

Real Estate Monitor

PwC's Real Estate Institute

September, 2020

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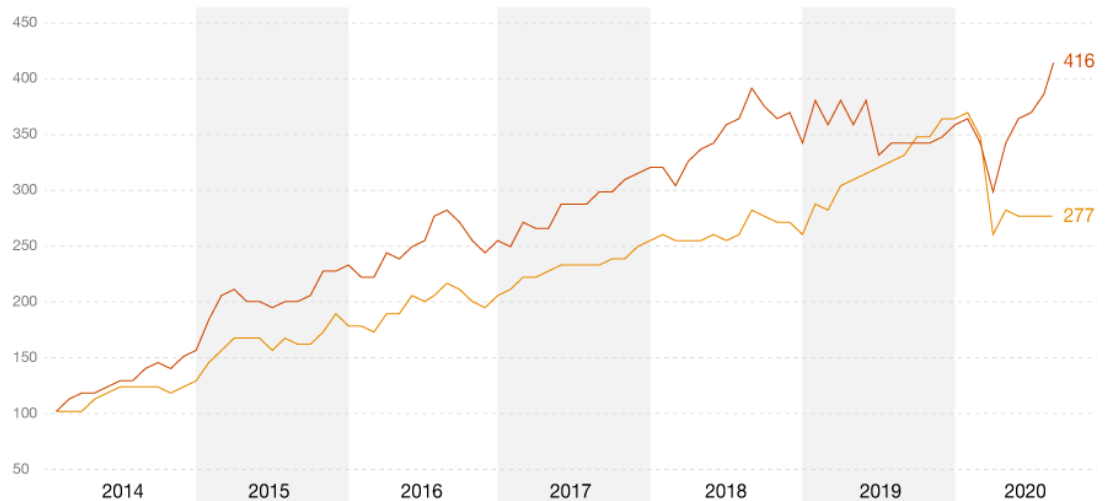
Residential on all-time high while commercial does not change at all

Real Estate Monitor, September 2020

Last month, the PwC Real Estate Index for residential companies (+8.2%) again clearly outperformed its commercial counterpart (+0.2%) and both indices continue to follow their general trends of recent months. Commercial has continued to develop as an “L-shape” since the beginning of the COVID-19 crisis in February. Residential development completed its “V-shape” and has reached a new all-time high in August 2020.

The average Real Estate WACC* for German real estate companies slightly rose last month by +0.2% points, a first time since March 2020. The global average Real Estate WACC fell by -0.1% points, which slightly reduced the gap between German and global WACC.

PwC Real Estate Index. Germany (Jan 2014 – August 2020)



Performance (31 August 2020)

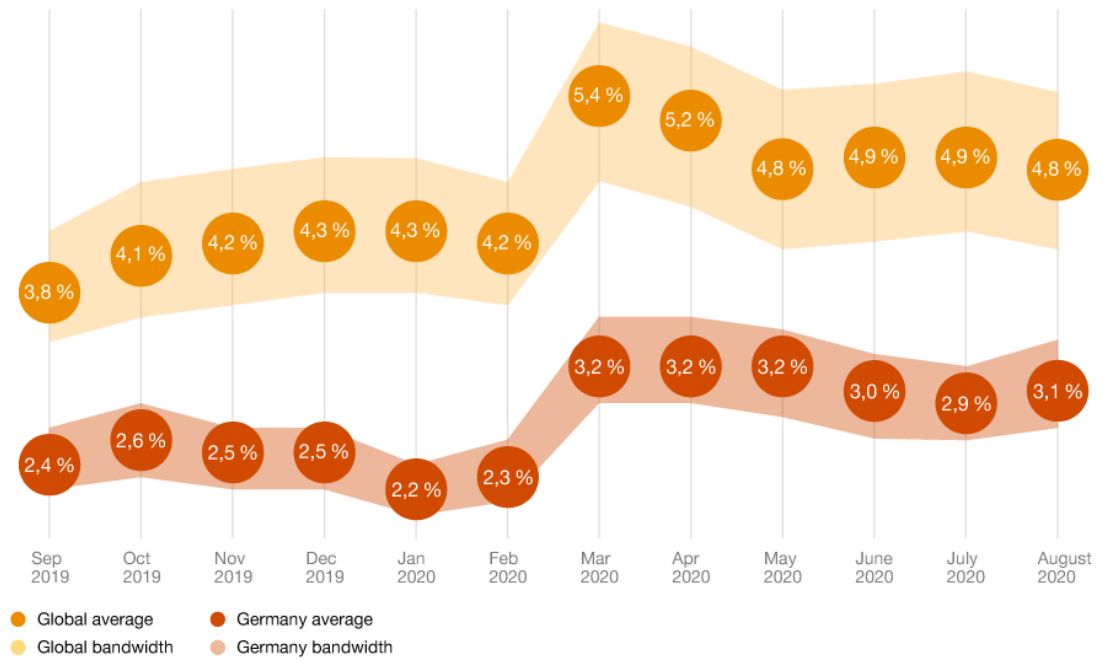
Index	YTD	1 Month	3 Month	6 Month	1 Year	2 Years	3 Years	5 Years
Commercial	-23,71 %	0,2 %	-0,3 %	-21,0 %	-16,7 %	-1,2 %	18,0 %	68,7 %
Residential	16,37 %	8,2 %	13,7 %	21,3 %	22,4 %	5,6 %	39,4 %	107,2 %

