

# PROPERTY PERFORMANCE MONITOR

## Third Quarter 2019



For Professional Clients (MiFID Directive 2014/65/EU Annex II) only. For Qualified Investors (Art. 10 Para. 3 of the Swiss Federal Collective Investment Schemes Act (CISA)). For Qualified Clients (Israeli Regulation of Investment Advice, Investment Marketing and Portfolio Management Law 5755-1995). Outside the U.S. for Institutional investors only. In the United States and Canada, for institutional client and registered representative use only. Not for retail distribution. Further distribution of this material is strictly prohibited. In Australia, for professional investors only. \*For investors in Bermuda: This is not an offering of securities or interests in any product. Such securities may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda.

Marketing Material

### QUARTERLY HIGHLIGHTS

- Core real estate, as measured by the NCREIF Property Index (NPI), registered unlevered total returns of 6.2% in the trailing four quarters as of 3Q 2019.
- Performance was highly uneven across sectors. Industrial outperformed by a wide margin (13.6%), followed by Office (6.5%), Apartment (5.4%) and Retail (1.4%).
- Significant disparities also persisted within sectors. Within Retail, Neighborhood centers held up better than Malls, which were hit hard by store closures and negative investor sentiment. Within the apartment sector, Garden returns were almost double those of High-Rise, where supply has been more abundant.
- West coast markets generally led the index while New York, Chicago and Washington, DC lagged behind.

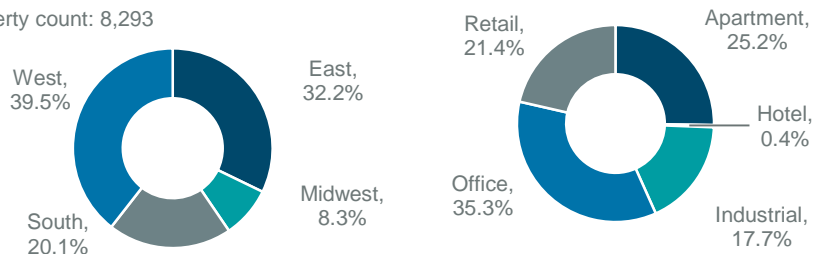
### PRIVATE REAL ESTATE PROPERTY RETURNS

- Real estate returns ticked down 90 bps (trailing four quarters) from 3Q 2018 to 3Q 2019.
- Private real estate underperformed both bonds and equities in 3Q 2019 as lower interest rates supported public market pricing.
- Total returns were driven by income in 3Q 2019. Capital growth (price appreciation less capital expenditures) of 1.6% (trailing four quarters) was the lowest in nine years.
- Overall vacancy remained near the lowest level in 18 years (5.9%). NOI growth was strong, at 5.1% (year-over-year, four quarter moving average).
- The industrial sector's total return was more than double that of any other sector.
- Tech markets such as Austin, the Bay Area, and Seattle were notable outperformers. The bottom of the list was mixed but generally included Chicago and markets in the Northeast.

### NPI MARKET CAPITALIZATION

Index market value: \$651.0 billion

Property count: 8,293



### RECENT PERFORMANCE TRENDS

	Quarter	12 months trailing	
	3Q 2019	3Q 2019	4Q 2018
Private Real Estate (NPI)	1.4%	6.2%	6.7%
Broad Equities (large cap)	1.7%	4.3%	-4.4%
Bonds	2.3%	10.3%	0.0%
Listed Real Estate	7.7%	20.7%	-4.0%
10-Year Treasury <sup>1</sup>	1.7%	1.7%	2.7%
12-Month LIBOR <sup>1</sup>	2.0%	2.0%	3.0%
CPI (SA)	0.4%	1.7%	1.9%

Sources: NCREIF, Standard and Poor's, Barclay's, NAREIT, and Federal Reserve. As of September 30, 2019. Data shown is the latest available. Past performance is no guarantee of future results. For definitions of indices, see the last page of this report.

<sup>1</sup> These figures represent annual yields.

Please note certain information in this presentation constitutes forward-looking statements. Due to various risks, uncertainties and assumptions made in our analysis, actual events or results or the actual performance of the markets covered by this presentation report may differ materially from those described. The information herein reflects our current views only, is subject to change, and is not intended to be promissory or relied upon by the reader. There can be no certainty that events will turn out as we have opined herein.

