Real Estate Valuation Education at Universities in the Netherlands

Content

- Program set up
- Overview of lectures
- Evaluation
- Further improvement

Prof. Dr. Aart C. Hordijk MRICS
Contact : a.c.hordijk@tudelft.nl

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Real Estate Valuation
The way lectures have been organised (1)

- High ambition, valuation has many aspects
- Theory and practice are both present, lectures as well as workshops, high interaction required
- First part concentrates on skills, knowledge and valuation practice
- Second part concentrates on analyses, valuation related issues and more complex valuations
- Financial calculations are important, but analysis and problem solving are also important

Real Estate Valuation
The way lectures have been organised (2)

- Questions about previous lectures and workshops
- Theory : literature, papers, debate
- Practice : workshops, actual valuations, presentations, discussion, with valuation experts who did the valuations themselves
- All lectures and workshops are mandatory, any absence should be communicated

Real Estate Valuation
The way lectures have been organised (3)

- Valuation teams, 3 to 4 students, foreign students to be divided over the teams
- One valuation per fortnight, checklist of subjects and DCF/income capitalization frameworks are available
- High level of effort, time consuming, divide the work
- Presentations, to be received by email 5 days in advance (a.c.hordijk@tudelft.nl)
- Timeframe at the workshop :
  - presentation, comments by students/practitioners
  - discussion and improvements

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Real Estate Valuation
The program (1)

- Lecture one
- 09.45 - 10.30 Introduction to Real Estate Valuation
- 10.45 - 11.30 Market analysis, supply and demand
- 11.45 - 12.30 Residential valuation theory and introduction to the assignment

- Recommended literature for this lecture
- - Chapters from Lusht: 1 - 5
- - Further reading: 16 & 17 (Lusht)

Real Estate Valuation
The program (2)

- Lecture two
- 09.45 - 10.30 Income & sales comparison approach
- 10.45 - 11.30 Discount rate / GIY/NIY estimation / IRR / leasehold effects
- 11.45 - 12.30 The cost approach & life cycle costs

- Recommended literature for this lecture
- - Chapters from Lusht: 6, 9, 10 – 12, 19, 21, 22

Real Estate Valuation
The program (3)

- Lecture three
- 09.45 - 10.30 Office and industrial valuation theory and introduction to the assignment
- 10.45 - 11.30 Presentations of residential assignments
- 11.45 - 12.30 Presentations of residential assignments
- 12.45 – 13:30 Presentations of residential assignments

Residential case studies : feedback

- In general good work, presentations as well as reports ; sometimes some more background text necessary to explain the outcome a bit more
- Supply and demand often as inventory only, analyses and conclusions as well as the effects on the parameters for the financial calculations are often visible
- Clear and transparent approach with regard to rental growth potential
- Partial selling not to aggressive, check comparables carefully
- DCF framework is example, careful with built-in assumptions

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Real Estate Valuation
The program (4)

- Lecture four
- 09.45 - 10.30 Introduction to multiple regression analysis
- 10.45 - 11.30 Introduction to mass appraisal
- 11.45 - 12.30 Mass appraisal workshop
- Recommended literature for this lecture
- – Chapters from Lusht: 7, 8

Real Estate Valuation
The program (4 continued)

- Recommended literature (continued) :
- Journal articles:
- Benjamin, J. D., R. S. Guttery, et al. (2004). "Mass Appraisal: An Introduction to Multiple Regression Analysis for Real Estate Valuation." *JOURNAL OF REAL ESTATE PRACTICE AND EDUCATION* ***7(1): 65-77.***
- Dunse, N., Jones, C. (1998). "A Hedonic price model of office rent." *JOURNAL OF PROPERTY VALUATION & INVESTMENT* ***16(3): 297-312.***

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Real Estate Valuation
The program (5)

- Lecture five
- 09.45 - 10.30 Retail and (optional) Hotel valuation theory and introduction to the retail and hotel assignment
- 10.45 - 11.30 Presentations of office assignments
- 11.45 - 12.30 Presentations of office assignments
- 12.45 – 13:30 Presentations of industrial assignments

Real Estate Valuation
The program (6)

