

# **Monitoring, Managing & Mitigating Property “*Market Risk*”**

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# Introduction

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- **An approach for property practitioners to establish when the property cycle reaches bubble territory and a tool to mitigate market risk**
- **Explores CRE Market Cycles and addresses the following 4 Key Questions:**
  - 1. Can we determine if Commercial Real Estate markets are over- or under-valued by examining current market index levels against long term trends?**
  - 2. If so, how predictive has the approach been of subsequent market corrections?**
  - 3. Are UK markets currently over or under valued using this analysis?**
  - 4. How can investors mitigate property market risk?**

# Potential Users & Uses of the Model

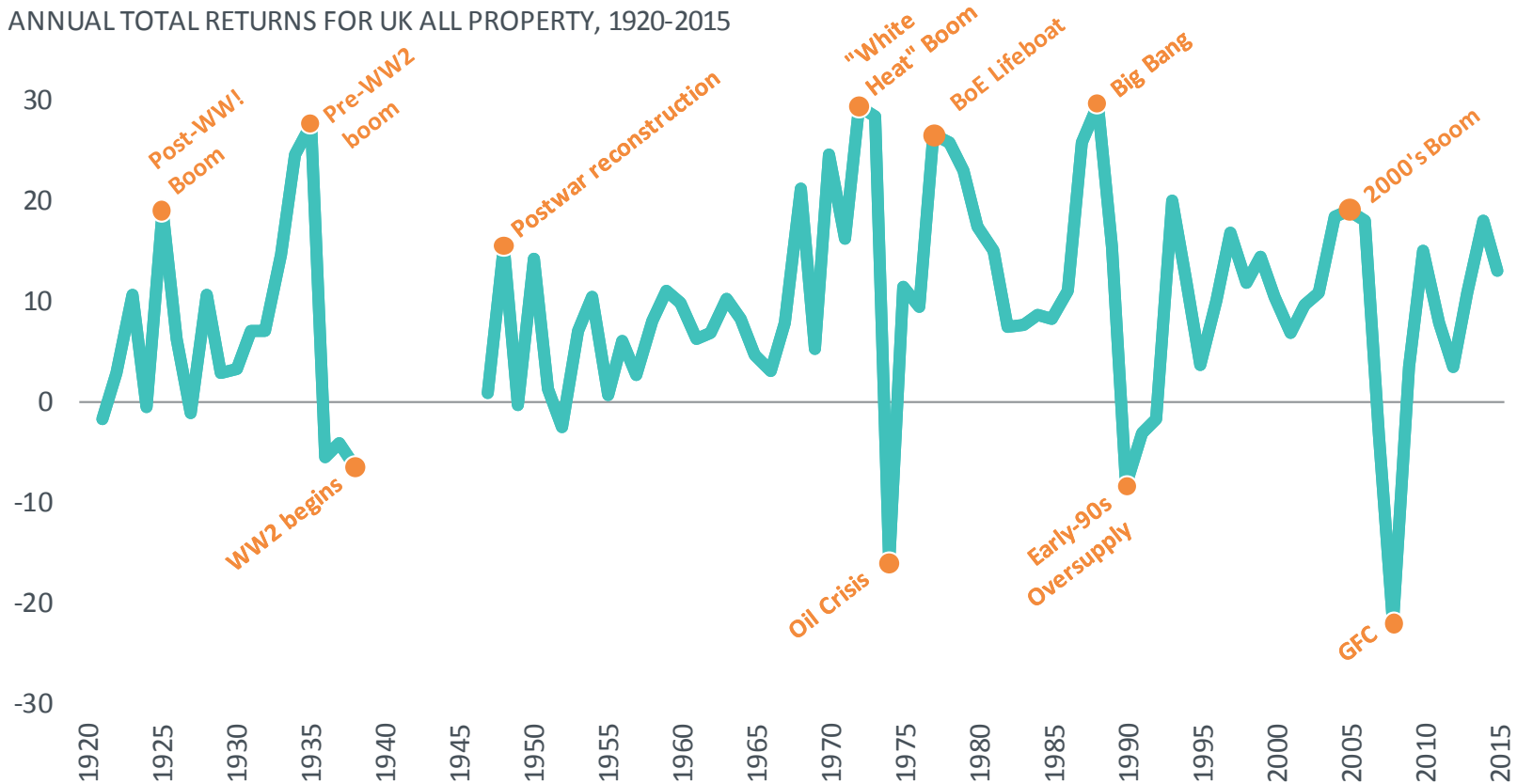
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<b>Users</b>	<b>Uses</b>
Regulators	Flag and monitor bubbles
Lenders	Flag when to slow down lending volumes or increase LTV ratios
Investors	Indicating periods of risk on / risk off through the cycle
Practitioners	A guide as to where we are in the CRE cycle