Past Performance is not a reliable indicator of future returns. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

## NCREIF PROPERTY INDEX (NPI) PERFORMANCE BY SECTOR AND REGION

- Overall returns were steady. Industrial led the index over the past year, followed by Office and Apartment. Retail trailed far behind.
- Returns for all three Industrial subsectors remained in double digits, bolstered by both strong income yields and capital appreciation. In 3Q 2019, Industrial NOI growth continued historic momentum, posting 8.8% growth (year-over-year, four-quarter moving average).
- Within Retail, Regional and Super Regional malls, which typically have substantial exposure to e-commerce vulnerable tenants (e.g. apparel) returned 0.4% over the past year. Neighborhood and Community centers returned 3.6%. Across the sector, negative appreciation chipped away at returns.
- Late cycle mark-to-market opportunities supported Office returns. Suburban Office returned 7.5% year-over-year while CBD Office returned 5.9%. Suburban Office has outstripped CBD Office for fourteen straight quarters.
- Garden apartments were the standout subtype outside of Warehouse, returning 8.1%. High-Rise apartments, buffeted by supply, were weak on a relative basis.
- Regional dynamics were unchanged, with the West leading the pack by a significant margin, followed by the South. The East remained stable while returns in the Midwest decelerated.

## DETAILED PROPERTY TYPE NPI PERFORMANCE

	No. of props.	Market value (Mil)	Trailing four quarters		
			Total return	Income	Apprec.
<b>Apartment</b>					
Garden	637	\$46,185	8.1%	4.8%	3.1%
High Rise	976	\$101,831	4.1%	4.0%	0.1%
Low Rise	218	\$16,355	5.8%	4.3%	1.4%
<b>Industrial</b>					
R&D	29	\$893	11.9%	6.0%	5.7%
Flex	234	\$4,309	11.3%	5.2%	5.9%
Warehouse	3,238	\$107,098	13.8%	4.7%	8.8%
<b>Office</b>					
CBD	462	\$136,705	5.9%	4.1%	1.8%
Suburban	1,039	\$92,944	7.5%	5.0%	2.4%
<b>Retail</b>					
Community	240	\$15,198	2.4%	5.4%	-2.9%
Neighborhood	526	\$20,567	4.6%	5.0%	-0.3%
Power	196	\$15,405	1.3%	5.5%	-4.0%
Regional	65	\$19,401	-0.3%	4.6%	-4.8%
Super Regional	62	\$51,866	0.6%	4.3%	-3.6%

Source: NCREIF Property Index as of September 30, 2019. Past performance is no guarantee of future results.

## RETURNS BY PROPERTY TYPE AND REGION

Property Type	Annual returns							Standard deviation		
	1 Year			3 years	5 years	10 years	20 years	Since inception <sup>2</sup>	20 years	Since inception <sup>2</sup>
	Total	Income	Apprec.							
Apartment	5.4%	4.3%	1.1%	6.0%	7.7%	9.8%	8.7%	10.2%	8.4%	7.6%
Industrial	13.6%	4.7%	8.6%	13.5%	13.7%	12.2%	10.0%	9.9%	8.3%	7.5%
Office	6.5%	4.4%	2.0%	6.4%	7.9%	8.9%	8.1%	8.4%	9.0%	9.4%
Retail	1.4%	4.7%	-3.2%	3.8%	7.3%	9.6%	9.8%	9.4%	7.8%	6.6%
<b>Total Index</b>	<b>6.2%</b>	<b>4.5%</b>	<b>1.6%</b>	<b>6.8%</b>	<b>8.6%</b>	<b>9.8%</b>	<b>8.8%</b>	<b>9.1%</b>	<b>8.1%</b>	<b>7.4%</b>
Region	Total	Income	Apprec.							
East	4.7%	4.4%	0.3%	5.0%	6.7%	8.5%	8.6%	9.8%	8.7%	9.0%
Midwest	3.1%	4.7%	-1.6%	4.6%	6.9%	8.4%	7.2%	7.9%	6.5%	5.8%
South	6.4%	4.9%	1.5%	6.9%	8.7%	9.9%	8.4%	8.3%	7.3%	6.7%
West	8.2%	4.4%	3.6%	8.7%	10.5%	11.2%	9.8%	9.8%	8.9%	8.3%
<b>Total Index</b>	<b>6.2%</b>	<b>4.5%</b>	<b>1.6%</b>	<b>6.8%</b>	<b>8.6%</b>	<b>9.8%</b>	<b>8.8%</b>	<b>9.1%</b>	<b>8.1%</b>	<b>7.4%</b>

Source: NCREIF Property Index. As of September 30, 2019. Past performance is not indicative of future returns.

