



Changing priorities in investor decision-making: the sustainability agenda

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Introduction

- Momentum driving the Sustainability Agenda is increasing
- Notable policy and legislative changes:
 - EU directives 2009 and others
 - UN Global Compact (world's largest corporate sustainability initiative)
 - RICS (2015) Advancing Responsible Business Practices in Land,
 Construction and Real Estate Use and Investment

Policy goals:

- To embed sustainable and inclusive practices in the global economy
- To create a sustainable built environment at its centre
- Embrace human rights, labour, environment and anti-corruption principles







Investors

- ☐ Identified as key stakeholder group by RICS (2015)
- Responsibilities span across all three phases of the life-cycle of real estate assets
 - Development; Use; Recovery
- ☐ Important/strategic role in pursuing more sustainable strategies and practices for land and buildings
- Yet, little known about their attitudes/behaviour or if/how sustainable strategies and targets shape their decisionmaking







What we do know ...

☐ Corporate responsibility has been developing and is being embraced in investment strategies

→ Socially Responsible Investment (SRI) strategies:

"characterise the behaviour of investors who not only focus on the mere economic aspects of an investment but also follow ethical principles and take into account environmental and social aspects" (Lorenz and Lützkendorf, 2008, p. 483)

"efforts that go beyond compliance with minimum legal requirements to better manage the environmental, social, and governance issues associated with property investing" (Pivo, 2008, p. 235)







User markets:

- Sustainable buildings no longer seen as "inconveniences" Can \uparrow productivity and \downarrow costs US: Energy Star/LEED Star rating attracts rent premia (Eichholtz et al., 2010; Fuerst and McAllister, 2011; Wiley, 2010) Australia: Green Star ratings yield higher rent (Newell et al., 2011) Netherlands: lower EPC = lower rents (Kok and Jennen, 2012) ☐ UK: less clear Fuerst and McAllister (2011) no evidence (but appraisal data) Chegut et al. (2012) 23-30% for BREEAM rated buildings in London Fuerst and van de Wetering (2015) BREEAM 23% to 26% higher (across UK but year dependent)
- Overall: magnitude of premia varies (3% to 30%), office sector common focus





Investment markets:

- □ US: CV premia (6%-29%) for green-rated offices (Eichholtz *et al.*, 2010; Miller *et al.*, 2008; Pivo and Fisher, 2010; Fuerst and McAllister, 2011)
- Australia: Newell et al. (2011) find 12% premia
- ☐ UK: Chegut *et al*. (2011) find 27-43% premia for BREEAM rated buildings
- Fuerst (2015) tentative evidence that REITs return-on-asset and return-on-equity increase as sustainability rating increases







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	Some evidence of improved occupancy rates (Pivo and Fisher, 2010; Fuerst and McAllister, 2011)
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Overall: if rental premia priced by market, what are investment drivers?







Research Question

- ☐ Sustainability agenda:
 - Two elements: (i) management & policy
 (ii) implementation & measurement
 - Latter "is a vastly more significant and more powerful driver of financial performance" yet Europe scores comparatively low (Fuerst, 2015, p. 13)
- ☐ Alignment of financial returns / environmental concerns?
- ☐ No substantive evidence on investors' responses in practice







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Do investors' preferences and behaviour align with policy and stated sustainability objectives?







Research Design

Mixed methods approach:

- Stage 1 Conjoint Analysis/Questionnaire
 - Simulate complex decision-making process
 - Replicate heterogeneous nature of real estate assets
 - Additional contextual questions
 - Observe behaviour
- ☐ Stage 2 Focus Groups
 - 2 to 3 meetings with key stakeholders, semi-structured
 - In-depth → views, experiences, policies, drivers for/ barriers to implementation





Conjoint Analysis

- ☐ Choice-Based Conjoint (CBC) Analysis
- Primary data collection
- ☐ Temporal 2006/07 and 2016
- 2016 online
- Method
 - Choice between two real estate assets (or choose neither)
 - Eight property attributes
 - Each asset comprises randomised levels of each attribute
 - Tasks repeated
 - Opportunity to segment and control for sector and economic outlook



