



German Listed Real Estate:

Eight Years of Growth

03 November 2016

VONOVIA

DES
Deutsche EuroShop

ADLER REAL ESTATE

TAG wohnen

VIB Vermögen AG

GRAND CITY
Properties S.A.

BUWOG
group

De **DEMIRE** DEUTSCHE MITTELSTAND REAL ESTATE

fair value REIT ue

LEG
gewohnt gut.

hamborner REIT
ZUKUNFT BRAUCHT SUBSTANZ

TLG
IMMOBILIEN

alstria
First German REIT

PATRIZIA
WERTE ENTSCHEIDEN

Deutsche Wohnen

DIC

WCM

ADG



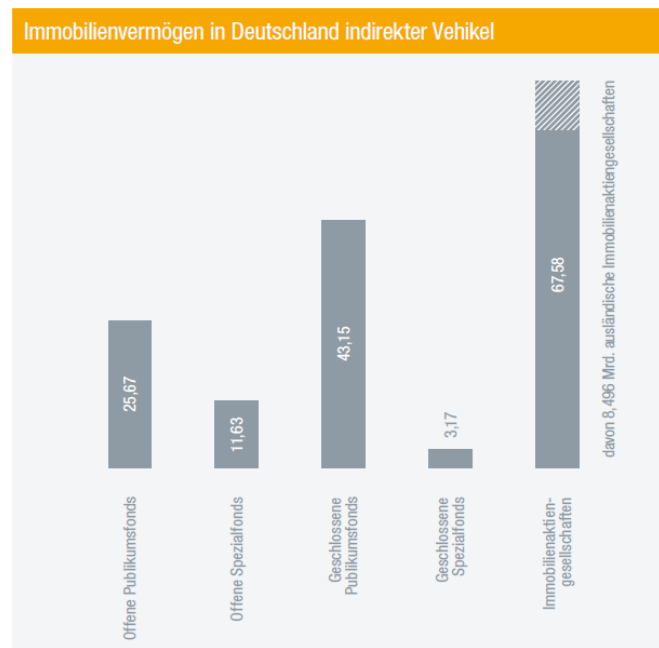
11 Research Highlights

1. Market capitalisation of German sector reaches EUR56bn (+ 38% yoy), exceeding the EUR50bn mark
2. Gross property value reaches EUR90bn (+14% yoy)
3. German share of the EPRA exceeds 20% (up 5%p)
4. Germany remains 2nd largest EPRA region
5. Gap to UK as No.1 reduced by 2/3 (Germany as double Brexit winner)
6. Germany with 2nd & 3rd largest European company
7. Growth still driven by domestic residential assets
8. IPO engine temporarily on hold, two new listings, however
9. H1 equity issuance very slow at EUR1bn, down 78% yoy
10. German share of European equity issuance down to 10%
11. Number of listed German real estate companies down 20% since 2011



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



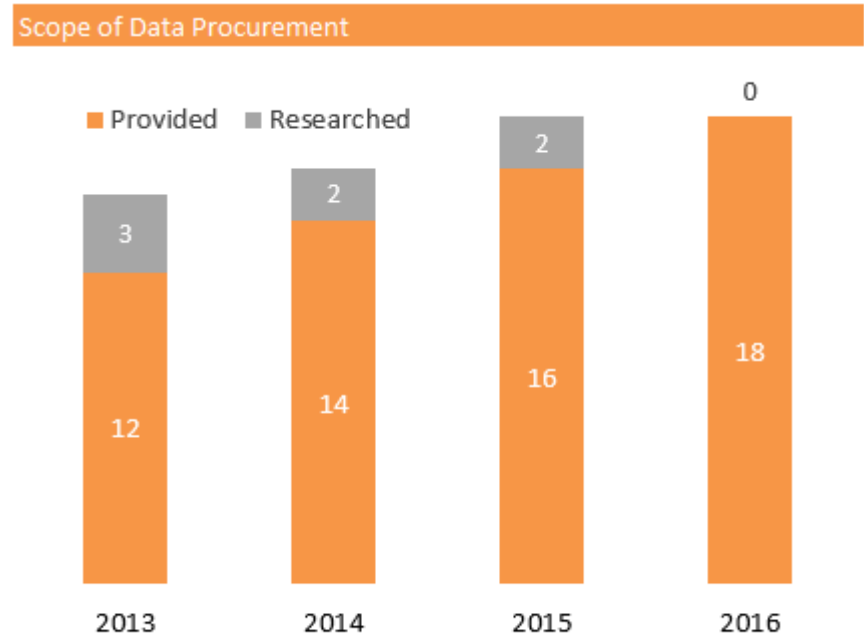
Quelle: Unternehmensangaben, ZIA, Barkow Consulting