- Lecture six
- 09.45 - 10.30 Property Tax ("WOZ") valuation
- 10.45 - 11.30 Valuation consistency and accuracy, financial crises and long-run return series
- 11.45 - 12.30 Sustainability effects in valuations

- Recommended literature for this lecture
- - Chapters from Hordijk: 2 till 5

Real Estate Valuation
The program (7)

- Lecture seven
- 09.45 - 10.30 Recap of lectures and hints for the exam
- 10.45 - 11.30 Presentations of retail assignments
- 11.45 - 12.30 Presentations of retail assignments
- 12.45 – 13:30 Presentations of hotel assignments

Real Estate Valuation
Evaluation and further improvement

- Real Estate Valuation is an elective subject in curriculum
- Student numbers grew from 11 in 2005 to 45 in 2009
- Succesful formula, interaction with practioners is highly appreciated by the students
- For 2011 college hours have been increased by 4 to allow for more literature study and debate (7 ECTS in total)
- Same set up of the valuation courses introduced at the University of Amsterdam and Eindhoven as well
- Around 100 students this year followed valuation courses

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REAL ESTATE VALUATION Year 2004

Hullenbergweg 1-3 Amsterdam Southeast

(abbreviated version)

Jeroen Sala

Mauricio Perea

Caroline Beijdorff

Mark Blommesteijn

Frans Jan Westerbeek

content

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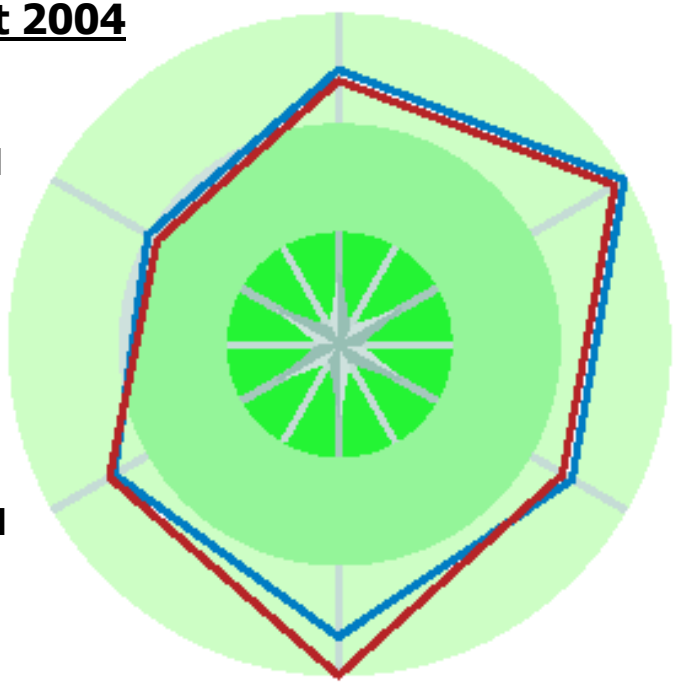
1. Demand side

- Yearly 15-20% of rental contracts expire or are renewed;
- Office uptake is at the moment mainly replacement. Tenants often move to new, cheaper, better quality and mainly smaller office spaces, leaving behind a larger office than they go to;
- Demand is mainly a replacement demand. Companies are not expanding a lot;
- The market is mainly dictated by demand, whereby rent free periods of up to two years on a contract of 10 years are not uncommon;
- The last couple over months there have been a number of large letting transactions.

Place	Location	Tenant/buyer	m^2
Amsterdam	Zuidoost	Sanoma	9,100
Amsterdam	Riekerpolder	ACN Europe	9,000
Amsterdam	Buitenveldert	Vrije universiteit	7,100
Amsterdam	Wibautstraat	Financieel dagblad	5,000
Amsterdam	Orlyplein	ING bank	4,300

1. Demand side

Amsterdam office market 2004



	Tight Market	Balance	Loose Market
Market Type	Tight	Balance	Loose
Absorption : Supply	Low Ratio	Balance Ratio 1,5	High Ratio
Rent Development	(Strong) Increase	Inflation Level	(Strong) Decrease
Vacancy	Low	Equilibrium 5%	High
Market Supply Level	Low	Average	High
Market Absorption Level	High	Average	Low

Source: DTZ

2. Supply side

Current supply Building

Name building	Ruby Point
Address	Hullenbergweg 1-3 Amsterdam Zuidoost
Kind	Office
Metrage	5200 m2 vvo
Price/m2/y	€ 160,=
Parking spaces	90
Price parking car/year	€ 800,=

- Renovation under construction;
- Possibility for turn- key;
- Office floor available from 100 m2.