# UK Property Market Cycles since 1920

## ANNOTATED UK ALL PROPERTY TOTAL RETURN HISTORY

ANNUAL TOTAL RETURNS FOR UK ALL PROPERTY, 1920-2015



Source: Scott (1920-70); MSCI/IPD (1971-2015)

# Real Capital Returns - Analysis

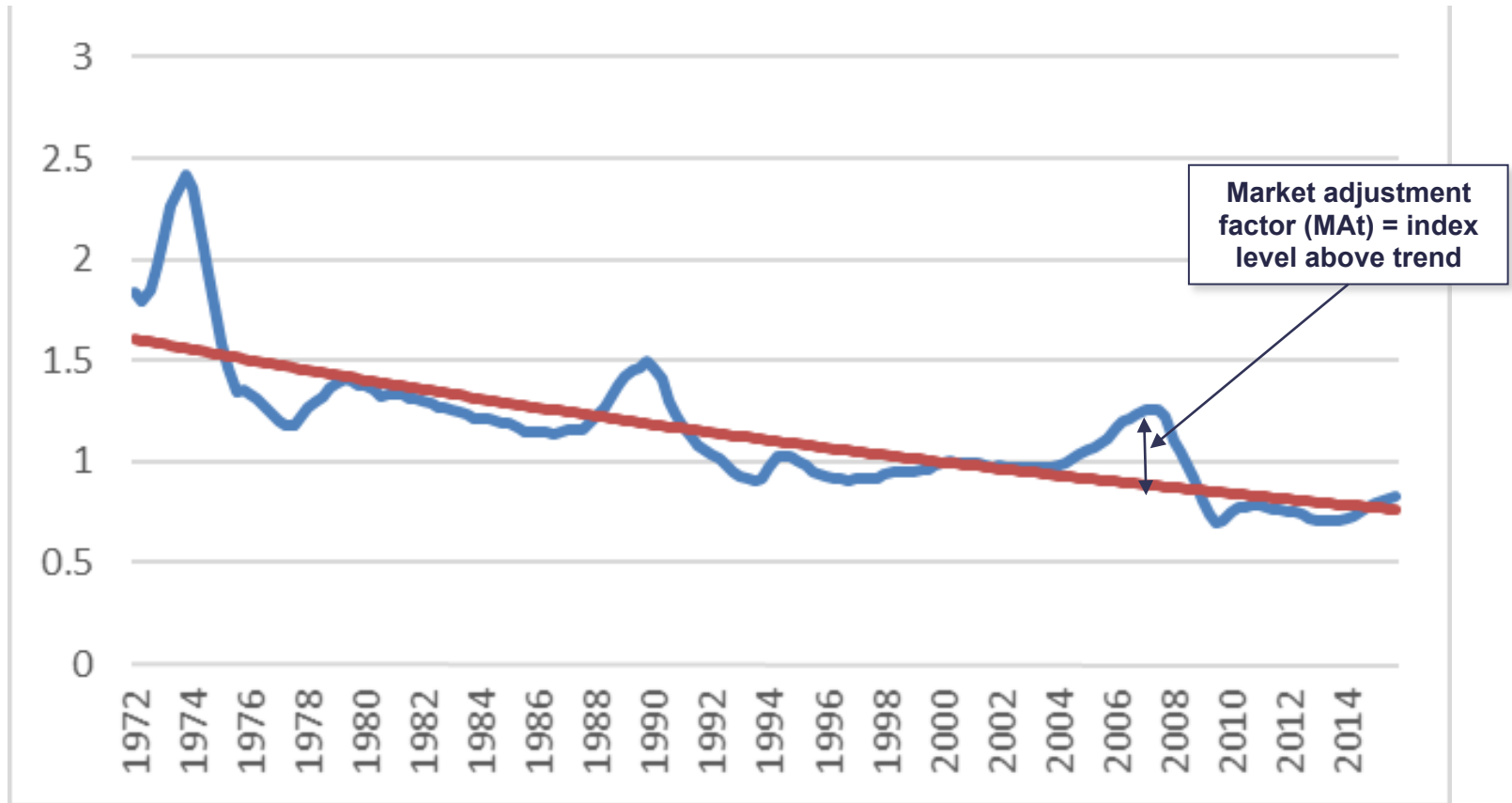
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Measure	Quantum
Minimum	-32.7%
Maximum	29.5%
Mean	-1.2%
Std Deviation	10.8%