<sup>2</sup> Index returns start in 1978, equivalent to a 41.75 year calculation.

Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

## MARKET ANALYSIS – BENCHMARK INSIGHTS AND PORTFOLIO IMPLICATIONS

The NCREIF Property Index is a value-weighted index of property returns and as such, a large portion of the index is located in just 20 markets. Local economic growth will affect properties located in the same market similarly, so we can estimate the effect of property geographical location on the overall index. Large metros, by value, will likely have the largest impact on the index, although small metro with particularly strong or weak performance may boost or weigh on returns from time to time. The following tables lists out which markets had the strongest positive and negative effect on returns during the past four quarters.

### IMPACT OF TOP 20 MARKETS ON SECTOR PERFORMANCE

Apartment			Industrial			Office			Retail		
Metro	Metro returns <sup>3</sup>	Impact on sector returns	Metro	Metro returns <sup>3</sup>	Impact on sector returns	Metro	Metro returns <sup>3</sup>	Impact on sector returns	Metro	Metro returns <sup>3</sup>	Impact on sector returns
Austin	9.3%	11	New York	18.2%	31	San Francisco	11.7%	49	Washington, DC	5.0%	27
Denver	7.6%	10	Seattle	17.3%	26	Boston	8.7%	25	San Diego	5.2%	17
Boston	7.4%	9	Riverside	14.9%	16	San Jose	12.2%	23	Orange County	6.3%	12
Atlanta	7.5%	8	San Francisco	21.9%	12	Seattle	10.5%	20	Orlando	4.6%	8
Orange County	7.1%	4	Los Angeles	14.7%	11	Austin	12.9%	14	Miami	3.5%	8
Seattle	5.9%	2	Orange County	14.4%	3	Los Angeles	7.7%	9	Dallas	2.7%	6
San Jose	6.3%	2	Miami	14.3%	2	Oakland	9.6%	7	Houston	2.4%	6
San Diego	5.9%	1	Oakland	14.1%	2	Denver	7.6%	3	San Jose	3.7%	6
West Palm Beach	6.0%	1	Washington, DC	14.5%	1	Atlanta	7.9%	2	Riverside	3.4%	4
Washington, DC	5.5%	1	San Diego	14.3%	1	Portland	7.0%	1	San Francisco	2.6%	3
Oakland	5.5%	0	Portland	14.2%	1	Dallas	6.5%	0	Seattle	2.3%	2
Fort Lauderdale	5.3%	0	Fort Lauderdale	13.5%	0	San Diego	5.9%	-1	Phoenix	1.7%	1
San Francisco	5.1%	-1	San Jose	12.7%	-1	Phoenix	4.4%	-2	Oakland	1.2%	-1
Miami	4.9%	-1	Denver	11.7%	-3	Miami	3.9%	-3	Boston	0.6%	-3
Houston	5.0%	-1	Baltimore	12.1%	-3	Minneapolis	1.5%	-3	Las Vegas	0.8%	-3
Portland	4.2%	-2	Atlanta	12.3%	-5	Orange County	3.8%	-5	Los Angeles	0.3%	-7
Los Angeles	4.3%	-8	Harrisburg	6.1%	-9	Houston	4.2%	-7	Denver	-2.9%	-13
Dallas	3.7%	-10	Houston	9.1%	-12	Chicago	4.6%	-10	Atlanta	-4.2%	-15
Chicago	2.1%	-25	Dallas	11.6%	-16	Washington, DC	2.7%	-44	New York	-3.0%	-26
New York	1.7%	-42	Chicago	9.4%	-34	New York	2.9%	-71	Chicago	-4.1%	-42

Source: NCREIF Property Index as of September 30, 2019. Past performance is no guarantee of future results. Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, opinions and hypothetical models or analysis which may prove to be incorrect.

**Apartments** – Orlando, Phoenix, Riverside and Tampa — smaller, regional markets that fell outside of the top 20 — boasted some of the highest total returns. More generally, regional growth markets fared well while several mature gateway markets (e.g., New York, Chicago and Los Angeles) struggled. Dallas, which has an outsized supply pipeline, detracted from sector returns while Austin, Denver and Boston were the largest positive contributors.