2. Supply

Current supply office space

- Almost 6 million square meters of office supply in greater Amsterdam. This is an expansion of 15% compared to 2003.
- 1 million square meters office space vacant in Amsterdam;
- 30 % vacancy office space in Amsterdam Zuidoost (source dtz);
- Market prices under pressure by sub leases, and over supply;
- Nearby recently developed office buildings are still empty;
- In the nearby future there are no plans for development, but there are potential sites available.

Source: DTZ

2. Supply

Comparable buildings on same location

Name building	Crown Buildings
Address	Hullenbergweg 353-383
Kind	Office
Metrage	665 m2 vvo
Price/m2/y	€ 165
Parking spaces	?
Price parking car/year	€ 1.135

Name building	Versatel
Address	Hullenbergweg 81-93
Kind	Office
Metrage	5.625 m2 vvo
Price/m2/y	€ 182
Parking spaces	88
Price parking car/year	€ 1.135

Name building	-
Address	Hullenbergweg 413-419
Kind	Office
Metrage	883 m2 vvo
Price/m2/y	€ 150
Parking spaces	11
Price parking car/year	€ 1.250

2. Supply

Comparable rent prices office locations in Amsterdam(euro/m²/year)

Location	from	till
Amstel Business Park	€ 90	€ 160
Buitenveldert	€ 170	€ 240
Centre	€ 150	€ 250
De Omval	€ 240	€ 350
Riekerpolder	€ 150	€ 200
Sloterdijk	€ 140	€ 180
Westas	€ 140	€ 180
Zuid	€ 180	€ 325
Zuidas	€ 250	€ 350
Zuidoost	€ 100	€ 190

Expectation Office Market	2004
Market Absorption	⇨ ⇩
Supply	⇨ ⇧
First-class Rentals	⇨

Source: DTZ

Future supply office space

- Supply sublease is in decline so the market will be more stable, because the owners are doing the renting out, instead off the old users who were subleasing.
- Expected increase in rent price equal to inflation(source dtz);

3. Architecture/ construction

Construction

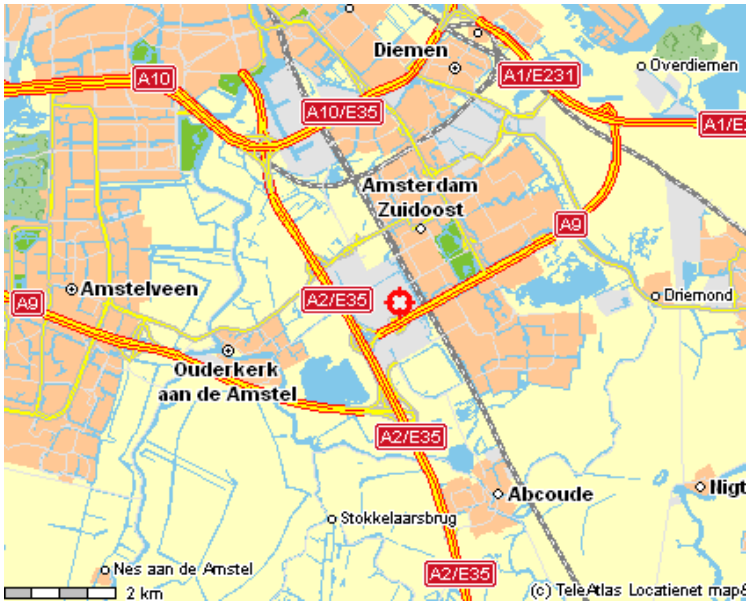
Foundations	On piles
Foundations	Concrete
Construction	Concrete
Facades	Nature stone
Roofs	Bituminous
Window frames	Synthetic
Floors	Concrete
Stairs	Concrete
Ceilings	Ceiling panels
Double glazing	All

Installations

Elevator	Yes	average
Central Heating/ cooling	Yes	average
Sprinkler system	No	
Mechanical Ventilation	New	good
Floor Insulation	Yes	average
Facade Insulation	Yes	average
Roof Insulation	Yes	average
Kitchen equipment	Yes	basic
Toilets	Yes	average

- At the moment they are restoring the building complete on the inside.
- There are some defects on the outside of the building: colour of window frames, disconnecting parts.
- The building is suitable for division taking into account elevators and sanitary fittings.
- The minimum size of a unit is 100 m2.

