



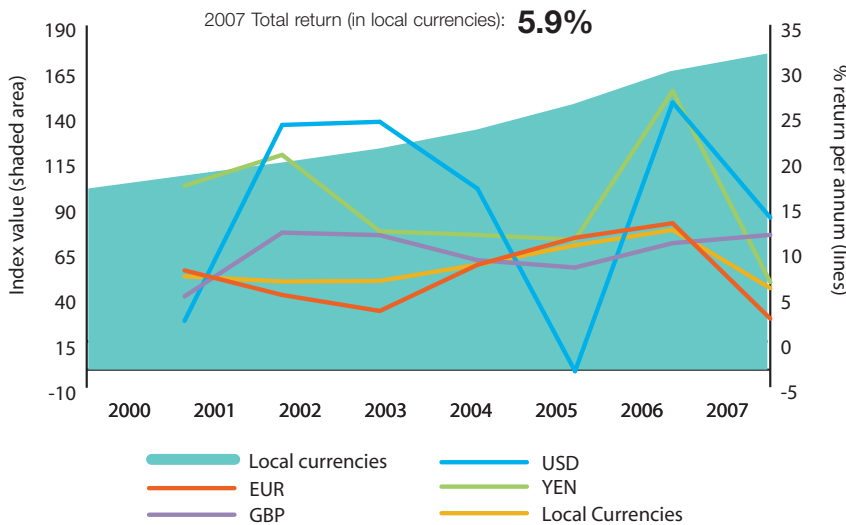
# IPD Pan-European Property Index

Results for the year to 31st December 2007

On the pulse of the property world



## IPD Pan-European Property Index Performance



The IPD Pan-European Property Index measures the combined performance of real estate markets in fifteen countries. The Index is based on the IPD indices for Austria, Belgium, Denmark, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK and the KTI index for Finland.

## IPD Pan-European Property index returns - investor currencies

All property	Total return 2000 =100	Total return % 1 yr	Income return % 1 yr	Capital growth % 1 yr	Annualised total return %		
					3 yrs	5 yrs	7 yrs
EUR	164.7	2.6	4.9	-2.3	9.0	7.7	7.4
GBP	192.4	11.8	5.0	6.5	10.3	10.3	9.8
USD	256.4	13.7	5.0	8.4	11.6	15.1	14.4
YEN	268.7	6.6	4.9	1.6	14.8	13.7	15.2
Local currencies	174.5	5.9	4.9	0.9	9.6	8.8	8.3

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## IPD Multinational Publications

### IPD Multinational Index Spreadsheet

The IPD Multinational Index Spreadsheet is designed to bring together all the information contained within the numerous national index publications and provides performance series at a sector level. The all property and sector indices are based on IPD's coverage in 21 countries and shown in local currencies. The spreadsheet includes IPD's composite Central & Eastern Europe, Pan-European and Global Index series, where countries are re-weighted to reflect the value of the investment market in each country and returns are reported in investor as well as local currencies.

The spreadsheet also includes a standard set of yields across countries, allowing comparison of net and gross income yields and the impact of operating costs across different markets at a sector level.

### IPD Multinational Forecast Model

A set of strategic-level econometric models that forecast capital growth, income return and total return at the all property level for fifteen major international property markets. With a forecast horizon of current year and forthcoming year the multinational forecasting model is completely transparent and easy to manipulate.

Countries forecast: Australia, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, South Africa, Spain, Sweden and the UK.

**To subscribe to the Multinational Index spreadsheet or forecasting tool, please contact Amelia Murray**

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# Introduction

The aim of the Pan-European Index is to improve market transparency. The Index is neither appropriate, nor authorised for use as a benchmark for two reasons:

- 1) The total return series for each country only measure market trends and exclude the impact of active management in all its forms: trading, development, refurbishment, etc.
- 2) The Index represents work in progress and the historic series will change in future, as IPD's coverage extends to more countries and as more accurate estimates of the value of each investment market become available.

In 2007 the All Property total returns across European real estate markets in local currencies were significantly lower than those in 2006, falling to 5.9%, from 12.4%. Pan European capital values rose, growing by 0.9%, despite capital values falling in the two biggest European markets. Income return in 2007 was slightly below that achieved in 2006, at 4.9%.

Because of the appreciation of the Euro against other European currencies, the total return in Euros in 2007, at 2.6% was lower than the returns in local currencies and main investor currencies. However,

the Eurozone return, which has historically been below that of the whole of Europe, was in 2007 higher at 9.9% compared to 2.6% in Euros and 5.9% in local currencies. European total returns were again highest when taken in US dollars because of the effect of exchange rate movements.