**Industrial** – Performance was strong, with nearly every market producing double-digit returns. High-barrier coastal cities such as Los Angeles, New York and Seattle dominated. Smaller, regional and local distribution metros such as Allentown and Philadelphia were standouts. The major inland distribution hubs of Atlanta, Chicago and Dallas, all of which have above-average construction activity, underperformed.

**Office** – Innovation hubs such as Austin, the Bay Area, and Seattle made large contributions to sector returns. Considerable supply in the two largest office markets (New York and Washington, DC) weighed on fundamentals and subtracted 115 basis points from the sector's total return (trailing four quarters). Markets in the Midwest (Chicago and Minneapolis), where economic growth was lackluster, continued to underperform. Houston was saddled with high vacancies, despite improving economic momentum.

**Retail** – Mall properties have leveled a heavy blow to Retail returns, particularly in Atlanta, Chicago, Denver and New York. Conversely, Florida, Texas and the Pacific Northwest, where strong population and job growth have helped to offset e-commerce headwinds, have held up better. Nashville, another high-growth market, produced the strongest total return over the past year.

<sup>3</sup> Four-quarter cumulative returns ending third quarter 2019.

**Forecasts are not a reliable indicator of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.**

**PERFORMANCE OVER THE PAST 5 YEARS (12-MONTH PERIODS)**

	9/30/2018-9/30/2019	9/30/2017-9/30/2018	9/30/2016-9/30/2017	9/30/2015-9/30/2016	9/30/2014-9/30/2015
Private Real Estate (NPI)	6.2%	7.2%	6.9%	9.2%	13.5%
Broad Equities (large cap)	4.3%	17.9%	18.6%	15.4%	-0.6%
Bonds	10.3%	-1.2%	0.1%	5.2%	2.9%
Listed Real Estate	20.7%	4.7%	2.6%	20.9%	7.8%
10-Year Treasury <sup>1</sup>	1.7%	3.1%	2.3%	1.6%	2.0%
12-Month LIBOR <sup>1</sup>	2.0%	2.9%	1.8%	1.6%	0.9%
CPI (SA)	1.7%	2.3%	2.2%	1.5%	0.0%

<sup>1</sup> These figures represent annual yields.

Sources: NCREIF Property Index (NPI), S&P 500 Total Return (Broad Equities), Bloomberg/Barclay's U.S. Aggregate Total Return Index (Bonds), FTSE/NAREIT All Equity REITs Total Returns Index (Listed Real Estate), Federal Reserve (10-Year Treasury, 12-Month LIBOR, Consumer Price Index (CPI)). As of September 30, 2019. Data shown is the latest available.  
 Past performance is no guarantee of future results.

# Research & Strategy—Alternatives

---

## OFFICE LOCATIONS:

### Chicago

222 South Riverside Plaza  
34<sup>th</sup> Floor  
Chicago  
IL 60606-1901  
United States  
Tel: +1 312 537 7000

### Frankfurt

Taunusanlage 12  
60325 Frankfurt am Main  
Germany  
Tel: +49 69 71909 0

### London

Winchester House  
1 Great Winchester Street  
London EC2N 2DB  
United Kingdom  
Tel: +44 20 754 58000

### New York

345 Park Avenue  
26<sup>th</sup> Floor  
New York  
NY 10154-0102  
United States  
Tel: +1 212 454 6260

### San Francisco

101 California Street  
24<sup>th</sup> Floor  
San Francisco  
CA 94111  
United States  
Tel: +1 415 781 3300

### Singapore

One Raffles Quay  
South Tower  
20<sup>th</sup> Floor  
Singapore 048583  
Tel: +65 6538 7011

### Tokyo

Sanno Park Tower  
2-11-1 Nagata-cho  
Chiyoda-Ku  
18<sup>th</sup> Floor  
Tokyo  
Japan  
Tel: +81 3 5156 6000