Source: PwC "Real Estate Monitor"

Stock price data per company within the respective peer group is collected using the S&P Capital IQ Data Item „IQ_ClosePrice_Adj“. Capital IQ defines the Close Price as: The closing price of the day, calculated once per day after the market close. This price is adjusted for stock splits. To obtain the price unadjusted for stock splits, multiply it by the data item called Cumulative Stock Split Factor. The applied adjustment is defined as: Close prices are adjusted for stock splits, cash dividends, rights offerings, and spin-offs.

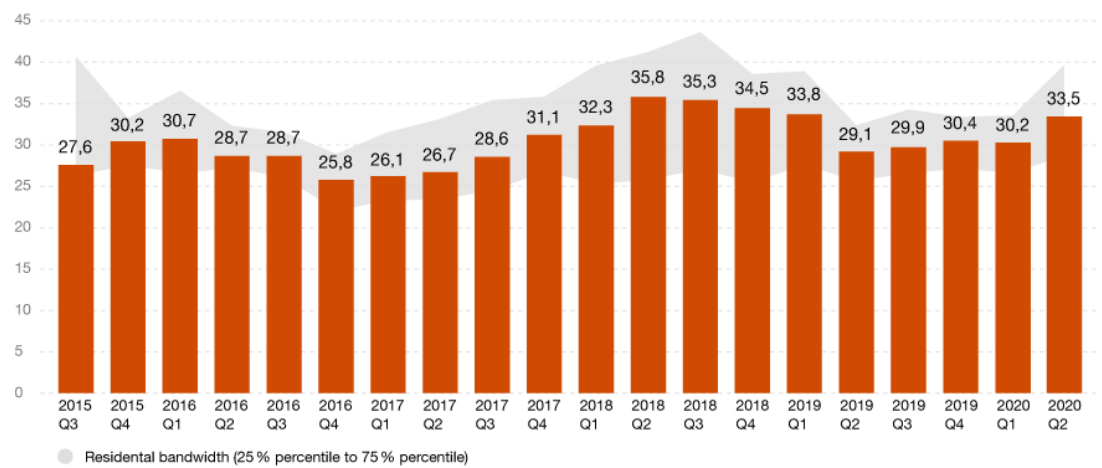
*Following the publication by IDW FAUB as of 10/25/2019 the market risk premium bandwidth was adjusted upward from 5.5%-7.0% to 6.0%-8.0% (before personal taxes) for periods after the above mentioned date.

Weighted Average Cost of Capital (WACC)



