



Research  
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2006-2009

## The IPF Research Programme 2006-2009

Depreciation in European Office Markets

Universities of Aberdeen and Reading  
Investment Property Databank



## Background

- IPF funded research
- January 2008 – March 2009
- Extending previous IPF work on depreciation rates in UK
- This project – office markets in six European cities
- Individual property data: processed by IPD
- New/prime rent data: CBRE, Atisreal



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## Rental depreciation

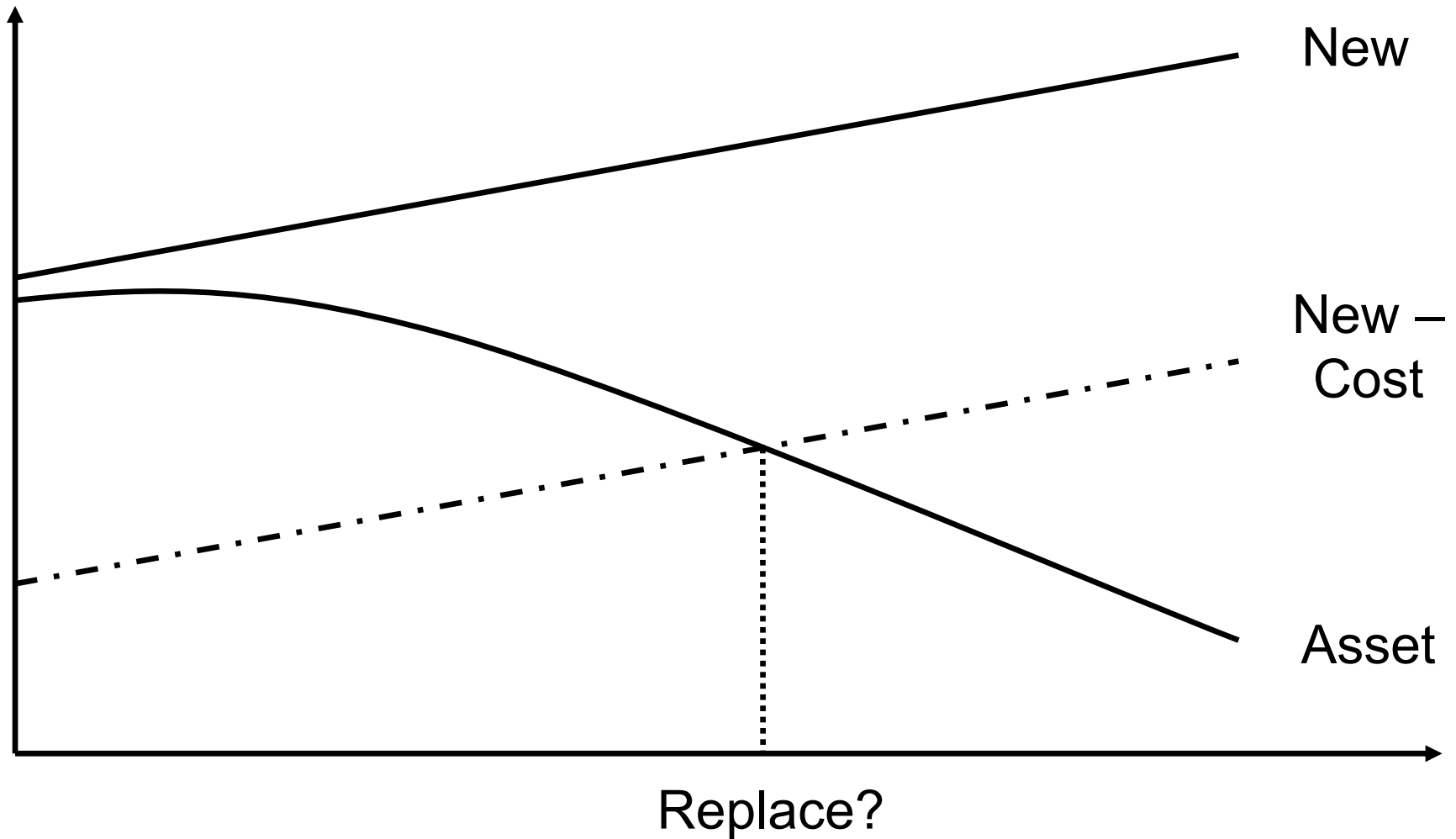
*“the rate of decline in rental value of an asset (or group of assets) over time relative to the asset (or group of assets) valued as new with contemporary specification”*