4. Location



- The building is on a corner location on the main road trough the business area.
- Nearby main traffic roads A2 and A9 and main road to city centre;
- Nearby big companies like: NCR, Ikea, Cisco, Versatel, Honeywell en Ahrend.

5. Amenities

Car Accessibility	Five Minutes drive from the A9 and A2
	Building lies on the Main Road
Parking	
Public road	None
Private terrain	90 Parking lots
Private parking garage	Bullewijk & Bijlmer (10-15 min walk: parking lots for €31 per month)
Public parking garage	Arena (10 min walk: 4300 parking lots for €14.50 to €19.00 per day)
Public Transport	
NS Intercity	Duivendrecht (20 min walk)
NS Stop Train	Bijlmer (10 min walk)
Metro	Bullewijk (max 5 min walk)
Bus	Bus stop (max 5 min walk) with three busses going to different stations
Catering Establishments	
Lunchroom	Ikea, McDonalds, La Place (5 min walk)
Restaurant	In the Amsterdamse Poort (10-15 min walk)
Café/Bar	Arena Boulevard
Hotel	A Couple Within 5 km
Shops	
Next Door	Ikea
10-15 min walk	Villa Arena, Arena Boulevard, Amsterdamse Poort

6. Ownership/ Government

Ownership

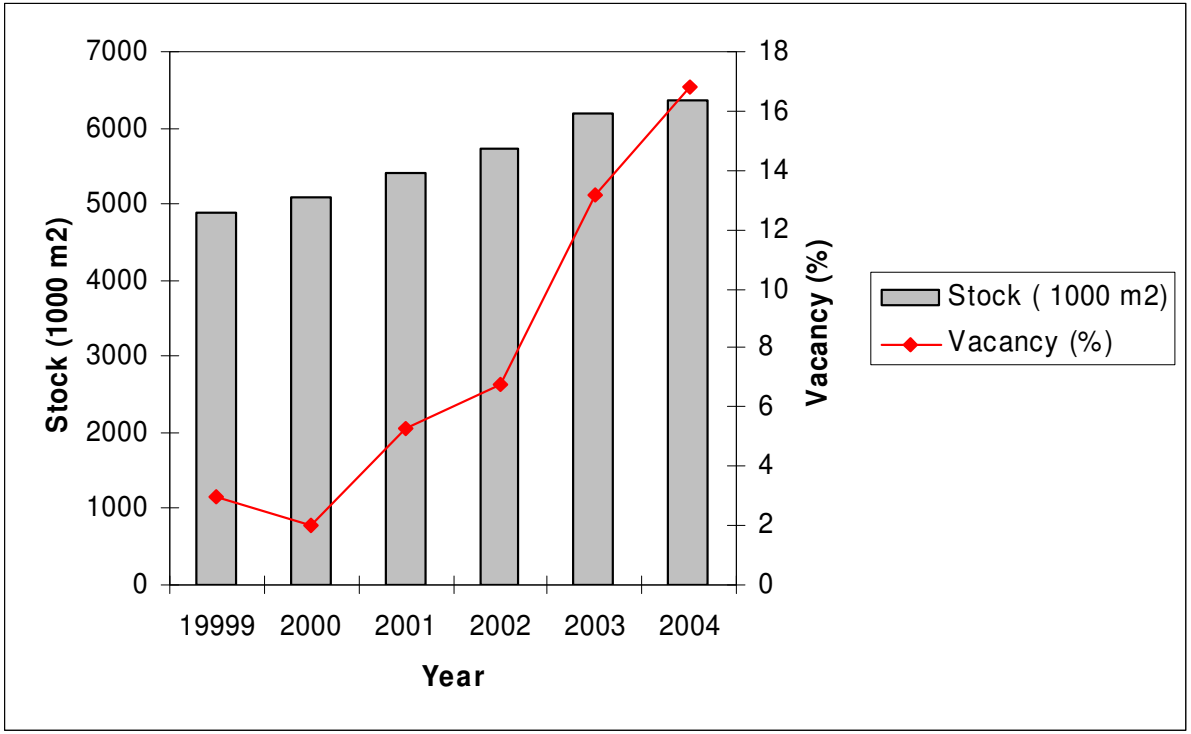
- The building is owned by a Swedish investment company;
- First/last occupier was FIAT (1980 till 2003).

