





Nine Years of Growth & Counting

23 November 2017









































12 Research Highlights

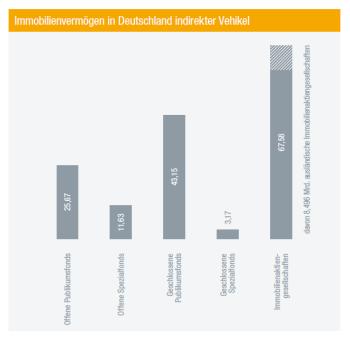
- 1. Gross property value reaches €114bn (+26% yoy), exceeding €100bn for the first time
- 2. Market cap of German sector hits €73bn (+ 26% yoy), exceeding the €70bn mark
- German share of the EPRA Europe reaches 23% (up 2%p)
- 4. Germany strengthens position as 2nd largest EPRA region
- 5. Gap to UK as No.1 further reduced to €12bn (Germany remains Brexit winner)
- 6. German sector now larger than France and Netherlands combined
- 7. Growth driven by residential AND commercial assets
- 8. German IPO engine still stuttering, two small IPOs, however
- 9. German share of EU real estate IPO proceeds at only 1%
- 10. H1 equity issuance improving but still relatively slow at €1.5bn
- 11. Number of listed German companies down 29% since 2011 to currently 55
- 12. International PropTech companies with high valuations compared to German RE companies





Why Our Research Effort?

 Our previous research notes have shown that relevance of listed real estate has been massively underestimated in Germany due to a lack of comparable data



Quelle: Unternehmensangaben, ZIA, Barkow Consulting

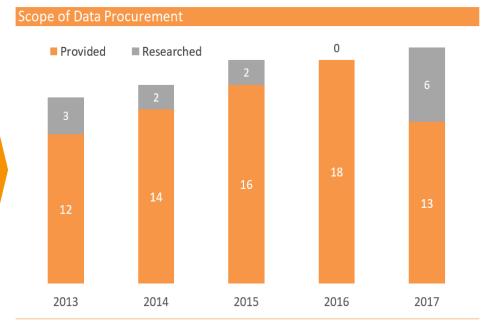
• 5th edition emphasizes the growing importance of listed real estate in Germany





- 19 leading German real estate companies included in research effort and have provided data
- 13 companies have provided detailed data points

Company	2013	2014	2015	2016	2017
Accentro	n/a	n/a	n/a	n/a	Provided
Aroundtown	n/a	n/a	n/a	n/a	Researched
Adler Real Estate	n/a	n/a	Researched	Provided	Provided
ADO Properties	n/a	n/a	n/a	Provided	Researched
Alstria	Provided	Provided	Provided	Provided	Provided
Buwog	n/a	Researched	Provided	Provided	Provided
Vonovia	Provided	Provided	Provided	Provided	Provided
Dt. Euroshop	Provided	Provided	Provided	Provided	Provided
Dt. Office	Researched	Provided	Provided	n/a	n/a
Dt. Wohnen	Provided	Provided	Provided	Provided	Provided
DIC Asset	Provided	Provided	Provided	Provided	Provided
Fair Value	Provided	Provided	Provided	Provided	n/a
DEMIRE	n/a	n/a	n/a	Provided	Researched
Grand City Properties	n/a	Researched	Researched	Provided	Researched
GSW	Provided	n/a	n/a	n/a	n/a
Hamborner	Provided	Provided	Provided	Provided	Provided
LEG	Provided	Provided	Provided	Provided	Provided
Patrizia	Provided	Provided	Provided	Provided	Researched
Polis	Provided	Provided	Provided	n/a	n/a
TAG	Researched	Provided	Provided	Provided	Researched
TLG	n/a	n/a	Provided	Provided	Provided
VIB	Researched	Provided	Provided	Provided	Provided
WCM	n/a	n/a	Provided	Provided	Provided
Provided	12	14	16	18	13
Researched	3	2	2	0	6



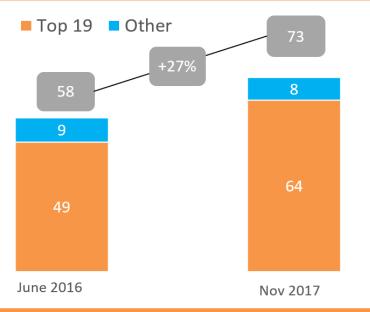




Development of Market Capitilisation

- Top 19 represent 88% of sector
- Market cap reaches €73bn increasing by 27% and ...
- ... superceding €70bn threshold for the first time!