# All property returns in Euros

Total return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	6.8	7.4	6.1	~	7.1	6.4	~	~
Belgium	~	9.9	16.3	8.0	11.7	~	8.4	~	~
Denmark	212.8	10.2	13.1	11.3	10.5	2.5	15.1	11.7	11.4
Finland (KTI)	167.0	11.3	15.8	9.7	12.4	9.8	9.6	8.0	7.6
France	234.5	17.8	22.4	18.2	14.3	13.8	18.3	14.5	12.9
Germany	121.3	4.5	6.8	3.3	7.1	6.0	2.1	2.1	2.8
Ireland	241.0	9.9	9.2	10.6	9.7	~	20.2	16.8	13.4
Italy	~	9.2	9.7	9.1	9.0	~	8.7	9.0	~
Netherlands	193.2	11.3	13.4	11.3	11.7	9.6	11.3	9.8	9.9
Norway	235.4	22.3	22.1	22.7	13.3	~	18.4	11.8	13.0
Portugal	216.5	12.4	14.9	8.2	10.5	~	11.5	11.0	11.7
Spain	220.8	12.9	14.1	11.6	15.7	~	15.7	13.3	12.0
Sweden	161.3	9.8	13.4	9.6	10.9	7.0	12.9	9.2	7.1
Switzerland	~	4.2	7.0	4.0	3.7	3.1	3.7	3.0	~
UK	176.6	-11.4	-13.8	-8.7	-11.4	10.7	9.3	9.4	8.5
IPD Eurozone	161.4	9.9	12.8	9.2	11.8	9.8	8.6	7.2	7.1
All IPD Europe	164.7	2.6	-1.2	4.5	-3.7	7.6	9.0	7.7	7.4

Income return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	5.2	5.4	5.2	~	4.3	5.1	~	~
Belgium	~	5.9	5.6	5.9	6.9	~	6.0	~	~
Denmark	147.5	4.9	4.9	5.5	6.1	2.7	5.2	5.4	5.7
Finland (KTI)	159.4	6.4	6.7	6.2	8.0	5.7	6.7	6.8	6.9
France	150.8	5.4	5.6	5.8	6.6	3.5	5.7	6.0	6.0
Germany	139.3	4.7	5.7	4.6	7.3	3.4	4.6	4.7	4.8
Ireland	141.2	3.9	3.2	4.3	5.2	~	4.5	5.0	5.0
Italy	~	5.3	5.4	4.9	7.0	~	5.5	5.7	~
Netherlands	148.6	5.2	6.1	6.4	7.5	3.7	5.5	5.7	5.8
Norway	163.0	5.8	6.0	5.7	6.1	~	6.6	7.0	7.2
Portugal	159.4	6.1	6.1	5.5	7.2	~	6.4	6.6	6.9
Spain	147.5	4.8	5.5	5.4	6.5	~	5.4	5.7	5.7
Sweden	145.5	4.8	5.0	4.9	5.9	3.2	5.1	5.4	5.5
Switzerland	~	4.8	4.8	4.8	6.5	4.6	4.9	4.9	~
UK	149.5	4.6	4.4	4.5	5.3	3.1	5.1	5.6	5.9
IPD Eurozone	145.1	5.1	5.7	5.3	6.9	3.6	5.3	5.4	5.5
All IPD Europe	146.4	4.9	5.0	5.0	5.9	3.8	5.2	5.4	5.6

Capital growth % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	1.6	1.9	0.9	~	2.7	1.2	~	~
Belgium	~	3.8	10.2	2.0	4.5	~	2.3	~	~
Denmark	144.5	5.0	7.8	5.5	4.2	-0.2	9.4	6.0	5.4
Finland (KTI)	104.8	4.6	8.5	3.3	4.1	3.8	2.7	1.1	0.7
France	155.9	11.8	15.9	11.8	7.3	10.0	12.0	8.1	6.5
Germany	87.0	-0.2	1.1	-1.3	-0.2	2.5	-2.4	-2.5	-2.0
Ireland	171.1	5.8	5.9	6.1	4.3	~	15.1	11.3	8.0
Italy	~	3.8	4.1	3.9	1.9	~	3.0	3.1	~
Netherlands	130.2	5.8	6.8	4.6	3.9	5.7	5.5	3.9	3.8
Norway	144.7	15.7	15.2	16.2	6.8	~	11.2	4.5	5.4
Portugal	136.0	6.0	8.4	2.6	3.0	~	4.8	4.1	4.5
Spain	150.0	7.7	8.2	5.9	8.7	~	9.9	7.3	6.0
Sweden	110.9	4.8	8.0	4.5	4.8	3.7	7.5	3.7	1.5
Switzerland	~	-0.6	2.1	-0.8	-2.7	-1.5	-1.1	-1.8	~
UK	118.2	-15.3	-17.6	-12.7	-16.0	7.5	4.1	3.6	2.4
IPD Eurozone	111.2	4.6	6.8	3.8	4.6	6.0	3.2	1.8	1.5
All IPD Europe	112.5	-2.3	-5.9	-0.5	-9.1	3.6	3.6	2.2	1.7

# All property returns in Pounds Sterling

Total return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	16.4	17.1	15.7	~	16.8	7.7	~	~
Belgium	~	19.8	26.7	17.7	21.8	~	9.7	~	~
Denmark	248.6	20.1	23.2	21.4	20.4	11.7	16.5	14.4	13.9
Finland (KTI)	195.3	21.3	26.2	19.6	22.6	19.7	11.0	10.7	10.0
France	274.0	28.4	33.4	28.8	24.6	24.1	19.8	17.3	15.5
Germany	141.8	13.9	16.4	12.6	16.8	15.6	3.4	4.5	5.1
Ireland	281.9	19.8	19.1	20.5	19.6	~	21.8	19.7	16.0
Italy	~	19.1	19.6	18.9	18.8	~	10.0	11.7	~
Netherlands	225.4	21.3	23.6	21.3	21.7	19.5	12.7	12.4	12.3
Norway	275.0	33.3	33.0	33.8	23.5	~	19.9	14.5	15.6
Portugal	253.0	22.6	25.3	18.0	20.4	~	12.9	13.6	14.2
Spain	258.0	23.0	24.4	21.7	26.2	~	17.1	16.0	14.5
Sweden	188.5	19.6	23.6	19.4	20.9	16.6	14.3	11.9	9.5
Switzerland	~	13.6	16.6	13.3	13.0	12.4	5.0	5.5	~
UK	208.6	-3.4	-6.1	-0.5	-3.5	20.5	10.8	12.2	11.1
<i>IPD Eurozone</i>	<i>188.6</i>	<i>19.8</i>	<i>23.0</i>	<i>19.0</i>	<i>21.8</i>	<i>19.7</i>	<i>9.9</i>	<i>9.8</i>	<i>9.5</i>
<i>All IPD Europe</i>	<i>192.4</i>	<i>11.8</i>	<i>7.7</i>	<i>13.9</i>	<i>4.9</i>	<i>17.2</i>	<i>10.3</i>	<i>10.3</i>	<i>9.8</i>

