

Measurement and drivers of transaction times: UK commercial real estate

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Motivation for study

- There is a lack of data and analysis on:
 - How long it takes to buy and sell commercial real estate
 - How asset, market or counterparty characteristics affect the amount of time that is taken
- This is in stark contrast to residential real estate where such questions have been studied since the 1970s
- This is despite the fact that uncertainty and variability in the time to transact impact on real estate investment risk
 - See Lin & Vandell (2007), Bond et al. (2007), Lin et al. (2009) and Cheng et al. (2010, 2013)

<p>McNamara (1998)</p>	<ul style="list-style-type: none"> • Survey of brokers and investors on time needed to buy or sell commercial real estate in UK.
<p>Crosby & McAllister (2004)</p>	<ul style="list-style-type: none"> • Analysis of c.180 sales in UK, mostly 2000-2002. Median time to sell was six months, but lots of variation around this.
<p>Johnson et al. (2007)</p>	<ul style="list-style-type: none"> • Examines 956 sales across 39 US markets in 2006-2007. Median marketing time of 189 days.
<p>Hordijk & Teuben (2008)</p>	<ul style="list-style-type: none"> • Analysis of c.500 sales in The Netherlands, plus interviews with brokers. Median time to transact was 4-5 months, but lots of variation around this.
<p>Scofield (2013)</p>	<ul style="list-style-type: none"> • Interviews and analysis of 92 purchases during 2005-2008. • Time to transact varies with market state and participants underestimate time required.