Listed Real Estate: Development of Market Cap*



*) including Buwog & Aroundtown

Source: Company data, Bloomberg, Ellwanger & Geiger, ZIA/Barkow Consulting

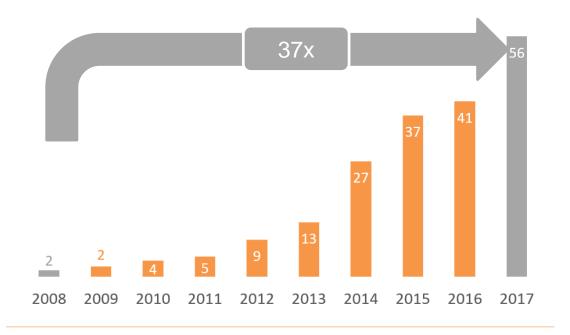




Development of Investible Free Float over the Long Run

- Free Float up from €1.5b in 2008 yoy to €56bn in 2017
- Sector growth 2017 benefiting from Aroundtown listing





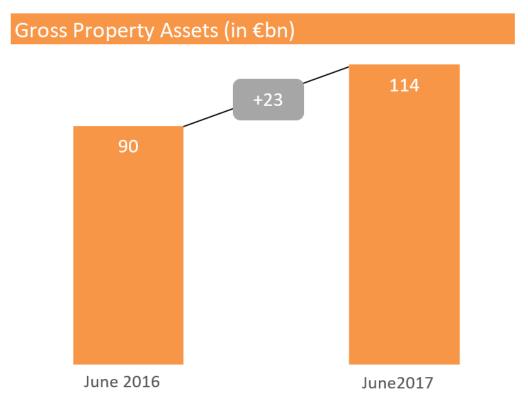
Source: Company data, Bloomberg, ZIA/Barkow Consulting





Development of Gross Property Value

- Gross Property Value increases to €114bn (up 26% or €23bn yoy)
- Surpassing the €100bn mark for the first time



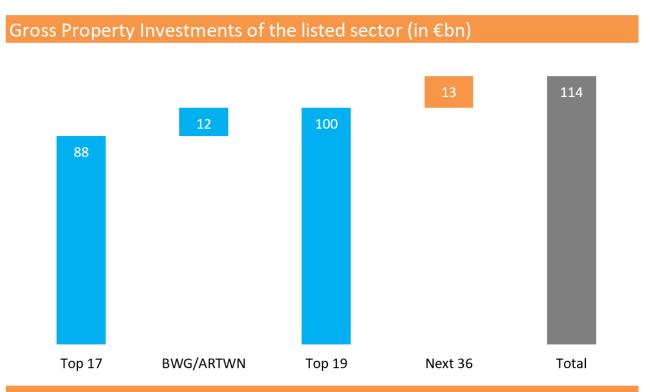
Source: Company data, Bloomberg, Ellwanger & Geiger, ZIA/Barkow Consulting





Development of Gross Property Value

Top 19 companies hold properties valued at €100bn precisely



Source: Company data, Bloomberg, Bankhaus Ellwanger & Geiger, ZIA/Barkow Consulting



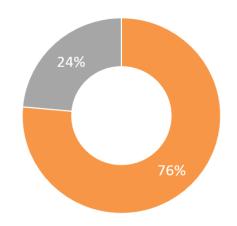


Gross Property Assets

- Share of commercial real estate assets up by 3%p yoy to now 24%
- Share of international assets up 1%p yoy to 4%

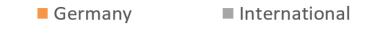
Property Assets by Sector

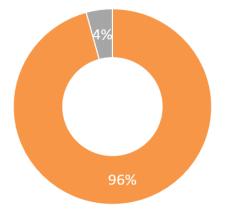
■ Residential ■ Commercial



Source: Company data, Bloomberg, Ellwanger & Geiger, ZIA/Barkow Consulting

Property Assets by Region





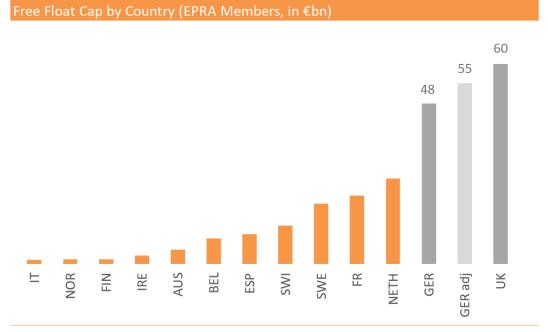
Source: Company data, Bloomberg, Ellwanger & Geiger, ZIA/Barkow Consulting