Income return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	5.2	5.4	5.3	~	4.4	5.2	~	~
Belgium	~	5.9	5.6	5.9	7.0	~	6.0	~	~
Denmark	147.6	4.9	4.9	5.6	6.2	2.7	5.2	5.4	5.7
Finland (KTI)	160.1	6.5	6.8	6.3	8.2	5.8	6.8	6.9	7.0
France	150.9	5.4	5.7	5.8	6.7	3.5	5.7	6.0	6.1
Germany	139.4	4.7	5.8	4.7	7.3	3.5	4.6	4.7	4.9
Ireland	141.3	3.9	3.2	4.3	5.2	~	4.5	5.0	5.1
Italy	~	5.3	5.4	5.0	7.0	~	5.5	5.7	~
Netherlands	148.7	5.3	6.2	6.4	7.5	3.7	5.5	5.7	5.8
Norway	163.1	5.9	6.1	5.7	6.2	~	6.6	7.0	7.2
Portugal	159.6	6.2	6.1	5.6	7.3	~	6.4	6.6	6.9
Spain	147.6	4.8	5.5	5.4	6.5	~	5.4	5.7	5.7
Sweden	145.6	4.8	5.0	5.0	5.9	3.2	5.1	5.4	5.5
Switzerland	~	4.8	4.8	4.8	6.5	4.7	4.9	4.9	~
UK	150.1	4.6	4.5	4.5	5.4	3.0	5.1	5.6	6.0
<i>IPD Eurozone</i>	<i>145.2</i>	<i>5.2</i>	<i>5.7</i>	<i>5.3</i>	<i>7.0</i>	<i>3.6</i>	<i>5.3</i>	<i>5.4</i>	<i>5.5</i>
<i>All IPD Europe</i>	<i>146.6</i>	<i>5.0</i>	<i>5.0</i>	<i>5.1</i>	<i>5.9</i>	<i>3.9</i>	<i>5.2</i>	<i>5.4</i>	<i>5.6</i>

Capital growth % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	10.7	11.1	10.0	~	11.9	2.4	~	~
Belgium	~	13.1	20.1	11.1	13.9	~	3.6	~	~
Denmark	168.9	14.5	17.5	15.0	13.5	8.7	10.8	8.5	7.8
Finland (KTI)	122.2	14.0	18.3	12.6	13.4	13.1	3.9	3.5	2.9
France	182.1	21.9	26.4	21.8	16.9	19.9	13.3	10.7	8.9
Germany	101.7	8.8	10.2	7.6	8.8	11.8	-1.2	-0.2	0.2
Ireland	200.1	15.3	15.4	15.6	13.7	~	16.5	14.0	10.4
Italy	~	13.1	13.5	13.3	11.1	~	4.3	5.6	~
Netherlands	151.9	15.3	16.5	14.0	13.3	15.2	6.8	6.3	6.2
Norway	169.1	26.1	25.6	26.7	16.5	~	12.6	7.0	7.8
Portugal	158.9	15.5	18.1	11.8	12.3	~	6.1	6.6	6.8
Spain	175.2	17.4	18.0	15.5	18.5	~	11.2	9.9	8.3
Sweden	129.6	14.2	17.8	13.9	14.2	13.1	8.8	6.2	3.8
Switzerland	~	8.4	11.3	8.2	6.1	7.4	0.1	0.6	~
UK	139.2	-7.7	-10.1	-4.8	-8.4	17.0	5.4	6.3	4.8
<i>IPD Eurozone</i>	<i>130.0</i>	<i>14.0</i>	<i>16.4</i>	<i>13.1</i>	<i>14.0</i>	<i>15.6</i>	<i>4.4</i>	<i>4.2</i>	<i>3.8</i>
<i>All IPD Europe</i>	<i>131.5</i>	<i>6.5</i>	<i>2.6</i>	<i>8.5</i>	<i>-0.9</i>	<i>12.9</i>	<i>4.9</i>	<i>4.7</i>	<i>4.0</i>