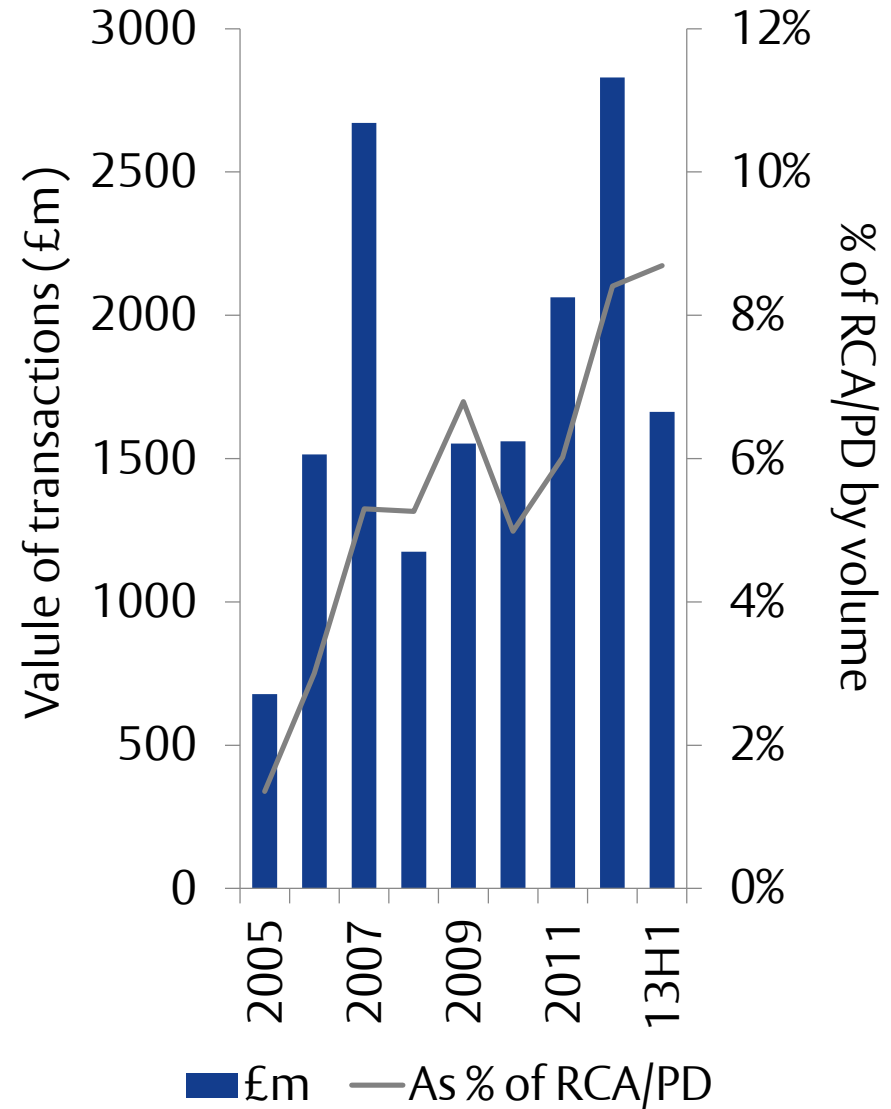
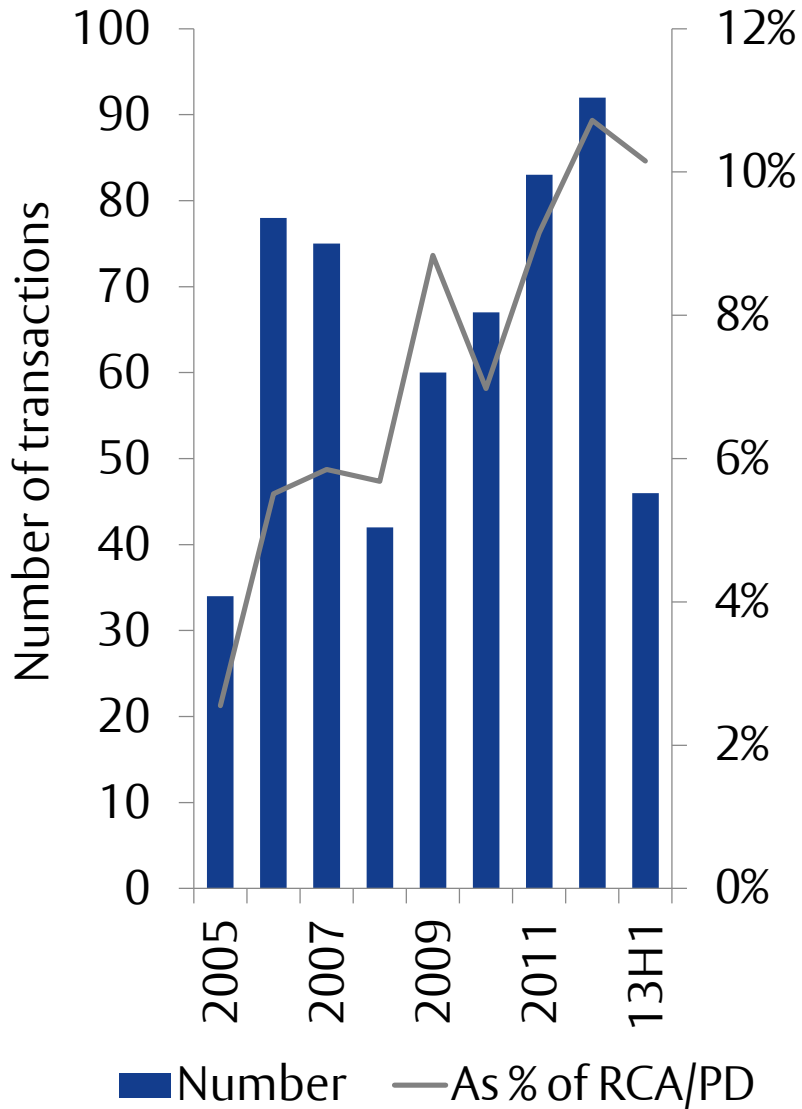
Data collection

- Primary data collection, resulting in sample of 578 deals over 2004 to 2013

Provided by RCA/PD		Sought from investors	
Address	Name of buyers	Introduction date (P)	Prime / secondary
Property type	Buyer nationality	Marketing date (S)	Single or multi-let
Sub-market	Buyer broker	Price agreement date	Vacancy rate
Region	Name of sellers	Date solicitor instructed	Unexpired lease length
Legal interest	Seller nationality	Date of exchange	Financing (P)
Price	Seller broker	Completion date	Initial purchase date (S)
Capitalisation rate		Number of bidders (S)	
Floorspace		Method of sale	

P = sought for purchases only. S = sought for sales only. The list of RCA/PD variables is not a complete list of variables that they collect.