- 4th edition emphasizes the growing importance of listed real estate in Germany



- All 18 leading German real estate companies support research effort and have provided data
- Crucial data gap closed emphasizing importance of listed real estate in Germany

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



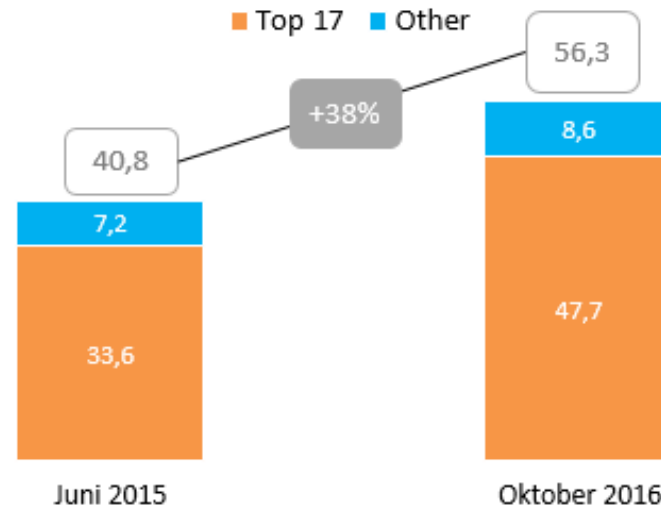
Source: Company data, ZIA/Barkow Consulting



Development of Market Capitilisation

- Top 17 reпреent 85% of sector
- Market cap reaches EUR56bn ...
- ... superceding EUR50bn threshold for the first time and significantly

Listed Real Estate: Development of Market Cap*



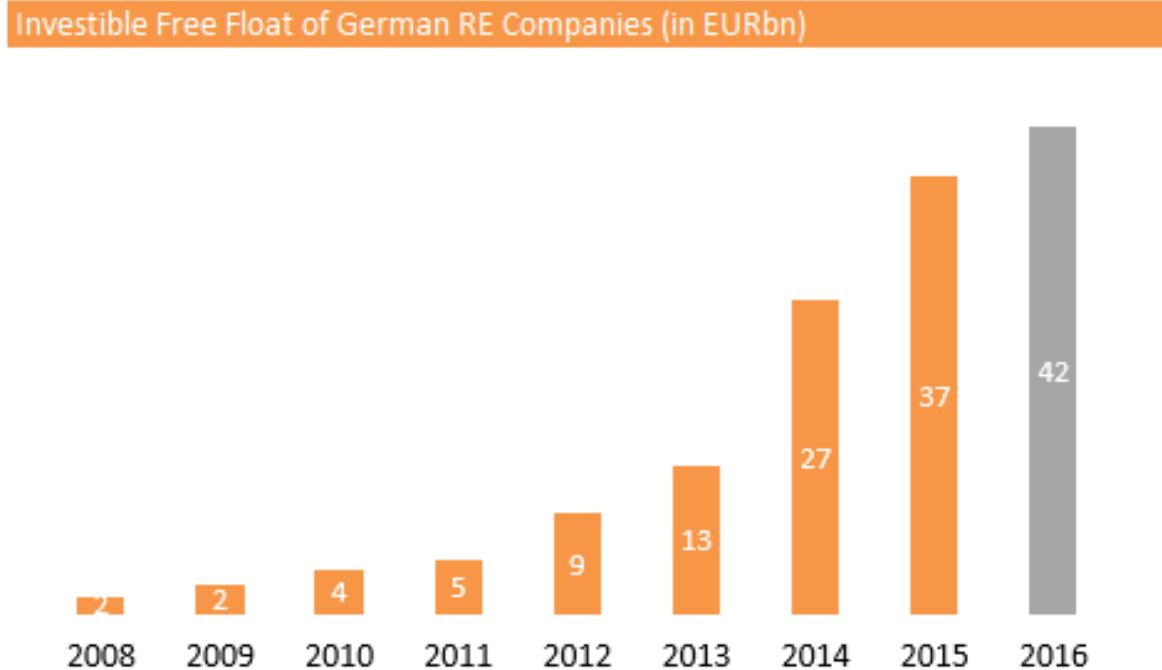
*) including Buwog

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



Development of Top 17 Free Float over the Long Run

- Free Float up from EUR1.5b in 2008 yoy to EUR42bn in 2016
- Sector growth seems to be moderating, however