# All property returns in US Dollars

Total return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	18.4	19.1	17.7	~	18.8	9.0	~	~
Belgium	~	21.8	28.9	19.7	23.8	~	11.1	~	~
Denmark	331.2	22.1	25.3	23.4	22.4	13.6	17.9	19.3	18.7
Finland (KTI)	260.2	23.4	28.4	21.6	24.7	21.7	12.3	15.4	14.6
France	365.1	30.6	35.7	31.0	26.8	26.2	21.2	22.4	20.3
Germany	188.9	15.8	18.4	14.5	18.8	17.6	4.7	9.1	9.5
Ireland	375.5	21.8	21.1	22.6	21.6	~	23.2	24.9	20.8
Italy	~	21.1	21.6	20.9	20.9	~	11.4	16.5	~
Netherlands	300.3	23.4	25.7	23.4	23.8	21.5	14.0	17.3	17.0
Norway	366.4	35.6	35.3	36.1	25.7	~	21.3	19.4	20.4
Portugal	337.0	24.7	27.4	20.0	22.5	~	14.3	18.6	19.0
Spain	343.7	25.1	26.5	23.7	28.3	~	18.5	21.1	19.3
Sweden	251.1	21.7	25.7	21.5	22.9	18.6	15.7	16.7	14.1
Switzerland	~	15.5	18.6	15.3	14.9	14.3	6.2	10.1	~
UK	274.9	-1.8	-4.5	1.2	-1.8	22.8	12.0	16.9	15.5
IPD Eurozone	251.3	21.9	25.1	21.1	23.9	21.7	11.2	14.6	14.1
All IPD Europe	256.4	13.7	9.6	15.9	6.7	19.2	11.6	15.1	14.4

Income return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	5.2	5.4	5.3	~	4.4	5.2	~	~
Belgium	~	5.9	5.6	6.0	7.0	~	6.0	~	~
Denmark	147.8	4.9	4.9	5.6	6.2	2.7	5.2	5.5	5.7
Finland (KTI)	160.3	6.5	6.8	6.3	8.2	5.8	6.8	6.9	7.0
France	151.1	5.4	5.7	5.8	6.7	3.5	5.8	6.0	6.1
Germany	139.6	4.7	5.8	4.7	7.3	3.5	4.6	4.7	4.9
Ireland	141.4	3.9	3.2	4.3	5.3	~	4.5	5.0	5.1
Italy	~	5.3	5.4	5.0	7.1	~	5.5	5.8	~
Netherlands	148.9	5.3	6.2	6.4	7.5	3.7	5.5	5.7	5.8
Norway	163.4	5.9	6.1	5.8	6.2	~	6.6	7.0	7.3
Portugal	159.8	6.2	6.1	5.6	7.3	~	6.4	6.7	6.9
Spain	147.8	4.8	5.5	5.4	6.5	~	5.4	5.7	5.7
Sweden	145.8	4.8	5.0	5.0	5.9	3.2	5.1	5.4	5.5
Switzerland	~	4.8	4.8	4.8	6.5	4.7	4.9	4.9	~
UK	149.8	4.6	4.5	4.5	5.4	3.1	5.1	5.6	5.9
IPD Eurozone	145.4	5.2	5.7	5.3	7.0	3.6	5.3	5.4	5.5
All IPD Europe	146.8	5.0	5.0	5.1	5.9	3.9	5.2	5.5	5.6

Capital growth % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	12.6	13.0	11.9	~	13.9	3.6	~	~
Belgium	~	15.1	22.1	13.0	15.8	~	4.8	~	~
Denmark	225.0	16.4	19.5	17.0	15.4	10.6	12.1	13.2	12.3
Finland (KTI)	162.7	15.9	20.3	14.5	15.4	15.1	5.2	8.0	7.2
France	242.7	24.0	28.5	23.9	18.9	21.9	14.7	15.5	13.5
Germany	135.5	10.7	12.0	9.5	10.7	13.7	0.0	4.2	4.4
Ireland	266.6	17.3	17.4	17.6	15.6	~	17.9	19.0	15.0
Italy	~	15.1	15.4	15.3	13.0	~	5.6	10.2	~
Netherlands	202.4	17.3	18.4	16.0	15.2	17.2	8.1	10.9	10.6
Norway	225.3	28.2	27.7	28.8	18.5	~	13.9	11.7	12.3
Portugal	211.8	17.5	20.2	13.7	14.2	~	7.4	11.2	11.3
Spain	233.5	19.4	20.0	17.5	20.6	~	12.6	14.6	12.9
Sweden	172.7	16.2	19.8	15.8	16.2	15.0	10.1	10.8	8.1
Switzerland	~	10.3	13.2	10.0	7.9	9.2	1.3	4.9	~
UK	184.1	-6.1	-8.6	-3.2	-6.9	19.2	6.6	10.7	9.1
IPD Eurozone	173.2	15.9	18.4	15.0	15.9	17.6	5.7	8.8	8.2
All IPD Europe	175.2	8.4	4.3	10.3	0.8	14.9	6.2	9.2	8.3

# All property returns in YEN

Total return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	11.0	11.6	10.3	~	11.4	12.1	~	~
Belgium	~	14.2	20.8	12.2	16.1	~	14.3	~	~
Denmark	323.1	14.5	17.5	15.7	14.8	6.5	21.3	17.9	18.2
Finland (KTI)	253.8	15.6	20.4	14.0	16.9	14.1	15.5	14.0	14.2
France	356.2	22.4	27.2	22.8	18.8	18.3	24.7	20.9	19.9
Germany	184.3	8.6	11.0	7.4	11.3	10.2	7.7	7.7	9.1
Ireland	366.3	14.2	13.5	14.9	14.0	~	26.8	23.3	20.4
Italy	~	13.5	14.0	13.3	13.3	~	14.6	15.1	~
Netherlands	292.9	15.6	17.8	15.6	16.0	13.9	17.3	15.8	16.6
Norway	357.5	27.1	26.8	27.6	17.8	~	24.8	17.9	20.0
Portugal	328.8	16.8	19.4	12.5	14.8	~	17.5	17.1	18.5
Spain	335.3	17.3	18.6	16.0	20.3	~	21.9	19.6	18.9
Sweden	245.0	14.1	17.8	13.9	15.2	11.2	19.0	15.3	13.7
Switzerland	~	8.3	11.2	8.1	7.7	7.1	9.3	8.7	~
UK	268.2	-7.9	-10.5	-5.1	-8.0	15.1	15.2	15.4	15.1
IPD Eurozone	245.1	14.2	17.2	13.5	16.2	14.1	14.4	13.2	13.7
All IPD Europe	268.7	6.6	2.7	8.6	0.0	11.8	14.8	13.7	15.2