Law (2004)



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## A relative concept





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## Rental depreciation

*“the rate of decline in rental value of an asset (or group of assets) over time relative to the asset (or group of assets) valued as new with contemporary specification”*

Law (2004)

- Happens because of time, aging and events
  - Deterioration
  - Obsolescence

## IPF (2005)

Funded study for UK found the following results:

	1984-2003		1993-2003	
	Rental depr <sup>1</sup>	Cap exp	Rental depr <sup>1</sup>	Cap exp
St Shops	0.1%		0.3%	
Office	1.0%		0.8%	
Industrial	0.6%		0.5%	

Note 1 : rates are annualised.

## IPF (2005)

Funded study for UK found the following results:

	1984-2003		1993-2003	
	Rental depr <sup>1</sup>	Cap exp <sup>2</sup>	Rental depr <sup>1</sup>	Cap exp <sup>2</sup>
St Shops	0.1%	0.6%	0.3%	0.5%
Office	1.0%	1.0%	0.8%	0.9%
Industrial	0.6%	0.8%	0.5%	0.4%

Note 1 : rates are annualised. Note 2 : as % of capital value, average p.a.

## This project

- Measure depreciation and expenditure for:
  - Five markets over 1997-2007, and
  - One market over 1999-2007
- Expect differences
  - Baum and Turner (2004) – leasing
  - Other factors – design, management
- But also issues surrounding the property cycle in each market and data definitions / quality





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## Sample datasets

	Time horizon	Sample size	% of full IPD in 1997
<b>Amsterdam</b>	10 yr	38	36%
<b>Dublin</b>	10 yr	35	36%
<b>Frankfurt</b>	10 yr	17	22%
<b>London City</b>	10 yr	81	16%
<b>London WE</b>	10 yr	135	19%
<b>Paris</b>	8 yr	169	18%
<b>Stockholm</b>	10 yr	36	16%



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## Results to date

	No of Assets	B'mark Rental Growth	Sample Rental Growth	Rental Depr Rate
<b>L'dn WE</b>	135	9.0%	6.6%	2.2%
<b>L'dn City</b>	81	2.3%	1.9%	0.4%
<b>Amsterdam</b>	38	3.2%	3.6%	-0.4%
<b>Dublin</b>	35	9.5%	7.7%	1.7%
<b>Frankfurt</b>	17	2.9%	-2.1%	4.9%
<b>Paris</b>	169	4.3%	5.6%	-1.3%
<b>Stockholm</b>	36	3.9%	5.9%	-2.0%



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## What do results show?

- Confused pattern at aggregate level
- Results will be strongly influenced by characteristics of markets, e.g.
  - Stock, Leasing, Expenditure
- If more spending, expect less depreciation?
- Also need to examine age of sample in the context of the age of the stock in general
- Do these two steps bring clarity to overall picture?