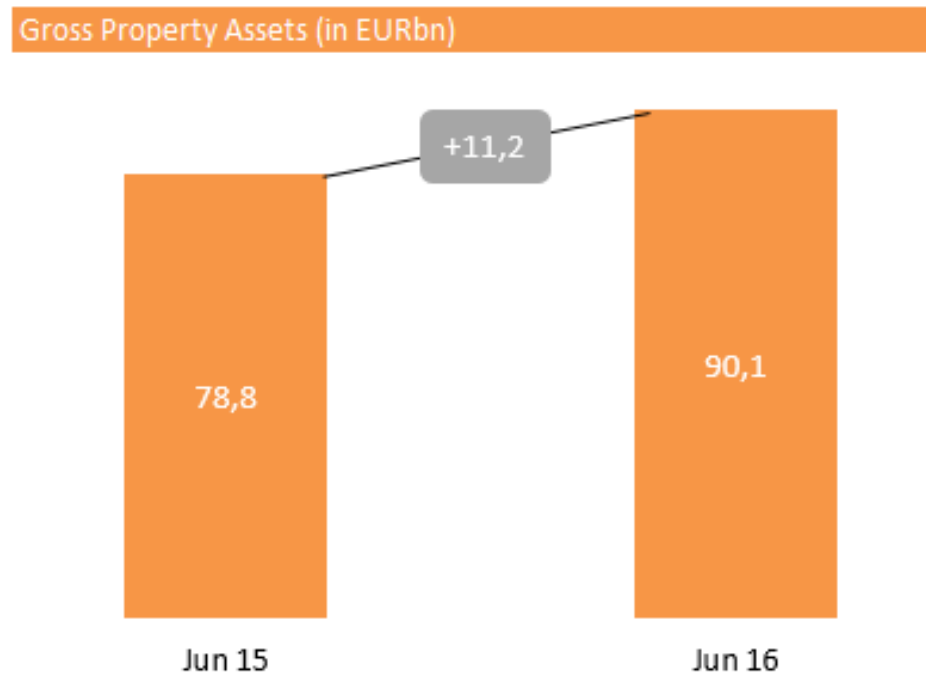


Source: Company data, Bloomberg, ZIA/Barkow Consulting



Development of Gross Property Value

- Gross Property Value increases to EUR90.1bn (up 14% or EUR11.2bn yoy)