Development in European Context

- Germany strengthens position as 2nd largest European country
- Gap to UK significantly narrowed again, to currently €12bn (last year €17bn)
- Buwog and Aroundtown not even included
- Germany larger than France and Netherlands combined



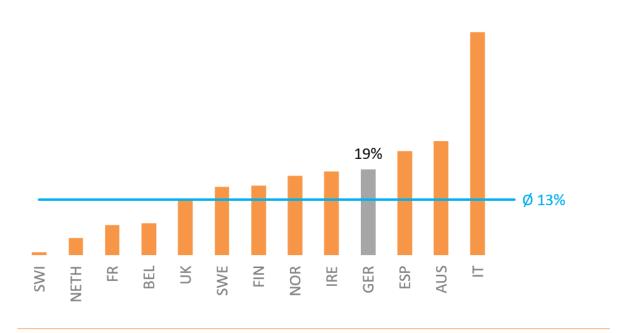




Share Price Performance in European Context

- Germany among top performing EU countries
- German performance leads other large countries by a wide margin





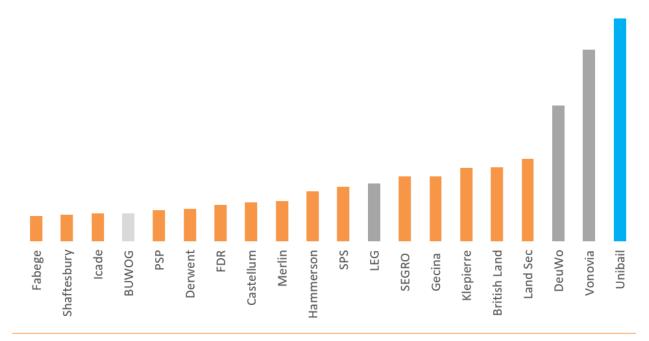




German companies in European Context

- Vonovia at No.2, gap to Unibail narrowing
- Dt Wohnen at No.3
- LEG at No. 9

Companies by Free Float Cap (in €m)



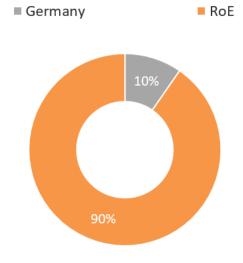




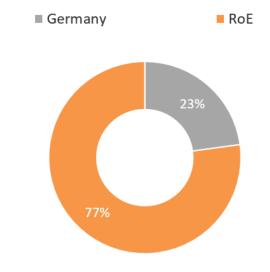
Germany increases share in EPRA Developed Europe Index

- German share currently at 23%, up 2% yoy
- German share more than doubled since 2013
- Germany continues to be a Brexit winner

German Share of EPRA Developed Europe Index 2013



German Share of EPRA Developed Europe Index 2017



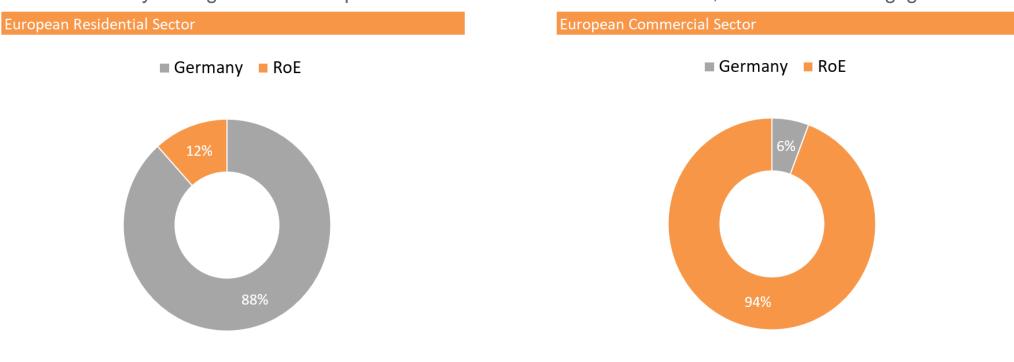
Source: EPRA, ZIA/Barkow Consulting





European Sector Weights

- German Resi dominates European residential sector
- Germany's weight in the European commercial sector doubles to 6%, but sector still negligible



Source: EPRA, ZIA/Barkow Consulting

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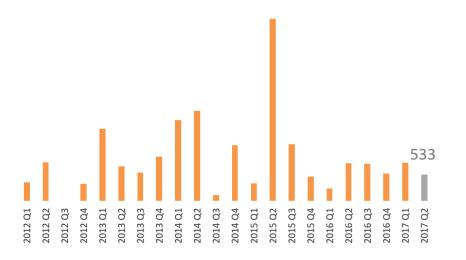