Observations by year



Time (days) by transaction stage

	<i>Number</i>	10th pc	Median	90th pc
PURCHASES				
Introduction to price/solicitor	127	10	35	143
Price/solicitor to completion	289	27	56	149
Introduction to completion	141	56	104	267
SALES				
Marketing to price/solicitor	35	14	42	184
Price/solicitor to completion	271	24	64	197
Marketing to completion	43	57	135	355

Distributions exhibit similar shapes for each stage

No correlation between times taken for different stages

Time by stage and market state

- Market state defined with reference to turning points in RCA/PD and IPD indices

	Purchases			Sales
	Intro to Price/Sol	Price/Sol to Completion	Intro to Completion	Price/Sol to Completion
Boom to June 2007	29	55	88	63
Downturn to June 2009	32	60	117	61
Recovery to June 2011	67	50	145	50
July 2011 to mid-2013	51	59	122	81
H ₀ medians are equal	0.001	0.261	0.028	0.048

Measurements are based on different sized samples. Results for introduction to price/solicitor and for price/solicitor to completion will not sum to time from introduction to completion.

Time by stage – other tables

- Other tables in our study consider:
 - Portfolio deals versus single asset sales
 - Main sectors in UK: retail, office and industrial
 - Types of retail: single shop units, shopping centres, retail warehouses, retail parks and supermarkets
 - Price bands: <5m, 5-10m, 10-20m, 20-50m, 50m+
 - Quality based on price psf or yield relative to sector
 - Type and nationality of counterparty, separating out institutions and domestic buyers and sellers

Multivariate modelling

- Necessary to control for a mix of potential influences
- We use Cox proportional hazards models, reflecting the distribution of transaction times and shape of estimated hazard functions:
 - i.e. the probability of sale is not constant nor does it consistently rise or fall with time
- Sample sizes only permit robust modelling of time in days from price agreement to completion
- Independent variables include market performance, sector, nationality and type of counterparty

Cox proportional hazard models – I

	Sales	Purchases	All data	All office
Average price growth where < 0	0.953 ***	0.919 ***	0.948 ***	0.976
Average price growth where > 0	1.074 ***	1.072 ***	1.066 ***	1.037 ***
Portfolio deal	0.770 **	0.795	0.809 **	0.657 **
Sector				
Other retail	0.801 *	0.888 *	0.852 **	
Office	0.660 ***	0.906	0.790 ***	
Industrial	0.733	0.601 *	0.668 ***	

Notes: The table reports hazard ratios, which are derived by taking the exponential of the estimated coefficients. ***, ** and * denote 1%, 5% and 10% significance levels, respectively. The dependent variable equals the time in days from price/solicitor date to completion date. The omitted category for the sector dummies is standard retail. The models adjust for possible correlation between observations from a given fund.

Cox proportional hazard models – II

	Sales	Purchases	All data	All office
Top quartile price psf	1.537 **	1.006	1.290	1.786 ***
Not 100% freehold	0.681 *	0.672 ***	0.632 ***	0.359 ***
UK buyer	1.271		1.340	2.156 ***
UK seller		0.972	0.997	0.770
Institutional buyer	1.181 ***		1.203 ***	1.836 ***
Institutional seller		1.274 ***	1.028	0.595 *
Rest UK location				0.940
No of observations	237	230	467	173
Harrell's C	0.611	0.608	0.596	0.636

Notes: The table reports hazard ratios, which are derived by taking the exponential of the estimated coefficients. ***, ** and * denote 1%, 5% and 10% significance levels, respectively. The dependent variable equals the time in days from price/solicitor date to completion date. The omitted category for the sector dummies is standard retail. The models adjust for possible correlation between observations from a given fund.

Findings and conclusions

- Like prior research, we find that transaction times for UK commercial real estate are highly variable. We also find:
 - Market state strongly influences transaction times
 - Portfolio deals take significantly longer to conclude
 - Type and quality of asset affect transaction times
 - Institutions and domestic buyers complete more rapidly
- We did not find price or brokerage to be significant and these were omitted from the final models
- Regular collection of consistent data is needed to facilitate future work, including variables on leasing and financing

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www.ipf.org.uk/resourceLibrary/time-to-transact--measurement-and-drivers--september-2014-.html