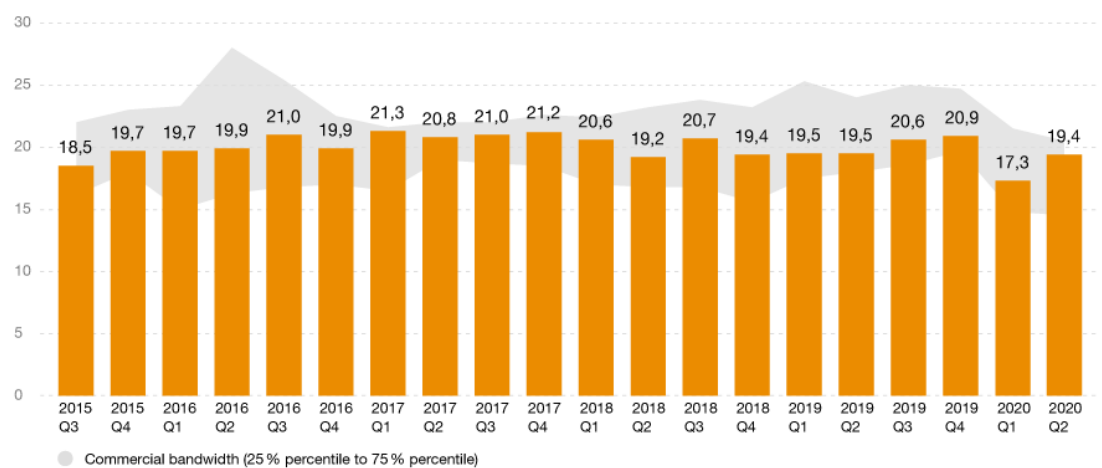
Source: PwC "Real Estate Monitor"

EBITDA Multiple – Residential Germany (per quarter)



Source: PwC "Real Estate Monitor"

EBITDA Multiple – Commercial Germany (per quarter)



Source: PwC "Real Estate Monitor"

Real Estate Monitor

PwC's Real Estate Institute – Real Estate KPIs

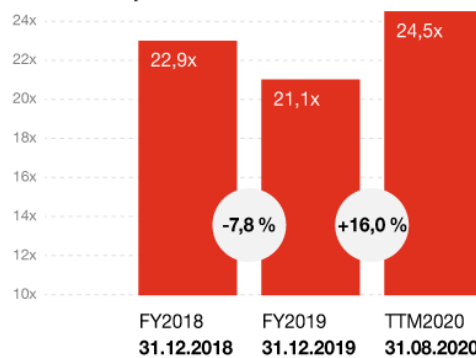
Residential real estate already back at pre-COVID-19 crisis level

Sharp decline in commercial real estate

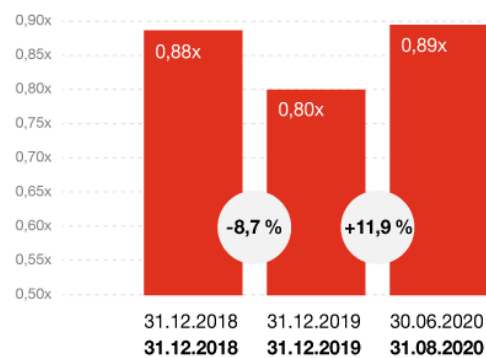
In order to gain insight into the changes in value of 18 major players in the German real estate market, we have analysed the sector-specific Real Estate KPIs FFO 1 and EPRA NAV from the financial periods FY2018, FY2019 and TTM2020, i.e. Q3 2019 to Q2 2020 (TTM: Trailing Twelve Months). We have put the share prices on the balance sheet dates 31 Dec 2018, 31 Dec 2019 and 31 August 2020 in relation to the above-mentioned key figures from the corresponding financial periods. The resulting average ratios by segment are shown in the figures below.

Sector-specific KPIs FFO 1 and EPRA NAV Residential

FFO 1 multiple

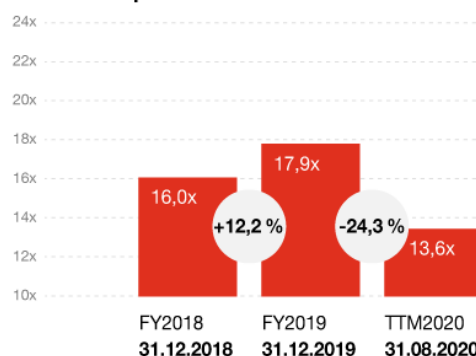


Price/EPRA NAV ratio

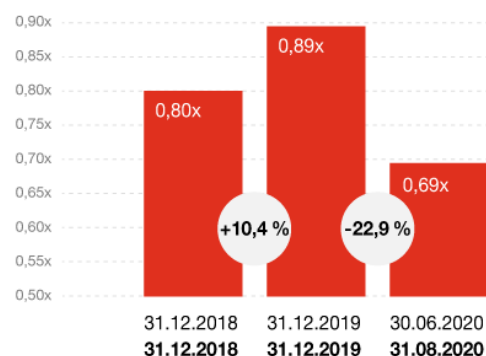


Sector-specific KPIs FFO 1 and EPRA NAV Commercial

FFO 1 multiple



Price/EPRA NAV ratio



Source: PwC "Real Estate Monitor"

FFO 1 multiples and Price/EPRA NAV ratios by segment

The table below shows the individual FFO 1 multiples and Price/EPRA NAV ratios of our peer group by segment. The key figures relate to the financial periods FY2018, FY2019 and TTM2020 and the share prices as of 31 December 2018, 31 December 2019 and 31 August 2020.