## TEAM:

### Global

**Mark Roberts, CFA**  
Head of Research & Strategy  
mark-g.roberts@dws.com

**Gianluca Minella**  
Infrastructure Research  
gianluca.minella@dws.com

### Americas

**Kevin White, CFA**  
Head of Strategy, Americas  
kevin.white@dws.com

**Ross Adams**  
Industrial Research  
ross.adams@dws.com

**Ana Leon**  
Retail Research  
ana.leon@dws.com

**Joseph Pecora, CFA**  
Apartment Research  
joseph.pecora@dws.com

### Europe

**Matthias Naumann**  
CIO & Head of Strategy, Europe  
matthias.naumann@dws.com

**Tom Francis**  
Property Market Research  
tom.francis@dws.com

**Farhaz Miah**  
Property Market Research  
farhaz.miah@dws.com

**Siena Golan**  
Property Market Research  
siena.golan@dws.com

### Asia Pacific

**Koichiro Obu**  
Head of Research & Strategy, Asia Pacific  
koichiro-a.obu@dws.com

**Seng-Hong Teng**  
Property Market Research  
seng-hong.teng@dws.com

**Jessica Elengical**  
Head of ESG Strategy  
jessica.elengical@dws.com

**Yasmine Kamaruddin**  
Global Strategy  
yasmine.kamaruddin@dws.com

**Brooks Wells**  
Head of Research, Americas  
brooks.wells@dws.com

**Liliana Diaconu, CFA**  
Office Research  
liliana.diaconu@dws.com

**Ryan DeFeo**  
Property Market Research  
ryan-c.defeo@dws.com

**Simon Wallace**  
Head of Research, Europe  
simon.wallace@dws.com

**Martin Lippmann**  
Property Market Research  
martin.lippmann@dws.com

**Aizhan Meldebek**  
Infrastructure Research  
aizhan.meldebek@dws.com

**Natasha Lee**  
Property Market Research  
natasha-j.lee@dws.com

**Hyunwoo Kim**  
Property Market Research  
hyunwoo.kim@dws.com

# IMPORTANT INFORMATION

The brand DWS represents DWS Group GmbH & Co. KGaA and any of its subsidiaries, such as DWS Distributors, Inc., which offers investment products, or DWS Investment Management Americas, Inc. and RREEF America L.L.C., which offer advisory services.

DWS represents the asset management activities conducted by DWS Group GmbH & Co. KGaA or any of its subsidiaries. In the U.S., DWS relates to the asset management activities of RREEF America L.L.C.; in Germany: DWS Grundbesitz GmbH, DWS Real Estate GmbH, and DWS Alternatives GmbH; in Australia: DWS Investments Australia Limited (ABN 52 074 599 401) an Australian financial services license holder; in Japan: DWS Investments Japan Limited; in Hong Kong: Deutsche Bank Aktiengesellschaft, Hong Kong Branch (for direct real estate business), and DWS Investments Hong Kong Limited (for real estate securities business); in Singapore: DWS Investments Singapore Limited (Company Reg. No. 198701485N); in the United Kingdom: Deutsche Alternative Asset Management (UK) Limited, DWS Alternatives Global Limited and DWS Investments UK Limited; and in Denmark, Finland, Norway and Sweden: DWS Investments UK Limited and DWS Alternatives Global Limited; in addition to other regional entities in the Deutsche Bank Group. Key DWS research personnel are voting members of various investment committees. Members of the investment committees vote with respect to underlying investments and/or transactions and certain other matters subjected to a vote of such investment committee. The views expressed in this document have been approved by the responsible portfolio management team and real estate committee and may not necessarily be the views of any other division within DWS.

This material was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. It is intended for informational purposes only. It does not constitute investment advice, a recommendation, an offer, solicitation, the basis for any contract to purchase or sell any security or other instrument, or for DWS or its affiliates to enter into or arrange any type of transaction as a consequence of any information contained herein. Neither DWS nor any of its affiliates gives any warranty as to the accuracy, reliability or completeness of information which is contained in this document. Except insofar as liability under any statute cannot be excluded, no member of the DWS, the Issuer or any office, employee or associate of them accepts any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in this document or for any resulting loss or damage whether direct, indirect, consequential or otherwise suffered by the recipient of this document or any other person.

The views expressed in this document constitute DWS Group's judgment at the time of issue and are subject to change. This document is only for professional investors. This document was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. No further distribution is allowed without prior written consent of the Issuer.

Investments are subject to risk, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time.

Investment in real estate may be or become nonperforming after acquisition for a wide variety of reasons. Non performing real estate investment may require substantial workout negotiations and/ or restructuring. Environmental liabilities may pose a risk such that the owner or operator of real property may become liable for the costs of removal or remediation of certain hazardous substances released on, about, under, or in its property. Additionally, to the extent real estate investments are made in foreign countries, such countries may prove to be politically or economically unstable. Finally, exposure to fluctuations in currency exchange rates may affect the value of a real estate investment.

