

Real Estate

A Research Publication by DZ BANK AG

Grand City Properties⁵⁾⁸⁾⁹⁾¹¹⁾¹²⁾

Reuters: GYC.DE

Bloomberg: GYC GY

Year *	Total performance real estate		NAV per sh. diluted		Prem./ Disc.NAV	FFO per sh. diluted		FFO Yield	Dividend per share
	EUR bn		EUR		%	EUR		%	EUR
2016	0.8	(0.8)	16.40	(16.40)	5.4	1.05	(1.05)	6.1	0.68
2017e	0.7	(0.7)	19.47	(19.47)	-6.2	1.10	(1.10)	6.0	0.71
2018e	0.6	(0.6)	21.53	(21.53)	-15.2	1.18	(1.18)	6.4	0.76
2019e	0.6	(0.6)	23.56	(23.56)	-22.5	1.29	(1.29)	7.0	0.84

* Fiscal year end December – In brackets: Figures from the last publication

Inclusion in MDAX and Moody's upgrade to Baa1

- » **MDAX:** Deutsche Börse has decided to include Grand City Properties in the MDAX after close of trading on the next scheduled chaining date on 15 September and therefore effectively from 18 September.
- » **Rating** The rating agency Moody's has upgraded its credit rating from Baa2 to Baa1 and refers here to solid financial ratios and positive operating performance. The S&P rating remains unchanged at BBB+.
- » **Portfolio:** The real estate portfolio currently includes around 87,000 real estate units (vs. 83,000 at year-end 2016). The vacancy rate currently stands at around 7.4% and net basic rent averaged around EUR 5.45 per square metre.
- » **Outlook:** Management provides a run-rate outlook which extrapolates the performance of the current month to the full-year. Based on the month of August, this outlook calls for net rental income of EUR 338m and a FFO1 of EUR 177m, respectively EUR 1.15 FFO1 per share. In line with the current dividend policy with a payout ratio of 65%, this would correspond to a dividend of EUR 0.75.
- » **Valuation:** Our Fair Value of EUR 21.5 is based on our Net Asset Value (NAV) estimate for 2018.

Deutsche Börse has decided to include Grand City Properties in the MDAX effectively from 18 September. The rating agency Moody's has upgraded its credit rating from Baa2 to Baa1 and refers here to solid financial ratios and positive operating performance. We confirm our BUY recommendation and the underlying Fair Value of EUR 21.5, which is based on our estimate for Net Asset Value for 2018.

Selected Companies	Price on 6 Sep 2017	NAV-P/D %		EV / EBITDA		FFO Y. %	Re-com.
		17e	18e	17e	18e	17e	
Grand City Properties	18.26 EUR	-6.2	-15.2	7.3	9.4	6.0%	↑
Deutsche Wohnen	35.00 EUR	2.6	-12.4	7.6	7.5	3.6%	↑
ADLER Real Estate	13.53 EUR	-12.3	-25.7	8.4	9.1	4.7%	↑
DIC Asset	9.38 EUR	-28.1	-28.6	19.7	22.7	9.3%	↑
Deutsche EuroShop	33.13 EUR	-22.1	-23.9	19.2	18.8	7.4%	↑
Median for all peer group companies		-17.2	-24.8	13.8	14.0	6.1%	-

↑ = Buy, → = Hold, ↓ = Sell, ● = not rated, n/a = not appropriate
Source: DZ BANK, I/B/E/S, FactSet

EQUITIES

Flash

Completed: 8 Sep 2017, 10:47

Buy (prev. Buy)

Closing price 6 Sep 2017

(in EUR): 18.26

Fair value: 21.50 (prev. 21.50)

Financial ratios 2017e:

Book value per share (in EUR):	21.22
Equity ratio (in %):	53.3
NOI yield (in %):	4.8
ROE (in %):	15.6
Dividend yield (in %):	3.9
Free cash flow (EUR m):	-103.6
Net debt (EUR m):	2,014.7

Number of shares

(million units): 164.8

Market cap

(in EUR bn): 3.01

Free float (in %): 63.9

SIN: A1JXCV

ISIN: LU0775917882

Datastream: D:GYCX

Next Newsflow:

17.11.2017: Q3 2017



Author: Karsten Oblinger, Analyst

This Research publication is a translated version. The original document was completed on 08.09.2017 at 9:59 and published for the first time on 08.09.2017 at 10:08.

AT A GLANCE

Company profile

Grand City Properties S.A. is a specialist real estate company focused on investing in and managing turnaround opportunities in the German residential real estate property market. The Group's portfolio is located in densely populated areas with a focus on North Rhine-Westphalia, Berlin, Bavaria and other highly densely areas.

Basis for investment recommendation

Grand City Properties has shows significant profitable growth over the last quarters and the portfolio consists of 84k real estate units actually. Crucial to us is the solid financing structure of the company. Here we refer to a BBB+ rating and a conservative LTV.

Price sensitive current issues

- » Successful execution at existing portfolio (restructuring, vacancy reduction, cost reduction, etc.).
- » Additional growth via acquisitions & related capital measures
- » General trends of German residential sector (prices, rents, regulatory issues).
- » Further optimisation of financing structure.

Opportunities and risks

Opportunities	Risks
Successful execution on existing portfolio.	Execution risks in conjunction with the high growth mode.
Further profitable growth.	High dependency on key people.
Improvements of German resi market (prices, rents, regulatory issues).	Deterioration of German resi market (prices, rents, regulatory issues).
Further optimisation of financing costs (e.g. rating upgrade)	Rising interest rates mid to long term.

Topical share price-sensitive issues along with risks and opportunities have been factored into our recommendation as far as possible. Taking into account the current share price, we believe that price-sensitive opportunities currently outweigh other factors.