Reading example: Vonovia was valued by the market at 21.3x of its FFO 1 as of 31 December 2019, whereas on 31 August 2020 it was valued at 25.6x of its FFO 1.

Stock price as of KPI (FFO and NAV) as of	FFO 1 multiple			Price/EPRA NAV ratio		
	31.12.2018 FY2018	31.12.2019 FY2019	31.08.2020 TTM2020	31.12.2018 31.12.2018	31.12.2019 31.12.2019	31.08.2020 30.06.2020
RESIDENTIAL						
ADLER Real Estate AG	13,9x	12,8x	* 12,0x	0,63x	0,49x	0,51x
ADO Properties SA	30,1x	22,4x	31,3x	0,83x	0,49x	0,62x
Deutsche Wohnen SE	29,4x	24,3x	28,6x	0,95x	0,77x	0,94x
Grand City Properties SA	15,9x	16,8x	17,3x	0,84x	0,87x	0,88x
GSW Immobilien AG	36,2x	29,4x	35,2x	-	-	-
LEG Immobilien AG	18,1x	20,0x	24,1x	0,95x	1,00x	1,04x
TAG Immobilien AG	21,6x	21,9x	22,0x	1,15x	1,08x	1,21x
Vonovia SE	18,2x	21,3x	25,6x	0,79x	0,88x	1,06x
25 %-Percentile	17,5x	19,2x	20,8x	0,81x	0,63x	0,75x
Average	22,9x	21,1x	24,5x	0,88x	0,80x	0,89x
75 %-Percentile	29,6x	22,9x	29,3x	0,95x	0,94x	1,05x
COMMERCIAL						
alstria office REIT-AG	18,8x	26,6x	20,0x	0,81x	0,94x	0,71x
Aroundtown SA	18,5x	18,6x	8,4x	0,94x	0,92x	0,49x
CPI Property Group SA	38,8x	28,3x	25,9x	1,41x	1,18x	1,23x
Deutsche EuroShop AG	10,4x	10,9x	5,7x	0,59x	0,62x	0,31x
Deutsche Real Estate AG	5,9x	14,4x	11,5x	0,21x	0,52x	0,43x
DIC Asset AG	9,4x	12,0x	8,4x	0,59x	0,92x	0,62x
Fair Value REIT-AG	13,8x	16,6x	15,5x	0,77x	0,73x	0,62x
Hamborner REIT AG	12,7x	14,4x	12,7x	0,78x	0,84x	0,78x
TLG Immobilien AG	18,6x	20,8x	12,3x	0,92x	0,87x	0,48x
VIB Vermoegen AG	12,9x	16,8x	15,3x	1,04x	1,34x	1,19x
25 %-Percentile	11,0x	14,4x	9,2x	0,63x	0,75x	0,48x
Average	16,0x	17,9x	13,6x	0,80x	0,89x	0,69x
75 %-Percentile	18,6x	20,2x	15,5x	0,93x	0,93x	0,76x

* No data available in the quarterly report. Therefore, the stock market prices as of 31.08.2020 were put in relation to the FY2019 figures.