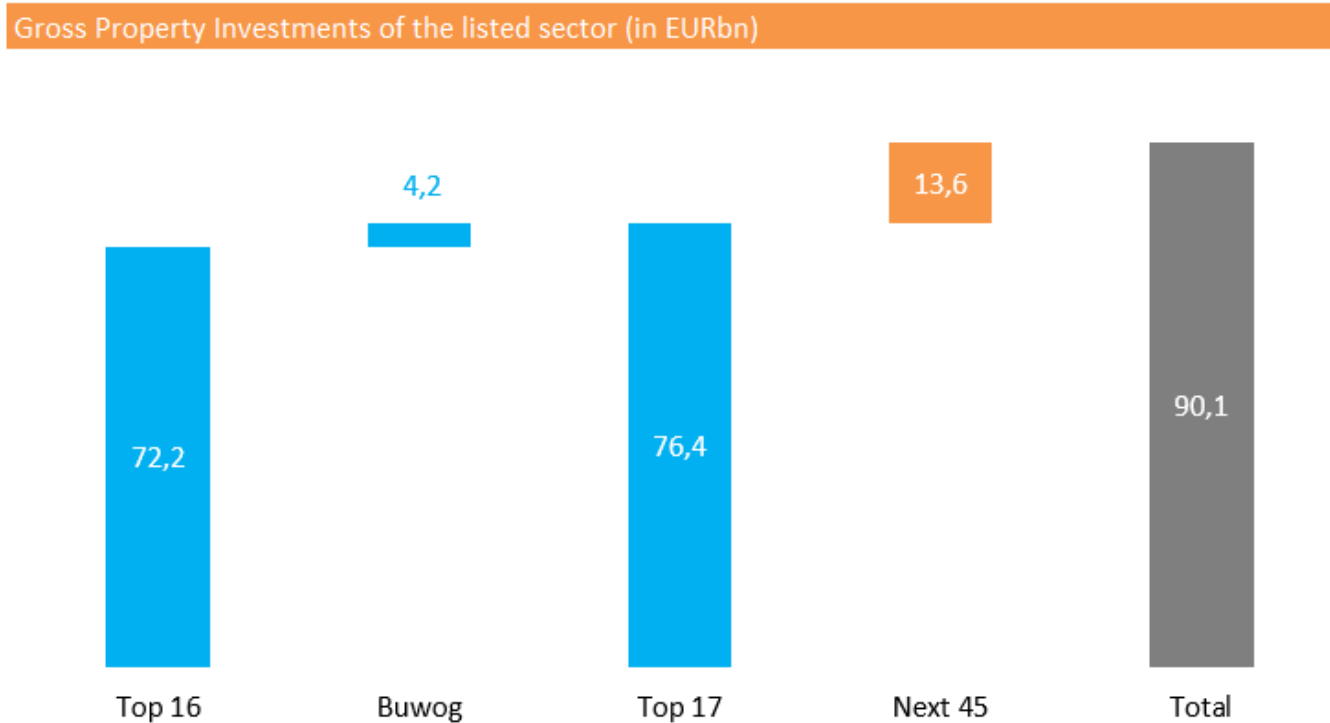


Source: Company data, Bloomberg, Ellwanger & Geiger, ZIA/Barkow Consulting



Development of Gross Property Value

- Top 17 companies hold properties valued at EUR76bn



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

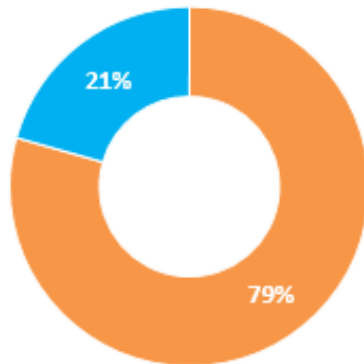


Gross Property Assets

- Share of residential real estate assets further up by 1%p yoy to now 79%
- Share of international assets still negligible at 3% and even marginally down yoy

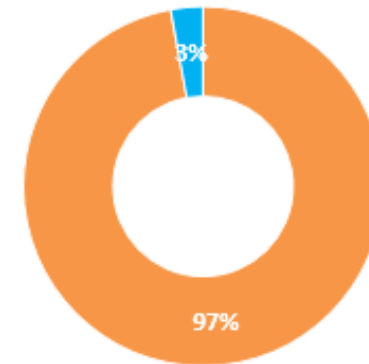
Property Assets by Sector

■ Residential ■ Commercial



Property Assets by Region

■ Germany ■ International



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

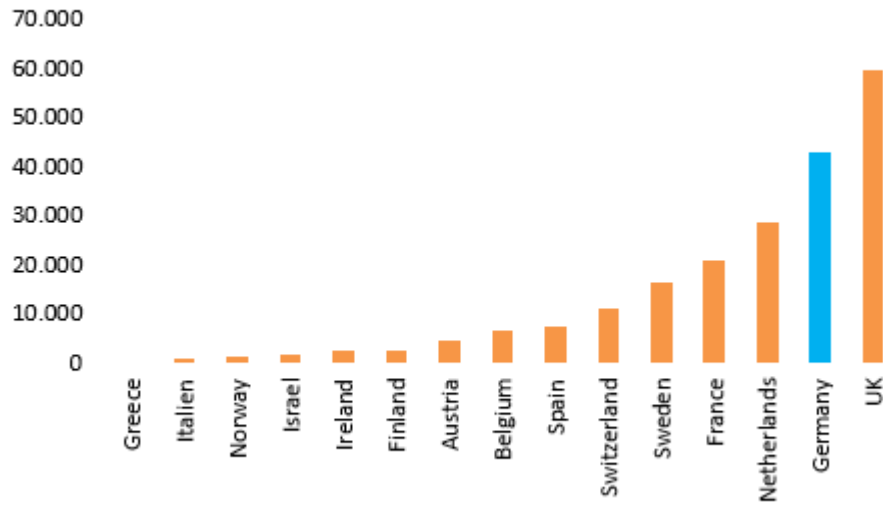
Source: Company data, Bloomberg, Ellwanger & Geiger, ZIA/Barkow Consulting



