Office Market Dynamics
The Workings of the Amsterdam Office Market
Ruud Boots, Philip Koppels and Hilde Remøy

Delft University of Technology
Real Estate & Housing

Municipality of Amsterdam’s Tax Department

Colliers International

DTZ Zadelhoff
# Introduction

## A Paradoxical Situation

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<tr>
<td>Period 2000-2005: Work-Cycle</td>
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<td>Period 2003-2007: Wall of Money</td>
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<tr>
<th>ECONOMIC GROWTH</th>
<th>ICT-CRISIS</th>
<th>ECONOMIC RECOVERY</th>
<th>FINANCIAL CRISES</th>
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</table>

- **2000**: Burst of Internet-bubble
- **2001**: Attack of the World-Trade Center
- **2008**: Lehman Brothers collapsed and burst of economic and financial crisis
- **2012**: Convenant against tackling vacant offices & establishment Kantorenloods Amsterdam

### Face rent

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### Key Points
- **September 2001**: Attack of the World-Trade Center
- **September 2008**: Lehman Brothers collapsed and burst of economic and financial crisis
- **2012**: Convenant against tackling vacant offices & establishment Kantorenloods Amsterdam

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**FINANCIAL CRISES

- **ICT-CRISIS**: Economic and Financial crisis
- **2000**: Burst of Internet-bubble
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- **2012**: Convenant against tackling vacant offices & establishment Kantorenloods Amsterdam
Introduction

Problem Analysis

Real effective rent

Higher rents due to higher demand

Equilibrium rent

Lower rents due to lower demand

Space market

Higher space demand

Office space demand

Lower space demand

Stock t=0

Office stock
Introduction

Problem Analysis

- Rental adjustment equation:

\[
\frac{(R_t - R_{t-1})}{R_{t-1}} = \lambda (V_n - V_a) \Rightarrow \Delta R = \lambda \left( V_n - V_a \right)
\]

- **R** = Real rent
- **V_n** = normal vacancy rate
- **V_a** = actual vacancy rate
- **\lambda** = adjustment factor

**Va > Vn**: downwards price pressure
**Va < Vn**: upwards price pressure
**Va = Vn**: equilibrium

- Normal vacancy rate: 5% a 6%
- Vacancy gap: actual vacancy rate – normal vacancy rate
Introduction

Problem Analysis

• Possible causes of the paradoxical situation:

• Segmented market structure: spatial and structural

• In-transparency and asymmetric information
  • Face rent index
  • ‘Polluted’ vacancy rate
Problem Analysis

Segmented Market Structure

City-wide

Segmented / sub-market

Rent (€/m²)

Period (Years)

Rent (€/m²)

Period (Years)
Problem Analysis
In-transparency and Asymmetric Information

ECONOMIC GROWTH
Period 2003-2007: Wall of Money
Period 2000-2005: Pork-Cycle
Period 2000-2005: ‘Expansion market’

ICT-CRISIS
Recession
Overall recovery
Recovery demand

ECONOMIC RECOVERY
Boom
Bubble burst
Corporate Collapse
Recession

FINANCIAL CRISSES
2009-2012: New Ways of working
2008-2012: Economic and Financial crisis
2008-2012: Impairment of assets

Face rent
Vacancy rate
Effective rent

2000: Burst of Internet-bubble
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Rent Indexes

Types of Rent

• Three types of rent:
  • Face rent
  • Contract rent
  • Effective rent

• The effective rent level can be defined as the level annuity with the same net present value as the contractual annual cash flows from the lease contract corrected for the provided (initial) lease incentive.

• Rent index construction methods
Lease Incentives

Why Incentives?

- Ease lease negotiation
- Correct for short-term deviations from long run market trend
- Disclose price information
**Effective Rent Index**

**Effective Rent Calculation**

- **Assumptions:**
  - Office leases are CPI indexed
  - Incentives are deducted from the rent payments
Effective Rent Index

Effective Rent Calculation

- Discount rate
  - State bonds (newest 10 year)
  - Corrected for inflation (real discount rate)
  - 5 year average

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
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<td>2.4%</td>
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## Data Sample

### Descriptive Statistics

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# Data Sample

## Descriptive Statistics

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Rent Indexes
Comparison

- **Period 2000-2005: 'Expansion market'**
- **Period 2000-2005: Pork-Cycle**
- **Period 2000-2005: 'Expansion market'**

**ECONOMIC GROWTH**

- Period 2003-2007: Wall of Money
- Period 2000-2005: Pork-Cycle
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**ICT-CRISIS**

- Recovery demand
- Overall recovery
- Bubble burst
- Recession
- Hesitant recovery

**ECONOMIC RECOVERY**

- 2005-2008: Long-term leases and New Development
- 2003-2007: Wall of Money

**FINANCIAL CRISES**

- 2009-2012: New Ways of working
- 2008-2012: Economic and Financial crisis
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Incentives Percentage
Face and Contract Rent

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<th>FINANCIAL CRISIES</th>
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Recession | Resistant recovery | Boom | Corporate Collapse | Recovery demand

Incentive % of face rent
Incentive % of contract rent

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Rental Adjustment
Face and Effective Rent

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Rental Adjustment

Pearson Correlation

-800 -600 -400 -200 0 200 400

No lag Lag one year Lag two years Lag three years

Real Face Rent Real Contract rent Real Effective Rent

Office Markets Dynamics 17/21
## Rental Adjustments

### Pearson Correlation

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Conclusions

Office Market Dynamics

• Indicators market dynamics: face rents → accurate picture?!

• Hedonic pricing studies: from face rents to effective rents a mere change of numbers?
  • Longitudinal studies
  • Cross-sectional studies
Discussion and Reflection

Office Market Dynamics

• Further research steps:
  • Quality adjusted effective rent index (hedonic pricing study)
  • Segmented structure of the market: spatial and structural
Questions?

Municipality of Amsterdam’s Tax Department

Colliers International

DTZ Zadelhoff