PROFIT AND LOSS ACCOUNT

Euro m	2016	2017e	2018e	2019e
Gross rental income (cold)	435.7	485.0	520.2	557.7
Rent expenses (ground rents paid, ...)	0.0	0.0	0.0	0.0
Net cold rent (NCR)	435.7	485.0	520.2	557.7
Net service, oper. exp. inv. prop. (dir. attributable)	-204.1	-237.7	-254.9	-273.3
Net operating income investment prop. (NOI)	231.6	247.4	265.3	284.4
Profit/loss from sales of properties	2.0	20.0	22.0	0.0
Fair value changes of properties	598.3	465.0	315.0	300.0
Total performance investment properties	831.9	732.4	602.3	584.4
Change in inventory/Own work	0.0	0.0	0.0	0.0
Total output	831.9	732.4	602.3	584.4
% against prev. year	69%	-12%	-18%	-3%
Cost of materials	0.0	0.0	0.0	0.0
Personnel expenses	0.0	0.0	0.0	0.0
Other operating income	0.5	0.0	0.0	0.0
Other operating expenses	-9.2	-9.5	-10.0	-10.1
Extraordinary income/expenses	0.0	0.0	0.0	0.0
EBITDA	823.2	722.9	592.3	574.4
For information: EBITDA adjusted	822.8	722.9	592.3	574.4
Depreciation	-0.3	-1.5	-1.5	-1.6
thereof on goodwill	0.0	0.0	0.0	0.0
Operating profit (EBIT)	822.8	721.4	590.8	572.7
For information: EBIT adjusted	822.8	721.4	590.8	572.7
% against prev. year	69%	-12%	-18%	-3%
Interest paid / received	-47.4	-39.0	-38.5	-42.1
Profit before tax	775.4	682.4	552.3	530.7
For information: EBT adjusted	775.4	682.4	552.3	530.7
% against prev. year	69%	-12%	-19%	-4%
Income taxes from continuing operations	-122.3	-98.0	-104.0	-99.9
Tax rate	16%	14%	19%	19%
Net profit from continuing operations	653.1	584.4	448.3	430.8
Net profit from discontinued operations	0.0	0.0	0.0	0.0
Net profit	653.1	584.4	448.3	430.8
Profit or loss attributable to minority interest	-108.3	-50.0	-50.5	-51.0
Profit or loss attributable to shareholders	544.8	534.4	397.8	379.8
thereof from continuing operations	544.8	534.4	397.8	379.8
thereof from discontinued operations	0.0	0.0	0.0	0.0
Weighted average number of shares, diluted (m)	167.800	159.300	164.789	164.789
IFRS earnings per share, diluted	3.25	3.35	2.41	2.30
Adjusted earnings per share, diluted (contin.)	3.25	3.35	2.41	2.30
For information				
FFO, diluted	160.1	175.1	193.8	211.9

Fiscal year end December

Source: Grand City Properties and DZ BANK estimates

RATIOS

Euro	2016	2017e	2018e	2019e
Profit and loss ratios				
Net cold rent (NCR)	435.7	485.0	520.2	557.7
Net operating income investment prop. (NOI)	231.6	247.4	265.3	284.4
Profit/loss from sales of properties	2.0	20.0	22.0	0.0
Fair value changes of properties	598.3	465.0	315.0	300.0
Total performance investment properties	831.9	732.4	602.3	584.4
Total output (m)	831.9	732.4	602.3	584.4
EBITDA margin	98.9%	98.7%	98.3%	98.3%
EBIT margin	98.9%	98.5%	98.1%	98.0%
Net margin	78.5%	79.8%	74.4%	73.7%
Investment ratio	86.9%	54.9%	66.7%	42.8%
Cost of materials / total performance i.	0.0%	0.0%	0.0%	0.0%
Net other operat. costs as % of total performance i.	1.0%	1.3%	1.7%	1.7%
Net financial income as % of total performance i.	-5.7%	-5.3%	-6.4%	-7.2%
Interest cover	22.7	18.5	15.3	13.6
Average FFO growth next two years	6.0%	8.1%	8.4%	
Average NAV growth next two years	14.6%	10.0%	7.1%	
Profitability ratios				
ROE	21.3%	15.6%	11.0%	9.8%
ROCE	17.2%	12.9%	9.5%	8.6%
Productivity ratios				
Total performance i. per employee ('000)	1354.83	1144.30	912.58	859.46
FFO diluted per employee ('000)	260.69	273.60	293.58	311.55
Balance sheet ratios				
Equity ratio	49.8%	53.3%	54.1%	55.5%
Long term debt and equity / Fixed assets	113.4%	113.4%	110.6%	108.5%
Liquidity (quick ratio)	295.7%	344.7%	341.0%	309.3%
Net debt (m)	1,966.5	2,014.7	2,262.7	2,362.7
Net debt complete (m)	1,668.8	1,712.1	1,955.0	2,050.0
Figures per share				
Earnings per share, diluted	3.25	3.35	2.41	2.30
FFO per share, diluted	1.05	1.10	1.18	1.29
Cash flow per share, diluted	-2.12	-0.90	-0.79	0.16
Free cash flow per share, diluted	-2.12	-0.65	-0.56	0.41
Dividend per common share	0.68	0.71	0.76	0.84
Cash per share, diluted	2.68	3.35	2.77	2.16
Net debt per share, diluted	11.75	12.23	13.73	14.34
NAV per share, diluted	16.40	19.47	21.53	23.56
Valuation ratios				
EV / total performance i.	5.8	7.2	9.2	9.8
Enterprise value / EBITDA	5.8	7.3	9.4	10.0
Dividend yield per common share	3.93%	3.91%	4.19%	4.58%
Price / Cash flow common share				115.9