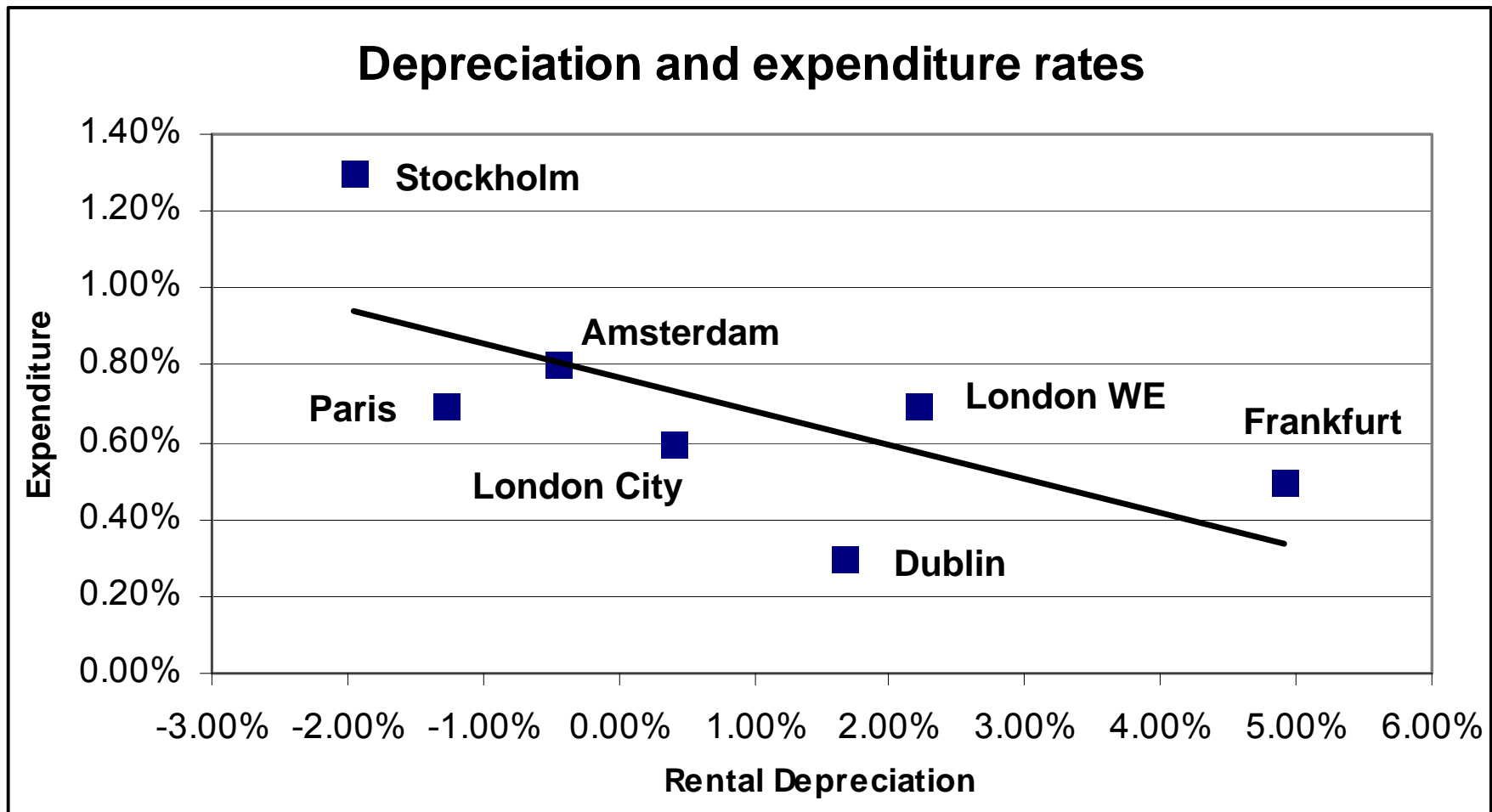
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## Results to date

	Rental Depr Rate	Capital Exp Rate	Maint. Exp Rate	Total Exp Rate
<b>L'dn WE</b>	2.2%	0.3%	0.4%	0.7%
<b>L'dn City</b>	0.4%	0.3%	0.3%	0.7%
<b>Amsterdam</b>	-0.4%	0.4%	0.4%	0.8%
<b>Dublin</b>	1.7%	0.3%	0.0%	0.3%
<b>Frankfurt</b>	4.9%	0.1%	0.4%	0.6%
<b>Paris</b>	-1.3%	0.7%	0.0%	0.7%
<b>Stockholm</b>	-2.0%	1.0%	0.3%	1.3%