Development in European Context

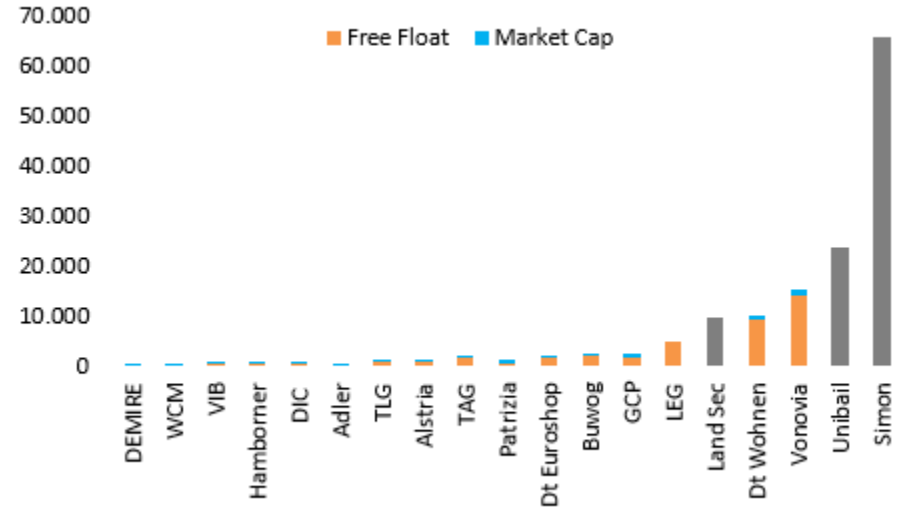
- Germany remains 2nd largest country
- Gap to UK significantly narrowed, down 2/3 to currently EUR17bn
- Vonovia 2nd largest European company
- Dt. Wohnen at No.3

Free Float Cap by Country (EPRA Members, in EURm)



Source: EPRA, ZIA/Barkow Consulting

Free Float Cap by Company (EPRA Members & Simon Properties, in EURm)



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

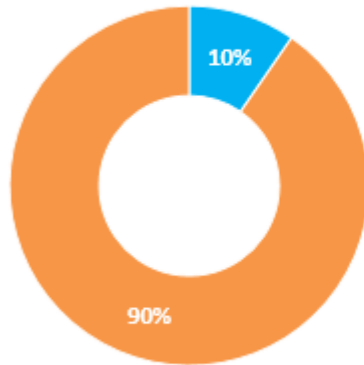


Germany increases share in EPRA Developed Europe Index

- German share currently 21%
- German share more than doubled since 2013
- Germany a double Brexit winner