1) – 12) Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

Euro	2016	2017e	2018e	2019e
FFO (Funds from Operations) (m)				
Net profit from continuing operations	653.1	584.4	448.3	430.8
Depreciations less reversals	0.0	1.5	1.5	1.6
Profit/loss on disposal of trading properties (net)	0.0	0.0	0.0	0.0
Profit/loss on disposal of investment properties (net)	-1.7	-17.1	-17.9	0.0
Valuation movements (net)	-503.9	-398.2	-255.7	-243.5
extraordinary income/expense (net)	0.0	0.0	0.0	0.0
Others (net)	12.6	4.6	17.5	23.0
FFO	160.1	175.1	193.8	211.9
Result attributable to minority interests				
FFO after minority interests	160.1	175.1	193.8	211.9
Interest expense mandatory convertible bond				
Interest expense after tax convertible bond				
FFO, diluted	160.1	175.1	193.8	211.9
Weighted aver. number of shares for FFO, diluted (m)	153.000	159.300	164.789	164.789
NAV (Net Asset Value) (m)				
Shareholders' equity	3,065.1	3,743.7	4,074.3	4,379.1
Deferred tax assets	14.5	14.5	14.5	14.5
Deferred tax liabilities	326.0	392.8	452.1	508.6
Others	-638.9	-667.4	-667.4	-642.4
Net Asset Value (NAV)	2,737.6	3,454.6	3,844.5	4,230.7
Equity attributable to minority interests	-196.7	-246.7	-297.2	-348.2
Net Asset Value (NAV) after minority interests	2,541.0	3,207.9	3,547.3	3,882.6
Convertible bond	0.0	0.0	0.0	0.0
Diluted NAV after minority interests	2,541.0	3,207.9	3,547.3	3,882.6
Number of shares for NAV, diluted (m)	154.900	164.790	164.789	164.789
FFO, NAV ratios				
FFO per share, diluted	1.05	1.10	1.18	1.29
Dividend per common share	0.68	0.71	0.76	0.84
NAV per share, diluted	16.40	19.47	21.53	23.56
NNAV per share, diluted	14.39	17.17	18.87	20.56
NNAV less FV changes on investm. prop. per sh., dil.	14.39	14.75	14.90	15.12
Valuation ratios for real estate companies				
Price / FFO common share	16.5	16.6	15.5	14.2
Price / NAV common share (Premium/Discount)	5.4%	-6.2%	-15.2%	-22.5%
Price / NNAV common share (Premium/Discount)	20.1%	6.3%	-3.2%	-11.2%
Price/NNAV less FV chg. on investm. prop. comm. sh.	20.1%	23.8%	22.5%	20.8%
Net cold rent yield (NCR / Ø RE assets)	10.1%	9.3%	8.8%	8.7%
Net operating income yield (NOI / Ø RE assets)	5.4%	4.8%	4.5%	4.4%
Average interest rate for interest expenditure	1.6%	1.6%	1.5%	1.6%
FFO yield common share (FFO/price)	6.1%	6.0%	6.4%	7.0%
EpS / FFO	3.1	3.1	2.1	1.8
Total return common share	-18.0%	9.5%		
Fiscal year end December				

1) – 12) Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

Euro	2016	2017e	2018e	2019e
------	------	-------	-------	-------

Source: Grand City Properties and DZ BANK estimates

BALANCE SHEET

IFRS - Euro m	2016	2017e	2018e	2019e
ASSETS				
Non current assets	5,126.0	5,918.4	6,553.8	7,014.4
Intangible assets	10.0	10.2	10.4	10.4
thereof goodwill	9.3	9.3	9.3	9.3
Tangible assets	5.8	6.0	6.2	4.6
Investment properties	4,768.5	5,553.5	6,180.5	6,633.7
Development properties	0.0	0.0	0.0	0.0
Financial assets	272.3	279.3	287.3	296.3
Other long-term assets	69.4	69.4	69.4	69.4
Current assets	1,027.7	1,105.1	974.8	870.1
Inventories	0.0	0.0	0.0	0.0
Properties held for sale	0.0	0.0	0.0	0.0
Trading Properties	27.3	27.3	27.3	27.3
Trade receivables	219.7	193.4	159.0	154.3
Financial assets	181.4	181.4	181.4	181.4
Other receivables and short-term assets	0.0	0.0	0.0	0.0
Liquid assets	448.9	552.6	456.6	356.6
Assets available for sale	150.5	150.5	150.5	150.5
Total assets	6,153.7	7,023.6	7,528.7	7,884.5
LIABILITIES				
Shareholders' equity	3,065.1	3,743.7	4,074.3	4,379.1
Share capital	15.4	15.4	15.4	15.4
Reserves	2,142.2	2,770.8	3,050.9	3,304.7
Thereof fair value chang. on invest. prop.	0.0	398.2	653.9	897.4
Other equity	710.9	710.9	710.9	710.9
Minority interest	196.7	246.7	297.2	348.2
Treasury stock	0.0	0.0	0.0	0.0
Non current liabilities	2,750.3	2,967.1	3,176.4	3,232.9
Provisions for pensions	0.0	0.0	0.0	0.0
Other provisions	0.0	0.0	0.0	0.0
Financial liabilities	2,386.1	2,536.1	2,686.1	2,686.1
Other payables	364.2	431.0	490.3	546.8
Current liabilities	338.3	312.7	277.9	272.5
Trade payables	251.5	221.4	182.1	176.7
Other provisions	14.2	16.2	18.2	18.2
Financial liabilities	29.2	31.2	33.2	33.2
Other liabilities	15.8	16.3	16.8	16.8
Liabilities assoc. with assets held for sale	27.6	27.6	27.6	27.6
Shareholders' equity and liabilities	6,153.7	7,023.6	7,528.7	7,884.5
Fiscal year end December				

Source: Grand City Properties and DZ BANK estimates

^{1) - 12)} Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

I. IMPRINT

Published by:

DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main,
Platz der Republik, 60265 Frankfurt am Main