Attributes		Levels
	1)	Minimum risk of tenant default
Credit worthiness	2)	Lower than average risk of tenant default
Credit Worthiness		Higher than average risk of tenant default
	4)	High risk of tenant default
	1)	Single let property
Single or multi-let	2)	2 to 5 tenants
	3)	More than 5 tenants
	1)	Rent set annually, linked to index or turnover
	2)	Rent review every 2 to 3 years, upwards only clause
Rent review clause	3)	Rent review every 4 or more years, upwards only clause
	4)	Rent review every 2 to 3 years, no upwards only clause
	5)	Rent review every 4 or more years, no upwards only clause
	1)	Less than 5 years
Period to expiry/break	2)	5-10 years
	3)	Over 10 years
	1)	Restrictive user/assignment clause
User/Assignment clause	2)	Standard user/assignment clause
_	3)	Relaxed or no user/assignment clause
	1)	Town or city centre, prime pitch
	2)	Town or city centre, secondary pitch
Location	3)	Suburban location, close to existing public transportation
Location	4)	Suburban location, no existing public transportation
	5)	Out of the town/city, close to existing public transportation
	6)	Out of the town/city, no existing public transportation
	1)	Pass
	2)	Good
BREEAM rating		Very Good
		Excellent
		Outstanding
	6)	Not known
Economic and functional	1)	High spec and flexible internal configuration
	2)	Average spec and internal configuration
obsolescence	3)	Low spec and inflexible internal configuration







Analysis

- Counting analysis
 - Relative impact of each attribute level
 - Identify main effects and interaction effects
 - Simplistic (but useful) method
- Multinomial logit estimation
 - Relative importance of attributes
 - Difference each attribute could make to the total utility of asset
 - Estimate the utility (part-worths) of each level of each attribute
- ☐ Hierarchical Bayes (HB) estimation
 - More robust (part-worths) calculated for each respondent (Count & ML averages)





Samples

	2006/07 Funds	2016 Funds
Return Objective		
Income return	9.8%	31.7%
Capital growth return	9.8%	2.4%
Income & capital return	76.5%	58.5%
Other return objective	3.9%	7.3%
Vehicle Style		
Core/Core+	49.0%	80.5%
Value added	15.7%	4.9%
Opportunistic	15.7%	4.9%
Other style	17.6%	9.5%
Benchmark Objective		
Track	3.9%	2.4%
Outperform	58.8%	58.5%
Split	11.8%	0.0%
Absolute return	0.0%	31.7%
Other objective	3.9%	7.3%
Type of Fund		
Open-ended	76.5%	73.2%
Closed	21.6%	26.8%





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	2006/07	2016
Gender		
Male	90.2%	92.7%
Female	9.8%	7.1%
Experience in current role		
0 to 5 years	21.6%	39.0%
6 to 10 years	17.6%	34.1%
> 10 years	60.8%	26.8%
Highest qualification		
BSc/BA or equivalent	52.9%	65.9%
MSc/ MA or equivalent	31.4%	29.3%
PhD/Mphil	3.9%	2.4%
Other	11.8%	2.4%
Total No Respondents	51	41

Main Effects (Count Analysis)						
	2006/07	2016		2006/07	2016	
Location			BREEAM rating			
In town or city centre	0.52		Pass	0.34	0.09	
Town or city centre, prime pitch		0.43	Good	0.30	0.15	
Town or city centre, secondary pitch		0.18	Very Good	0.37	0.20	
Suburban, close to existing public transportation	0.38	0.25	Excellent	0.32	0.34	
Suburban, no existing public transportation	0.19	0.08	Outstanding		0.35	
Out of the town/city, close to existing public transportation	0.38	0.19	Not known	0.30	0.10	
Out of the town/city, no existing public transportation	0.18	0.08	Within Att. Chi-Square	3.83*	88.01	
Within Att. Chi-Square	90.66	117.34				
Single or multi-let			Period to expiry/break			
Single let property	0.22	0.19	Less than 5 years	0.26	0.17	
2 to 5 tenants		0.20	5-10 years	0.32	0.21	
More than 5 tenants	0.4	0.21	Over 10 years	0.40	0.23	
Within Att. Chi-Square	33.86	0.55*	Within Att. Chi-Square	16.13	3.98*	
Economic and functional obsolescence			User/assignment clause			
High specification and flexible internal configuration		0.29	Restrictive user/assignment clause	0.30	0.20	
Average specification and internal configuration		0.21	Standard user/assignment clause	0.34	0.20	
Low specification and inflexible internal configuration	0.18	0.11	Relaxed or no user/assignment clause	0.35	0.21	
Within Att. Chi-Square	80.09	41.27	Within Att. Chi-Square	3.31*	0.09*	
Rent review clause			Credit worthiness of the tenant			
Rent set annually, linked to index or turnover		0.21	D&B 5AA rating for tenant(s)	0.38		
Rent review every 2 to 3 years, upwards only clause	0.37	0.21	Minimum risk of tenant default		0.29	
Rent review every 4 or more years, upwards only clause	0.36	0.19	D&B 3AA or 4AA rating for tenant(s)	0.37		
Rent review every 2 to 3 years, no upwards only clause	0.27	0.21	Lower than average risk of tenant default		0.25	
Rent review every 4 or more years, no upwards only clause	0.29	0.19	D&B 1AA or 2AA rating for tenant(s)	0.33		
Within Att. Chi-Square	8.91*	1.07*	Higher than average risk of tenant default		0.17	
			D&B AA or BB or CC rating for tenant(s)	0.32		
			D&B DD or lower rating for tenant(s)	0.25		
			High risk of tenant default		0.10	
			Within Att. Chi-Square	12.17	44.98	
# Chi-Square statistics are significant at less than 0.05%; unless * to deno	te insignifica	nt at 0.05%				