Income return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	5.2	5.4	5.2	~	4.4	5.2	~	~
Belgium	~	5.9	5.6	5.9	7.0	~	6.0	~	~
Denmark	147.8	4.9	4.9	5.5	6.1	2.7	5.2	5.5	5.7
Finland (KTI)	160.3	6.5	6.8	6.3	8.1	5.8	6.8	6.9	7.0
France	151.1	5.4	5.6	5.8	6.7	3.5	5.8	6.0	6.1
Germany	139.5	4.7	5.7	4.6	7.3	3.4	4.7	4.7	4.9
Ireland	141.4	3.9	3.2	4.3	5.2	~	4.6	5.0	5.1
Italy	~	5.3	5.4	5.0	7.0	~	5.5	5.8	~
Netherlands	148.8	5.2	6.2	6.4	7.5	3.7	5.5	5.7	5.8
Norway	163.4	5.8	6.0	5.7	6.1	~	6.6	7.0	7.3
Portugal	159.8	6.1	6.1	5.5	7.3	~	6.4	6.7	6.9
Spain	147.8	4.8	5.5	5.4	6.5	~	5.4	5.7	5.7
Sweden	145.8	4.8	5.0	4.9	5.9	3.2	5.1	5.4	5.5
Switzerland	~	4.8	4.8	4.8	6.5	4.6	4.9	4.9	~
UK	149.8	4.6	4.4	4.5	5.4	3.1	5.1	5.6	5.9
IPD Eurozone	145.4	5.2	5.7	5.3	7.0	3.6	5.3	5.4	5.5
All IPD Europe	146.8	4.9	5.0	5.0	5.9	3.8	5.2	5.4	5.6

Capital growth % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	5.5	5.9	4.8	~	6.7	6.6	~	~
Belgium	~	7.8	14.5	6.0	8.6	~	7.8	~	~
Denmark	219.5	9.1	12.0	9.7	8.2	3.7	15.3	11.8	11.9
Finland (KTI)	158.8	8.7	12.8	7.3	8.1	7.9	8.2	6.7	6.8
France	236.7	16.2	20.5	16.1	11.5	14.3	18.0	14.1	13.1
Germany	132.2	3.7	5.0	2.6	3.8	6.6	2.9	2.9	4.1
Ireland	260.0	10.0	10.0	10.2	8.4	~	21.3	17.5	14.6
Italy	~	7.8	8.2	8.0	5.9	~	8.6	8.9	~
Netherlands	197.4	9.9	11.0	8.7	8.0	9.9	11.2	9.6	10.2
Norway	219.8	20.2	19.7	20.8	11.0	~	17.2	10.3	11.9
Portugal	206.6	10.2	12.6	6.6	7.1	~	10.5	9.8	10.9
Spain	227.8	12.0	12.5	10.1	13.0	~	15.8	13.2	12.5
Sweden	168.4	8.9	12.3	8.5	8.9	7.8	13.3	9.4	7.7
Switzerland	~	3.3	6.1	3.1	1.2	2.4	4.2	3.6	~
UK	179.6	-12.0	-14.3	-9.2	-12.7	11.7	9.7	9.3	8.7
IPD Eurozone	169.0	8.7	10.9	7.8	8.7	10.2	8.7	7.4	7.8
All IPD Europe	183.6	1.6	-2.2	3.4	-5.5	7.7	9.2	7.9	9.1

# All property returns in Local currencies

(All Europe returns without currency effects)

Total return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	6.8	7.4	6.1	~	7.1	6.4	~	~
Belgium	~	9.9	16.3	8.0	11.7	~	8.4	~	~
Denmark	212.6	10.2	13.1	11.4	10.5	2.5	15.2	11.8	11.4
Finland (KTI)	167.0	11.3	15.8	9.7	12.4	9.8	9.6	8.0	7.6
France	234.5	17.8	22.4	18.2	14.3	13.8	18.3	14.5	12.9
Germany	121.3	4.5	6.8	3.3	7.1	6.0	2.1	2.1	2.8
Ireland	241.0	9.9	9.2	10.6	9.7	~	20.2	16.8	13.4
Italy	~	9.2	9.7	9.1	9.0	~	8.7	9.0	~
Netherlands	193.2	11.3	13.4	11.3	11.7	9.6	11.3	9.8	9.9
Norway	225.7	18.3	18.0	18.7	9.6	~	17.0	13.7	12.3
Portugal	216.5	12.4	14.9	8.2	10.5	~	11.5	11.0	11.7
Spain	220.8	12.9	14.1	11.6	15.7	~	15.7	13.3	12.0
Sweden	172.1	14.9	18.7	14.7	16.1	12.0	14.6	10.0	8.1
Switzerland	~	7.1	10.0	6.9	6.6	6.0	6.1	5.8	~
UK	208.6	-3.4	-6.1	-0.5	-3.5	20.5	10.8	12.2	11.1
<i>IPD Eurozone</i>	<i>161.4</i>	<i>9.9</i>	<i>12.8</i>	<i>9.2</i>	<i>11.8</i>	<i>9.8</i>	<i>8.6</i>	<i>7.2</i>	<i>7.1</i>
<i>All IPD Europe</i>	<i>174.5</i>	<i>5.9</i>	<i>3.5</i>	<i>7.4</i>	<i>1.9</i>	<i>8.7</i>	<i>9.6</i>	<i>8.8</i>	<i>8.3</i>