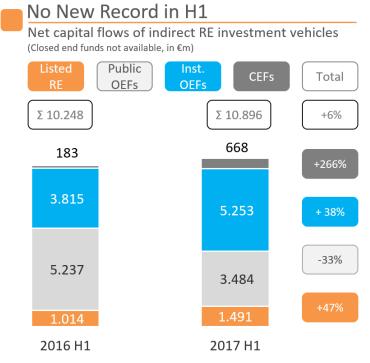


Development of Equity Issuance

- Improved, but still slow: €1.5bn issued in H1 2017 (up 47% yoy)
- Very lively convertible issuance in 2017
- Two IPOs (Consus, Noratis)







Source: Deutsche Bundesbank, Barkow Consulting 'German RE Capital Markets Database'



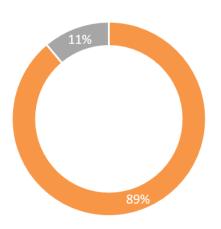


European Equity Issuance and IPOs 2017

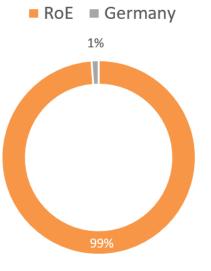
- 18 European IPOs until Q3, of which two in Germany
- Germany with 1% IPO proceeds share until Q3

German Share of European IPOs 2017





German Share of European IPO Proceeds 2017



Source: EPRA, ZIA, Barkow Consulting

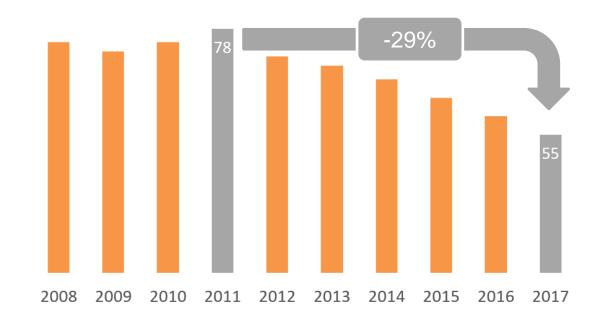




German Real Estate: A shrinking sector?

Number of German real estate stocks down by almost 30% since 2011

Number of Listed German RE Companies



Source: Ellwanger & Geiger, ZIA/Barkow Consulting





All data points at new highs

German Listed Sector: Property Data					
in €bn @ Period End	Jun 16	Jun 17	Delta ¹⁶⁻¹⁷	Delta ¹⁶⁻¹⁷	Comment
Total Property on Balance Sheet (total assets)	90	114	23	26%	Record No 1
By Sector					
Residential	72	87	15	21%	Record No 2
Commercial	18	27	8	45%	Record No 3
By Geography					
Germany	88	109	21	24%	Record No 4
International	3	5	2	82%	Record No 5
German Listed Sector: Capital Markets Data					
in €bn @ Period End	Jun 16	Nov 17	Delta ¹⁶⁻¹⁷	Delta ¹⁶⁻¹⁷	Comment
Total Market Cap	58	73	15	26%	Record No 6
Top 19 Market Cap	49	64	16	32%	Record No 7
Top 19 Free Float	43	56	13	31%	Record No 8
EPRA Europe ex UK German Share	30%	32%	2%	7%	Record No 9
EPRA Europe German Share	21%	23%	2%	10%	Record No 10

Source: Company data, EPRA, Ellwanger & Geiger, Bloomberg, ZIA, Barkow Consulting





Can the trend continue?

- Hard to see how positive drivers can get better still
 - Long term interest rates have started to increase again
 - Large companies very well capitalised
 - Large portfolios still hard to find

- Future growth will depend on
 - Growth momentum in commercial sector.
 - Extent of interest rate increases

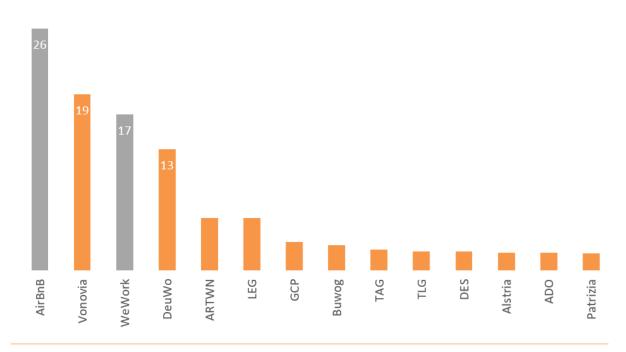




Bricks vs. Clicks

PropTech companies with very high valuations









Thank You For Your Attention