Policies by Government

- Parking on own plot;
- There is a long lease situation on the plot since 1980 for 50 years;
- There are standard taxes like WOZ and other local taxes.

7. Financial, Assumptions

Stock and vacancy in Amsterdam



Source: Onderzoek en Statistiek, Gemeente Amsterdam

Equilibrium vacancy

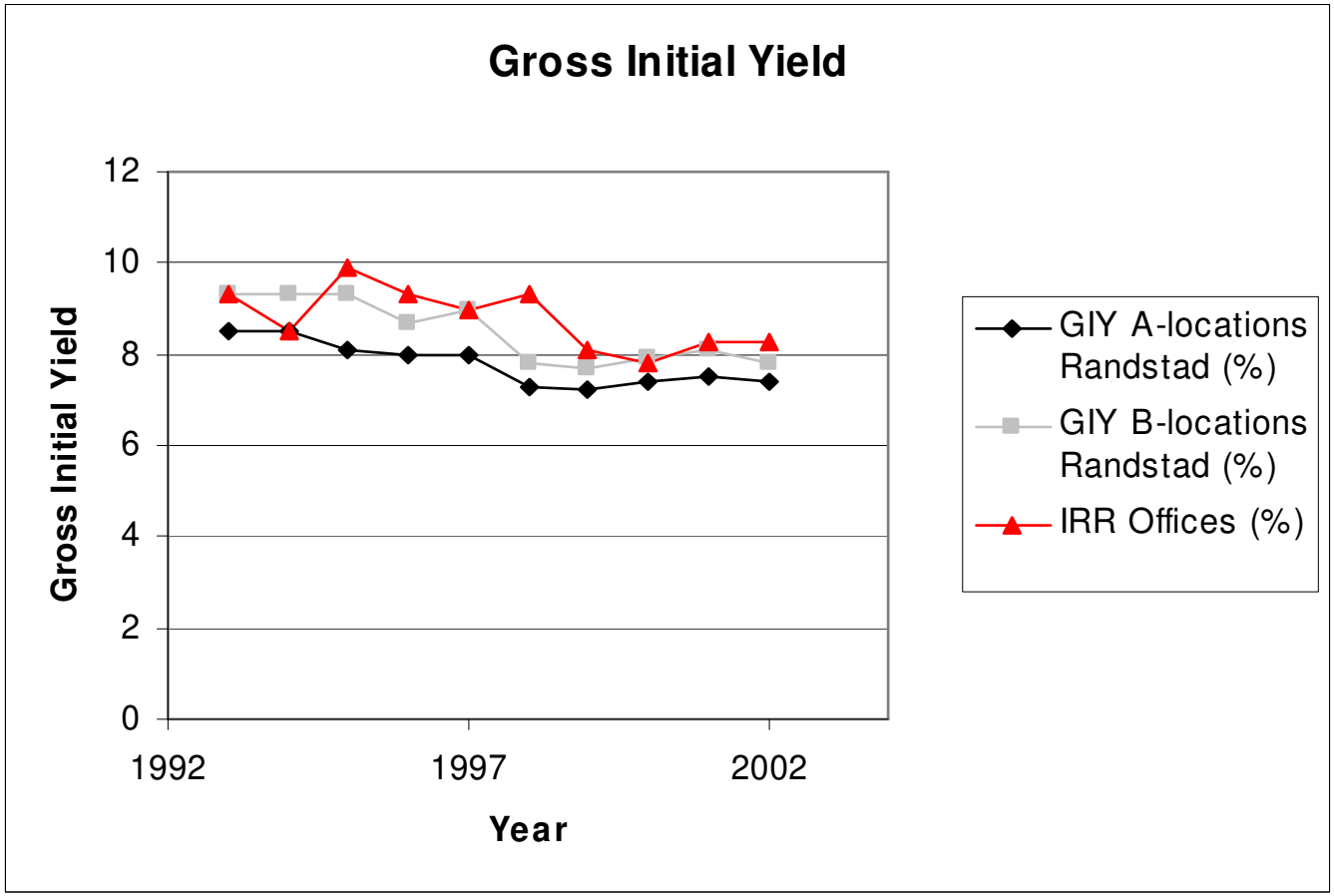
5% in Equilibrium Source: DTZ Zadelhoff

Inflation rate

2% Target Rate ECB

7. Financial , Assumptions

Capitalization Rate



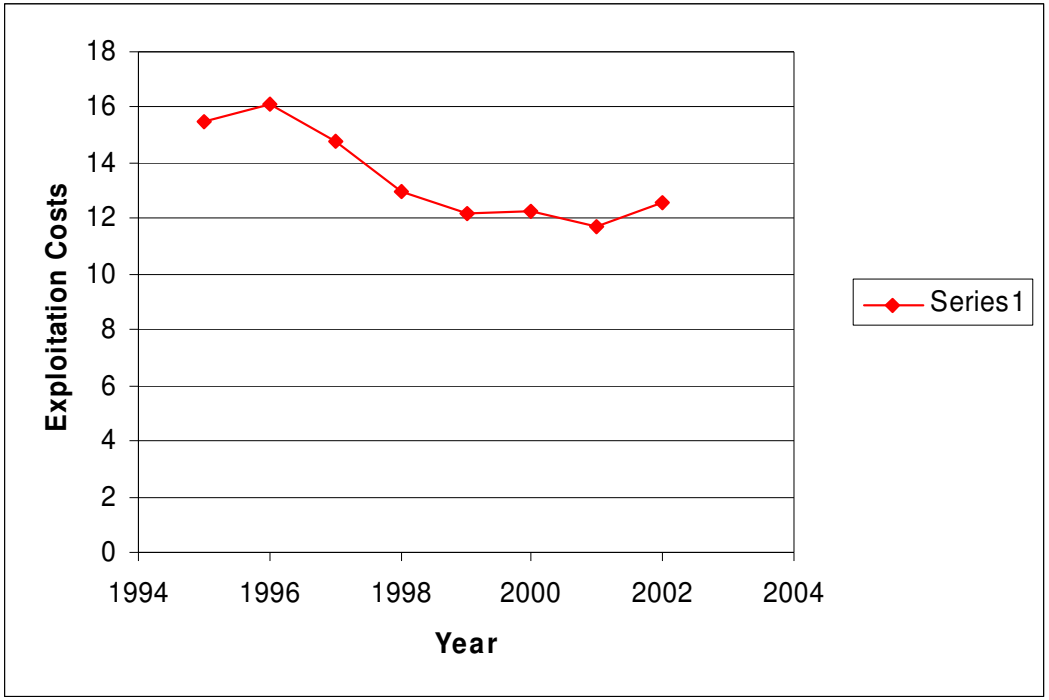
Source: Troostwijk Groep

Gross initial yield 8,49 %

Parking places are taken as rented in relation with rented m2

7. Financial , Assumptions

Operating costs as a percentage of gross income



Source: ROZ/IPD

Average of 14% for operating costs (including normal maintenance)

Rent Holiday

2 yrs per 10 yrs

Source: CBRE.nl & DTZ

7. Financial

3 scenarios:

	realistic	pessimistic	optimistic
Vacancy	30%	20%	5%
In Equilibrium	5%	5%	5%
Decrease in vacancy	2%	0%	0%
Rent Holiday	20% decrease	20%	5%
Capitalization Rate	9,49%	9,49%	9,49%
Offices	8,49%	8,49%	8,49%
Specific Object Risk	1,00%	1,00%	1,00%
Going Out Cap Rate	15%	-	15%
ERV Growth	2,0%	1,5%	2,5%
Inflation	2,0%	2,0%	2,0%
Growth above Inflation	0,0%	-0,5%	0,5%
Depreciation in years	25	25	25
Operating costs	14%	14%	14%
Yearly Increase	0,50%	0,75%	-