Income return % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	5.2	5.4	5.2	~	4.3	5.1	~	~
Belgium	~	5.9	5.6	5.9	6.9	~	6.0	~	~
Denmark	147.5	4.9	4.9	5.5	6.1	2.7	5.2	5.4	5.7
Finland (KTI)	159.4	6.4	6.7	6.2	8.0	5.7	6.7	6.8	6.9
France	150.8	5.4	5.6	5.8	6.6	3.5	5.7	6.0	6.0
Germany	139.3	4.7	5.7	4.6	7.3	3.4	4.6	4.7	4.8
Ireland	141.2	3.9	3.2	4.3	5.2	~	4.5	5.0	5.0
Italy	~	5.3	5.4	4.9	7.0	~	5.5	5.7	~
Netherlands	148.6	5.2	6.1	6.4	7.5	3.7	5.5	5.7	5.8
Norway	162.9	5.8	6.0	5.7	6.1	~	6.6	7.0	7.2
Portugal	159.4	6.1	6.1	5.5	7.2	~	6.4	6.6	6.9
Spain	147.5	4.8	5.5	5.4	6.5	~	5.4	5.7	5.7
Sweden	145.5	4.8	5.0	4.9	5.9	3.2	5.1	5.4	5.5
Switzerland	~	4.8	4.8	4.8	6.5	4.6	4.9	4.9	~
UK	150.1	4.6	4.5	4.5	5.4	3.0	5.1	5.6	6.0
<i>IPD Eurozone</i>	<i>145.1</i>	<i>5.1</i>	<i>5.7</i>	<i>5.3</i>	<i>6.9</i>	<i>3.6</i>	<i>5.3</i>	<i>5.4</i>	<i>5.5</i>
<i>All IPD Europe</i>	<i>146.4</i>	<i>4.9</i>	<i>5.0</i>	<i>5.1</i>	<i>5.9</i>	<i>3.8</i>	<i>5.2</i>	<i>5.4</i>	<i>5.6</i>

Capital growth % pa	Index 2000 = 100	All property 1 year	Retail 1 year	Office 1 year	Industrial 1 year	Residential 1 year	All property Annualised over:		
							3 years	5 years	7 years
Austria	~	1.6	1.9	0.9	~	2.7	1.2	~	~
Belgium	~	3.8	10.2	2.0	4.5	~	2.3	~	~
Denmark	144.4	5.1	7.8	5.6	4.2	-0.2	9.5	6.1	5.4
Finland (KTI)	104.8	4.6	8.5	3.3	4.1	3.8	2.7	1.1	0.7
France	155.9	11.8	15.9	11.8	7.3	10.0	12.0	8.1	6.5
Germany	87.0	-0.2	1.1	-1.3	-0.2	2.5	-2.4	-2.5	-2.0
Ireland	171.1	5.8	5.9	6.1	4.3	~	15.1	11.3	8.0
Italy	~	3.8	4.1	3.9	1.9	~	3.0	3.1	~
Netherlands	130.2	5.8	6.8	4.6	3.9	5.7	5.5	3.9	3.8
Norway	138.8	11.8	11.4	12.3	3.3	~	9.9	6.4	4.8
Portugal	136.0	6.0	8.4	2.6	3.0	~	4.8	4.1	4.5
Spain	150.0	7.7	8.2	5.9	8.7	~	9.9	7.3	6.0
Sweden	118.3	9.7	13.1	9.4	9.7	8.6	9.1	4.3	2.4
Switzerland	~	2.3	5.0	2.0	0.1	1.3	1.2	0.8	~
UK	139.2	-7.7	-10.1	-4.8	-8.4	17.0	5.4	6.3	4.8
<i>IPD Eurozone</i>	<i>111.2</i>	<i>4.6</i>	<i>6.8</i>	<i>3.8</i>	<i>4.6</i>	<i>6.0</i>	<i>3.2</i>	<i>1.8</i>	<i>1.5</i>
<i>All IPD Europe</i>	<i>119.3</i>	<i>0.9</i>	<i>-1.5</i>	<i>2.2</i>	<i>-3.8</i>	<i>4.7</i>	<i>4.2</i>	<i>3.2</i>	<i>2.5</i>

# Technical note

## Constructing the IPD Pan-European Property Index

This note explains the methodology adopted in constructing the Pan European Property Index. There are four fundamental stages in calculating the aggregate IPD Pan European Property Index returns.