Source: PwC "Real Estate Monitor"

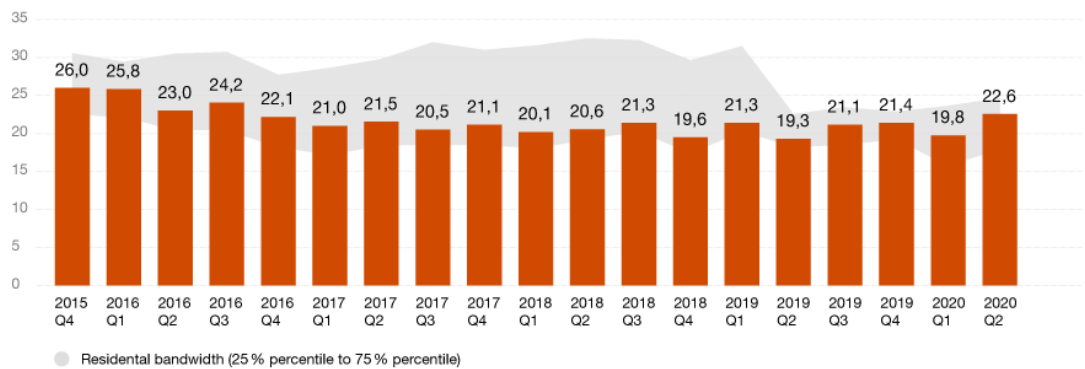
Residential real estate companies are outperforming pre-crisis level

The key figures show that German commercial real estate companies are still severely affected by the COVID-19 crisis, while German residential real estate companies are rated higher than before the crisis.

Comparing 31.12.2019 with 31.08.2020, the assessed real estate KPIs for commercial real estate companies fell by more than 20% and rose by ~15% for residential real estate companies.

This finding fits to both FFO 1 multiple and price/EPRA NAV ratio in the same ranges.

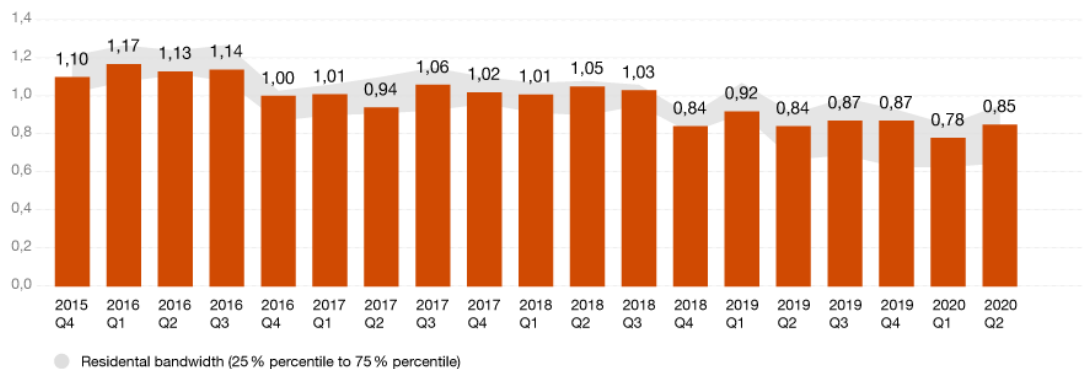
FFO 1 Multiple – Residential Germany (per quarter)



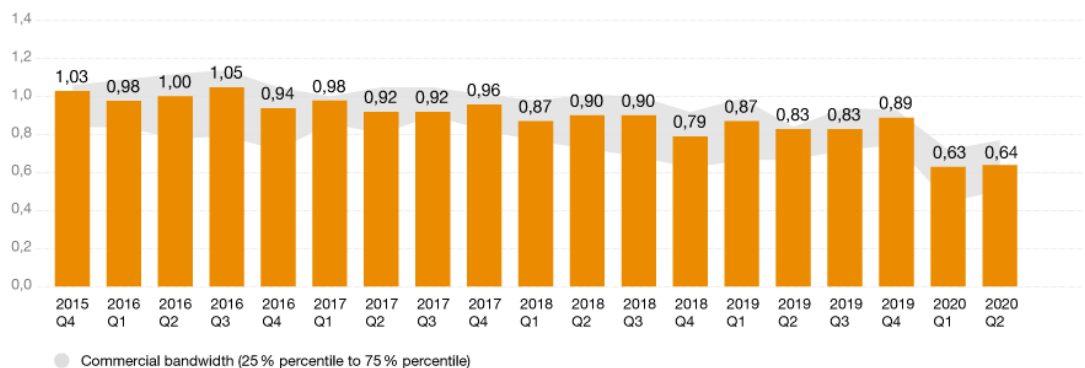
FFO 1 Multiple – Commercial Germany (per quarter)



Price/EPRA NAV ratio - Residential Germany (per quarter)



Price/EPRA NAV ratio - Commercial Germany (per quarter)



Source: PwC "Real Estate Monitor", September 2020

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