Telephone: + 49 69 7447 - 01

Telefax: + 49 69 7447 - 1685

Homepage: www.dzbank.de

E-mail: mail@dzbank.de

Represented by the Board of Managing Directors:

Wolfgang Kirsch (Chief Executive Officer),
Hans-Bernd Wolberg (Deputy Chief Executive Officer), Uwe Berghaus,
Dr. Christian Brauckmann, Wolfgang Köhler, Dr. Cornelius Riese, Michael Speth,
Thomas Ullrich, Stefan Zeidler

Chairman of the Supervisory Board: Helmut Gottschalk

Head office of the company: Registered as public limited company in Frankfurt am Main, Local Court (Amtsgericht) Frankfurt am Main, Commercial Register HRB 45651

Competent supervisory authorities:

DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main is subject to the supervision of the Federal Financial Supervisory Authority (BaFin) and the European Central Bank (ECB).

VAT ident. no.: DE114103491

Protection schemes: DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main is a member of the officially recognised BVR Institutssicherung GmbH and the additional voluntary Sicherungseinrichtung des Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. (Protection Scheme of the National Association of German Cooperative Banks):

www.bvr-institutssicherung.de

www.bvr.de/SE

Responsible for the contents: Stefan Bielmeier, Head of Research and Economics

© DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, 2017

This document may only be reprinted, copied or used in any other way with the prior consent of DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main

II. MANDATORY DISCLOSURES FOR FINANCIAL ANALYSES AND FURTHER REMARKS

1. Mandatory Disclosures for Financial Analyses and further Remarks

1. Responsible Company

1.1 This **Financial Analysis** has been prepared by **DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main (DZ BANK)** as an investment firm.

Financial analyses are independent client information containing **generic investment recommendations** regarding **specific issuers** or **specific financial instruments**, but they do not make allowance for any individual investment criteria.

1.2 The **mandatory disclosures for Research Publications** (Financial Analyses and Other Research Information) as well as **further remarks, especially the Conflicts of Interest Policy of DZ BANK Research**, regarding **used methods, procedures, and statistics**, can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures.

2. Competent Supervisory Authorities

DZ BANK is supervised as a credit institution and as an investment firm by:

– **European Central Bank** - www.ecb.europa.eu

Sonnemannstraße 20 in 60314 Frankfurt / Main and

– **Federal Financial Supervisory Authority (BaFin)** - www.bafin.de

Marie-Curie-Straße 24 - 28 in 60349 Frankfurt / Main

Regarding Research Publications (Financial Analyses and Other Research Information) the DZ BANK linked **local cooperative banks are supervised by:**

– **Federal Financial Supervisory Authority (BaFin)** - www.bafin.de

Marie-Curie-Straße 24 - 28 in 60349 Frankfurt / Main

3. Independent Analysts

3.1 The **Research Publications** (Financial Analyses and Other Research Information) of DZ BANK are independently prepared by its employed analysts

or by competent analysts commissioned in a given case on the basis of the binding **Conflicts of Interest Policy**.

- 3.2** Each analyst involved in the preparation of the contents of this Research Publication confirms that
- this Research Publication represents his independent specialist evaluation of the analysed object in compliance with the Conflicts of Interest Policy of DZ BANK and
 - his compensation depends neither in full nor in part, neither directly nor indirectly, on an opinion expressed in this Research Publication.

4. Definitions of the Categories for Investment Recommendations in Financial Analyses

The **categories for investment recommendations** in **Financial Analyses** of DZ BANK are defined as follows:

4.1 Shares:

- Fundamental Analysis:

"Buy" means that the absolute appreciation expected in the next twelve months is greater than 10%.

"Sell" means that the absolute depreciation expected in the next twelve months is greater than 10%.

"Hold" means that the absolute *price* volatility expected in the next twelve months lies between +10% and -10%.

- Technical (Chart) Analysis (tertiary trend):

The short term technical estimate refers to the short tertiary move of the share:

„Positive“ means that an absolute appreciation could be expected during the next week.

“Negative“ means that an absolute depreciation could be expected during the next week.

“Neutral“ means that no absolute change of price could be expected during the next week.

- Technical (chart) Analysis (secondary trend):

The longer term technical estimate refers to the shorter secondary move of the share:

„Positive“ means that an absolute appreciation greater than 10% could be expected during the next six months.

“Negative“ means that an absolute depreciation greater than 10% could be expected during the six months.

“Neutral“ means that an absolute change of price between +10% to -10% could be expected during the next six months.

4.2 Fixed Income Instruments:

The prevailing factor for an investment recommendation regarding an **issuer** is whether, according to the estimate of DZ BANK, this issuer's bonds are able to perform better, worse or in tandem with the bonds of comparable issuers in the next six months. The below defined recommendation categories apply to 'senior unsecured bonds' denominated in Euro and in case of Emerging Markets issuers in individual cases also in US-Dollar as well as to 'covered bonds issued by credit institutions' in Euro:

"Outperformer" means that a better performance is expected for the issuer's bonds than for the bonds of comparable issuers.

"Underperformer" means that a worse performance is expected for the issuer's bonds than for the bonds of comparable issuers.

"Market performer" means that the performance of the issuer's bonds is not expected to materially differ from the bonds of comparable issuers.

- 4.3 Categories for isolated statements without investment recommendation**
Statements on the **isolated evaluation of specific aspects that precede an investment recommendation** on a financial instrument and / or an issuer - **especially** according to the **sustainability criteria** defined by DZ BANK, its defined **value approach**, its defined **asset allocation** (DZ BANK Sample Portfolio), its defined sector strategy Euro-Stoxx (**DZ BANK Sector Favorites**), its defined valuation of payments to beneficiaries (**DZ BANK Dividend Aristocrats**), its **country weightings for covered bonds** and its **CRESTA-SCORE MODEL** - are **not investment categories** and therefore **do not contain any investment recommendations**.