These involve:

- Deriving monthly components of total return, market by market
- Multiplying the components of returns to the estimated value of the investment market in each country
- Converting re-weighted local currency data to a common currency
- Calculating monthly and annual composite returns for all 15 markets and key sub-groups

### Deriving monthly components of total return

The IPD databank provides the five components on a monthly basis for each country necessary to calculate a time weighted annual total return:

- Start-month capital values
- End-month capital values
- Total capital expenditure
- Total capital receipts
- Net income receivable

Generating these components requires interpolation across varying cash flow reporting and valuation regimes depending upon local market practice. This process is normally performed at asset level, but where confidentiality rules preclude this approach, detailed segment level components can be used. For data on the Finnish market where IPD has no operational right of access to asset level data, this segment level approach has been proved to be of sufficient accuracy.

### Multiplying the components of returns to the estimated value of the investment market in each country

The components of total return are adjusted to reflect the total value of professionally managed funds in each country's investment market. This ensures that the weight of each country within the index is consistent with the relative values of all the funds known to hold assets in that territory (rather than just the ones IPD measures), and is based upon the best evidence of overall professionally managed investment market sizes.

### Definition of estimated total market size

IPD estimates the size of each national property investment market by identifying and aggregating the best available approximation of the unleveraged total value of each of the professionally managed direct real estate portfolios invested in each market. IPD's current coverage of each market is then combined with this overall market size estimate to re-weight that market's contribution to all the composites of the Pan European Index. This ensures that the weight of each country within the Index is consistent with the relative values of the contributing funds internationally. The estimate of the overall market size is compiled using multiple sources.

Professionally-managed funds include:

- Segregated life and pension funds
- Unlisted pooled funds, both open and closed ended, and other similar unlisted collective investment fund structures
- Traditional estates and charities
- Listed property companies and real estate investment trusts (REITs)
- Unlisted property companies
- Investments held in funds managed outside each national market, but falling into one of the above categories.

Professionally-managed funds do not, for the purposes of this analysis, include:

- Small private landlords
- Owner-occupied property portfolios
- Private equity or PFI funds where investors own the operating business as well as the property (e.g. pubs, hotels, hospitals)
- Mortgages and property assets of leasing companies
- Municipal housing

The component national markets at end-2007 and their estimated total market sizes are listed in Table 1.

The estimated total value of the European market is shown in Table 1 in euros and dollars, the applied weights for all property and the sectors can be seen in Table 2.

The ratio between the size of the IPD databank and the estimated market size is the multiplier used on the components of total return.

The number of funds contributing to IPD indices typically grows over time. Any current estimate of market coverage will not be applicable to earlier years and therefore it is necessary to use larger reweighting coefficients in those earlier years to offset their inevitably smaller and less representative coverage ratios.

Market coverage in earlier years is thus derived by applying index capital growth rates backwards from the most recent year's estimate of investment market size, in this case 2007.

### Calculating monthly and annual returns

In 2004 the IPD method of calculating annual returns was standardised for all reporting worldwide upon a single monthly time-weighted method, replacing the old

**Table 1: Databank profiles and estimated market sizes – end-2007**

	Number of funds	IPD Databank number of properties	IPD Databank capital value (€bn)	Total market size estimate (€bn)	IPD Databank capital value (\$bn)	Total market size estimate (\$bn)	IPD coverage, end-2007 (%)
Austria	18	932	8.2	17.7	12.0	25.8	46%
Belgium	24	292	6.0	37.0	8.8	53.9	16%
Denmark	21	1,036	13.6	28.3	19.8	41.2	48%
Finland (KTI)	35	2,697	19.1	28.8	27.8	42.0	66%
France	57	6,929	108.3	203.3	158.0	296.6	53%
Germany	51	3,901	44.5	277.6	64.9	405.0	16%
Ireland	12	324	5.9	7.6	8.6	11.1	78%
Italy	45	1,225	17.0	65.2	24.8	95.1	26%
Netherlands	43	5,020	44.9	86.4	65.5	126.0	52%
Norway	14	542	14.2	32.1	20.7	46.8	44%
Portugal	26	671	9.2	13.8	13.4	20.1	67%
Spain	24	553	16.5	34.3	24.1	50.1	48%
Sweden	15	1,113	24.6	84.4	35.9	123.1	29%
Switzerland	27	3,466	30.3	97.2	44.2	141.7	31%
UK	287	12,234	250.2	411.3	364.7	599.9	61%
All IPD Eurozone	335	22,544	279.6	771.7	408.0	1,125.8	36%
All IPD Europe	699	40,935	612.4	1,424.8	893.3	2,078.6	43%

# Methodology

annual money-weighted calculation used in some countries.

**Advantages of time-weighted returns:** Time weighted return computation ensures comparability with other asset classes, and helps meet client demands for more frequent and flexible reporting based on quarterly or half-yearly valuations. They also conform to international standards, in particular the Global Investment Performance Standard (GIPS) for real estate.

**Calculating time-weighted returns:** Annual total returns are computed in two stages. Returns are first calculated for each individual month and then compounded over the twelve months (or other period) for which the return is required.

The return formula is simplified to assume that capital expenditure takes place at the start of the month, while capital receipts and income are receivable at the end of the month.

**Capital growth and income return:** The capital growth and income return components are computed in the same way as total return, and so for periods of more than one month are derived by chain-linking monthly measures. Therefore, for periods longer than one month they may not sum exactly to total return.

### Converting the local currency indices into common currencies

The start- and end-month capital values, monthly net income, capital expenditure and receipt figures used in these time weighted calculations are all converted into common currencies at the month end. Currency conversion has an impact on local market returns as changes in values from one month to the next are partly the result of fluctuations in cross-currency exchange

rates in addition to local property market factors.