**MSCI-IPD UK All Property Capital Value series: 1972-2015, deflated using RPI (Source ONS)**

# The MSCI-IPD all property CV index shows three real property market corrections since 1972

## *Real IPD All Property CV Index and **Best Fit Trend***

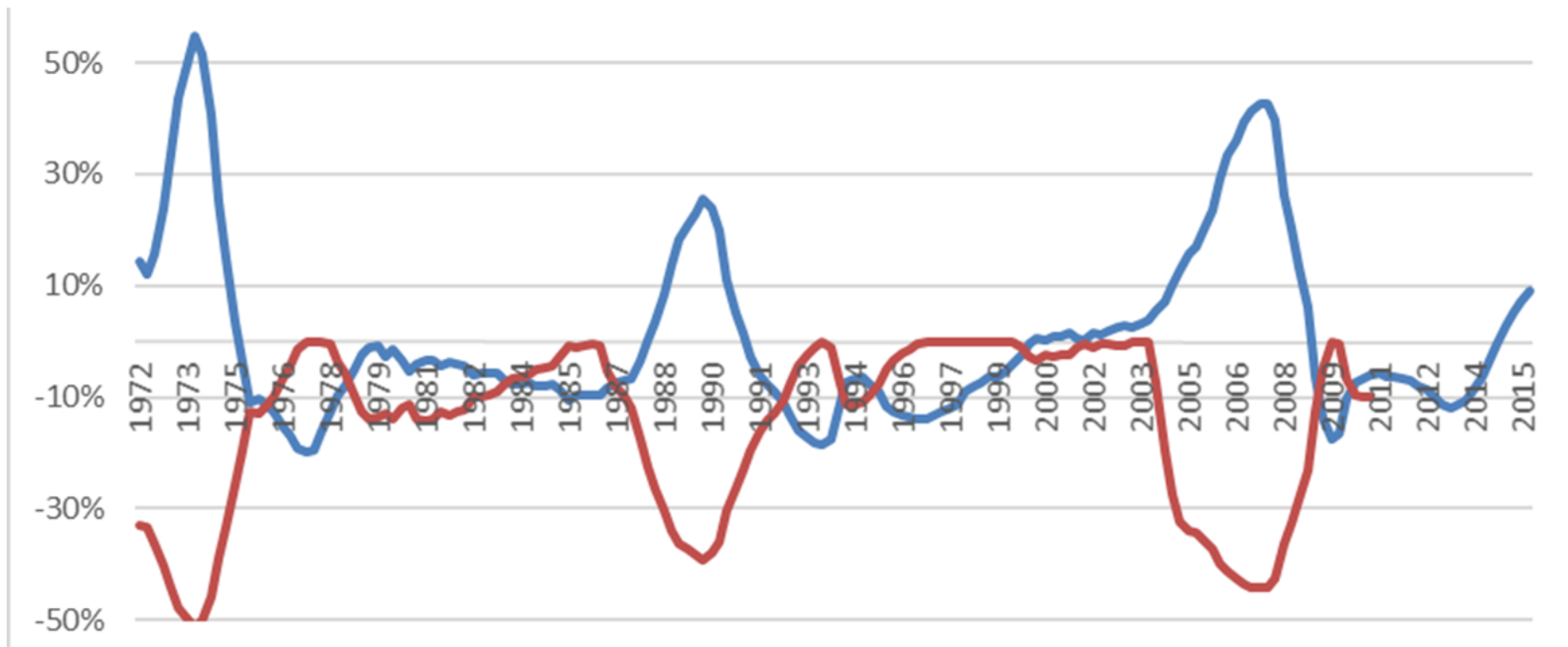


**$MA_t = CVI_t / (Ae^{(-bt)}) - 1$  where A and b are the best fit parameters for  $[CVI_t / RPI_t]$   $t = 0-T$**

Note: this best fit line is illustrative only and is calculated as of 2015, The full analysis 'fits' the