Investments in Real Estate are subject to various risks, including but not limited to the following:

- Adverse changes in economic conditions including changes in the financial conditions of tenants, buyer and sellers, changes in the availability of debt financing, changes in interest rates, real estate tax rates and other operating expenses;
- Adverse changes in law and regulation including environmental laws and regulations, zoning laws and other governmental rules and fiscal policies;
- Environmental claims arising in respect of real estate acquired with undisclosed or unknown environmental problems or as to which inadequate reserves have been established;
- Changes in the relative popularity of property types and locations;
- Risks and operating problems arising out of the presence of certain construction materials; and
- Currency / exchange rate risks where the investments are denominated in a currency other than the investor's home currency.

An investment in real estate involves a high degree of risk, including possible loss of principal amount invested, and is suitable only for sophisticated investors who can bear such losses. The value of shares/ units and their derived income may fall or rise.

Any forecasts provided herein are based upon DWS's opinion of the market at this date and are subject to change dependent on the market. Past performance or any prediction, projection or forecast on the economy or markets is not indicative of future performance.

**In Australia:** Issued by DWS Investments Australia Limited (ABN 52 074 599 401), holder of an Australian Financial Services License (AFSL 499 640). This information is only available to persons who are professional, sophisticated, or wholesale investors as defined under section 761 G of the Corporations Act 2001 (Cth). The information provided is not to be construed as investment, legal or tax advice and any recipient should take their own investment, legal and tax advice before investing. DWS Investments Australia Limited is an asset management subsidiary of DWS Group GmbH & CO. KGaA ("DWS Group"). The capital value of and performance of an investment is not in any way guaranteed by DWS Group, DWS Investments Australia Limited or any other member of the DWS Group. Any forecasts provided herein are based upon our opinion of the market as at this date and are subject to change, dependent on future changes in the market. Any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets is not necessarily indicative of the future or likely performance. Investments are subject to investment risk, including possible delays in repayment and loss of income and principal invested. DWS Investments Australia Limited is not an Authorised Deposit-taking Institution under the Banking Act 1959 nor regulated by APRA.

**Notice to prospective Investors in Japan:** This document is distributed in Japan by DWS Investments Japan Limited. Please contact the responsible employee of DWS Investments Japan Limited in case you have any question on this document because DWS Investments Japan Limited serves as contacts for the product or service described in this document. This document is for distribution to Professional Investors only under the Financial Instruments and Exchange Law.

**Dubai International Financial Centre:** Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available to Professional Clients, as defined by the Dubai Financial Services Authority.

**Kingdom of Saudi Arabia:** Deutsche Securities Saudi Arabia LLC Company, (registered no. 07073-37) is regulated by the Capital Market Authority. Deutsche Securities Saudi Arabia may only undertake the financial services activities that fall within the scope of its existing CMA license. Principal place of business in Saudi Arabia: King Fahad Road, Al Olaya District, P.O. Box 301809, Faisaliah Tower - 17th Floor, 11372 Riyadh, Saudi Arabia.

**For Investors in Switzerland:** This material is intended for information purposes only and does not constitute investment advice or a personal recommendation. This document should not be construed as an offer to sell any investment or service. Furthermore, this document does not constitute the solicitation of an offer to purchase or subscribe for any investment or service in any jurisdiction where, or from any person in respect of whom, such a solicitation of an offer is unlawful. Neither DWS CH AG nor any of its affiliates, gives any warranty as to the accuracy, reliability or completeness of information which is contained in this document. Past performance or any prediction or forecast is not indicative of future results.

The views expressed in this document constitute DWS Group's judgment at the time of issue and are subject to change. DWS Group has no obligation to update, modify or amend this letter or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate, or if research on the subject company is withdrawn. Prices and availability of financial instruments also are subject to change without notice.

The information provided in this document is addressed solely to Qualified Investors pursuant to Article 10 paragraph 3 of the Swiss Federal Act on Collective Investment Schemes (CISA) and Article 6 of the Ordinance on Collective Investment Schemes. This document is not a prospectus within the meaning of Articles 1156 and 652a of the Swiss Code of Obligations and may not comply with the information standards required thereunder. This document may not be copied, reproduced, distributed or passed on to others without the prior written consent of DWS CH AG or its affiliates.