German Share of EPRA Developed Europe Index 2013

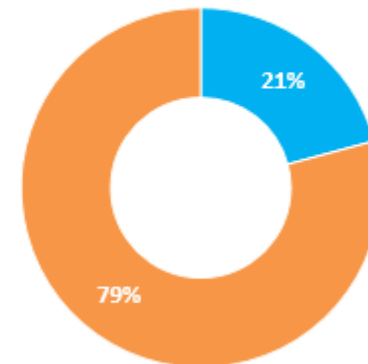
■ Germany ■ RoE



Source: EPRA, ZIA/Barkow Consulting

German Share of EPRA Developed Europe Index 2016

■ Germany ■ RoE



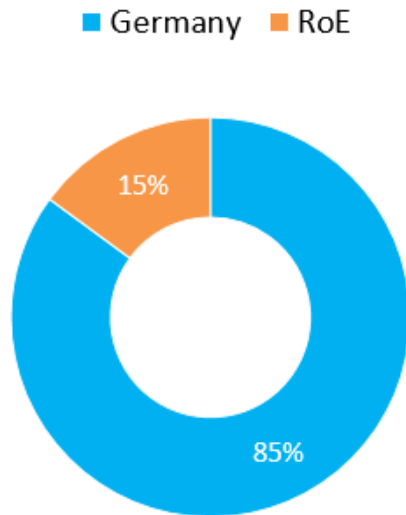
Source: EPRA, ZIA/Barkow Consulting



European Sector Weights

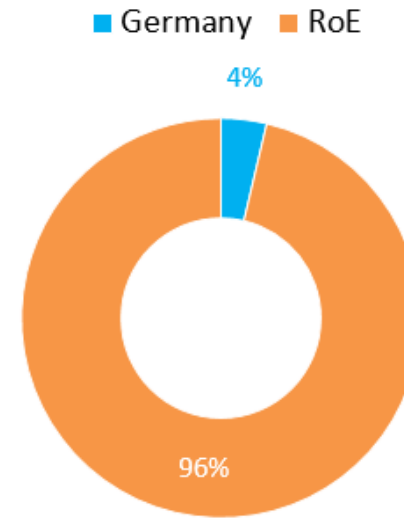
- German Resi dominates European residential sector
- Germany's weight in the European commercial sector still negligible

European Residential Sector



Source: EPRA, ZIA/Barkow Consulting

European Commercial Sector



Source: EPRA, ZIA/Barkow Consulting

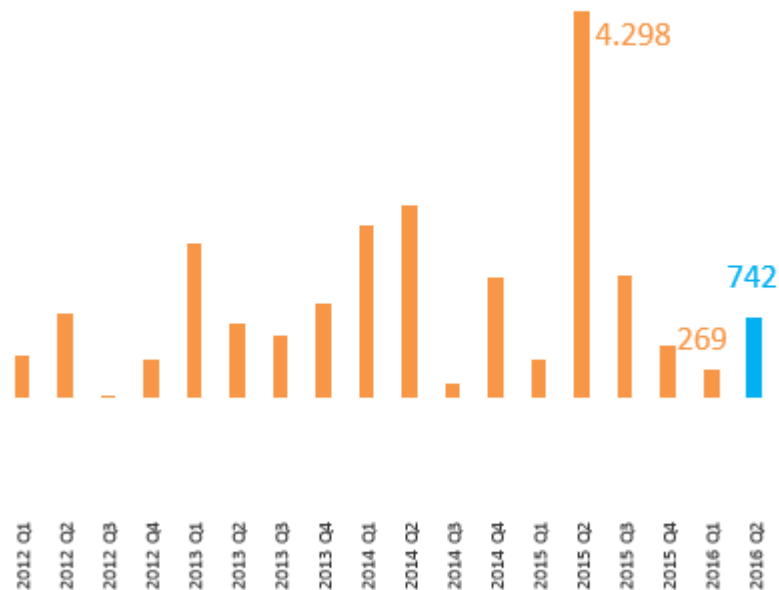


Development of Equity Issuance

- Slowing: EUR1bn issued in H1 2015 (down 78% yoy)
- Slight improvement in Q2
- No IPO, two Listings (Corestate, DEFAMA)

Listed Real Estate: Q2 Still Slow

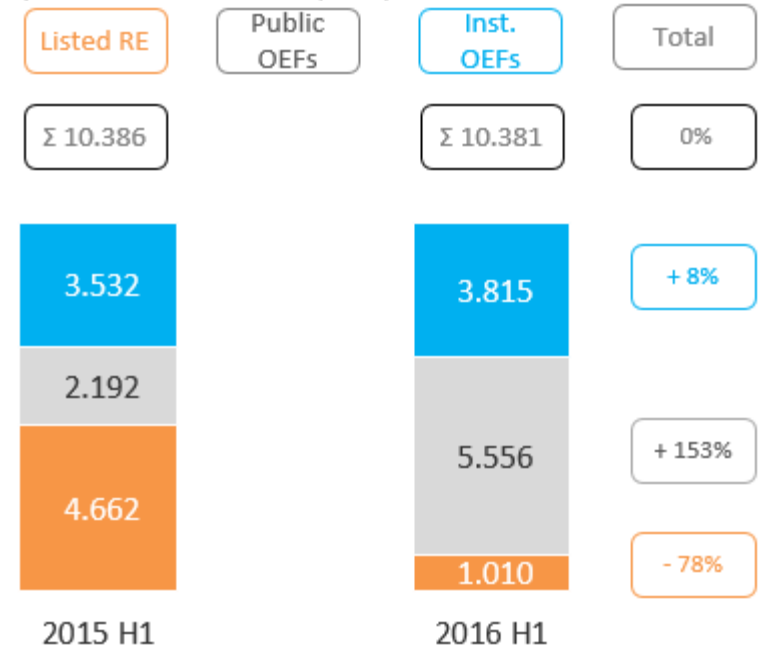
Listed RE equity placements
(in €m)