trend line only using data up to the date in question – i.e. no 'hindsight'

**The level of the index above its long term trend is correlated (highly negatively) with corrections in the subsequent 5 years**

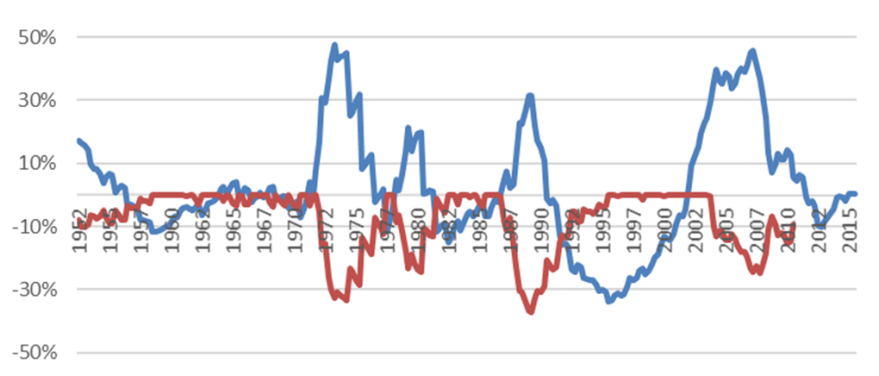
***MSCI-IPD UK All Property Real CV Index Relative to Trend (MA<sub>t</sub>)***  
***AND Max change in Real CV Index in Subsequent 5 Years***



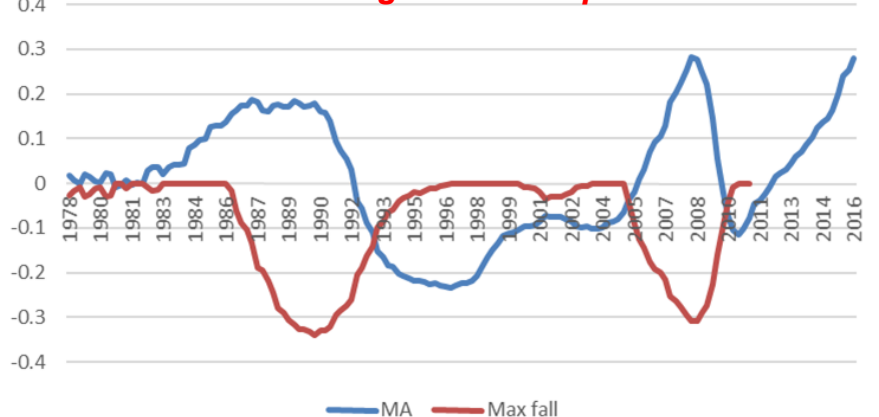
**Correlation of MA<sub>t</sub> and Max subsequent correction is -90%**