#### **For investors in the United Kingdom: FOR PROFESSIONAL CLIENTS ONLY**

Issued and approved by DWS Investments UK Limited of Winchester House, 1 Great Winchester Street, London EC2N 2DB, authorised and regulated by the Financial Conduct Authority ("FCA").

This document is a "non-retail communication" within the meaning of the FCA's Rules and is directed only at persons satisfying the FCA's client categorisation criteria for an eligible counterparty or a professional client. This document is not intended for and should not be relied upon by a retail client. This document may not be reproduced or circulated without written consent of the issuer.

This document is intended for discussion purposes only and does not create any legally binding obligations on the part of DWS Group GmbH & Co. KGaA and/or its affiliates ("DWS"). Without limitation, this document does not constitute investment advice or a recommendation or an offer or solicitation and is not the basis for any contract to purchase or sell any security or other instrument, or for DWS to enter into or arrange any type of transaction as a consequence of any information contained herein. The information contained in this document is based on material we believe to be reliable; however, we do not represent that it is accurate, current, complete, or error free. Assumptions, estimates and opinions contained in this document constitute our judgment as of the date of the document and are subject to change without notice. Past performance is not a guarantee of future results. Any forecasts provided herein are based upon our opinion of the market as at this date and are subject to change, dependent on future changes in the market. Any prediction, projection or forecast on the economy, stock market, bond market or the economic trends of the markets is not necessarily indicative of the future or likely performance. Investments are subject to risks, including possible loss of principal amount invested.

When making an investment decision, potential investors should rely solely on the final documentation relating to the investment or service and not the information contained herein. The investments or services mentioned herein may not be appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. For general information regarding the nature and risks of the proposed transaction and types of financial instruments please go to <https://www.db.com/company/en/risk-disclosures.htm>. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with us you do so in reliance on your own judgment.

Any opinions expressed herein may differ from the opinions expressed by Deutsche Bank AG and/or any other of its affiliates ("DB"). DB may engage in transactions in a manner inconsistent with the views discussed herein. DB trades or may trade as principal in the instruments (or related derivatives), and may have proprietary positions in the instruments (or related derivatives) discussed herein. DB may make a market in the instruments (or related derivatives) discussed herein. You may not distribute this document, in whole or in part, without our express written permission.

**DWS SPECIFICALLY DISCLAIMS ALL LIABILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR OTHER LOSSES OR DAMAGES INCLUDING LOSS OF PROFITS INCURRED BY YOU OR ANY THIRD PARTY THAT MAY ARISE FROM ANY RELIANCE ON THIS DOCUMENT OR FOR THE RELIABILITY, ACCURACY, COMPLETENESS OR TIMELINESS THEREOF.**

Any reference to “DWS”, “Deutsche Asset Management” or “Deutsche AM” shall, unless otherwise required by the context, be understood as a reference to asset management activities conducted by DWS Group GmbH & Co. KGaA and/or any of its affiliates. Clients will be provided DWS products or services by one or more legal entities that will be identified to clients pursuant to the contracts, agreements, offering materials or other documentation relevant to such products or services. DWS’s infrastructure investment business is part of the Alternatives platform. In the U.S., DWS relates to the asset management activities of RREEF America L.L.C.; in Germany: DWS Grundbesitz GmbH, DWS Real Estate GmbH, and DWS Alternatives GmbH; in Japan: DWS Investments Japan Limited; in Hong Kong: Deutsche Bank Aktiengesellschaft, Hong Kong Branch (for direct real estate business), and DWS investments Hong Kong Limited (for real estate securities business); in Singapore: DWS Investments Singapore Limited (Company Reg. No. 198701485N); in the United Kingdom: Deutsche Alternative Asset Management (UK) Limited, DWS Alternatives Global Limited and DWS Investments UK Limited; and in Denmark, Finland, Norway and Sweden: Deutsche Bank AG; in Australia: DWS Investments Australia Limited (ABN 52 074 599 401) an Australian financial services license holder.

© 2019. All rights reserved.