# Relationship?





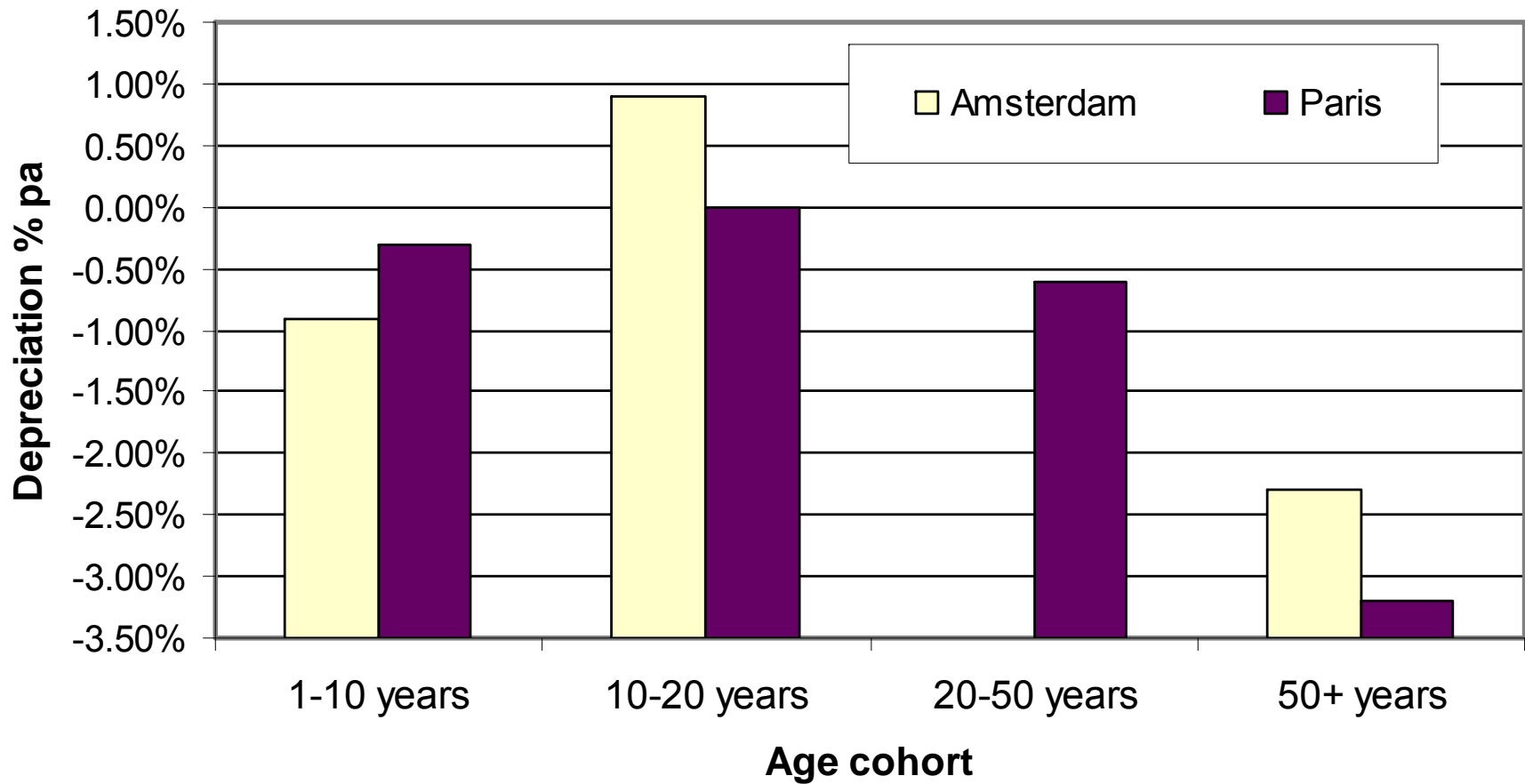
## Age bands

- Age results at a preliminary stage
- Experiment with 4 bands
  - 0-10 years old
  - 10-20 years old
  - 20-50 years old
  - 50+ years old
- Age of property at start of period (1997) determines age band membership



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## Depreciation rate patterns





### Depreciation rate patterns







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## What are the results really all about?

- Market state – do different market states drive different depreciation patterns – prime/secondary relationships?
- Data issues – idiosyncrasies of individual properties within each market and sub-divisions of the sample
- Different interpretations of basic valuation definitions and methods between countries and by different valuers within countries.
- Different interpretations of the benchmark rental values – are they the new property in the location built to the most modern specification or are they in some cases the best rent in that location.

## Conclusions

- Some conflicting results across the different markets concerning both depreciation/appreciation rates and the behaviour of different age cohorts
- Some evidence of a negative relationship between spending and depreciation
- But study also highlights the idiosyncrasies of property assets... and property data
- Agenda for research – we want to develop questions around how prime/secondary markets behave in different market states, the patterns of depreciation and technical issues around rental value determination.



# Research Programme 2006-2009

The IPF would like to thank the supporters of its 2006-2009 research programme:

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