These isolated statements **alone** are **not sufficient** to form the basis of an investment decision. Reference is made to the explanation of the used relevant methods.

5. Scheduled Updates and Validity Periods of Investment Recommendations

- 5.1** The frequency of **updates of Financial Analyses** depends in particular on the underlying macroeconomic conditions, current developments on the relevant

¹⁾ – ¹²⁾ Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

markets, the current development of the analyzed companies, measures undertaken by the issuers, the behavior of trading participants, the competent supervisory authorities and the competent central banks as well as a wide range of other parameters. The periods of time named below therefore merely provide a **non-binding indication** of when an updated investment recommendation may be expected.

5.2 No obligation exists to update an investment recommendation. If an investment recommendation is updated, this update **replaces** the previous **investment recommendation with immediate effect**. If no update is made, investment recommendations **end / lapse on expiry** of the **validity periods** named below. These periods **begin** on the **day** and at the **time** the investment recommendation is **completed**.

5.3 The validity periods for investment recommendations (financial analyses) are as follows:

Shares:

Fundamental analysis	six months
Technical (chart) analysis (tertiary trend)	one week
Technical (chart) analysis (secondary term)	six months

Fixed income instruments:

Issuers (senior unsecured bonds)	six months
Issuers (covered bonds)	one trading day

5.4 Evaluations of isolated aspects without investment recommendation have the following validity periods:

Sustainability analyses: one month

Analyses according to the **value approach:** one month

Asset allocation analyses (**DZ BANK Sample Portfolio**): one month

Euro Stoxx sector strategy (**DZ BANK Sector Favorites**): one month

Dividends (**DZ BANK Dividend Aristocrats**): three months

Credit trend issuers twelve months

Share indices (fundamental): three months

Share indices (technical / chart analysis): one week

Share indices (technical daily): publication day

Currency areas: six to twelve months

Allocation of market segments one month

Country weightings for covered bonds: six months

Derivatives:

(Bund futures, Bobl futures, treasury futures, Buxl futures): one month

Commodities: one month

5.5 In a given case, updates of analyses may also be **temporarily suspended without prior announcement** on account of compliance with supervisory regulations.

5.6 If **no updates are to be made in the future** because the analysis of an object is to be discontinued, notification of this shall be made in the final publication or, if no final publication is made, the close of the analysis shall be given in a separate note.

6. General Overview of Investment Recommendations on Financial Instruments and Issuers

Each working day DZ BANK prepares a **general overview of all investment recommendations** on financial instruments and / or issuers disseminated in the last **twelve months**, containing all details specified by the supervisor. This list can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures.

7. Avoiding and Managing Conflicts of Interest

7.1 DZ BANK Research has a binding **Conflicts of Interest Policy** which ensures that the relevant conflicts of interest of DZ BANK, the DZ BANK Group, the analysts and employees of the Research and Economics Division and persons closely associated with them are avoided, or - if such interests are effectively unavoidable - are appropriately identified, managed, disclosed and monitored. Material aspects of this policy, which can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures are summarized as follows.

7.2 DZ BANK organizes its Research and Economics Division as a confidentiality area and protects it against all other organizational units of DZ BANK and the DZ BANK Group by means of Chinese walls. The departments and teams of the Division that produce Financial Analyses are also protected by Chinese walls and by spatial separation, a closed doors and clean desk policy. Beyond the limits of these confidentiality areas, communication may only take place in both directions according to the need-to-know principle.

7.3 The Research and Economics Division does not disseminate Research Publications on issues of DZ BANK or on financial instruments issued by companies of the DZ BANK Group.

7.4 **In principle, employees of the Research and Economics Division and persons closely associated with them may not unrestrictedly invest in financial instruments covered by them in the form of Financial Analyses. For commodities and currencies, DZ BANK has also defined an upper limit based on the annual gross salary of each employee which, in the opinion of DZ BANK, also excludes the possibility of personal conflicts of interest among employees in the preparation of Other Research Publications.**

7.5 Other theoretically feasible, information-based personal conflicts of interest among employees of the Research and Economics Division and persons closely associated with them are avoided in particular by the measures explained in **sub-paragraph 7.2** and the other measures described in the policy.

7.6 The remuneration of employees of the Research and Economics Division depends neither in whole nor in the variable part directly or materially on the earnings from investment banking, trade in financial instruments, other securities related services and / or trade in commodities, merchandise, currencies and / or on indices of DZ BANK or the companies of the DZ BANK Group.

7.7 DZ BANK and companies of the DZ BANK Group issue financial instruments for trading, hedging and other investment purposes which, as underlying instruments, may refer to financial instruments, commodities, merchandise, currencies, benchmarks, indices and / or other financial ratios also covered by DZ BANK Research. Respective conflicts of interest are primarily avoided in the Research and Economics Division by means of the aforementioned organizational measures.

7.8 **Investment recommendations for the same financial instrument / issuer that have deviated in the last 12 months are stated in the respective current Financial Analysis together with the relevant investment recommendation category and date.**

7.9 The **quarterly information** on the share of the investment categories stated in **sub-paragraph 4.1 and 4.2 for shares and fixed income instruments** in the total number of investment recommendations of DZ BANK and the **information** on the share of these categories relating to the issuers to whom DZ BANK has rendered services in the **past twelve months** in accordance with Appendix I Sections A and B of Directive 2014/65/EU, can be **read and downloaded free-of-charge** under www.dzbank.com/disclosures.