# Similar correlations are observed in the US commercial and in UK residential markets

**Nationwide UK Residential Property Index from 1952**  
**AND Max change in Subsequent 5 Years**



**NCREIF US Commercial Property Index from 1976**  
**AND Max change in Subsequent 5 Years**



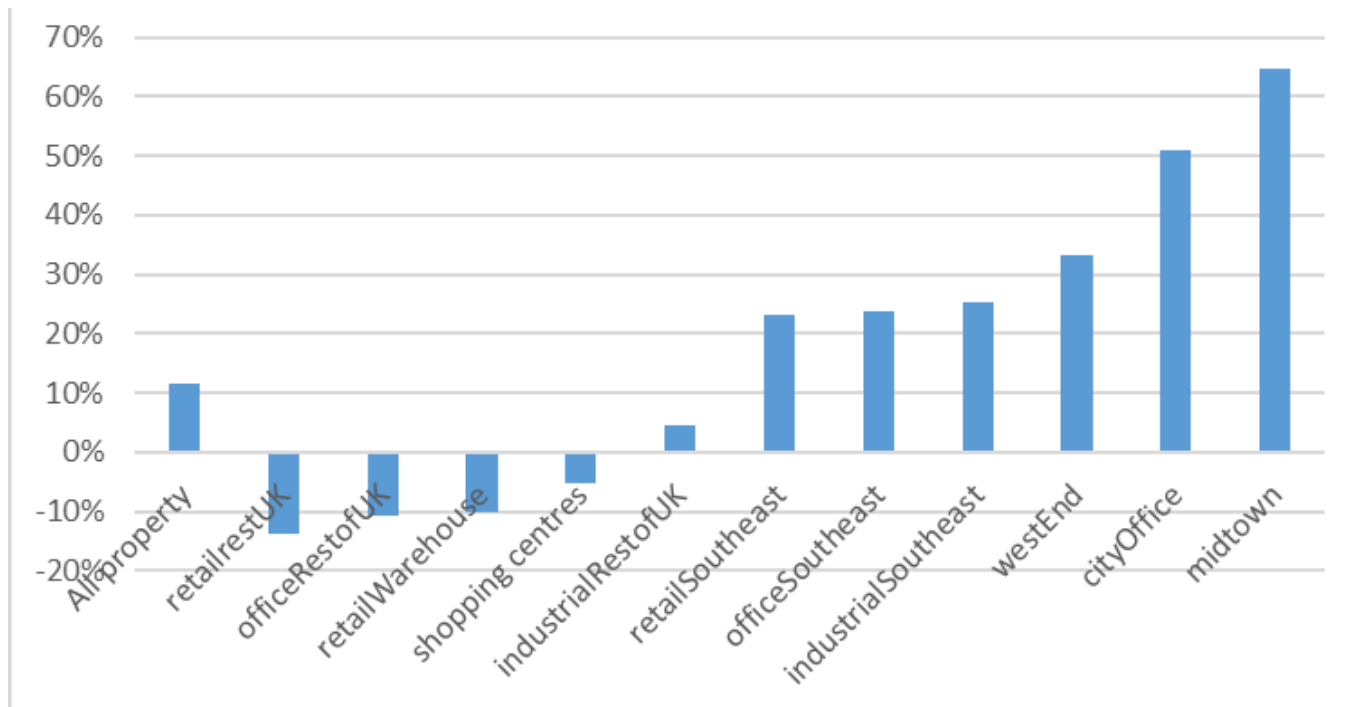
Data source	Country	Series	From	Correlation (MA, Max Fall)
IPD	UK	All Prop	1972	-90%
IPD	UK	All property	1982	-89%
IPD	UK	retailSoutheast	1982	-93%
IPD	UK	retailrestUK	1982	-89%
IPD	UK	shopping centres	1983	-85%
IPD	UK	retailWarehouse	1983	-75%
IPD	UK	officeSoutheast	1983	-80%
IPD	UK	officeRestofUK	1983	-68%
IPD	UK	industrialSoutheast	1984	-85%
IPD	UK	industrialRestofUK	1984	-61%
IPD	UK	midtown	1987	-94%
IPD	UK	westEnd	1987	-94%
IPD	UK	cityOffice	1994	-86%
Nationwide	UK	Residential	1956	-70%
NCREIF	US	Commercial	1978	-68%
NCREIF	US	Commercial	1978	-70%
PPR	US	Office	1982	-61%
PPR	US	Office	1982	-55%



# Applying the method to IPD PAS segments shows the current level of market over/under valuation in the UK

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## *Level of market over/under long term trend end 2015 for IPD PAS Segments*