	2006/07	2016		2006/07	2016
Location			BREEAM rating		
In town or city centre	0.99		Pass	0.00*	-0.66
Town or city centre, prime pitch		1.31	Good	-0.16*	0.07*
Town or city centre, secondary pitch		-0.04*	Very Good	0.28	0.43
Suburban, close to existing public transportation	0.33	0.41	Excellent	-0.01*	0.22*
Suburban, no existing public transportation	-0.77	-0.78	Outstanding		0.32
Out of the town/city, close to existing public transportation	0.36	0.02*	Not known	-0.11*	-0.39
Out of the town/city, no existing public transportation	-0.91	-0.93			
Single or multi-let			Period to expiry/break		
Single let property	-0.56	-0.04*	Less than 5 years	-0.29	-0.20
2 to 5 tenants	0.2	-0.01*	5-10 years	-0.01*	0.02*
More than 5 tenants	0.36	0.05*	Over 10 years	0.3	0.18
Economic and functional obsolescence			User/assignment clause		
High specification and flexible internal configuration	0.69	0.51	Restrictive user/assignment clause	-0.22	0.02
Average specification and internal configuration	0.16	0.04*	Standard user/assignment clause	0.07*	0.00
Low specification and inflexible internal configuration	-0.84	-0.55	Relaxed or no user/assignment clause	0.15	-0.02*
Rent review clause			Credit worthiness of the tenant		
Rent set annually, linked to index or turnover	0.05*	0.00*	D&B 5AA rating for tenant(s)	0.33	
Rent review every 2 to 3 years, upwards only clause	0.35	0.02*	Minimum risk of tenant default		0.57
Rent review every 4 or more years, upwards only clause	0.18	-0.05*	D&B 3AA or 4AA rating for tenant(s)	0.14	
Rent review every 2 to 3 years, no upwards only clause	-0.25	0.06*	Lower than average risk of tenant default		0.41
Rent review every 4 or more years, no upwards only clause	-0.33	-0.04*	D&B 1AA or 2AA rating for tenant(s)	0.10*	
NONE	0.28	1.48	Higher than average risk of tenant default		-0.21
Consistent Akaike Info Criterion	1832.01	1482.89	D&B AA or BB or CC rating for tenant(s)	0.00*	
Chi Square	380.6	519.27	D&B DD or lower rating for tenant(s)	-0.57	
Relative Chi Square	15.22	19.97	High risk of tenant default		-0.77



Attribute Preferences (based on HB Estimations)

	Location	Credit worthiness	BREEAM rating	Economic and functional obsolescence	Rent review clause	Period to expiry/break	Single or multi-let	User/Assignment clause
All	26.33	18.48	16.56	11.18	7.91	7.55	6.55	5.44
Core/Core+	27.50	17.76	15.63	13.00	7.38	8.50	4.73	5.49
Value Added	20.35	23.15	16.93	8.36	7.51	16.50	4.08	3.12
Opportunisic	11.79	16.65	14.96	12.18	15.30	11.12	11.43	6.58
Other	16.56	24.52	15.68	3.83	14.94	4.58	11.07	8.83
Retail	22.51	13.63	22.35	11.15	9.01	11.21	4.63	5.49
Office	27.15	18.15	13.44	8.97	12.53	7.24	5.72	6.79
Industrial	19.11	13.53	13.79	20.33	10.59	11.86	7.61	3.17
Residential	19.22	20.76	13.89	14.68	14.92	4.25	4.36	7.92
Mixed	19.95	26.38	11.85	11.71	11.27	3.20	3.87	11.77





Findings

- ☐ Ranking of key parameters
 - Location still top priority
 - BREEAM rating rising to third place
 - Credit worthiness
 - Economic and functional obsolescence dropped (level of spec and flexibility of internal configuration)
 - Period to expiry/number of users/user clauses & rent review clauses are all insignificant
- Differs depending on fund style and property type
- ☐ Most preferred BREEAM rating: 'Very Good'







Conclusions ... so far

- ☐ Results seem to conform to our a priori expectations
- ☐ But need to disaggregate further: e.g. impact of economic outlook









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In terms of sustainability:

- ☐ There seems to be a turn in perceptions/preferences
- ☐ Is this linked to fund strategy?
- ☐ Why is 'Very Good' most preferred? Does this change if we disaggregate the sample?
- When ranked by importance to achieving target returns
 - Sustainability rating is 6.74 (out of 8)
- ☐ When ranked by importance to achieving **risk mitigation**
 - Sustainability rating is 6.43 (out of 8)