The composite Pan-European Property Index return, when computed and reported in local currencies, is calculated by converting all markets to the same currency but at a fixed rate over time to remove the impact of exchange rate movement.

### Other factors affecting the calculation of returns

In this publication, local currency returns are shown for all countries as they are published by IPD and KTI. However, returns in other currencies, and in all composite calculations, may be affected by currency conversion as well as slightly different ways of calculating time weighted returns including the use of unfrozen data series (UK and several other IPD markets) as the basis for computing returns.

These adjustments have been introduced to ensure consistency of the computation and

aggregation across all subdivisions of the index. None of the differences shift the results by more than 20 basis points in any one year. In periods of single figure returns, the differences drop to 2 or 3 basis points.

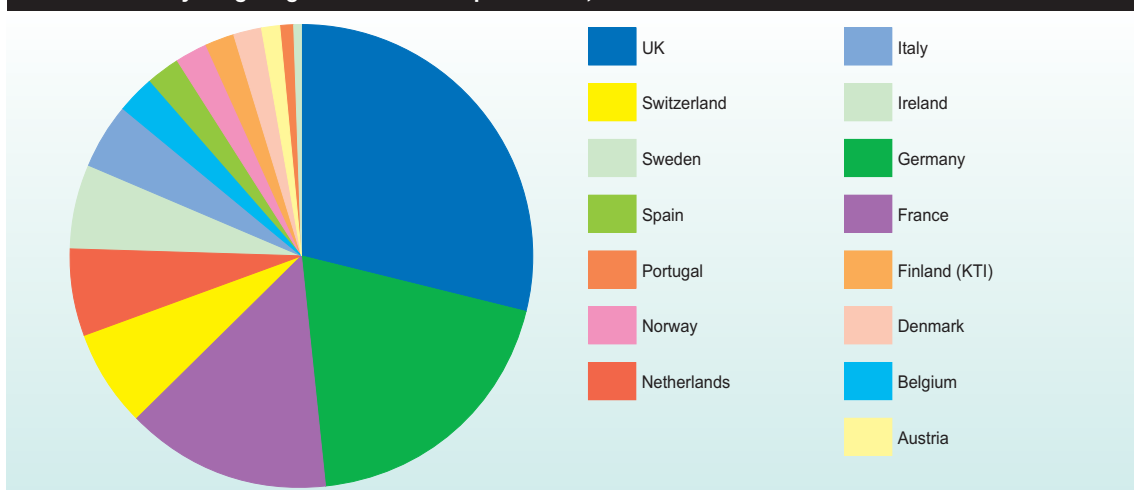
### Extending the model to the main market sectors

The composite sector returns are computed in the same way as the all property returns, applying the same multipliers. Because of the different proportions in each sector across countries, the rebalanced weights across countries will be different for each sector. In 2008 for the first time the IPD Pan-European Index differentiates between the industrial and other sectors.

**Table 2: Country weightings by sector, % end 2007**

	Retail	Office	Industrial	Residential	All property
Austria	1.2	1.2	0.2	1.5	1.2
Belgium	2.0	3.9	2.0	0.7	2.6
Denmark	1.7	2.5	0.5	2.8	2.0
Finland (KTI)	1.5	2.3	2.2	2.6	2.0
France	9.2	18.0	15.2	18.0	14.3
Germany	12.3	20.9	4.9	17.2	19.5
Ireland	0.8	0.6	0.6	0.0	0.5
Italy	5.5	4.9	7.1	0.8	4.6
Netherlands	6.4	3.0	2.1	21.1	6.1
Norway	2.0	2.9	1.8	0.2	2.2
Portugal	1.8	0.5	1.1	0.1	1.0
Spain	3.6	1.5	1.8	4.1	2.4
Sweden	3.0	9.6	1.0	4.4	5.9
Switzerland	4.6	3.6	1.0	25.9	6.8
UK	44.6	24.5	58.6	0.6	28.9
All IPD Eurozone	44.2	56.9	37.1	66.1	54.2
All IPD Europe	100.0	100.0	100.0	100.0	100.0

**Chart 1: Country weightings in the Pan European Index, 2007**





### Step 1: Monthly total return

$$TR_t = \frac{(CV_t - CV_{(t-1)} - CExp_t + CRpt_t + NI_t)}{(CV_{(t-1)} + CExp_t)} * 100$$

**Where:**

TR<sub>t</sub> = monthly total return in month t  
 CV<sub>t</sub> = capital value at the end of month t  
 CExp<sub>t</sub> = total capital expenditure (includes purchases and developments) in month t

CRpt<sub>t</sub> = total capital receipts (includes sales) in month t  
 NI<sub>t</sub> = day-dated rent receivable during month t, net of property management costs, ground rent and other irrecoverable expenditure

### Step 2: Index values

Construct an index from the monthly values

$$\text{Index}_{t+1} = 100 * \frac{(1+TR_{t+1})}{100}$$

**Where:**

TR<sub>t+1</sub> = total return in month t+1 expressed as a decimal  
 Index value at time t = 100

### Step 3: Time-weighted annual return

The 12-month total return is then calculated as the percentage change in the index (X<sub>t</sub>) over the relevant 12 months.

$$\text{12-month total return} = [ ( X_{(t + 12)} / X_t ) - 1 ] * 100$$

For a full account of our current return calculation methods, please refer to the IPD Index guide: [www.ipd.com/indexguide](http://www.ipd.com/indexguide)

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