property management for investors and corporates, real estate project development and management, and the strategic management and leadership of companies acting in real estate market.

She is part of the German delegation for ISO 55000 (Asset Management) and has led the development of the gif catalogue of real estate key performance indicators (“Kennzahlenkatalog”)
Real estate, infrastructure and development projects require a lot of resources: ideas, work, time, and money. Therefore, knowledge about the size and structure of the investments planned as well as their funding are essential. Where does the money go to and when? What alternatives are there to always ensure liquidity of the project to proceed? How can these capital flows be controlled? And how can potential investors be convinced of the validity of the considerations regarding the project?

To enable students to answer these questions and to competently establish a sound business case for a medium-sized project is the goal of this course. In an interactive lecture-type class, principles of investment and finance will be presented and discussed which can be applied to a self-chosen project in the more tutorial like exercises and self-study times. Based on a realistic case scenario, other scenarios will be developed which can then be analyzed and evaluated, thus preparing the stage for later steering and controlling activities.
"Flipped classroom“ approach requires students to read ahead and use presence time for more valuable interaction

Overview of course content and organization

<table>
<thead>
<tr>
<th>Course content</th>
<th>Course organization</th>
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<tbody>
<tr>
<td>• Elements of a business case</td>
<td>• “Flipped classroom”: classroom time means interaction, not lecture:</td>
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<tr>
<td>• Real estate development and income-producing assets</td>
<td>– Reading ahead is required</td>
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<tr>
<td>• Costs and cash flows, profit and return</td>
<td>– Develop and work on your own project (teams of 2)</td>
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<td>• Project budgeting</td>
<td>• Get acquainted with the relevant methods and instruments (calculator, Excel, Argus) through</td>
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<td>• “Investment” and “Financing” – definition and meaning</td>
<td>– exercising</td>
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<tr>
<td>• Time value of money: Interest, Present Value, Future Value, Internal Rate of Return (IRR), DCF</td>
<td>– class discussions</td>
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<td>• Taxation and its consideration in the investment analysis</td>
<td>• Evaluation based on</td>
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<td>• Real estate financing:</td>
<td>– class participation &amp; quizzes</td>
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<td>– Mortgages and other instruments</td>
<td>– bi-weekly deliverables</td>
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<td>– The effects of leverage</td>
<td>– final project presentation (business case)</td>
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<td>• Full financial plans</td>
<td>– project write-up (business case ) including full financial plan with realistic/worst/best case scenario</td>
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<td>• Risk, sensitivity and scenario analyses</td>
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What is ARGUS Developer?
Real Estate Development Analysis Program (I)

Core Features

Development Projects
- Easy to use interface allows for the modeling of commercial, retail, residential and operated-asset development projects.
- Flexible development structures with costs and receipts linked to development stages which are linked to each phase.
- Discounted cash flow reports with calculated IRR and NPV with and without financing.
- Sensitivity analysis fluctuation up to six different models simultaneously with up to 15 step changes in each variable.
- Comprehensive reports and dynamic KPI dashboards provide all the analytics and visibility needed into any project. Easily export to MS Excel for presentation or analysis.

Structured Financing
- Provide for unlimited number of debt and equity financing structures down to individual phase levels.
- Before and after tax preferred and waterfall returns including IRR “look back”, promote and residual percentage waterfalls.
- Advanced goal seek functions to determine the land purchase price for the targeted returns.

Development Budget and Reforecasting
- Track spending and compare them to the initial project budget.
- Reforecast for cash flows that may be required in the future.
- Combine cash flows from multiple projects to track.
- Reforecast and track variances against user defined comparisons.
What is ARGUS Developer?
Real Estate Development Analysis Program (II)

Key Benefits

Saves time and money
ARGUS Developer users save 75% of the time it normally takes to create an analysis by building spreadsheets. By reducing risk and freeing resources within your organization, Developer helps you focus on your core business.

Increased flexibility and details
With Developer, users can model any property development, create cash flow models, conduct a sensitivity analysis and structure complex financing sources in order to gain a complete understanding of the risks and returns for precise deal structuring.

Provides consistency and reduces errors
Combining feasibility with sensitivity analysis and a powerful discounted cash flow; Developer is a consistent platform for analysis and communication without the inherent problems that occur in spreadsheets.

Provides visibility and optimizes teamwork
Users have an executive level view of single and multi-phased projects, which allows them visibility into all the details of the development project. All participants are on the same page and adjustments can be made instantly.
The book we are going to use most likely and predominantly is well known and has a „full serviced“ website. Includes Calculator, Excel and Argus excersising problems.
Business Cases for Real Estate Projects
Group work – 25 min

• Form groups of 3
• Think about the following questions and make structured notes on flipchart paper:
  1. What are elements of a „business case“? (Which topics do you need to think about to convince anybody to invest money into your project?)
  2. Which kinds of “Real estate development projects” or “Real estate income producing assets” can you think of?
• Prepare to present and discuss your answers in about 5 min each