**MA levels of over 20% have been associated with 30%+ real corrections in over 95% of quarters historically**

## GINI coefficients of the market adjustment factor (MA<sub>t</sub>) as a predictor of a market correction\* in the next 5 years

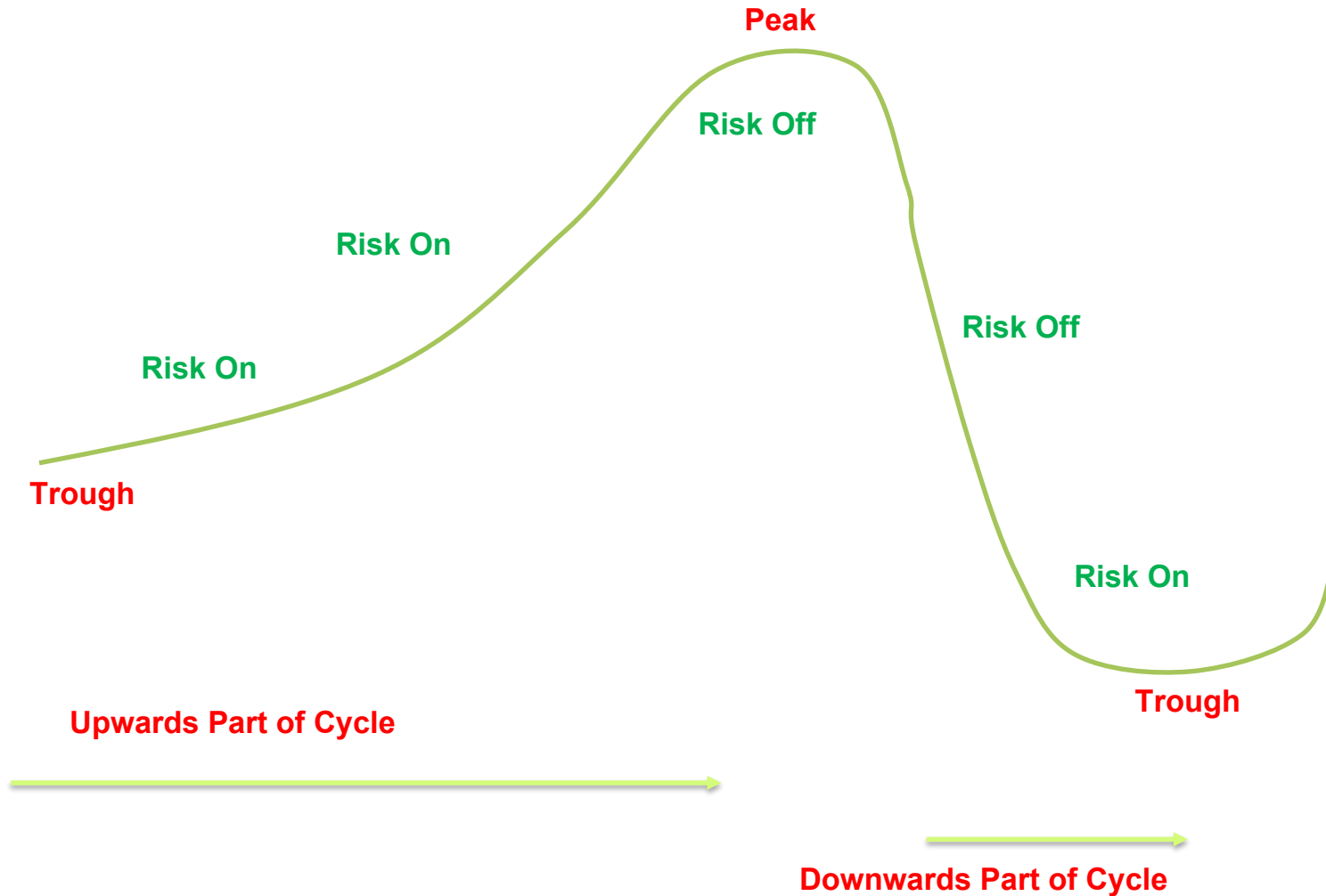
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<i><b>IPD Segment</b></i>	<i><b>GINI</b></i>
All property	94%
retailSoutheast	96%
retailrestUK	89%
shopping centres	89%
retailWarehouse	87%
officeSoutheast	81%
officeRestofUK	83%
industrialSoutheast	94%
industrialRestofUK	71%
midtown	85%
westEnd	88%
cityOffice	73%