7.10 The following **definitions** explain the potential conflicts of interest (so-called **'keys'**) of DZ BANK and / or the companies of the DZ BANK Group that must be stated in accordance with supervisory regulations in respect of the issuers and / or financial instruments analyzed in a Financial Analysis:

- 1)** DZ BANK owns a **net long position** exceeding 0,5% of the total issued share capital of the issuer, calculated according to Article 3 of Regulation (EU) No. 236/2012 and Chapter III and IV of Commission Delegated Regulation (EU) No. 918/2012.
- 2)** DZ BANK owns a **net short position** exceeding 0,5% of the total issued share capital of the issuer, calculated according to Article 3 of Regulation (EU) No. 236/2012 and Chapter III and IV of Commission Delegated Regulation (EU) No. 918/2012
- 3)** DZ BANK or any of its affiliates beneficially **owns 1 % or more** of any class of common equity securities of the issuer.
- 4)** The issuer holds shares of DZ BANK exceeding 5 % of its total issued share capital.
- 5)** DZ BANK, any of its affiliates or a natural or legal person involved in the preparation of the investment recommendation acting under contract, is a **market maker, designated sponsor** and / or **liquidity provider** in financial instruments of the issuer at the time of publication of this research report.
- 6)** DZ BANK, any of its affiliates or a natural or legal person involved in the preparation of the investment recommendation acting under contract, has **managed or co-managed a private and / or publicly disclosed offering** of financial instruments of the issuer in the past 12 months.
- 7)** The issuer is or has been a **client** to DZ BANK regarding **investment banking services** over the 12-month period preceding the date of publication of this research report.
- 8)** DZ BANK or any of its affiliates received **compensation for investment banking services** from the issuer in the past 12 months.

^{1) - 12)} Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

- 9) DZ BANK or any of its affiliates expects to receive or intends to seek **compensation for investment banking services** from the issuer in the next 3 months.
- 10) The issuer is or has been a **client** to DZ BANK, to any of its affiliates or a natural or legal person involved in the production of the investment recommendation acting under contract regarding **securities-related services** as set out in Sections A and B of Annex I of Directive 2014/65/EU, which agreement has been in effect or has given rise to the obligation to pay or receive compensation during the 12-months period preceding the date of publication of this research report.
- 11) The issuer is or has been a **client** to DZ BANK regarding **non-securities services** over the 12-month period preceding the date of publication of this research report.
- 12) DZ BANK and / or any of its affiliates have been a party to an **agreement** with the issuer relating to the **preparation of investment recommendations** concerning financial Instruments issued by him.

8. Recipients and Use of Financial Analyses

8.1 Recipients

Financial Analyses of DZ BANK are directed at **eligible counterparties** as well as **professional clients**. They are therefore **not** suitable for dissemination to **retail clients** unless (i) a financial analysis has been **explicitly** labelled by DZ BANK as suitable also for retail clients or (ii) is disseminated by an investment firm properly authorized in the European Economic Area (EEA) or Switzerland to retail clients, who evidently have the necessary knowledge and sufficient experience in order to understand and evaluate the relevant risks of the relevant investment recommendations.

Financial Analyses are authorized by DZ BANK for dissemination to the aforementioned recipients in in **Member States of the European Economic Area and Switzerland** as well as in accordance with the **provisions set forth in sub-paragraphs 8.4 and 8.5** in the therein named additional **countries**.

8.2 Main Sources of Information

For the preparation of its Research Publications, DZ BANK uses only information sources which it considers itself to be reliable. However, it is not feasible to make own checks of all the facts and other information taken from these sources in every case. If in a specific case, however, DZ BANK has doubts over the reliability of a source or the correctness of facts and other information, it shall make specific reference to this in the Research Publication. The main sources of information for Research Publications are: Information and data services (e.g. Reuters, Bloomberg, VWD, FactSet, Markit), licensed rating agencies (e.g. Standard & Poors, Moody's, Fitch, DBRS), specialist publications of the sectors, the business press, the competent supervisory authorities, information of the issuers (e.g. annual reports, securities prospectuses, ad-hoc disclosures, press and analyst conferences and other publications) as well as its own specialist, micro and macro-economic research, examinations and evaluations.

8.3 No securities prospectus | no individual investment recommendation

Under no circumstances can or should a Research Publication replace a securities prospectus and / or specialist investment advice necessary for a specific investment. For this reason a Research Publication cannot be used as sole basis for an investment decision.

8.4 International Restrictions of Use outside the EEA and Switzerland

This Financial Analysis may **only** be brought into the **United States of America (USA)** and the **Republic of Singapore** by the respective company set forth in **sub-paragraph 8.5** and be used in these countries in accordance with the regulations applicable to them there.

United States of America (USA)

In the USA, DZ BANK makes use of an exemption from the registration obligation for specific foreign brokers or traders under *Part 240 - General Rules and Regulations, Rule 15a-6 of the Securities Exchange Act 1934*. According to this rule it may, depending on **certain** pre-conditions, provide Research Publications on equity instruments **exclusively to 'major U.S. institutional investors'** and may conclude transactions with them on the securities named therein.

To this end, DZ BANK has signed a cooperation agreement with Auerbach Grayson and Company LLC, 25 West 45th Street, New York, NY 10036 (Auerbach Grayson) concerning equity instruments. The aforementioned securities transactions on equity instruments shall be concluded exclusively between **Auerbach Grayson** and the **'major U.S. institutional investors'** in

accordance with Rule 15a-6 (a) (3). In particular, DZ BANK is **not** permitted to initiate or conclude transactions in equity instruments with these investors in any other way; in particular it is not permitted to contact the aforementioned or other investors in the USA or to recommend Auerbach Grayson to them in the Research Publications as partner for concluding transactions. Furthermore DZ BANK is neither allowed to provide Research Publications on debt instruments to US customers nor to conclude transactions in debt instruments with them. Thus, these Research Publications on equity instruments may only be brought into the USA by DZ BANK via Auerbach Grayson **and not by other persons**, and may only be disseminated to **'major U.S. institutional investors'** there and may only be used by them within the described limits. Research Publications on debt instruments must in no case be supplied to the USA. This Research Publication was prepared in the Federal Republic of Germany in accordance with the law applicable there. Hence, it is possible that not all regulations regarding the preparation of research reports applicable in the USA have been observed.