**For investors in Nordics:** Deutsche Bank AG is authorised under German Banking Law (competent authority: European Central Bank and the BaFin, Germany’s Federal Financial Supervisory Authority). Deutsche Bank AG Stockholm branch (“DBS”, Bolagsverket nr. 516401-9985) is authorised by BaFin and regulated by Finansinspektionen for the conduct of licensed activities in Sweden, Denmark, Norway and Finland. Deutsche Bank branches operate within the EEA on the back of the legal entity (Deutsche Bank AG) EU Passports within the European Economic Area (“EEA”). Reference is made to European Union Regulatory Background and Corporate and Regulatory Disclosures at [https://www.db.com/en/content/eu\\_disclosures\\_uk.htm](https://www.db.com/en/content/eu_disclosures_uk.htm). Details about the extent of our authorisation and regulation by BaFin and respective Nordic Region Financial Supervisory Authority are available from us on request.

Without limitation, this document and any attachment does not constitute an offer or a recommendation to enter into any transaction with DBS. This material and attachments is for information purposes only and is not intended to be an offer or an advice or recommendation or solicitation, or the basis for any contract to purchase or sell any security, or other instrument, or for DBS to enter into or arrange any type of transaction as a consequence of any information contained herein. The implicit or explicit views and recommendations expressed in marketing or other financial presentation material as well as any financial proposals are solely those of the issuer of such material, and forwarded to you on behalf of the contracting party.

The views set out in this presentation are those of the author and may not necessarily be the views of any other division within Deutsche Bank, including the Sales and Trading functions of the Corporate and Investment Bank or the Global Client Group of Deutsche Asset Management and Private Wealth Management: all services provided by these the Sales and Trading functions of the Corporate and Investment Bank are purely on a non-advised, execution-only basis. DB may engage in transactions in a manner inconsistent with the views discussed herein. DB trades or may trade as principal in the instruments (or related derivatives), and may have proprietary positions in the instruments (or related derivatives) discussed herein. DB may make a market in the instruments (or related derivatives) discussed herein. Sales and Trading personnel are compensated in part based on the volume of transactions effected by them. You may not distribute this document, in whole or in part, without our express written permission.

DBS is solely acting for and on behalf of Deutsche Bank AG and/or any of its affiliates. Potential investors should be aware that if they decide to enter into a transaction with Deutsche Bank AG or any of its affiliates acting in their capacity as principal to the transaction (“contracting party”), any and all agreements will be entered into with that contracting party (unless re-negotiated) and pursuant to the financial laws and regulations of the country where the contracting party is licensed.

Unless DBS is entering into a separate and explicit contractual relationship with you for the provision of investment services, it is neither obliged to categorise you in accordance with MiFID nor perform MiFID suitability and/or appropriateness assessment (as enacted into Swedish laws and regulations). The investments or services mentioned in this material or an attachment thereto may not be appropriate for all investors and before entering into a transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with a contracting party you do so in reliance on your own judgment. For general information regarding the nature and risks and types of financial instruments please go to [www.globalmarkets.db.com/riskdisclosures](http://www.globalmarkets.db.com/riskdisclosures).

**DB SPECIFICALLY DISCLAIMS ALL LIABILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL OR OTHER LOSSES OR DAMAGES INCLUDING LOSS OF PROFITS INCURRED BY YOU OR ANY THIRD PARTY THAT MAY ARISE FROM ANY RELIANCE ON THIS DOCUMENT OR FOR THE RELIABILITY, ACCURACY, COMPLETENESS OR TIMELINESS THEREOF.**

**For Investors in Belgium:** The information contained herein is only intended for and must only be distributed to institutional and/or professional investors (as defined in the Royal Decree dated 19 December 2017 implementing MiFID directive). In reviewing this presentation you confirm that you are such an institutional or professional investor. When making an investment decision, potential investors should rely solely on the final documentation (including the prospectus) relating to the investment or service and not the information contained herein. The investments or services mentioned herein may not be adequate or appropriate for all investors and before entering into any transaction you should take steps to ensure that you fully understand the transaction and have made an independent assessment of the suitability or appropriateness of the transaction in the light of your own objectives and circumstances, including the possible risks and benefits of entering into such transaction. You should also consider seeking advice from your own advisers in making this assessment. If you decide to enter into a transaction with us you do so in reliance on your own judgment.

**For investors in Bermuda:** This is not an offering of securities or interests in any product. Such securities may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda. Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

© 2019 DWS Group GmbH & Co. KGaA. All rights reserved. I-049980-13 (11/19)