\* A correction defined as a real fall of 30% or more in the subsequent 5 years

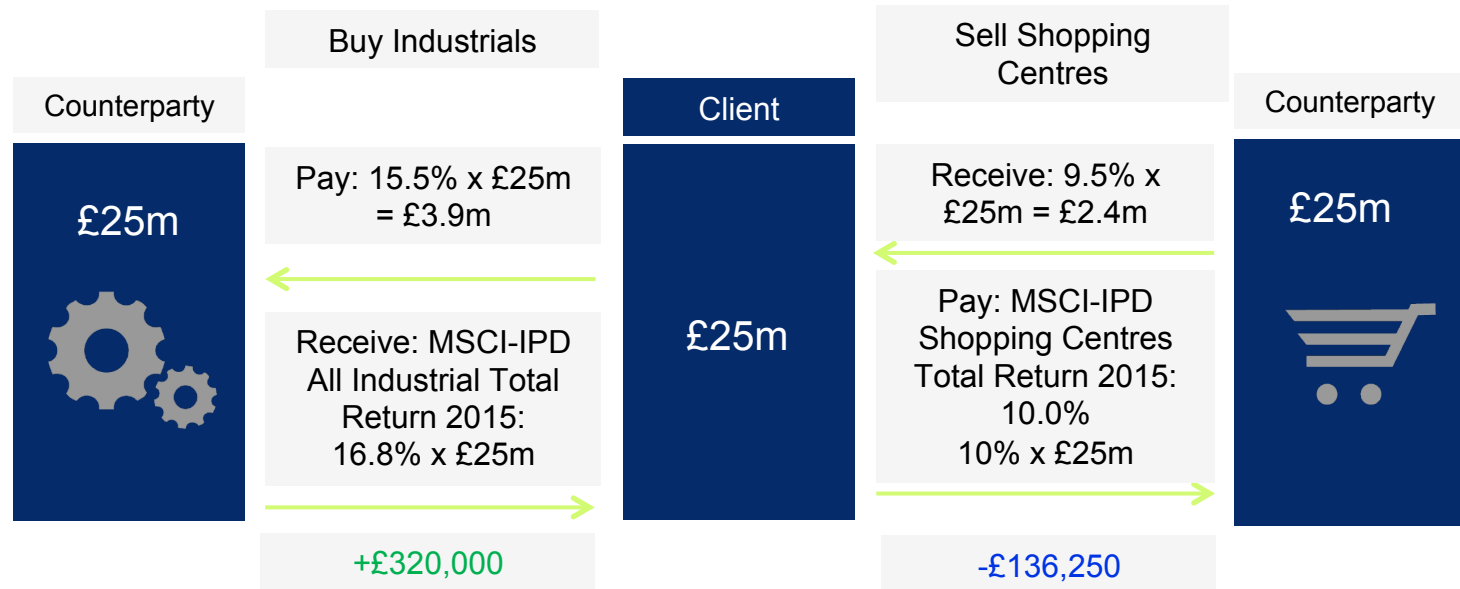
# Risk Management through the property cycle using MSCI-IPD Futures