Republic of Singapore

DZ BANK Singapore Branch is exempt from holding a financial advisor's license to act as a financial advisor in Singapore under section 23(1)(a) of the Financial Advisors Act (Cap.110) (FAA).

DZ BANK makes use of the exemption for 'Foreign Research Houses' under Regulation 32C (1) of the Financial Advisors Regulations (FAR) from licensing under section 23(1)(f) of the FAA in respect of the activity of advising others by issuing or promulgating research analyses or research reports, whether in electronic, print or other form, concerning any investment.

Its Research Publications must exclusively be distributed by DZ BANK Singapore Branch. They are intended for general circulation, but **solely to 'accredited investors'** and / or **'expert investors'**.

Dealing with **'accredited investors'** or **'expert investors'** DZ BANK is relying on the following exemptions to the Financial Advisors Act, Cap 110:

- (1) the exemption in Regulation 33 of the FAR, which exempts DZ BANK from complying with Section 25 of the FAA on disclosure of product information to clients,
- (2) the exemption set out in Regulation 34 of the FAR, which exempts DZ BANK from complying with Section 27 of the FAA on recommendations, and
- (3) the exemption set out in Regulation 35 of the FAR, which exempts DZ BANK from complying with Section 36 of the FAA on disclosure of certain interests in securities.

This Research Publication **does not take into account the specific investment objectives, financial situation or particular needs** of any particular recipient.

A financial advisor should be consulted if there are any questions regarding the contents of this Research Publication.

Any recipient should **seek investment advice** regarding the **suitability** of any product referred to in this Research Publication, taking into account his specific financial objectives, financial situation or particular needs, before making a commitment to purchase any such product.

8.5 Contacts of DZ BANK outside the EEA and Switzerland

None of these contacts are obliged to update the Research Publication.

Investors must inform themselves about the current development of business as well as of any changes affecting the issuers.

In the United States of America (USA) for equity instruments only:

Auerbach Grayson and Company LLC., 25 West 45th Street, New York, NY 10036

Auerbach Grayson and Company LLC. is a broker and dealer registered in the USA and is an independent business partner of DZ BANK that fulfills the requirements under Part 240 - General Rules and Regulations, Rule 15a-6 (a) (3) of the Securities Exchange Act 1934.

In the Republic of Singapore:

DZ BANK AG Singapore Branch, 50 Raffles Place #43-01, Singapore Land Tower, Singapore 048623

The DZ BANK AG Singapore Branch is a legally dependent branch of DZ BANK.

9. Summary of used Methods and Procedures

Detailed information on generally recognized as well as proprietary methods and procedures used by DZ BANK Research can be read and downloaded free-of-charge under www.dzbank.com/disclosures.