Source: Barkow Consulting 'German RE Capital Markets Database'

Slow Flows for Listed Real Estate

Net capital flows of indirect RE investment vehicles
(Closed end funds not available, in €m)



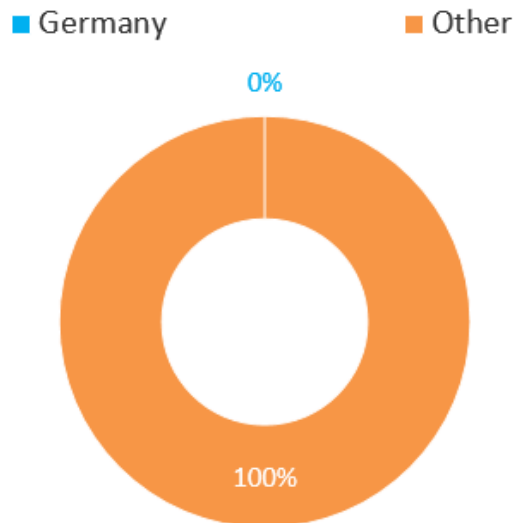
Source: Deutsche Bundesbank, Barkow Consulting 'German RE Capital Markets Database'



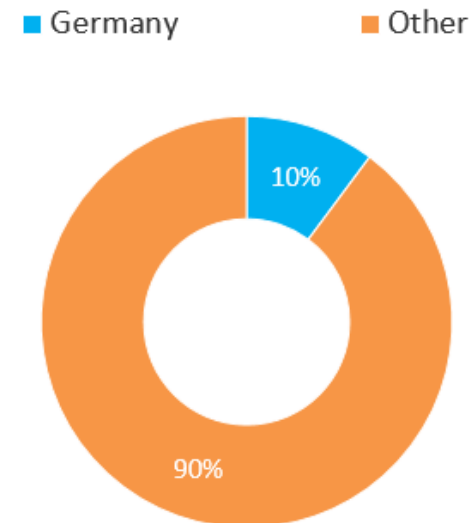
European Equity Issuance and IPOs 2016

- 6 European IPOs until Q3, none in Germany
- Germany with 10% equity placement share until Q3

German Share of European Real Estate IPOs (in # of IPOs)



German Share of European Real Estate Equity Placements (in €bn)



Source: EPRA, ZIA/Barkow Consulting

Source: EPRA, ZIA/Barkow Consulting



German Real Estate: A shrinking sector

- Number of German real estate stocks down by >20% since 2011



Source: Ellwanger & Geiger, ZIA/Barkow Consulting



Most data points with new highs

German Listed Sector: Property Data				
in EURbn @ Period End	Jun 15	Jun 16	Delta ¹⁵⁻¹⁶	Delta ¹⁵⁻¹⁶
Total Property on Balance Sheet (total assets)	78,8	90,1	11,2	14,3%
By Sector				
Residential	61,8	71,5	9,6	15,6%
Commercial	17,0	18,6	1,6	9,5%
By Geography				
Germany	76,3	87,4	11,1	14,6%
International	2,6	2,6	0,0	-1,1%
German Listed Sector: Capital Markets Data				
in EURbn @ Period End	Jun 15	Okt 16	Delta ¹⁵⁻¹⁶	Delta ¹⁵⁻¹⁶
Total Market Cap	40,8	56,3	15,4	37,8%
Top 17 Market Cap	33,6	47,7	14,0	41,7%
Top 17 Free Float	28,4	41,6	13,2	46,4%
EPRA Europe ex UK EU German Share	27,0%	29,9%	2,9%	10,6%
EPRA Europe German Share	15,9%	20,8%	4,9%	30,5%

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



Can the trend continue?

- Hard to see how positive drivers can get better still
 - Interest rates below zero
 - Large companies relatively well capitalised
 - Large portfolios hard to find

- Future growth will depend on
 - Improved growth momentum in commercial sector
 - Interest rate environment