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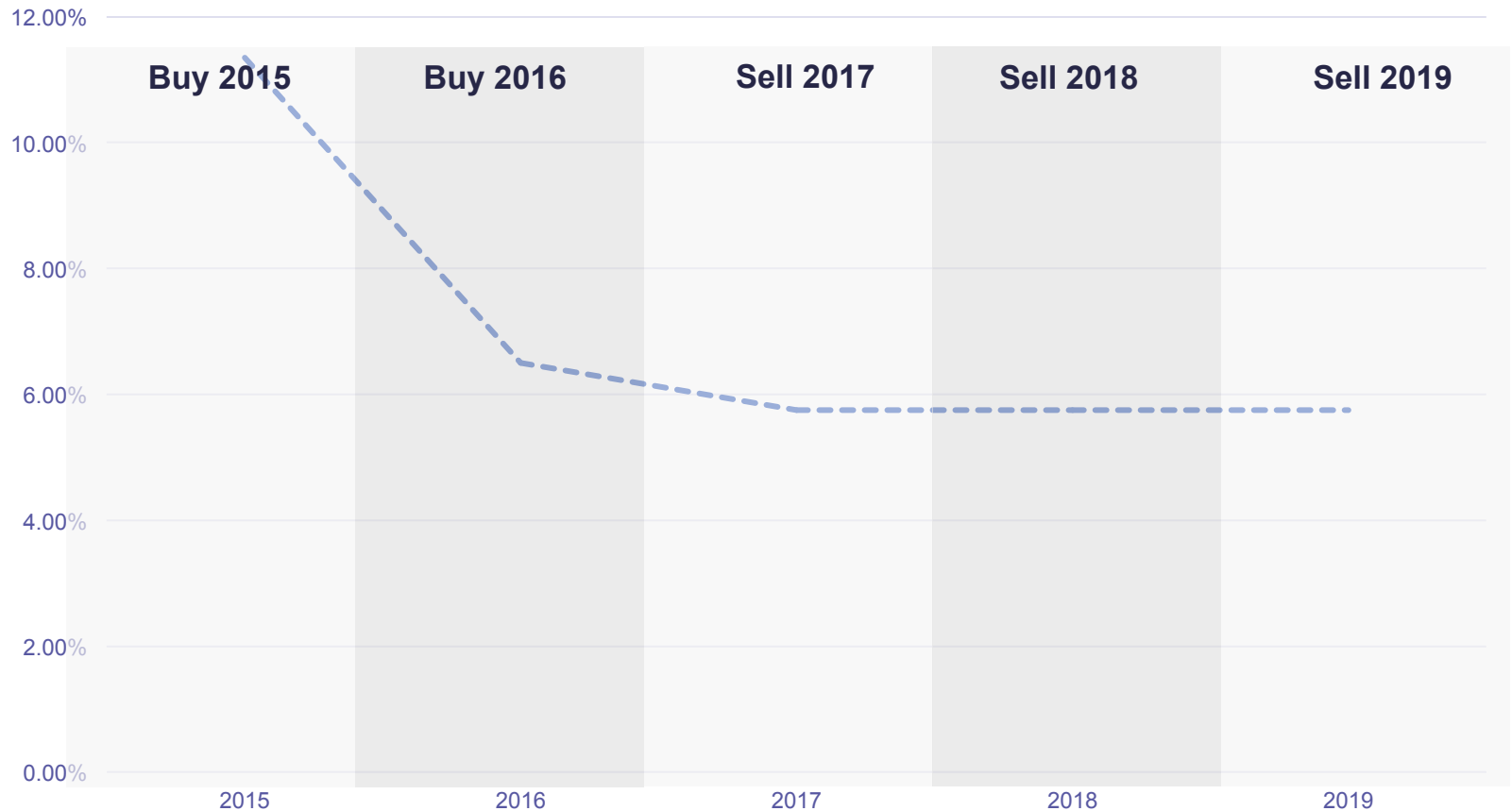
# Case Study 1: Sector Switch 2015

## Rebalancing – RAR Trade



- Net position was £183,750 in the money
- Annualised return of 1.3% p.a.
- Outperformed cash and hedged over/underweight positions

## Case Study 2: Post General Election Trade



- Speed of Execution – Strategy articulation through execution
- Go long or Short different calendar years
- Low trading fees

# Conclusions

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- Can we determine if Commercial Real Estate markets are over- or under-valued by examining current market index levels against long term trends? **YES**
- If so, how predictive has the approach been of subsequent market corrections? **VERY**
- Are UK markets currently over or under valued using this analysis? **Analysis**
- Can investors mitigate property market risk? **YES**

# Caveats

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## ➤ **Limited data history**

- Only 4 major corrections
- UK and US markets highly correlated

## ➤ **Mitigation tool relies on:**

- Favourable pricing - being pro-active to the market not reactive
- Matching interest



# QUESTIONS?

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