III. DISCLAIMER

^{1) - 12)} Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

1. This document is directed at **eligible counterparties** and **professional clients**. Therefore, it is not suitable for **retail clients unless** (a) it has been explicitly labelled as appropriate for retail clients or (b) is properly disseminated by an investment firm authorized in the European Economic Area (EEA) or Switzerland to retail clients, who evidently have the necessary knowledge and sufficient experience in order to understand and evaluate the relevant risks of the relevant evaluation and / or recommendations.
It was prepared by DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, Germany ('DZ BANK') and has been approved by DZ BANK only for dissemination to the aforementioned recipients in **Member States of the EEA and Switzerland**.
If this document is expressly marked as '**Financial Analysis**' in **sub-section 1.1** of the Mandatory Disclosures, its distribution to recipients is subject to the section International Restrictions of Use and these additional rules:
This document may only be brought into the **Republic of Singapore** by DZ BANK via the DZ BANK Singapore Branch, but not by other persons, and may only be disseminated there to 'accredited investors' and / or 'expert investors' and used by them.
This document may only be brought into the **United States of America (USA)** by DZ BANK and via Auerbach Grayson, but not by other persons, and may only be disseminated there to 'major U.S. institutional investors' and used by them, if it solely comprises equity research. DZ BANK is neither allowed to bring documents on debt instruments into the USA nor to conclude transactions in debt instruments.
If this document is expressly marked as '**Other Research Information**' in **sub-section 1.1** of the Mandatory Disclosures, its dissemination to recipients is subject to these additional rules:
It is neither allowed to provide Other Research Information to customers in the **United States of America (USA)** nor to conclude corresponding transactions with them.
The dissemination of Other Research Information in the **Republic of Singapore** is in any case restricted to DZ BANK AG Singapore Branch.
In all before named countries, this document may only be distributed in accordance with the respective applicable laws and rules, and persons obtaining possession of this document should inform themselves about and observe such laws and rules.
2. This document is being handed over solely for information purposes and may not be reproduced, redistributed to other persons or be otherwise published in whole or in part. All copyrights and user rights to this document, also with regard to electronic and online media, remain with DZ BANK.
Whilst DZ BANK may provide hyperlinks to web sites of companies mentioned in this document, the inclusion of a link does not imply that DZ BANK endorses, recommends or guarantees any data on the linked page or accessible therefrom. DZ BANK accepts no responsibility whatsoever for any such links or data, nor for the consequences of its use.
3. This document is not to be construed as and does not constitute an offer, or an invitation to make an offer, to buy securities, other financial instruments or other investment objects.
Estimates, especially forecasts, fair value and / or price expectations made for the investment objects analyzed in this document may prove incorrect. This may occur especially as a result of unpredictable risk factors.
Such risk factors are in particular, but not exclusively: market volatility, sector volatility, measures undertaken by the issuer or owner, the general state of the economy, the non-realizability of earnings and / or sales targets, the non-availability of complete and / or precise information and / or later occurrence of another event that could lastingly affect the underlying assumptions or other forecasts on which DZ BANK relies.
The estimates made should always be considered and evaluated in connection with all previously published relevant documents and developments relating to the investment object and to the relevant sectors and, in particular, capital and financial markets.
DZ BANK is under no obligation to update this document. Investors must inform themselves about the current development of business as well as of any changes in the business development of the companies.
During the validity period of an investment recommendation, DZ BANK is entitled to publish a further or other analysis based on other, factually-warranted or even missing criteria on the investment object.
4. DZ BANK has obtained the information on which this document is based from sources believed to be essentially reliable, but has not verified all of such information. Consequently, DZ BANK does not make or provide any representations or warranties regarding the preciseness, completeness or accuracy of the information or the opinions contained in this document. Neither DZ BANK nor its affiliated companies accept any liability for disadvantages or losses incurred as a result of the distribution and / or use of this document and / or which are connected with the use of this document.
5. DZ BANK and its affiliated companies are entitled to maintain investment banking and business relationships with the company or companies that are the subject of the analysis contained in this document. Within the limits of applicable supervisory law, DZ BANK's research analysts also provide information regarding securities-related services and ancillary securities-related services. Investors should assume that (a) DZ BANK and its affiliated companies are or will be entitled to engage in investment banking operations, security operations or other business transactions from or with the companies that are the subject of the analysis contained in this document, and that (b) analysts involved in the preparation of this document can generally be indirectly involved in the conclusion of such business transactions to the extent permitted by supervisory law.
DZ BANK and its affiliated companies and their employees may have positions in securities of the analyzed companies or investment objects or effect transactions with these securities or investment objects.
6. The information and recommendations of DZ BANK contained in this document do not constitute any individual investment advice and, depending on the specific investment targets, the investment horizon or the individual financial situation, may therefore be unsuitable or only partially suitable for certain investors. In preparing this document DZ BANK has not and does not act in the capacity of an investment advisor to, or asset manager for, any person.
The recommendations and opinions contained in this document constitute the best judgment of DZ BANK's research analysts at the date and time of preparation of this document and are subject to change without notice as a result of future events or developments. This document constitutes an independent appraisal of the relevant issuer or investment objects by DZ BANK; all evaluations, opinions or explanations contained herein are those of the author of this document and do not necessarily correspond with those of the issuer or third parties.
Any decision to effect an investment in securities, other financial instruments, commodities, merchandise or other investment objects should not be made on the basis of this document, but on the basis of independent investment analyses and methods as well as other analyses, including but not limited to information memoranda, sales or other prospectuses. This document can be no replacement for individual investment advice.
7. By using this document, in any form or manner whatsoever, or referring to it in your considerations and / or decisions, you accept the restrictions, specifications and regulations contained in this document as being exclusively and legally binding for you.

Additional Information of Markit Indices Limited

Neither Markit, its affiliates or any third party data provider makes any warranty, express or implied, as to the accuracy, completeness or timeliness of the data contained herewith nor as to the results to be obtained by recipients of the data. Neither Markit, its affiliates nor any data provider shall in any way be liable to any recipient of the data for any inaccuracies, errors or omissions in the Markit data, regardless of cause, or for any damages (whether direct or indirect) resulting therefrom.

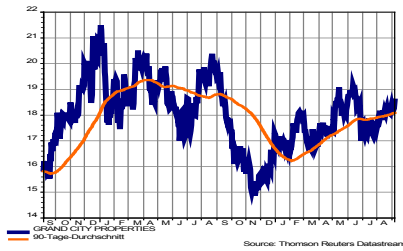
Markit has no obligation to update, modify or amend the data or to otherwise notify a recipient thereof in the event that any matter stated herein changes or subsequently becomes inaccurate.

Without limiting the foregoing, Markit, its affiliates, or any third party data provider shall have no liability whatsoever to you, whether in contract (including under an indemnity), in tort (including negligence), under a warranty, under statute or otherwise, in respect of any loss or damage suffered by you as a result of or in connection with any opinions, recommendations, forecasts, judgments, or any

^{1) - 12)} Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

other conclusions, or any course of action determined, by you or any third party, whether or not based on the content, information or materials contained herein.

Copyright © 2016, Markit Indices Limited.



RATING HISTORY

Recommendation	Date	Price
Buy	21 Aug 2017	18.06 EUR
Hold	16 May 2017	18.90 EUR

¹⁾ – ¹²⁾ Important: Please read the references to possible conflicts of interest and disclaimers/disclosures at the end of this report.

EQUITY SALES	Kai Böckel	+49 – (0)69 – 74 47 – 12 28	kai.boeckel@dzbank.de
Germany	Kai Böckel	+49 – (0)69 – 74 47 – 12 28	kai.boeckel@dzbank.de
Benelux	Lars Wohlers	+49 – (0)69 – 74 47 – 68 34	lars.wohlers@dzbank.de
Switzerland	Petra Bukan	+49 – (0)69 – 74 47 – 49 92	petra.bukan@dzbank.de
Austria	Thomas Reichelt	+49 – (0)69 – 74 47 – 67 09	thomas.reichelt@dzbank.de
UK	Lars Wohlers	+49 – (0)69 – 74 47 – 68 34	lars.wohlers@dzbank.de
SALES TRADING	Marina Semmler	+49 – (0)69 – 74 47 – 13 81	marina.semmler@dzbank.de
DERIVATIVES SALES	Berthold Grünebaum	+49 – (0)69 – 74 47 – 9 91 95	berthold.gruenebaum@dzbank.de

ACCESS TO DZ BANK RESEARCH (CONTACT LARS.WOHLERS@DZBANK.DE)

Bloomberg	DZBR <GO>
Reuters	"DZ Bank" & RCH <NEWS>