7. Financial

Two assumed situations

Rental data

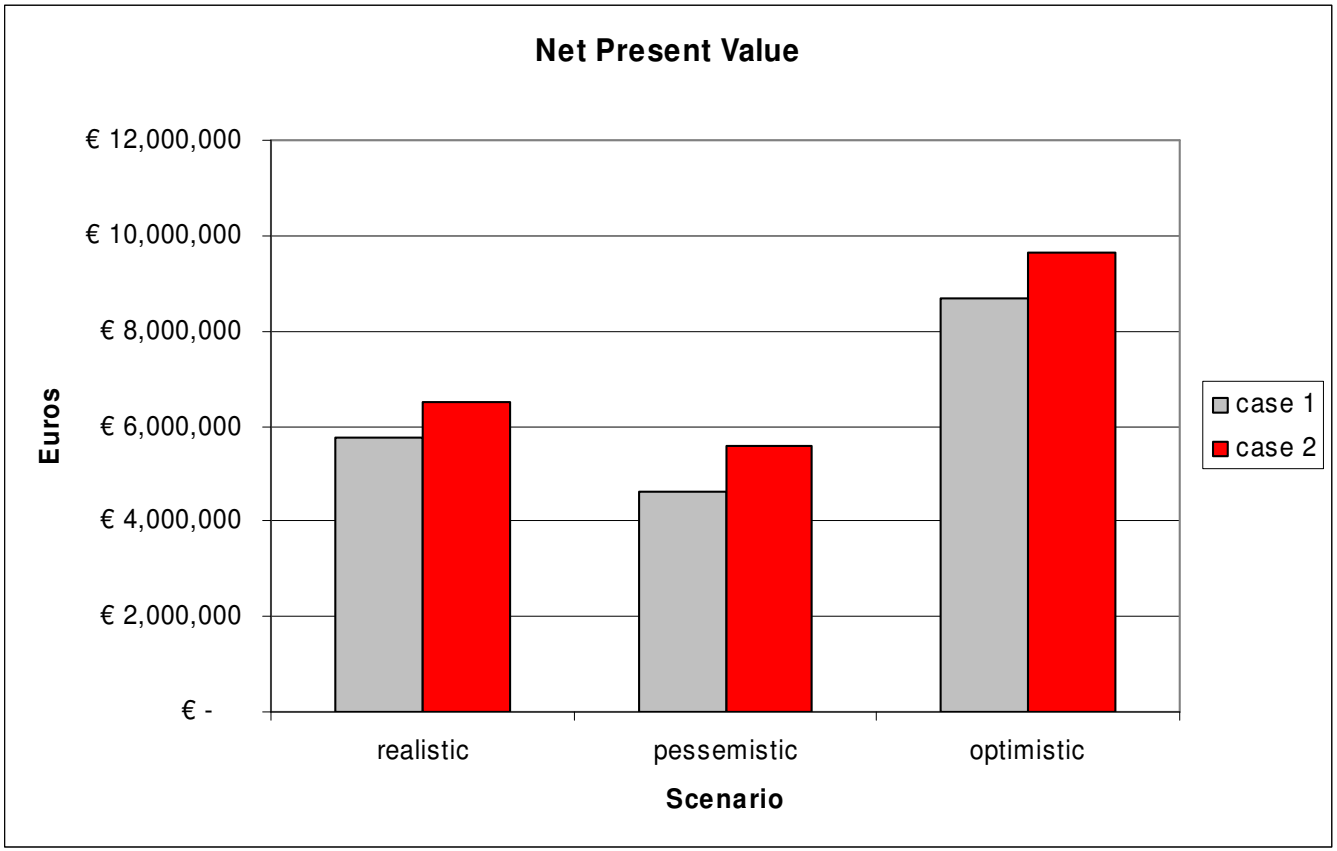
Metrage	5200m^2
Price per m2 per year	€ 160
Minimum floor rental	100m^2
Number of parking lots	90
Price per parking lot each year	€ 800

Case 1
Empty

Case 2	Metrage	Price per m2/Y	
Tenant 1	3000m^2	€ 200	2003-2008
Tenant 2	1000m^2	€ 220	2003-2009
Which means Vacant	1200m^2	23%	

7. Financial Conclusion

	Case 1	Case 2
Realistic	€ 5.780.944	€ 6.518.128
Pessimistic	€ 4.604.470	€ 5.584.312
Optimistic	€ 8.688.653	€ 9.648.876



8. Sources

- www.dtz.nl;
- www.amsterdam.nl;
- www.cbre.nl;
- www.vastgoedkennis.nl;
- www.troostwijk.nl;
- www.rozindex.nl;
- Lectures valuation and investment;
- K.M. Lusht,1997, Real Estate Valuation;
- W.H. Rees, 2000, principles into practice;

9. Questions?

7. Financial

Calculations scenario realistic

	case 1 Vacancy	rended m2	Rent Holiday	Eff. m2	income Tenants	Parking	Rent per Parking P	Gross Income	Exploit. Percentage	Exploit. Costs	Net Income	PV Net Income
2004	30,00%	0	80%	128	-	-	800	-	0,14	-	-	-
2005	28,00%	3744	80%	133	498.593	65,00	816	551.633	0,15	79.987	471.646	393.430
2006	26,00%	3848	80%	136	522.692	67,00	832	578.457	0,15	86.769	491.689	374.599
2007	24,00%	3952	80%	139	547.555	69,00	849	606.133	0,16	93.951	512.183	356.391
2008	22,00%	4056	80%	141	573.203	71,00	866	634.686	0,16	101.550	533.136	338.817
2009	20,00%	4160	80%	144	599.659	72,00	883	663.254	0,17	109.437	553.817	321.455
2010	18,00%	4264	90%	165	705.311	74,00	901	771.980	0,17	131.237	640.744	339.675
2011	16,00%	4368	90%	169	736.964	76,00	919	806.804	0,18	141.191	665.614	322.275
2012	14,00%	4472	90%	172	769.601	78,00	937	842.713	0,18	151.688	691.025	305.579
2013	12,00%	4576	90%	176	803.249	80,00	956	879.735	0,19	162.751	716.984	289.578
2014	10,00%	4680	90%	179	837.935	81,00	975	916.926	0,19	174.216	742.710	273.968
2015	8,00%	4784	90%	183	873.687	83,00	995	956.247	0,20	186.468	769.779	259.342
2016	6,00%	4888	90%	186	910.533	85,00	1.015	996.774	0,20	199.355	797.419	245.368
2017	5,00%	4940	95%	201	990.770	86,00	1.035	1.079.770	0,21	221.353	858.417	241.244
2018	5,00%	4940	95%	205	1.010.586	86,00	1.056	1.101.366	0,21	231.287	870.079	223.327
2019	5,00%	4940	95%	209	1.030.797	86,00	1.077	1.123.393	0,22	241.530	881.864	206.733
2020	5,00%	4940	95%	213	1.051.413	86,00	1.098	1.145.861	0,22	252.089	893.772	191.364
2021	5,00%	4940	95%	217	1.072.442	86,00	1.120	1.168.778	0,23	262.975	905.803	177.131
2022	5,00%	4940	95%	221	1.093.890	86,00	1.143	1.192.154	0,23	274.195	917.958	163.949
2023	5,00%	4940	95%	226	1.115.768	86,00	1.165	1.215.997	0,24	285.759	930.238	151.742
2024	5,00%	4940	95%	230	1.138.084	86,00	1.189	1.240.317	0,24	297.676	942.641	140.437
2025	5,00%	4940	95%	235	1.160.845	86,00	1.213	1.265.123	0,25	309.955	955.168	129.970
2026	5,00%	4940	95%	240	1.184.062	86,00	1.237	1.290.426	0,25	322.606	967.819	120.277
2027	5,00%	4940	95%	244	1.207.743	86,00	1.262	1.316.234	0,26	335.640	980.594	111.302
2028	5,00%	4940	95%	249	1.231.898	86,00	1.287	1.342.559	0,26	349.065	993.493	102.992
											Reversion Value	**700.346**
											NPV	**5.780.944**