# DWS REAL ASSETS

## Florida Public Pension Trustees Association
## October 2020

**Edward O'Donnell**, III, CAIA, CFA
Head Investment Specialist Liquid Real Assets, Americas

**Marketing Material. For institutional use only. Further distribution of this material is strictly prohibited.**
**Confidential – Not for Public Distribution**

# WHAT ARE LIQUID REAL ASSETS?

## Real estate, infrastructure, commodities, and TIPS

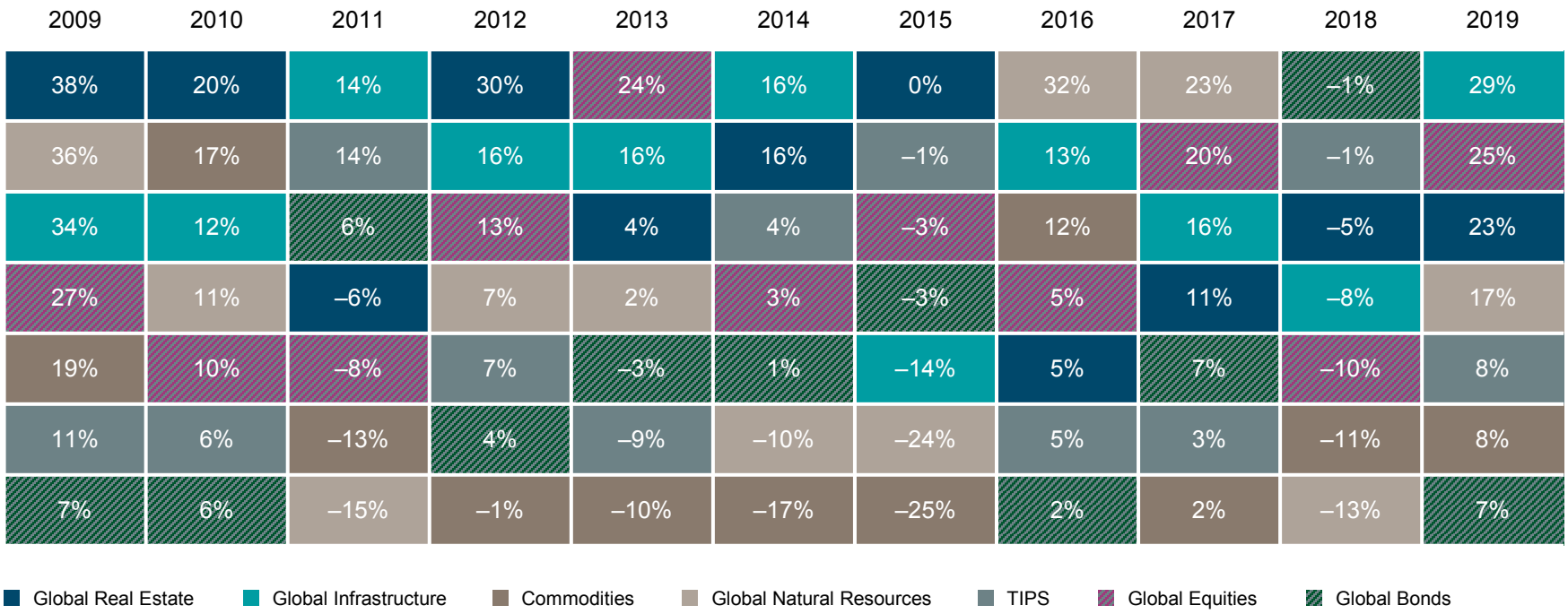
- There is not a clearly defined market definition or universally accepted standard benchmark for real assets
- We believe REITs and listed infrastructure are the foundation for a liquid real assets strategy
- We believe these four core sectors can maximize the benefits of a real assets allocation

The comments, opinions and estimates contained herein are based on or derived from publicly available information from sources that we believe to be reliable. We do not guarantee their accuracy. This material is for informational purposes only and sets forth our views as of this date. The underlying assumptions and these views are subject to change without notice. For illustrative purposes only.

# DIVERSIFICATION BENEFIT[1]

## Diversification potential has been a key benefit of real assets investing

**CALENDAR YEAR PERFORMANCE**

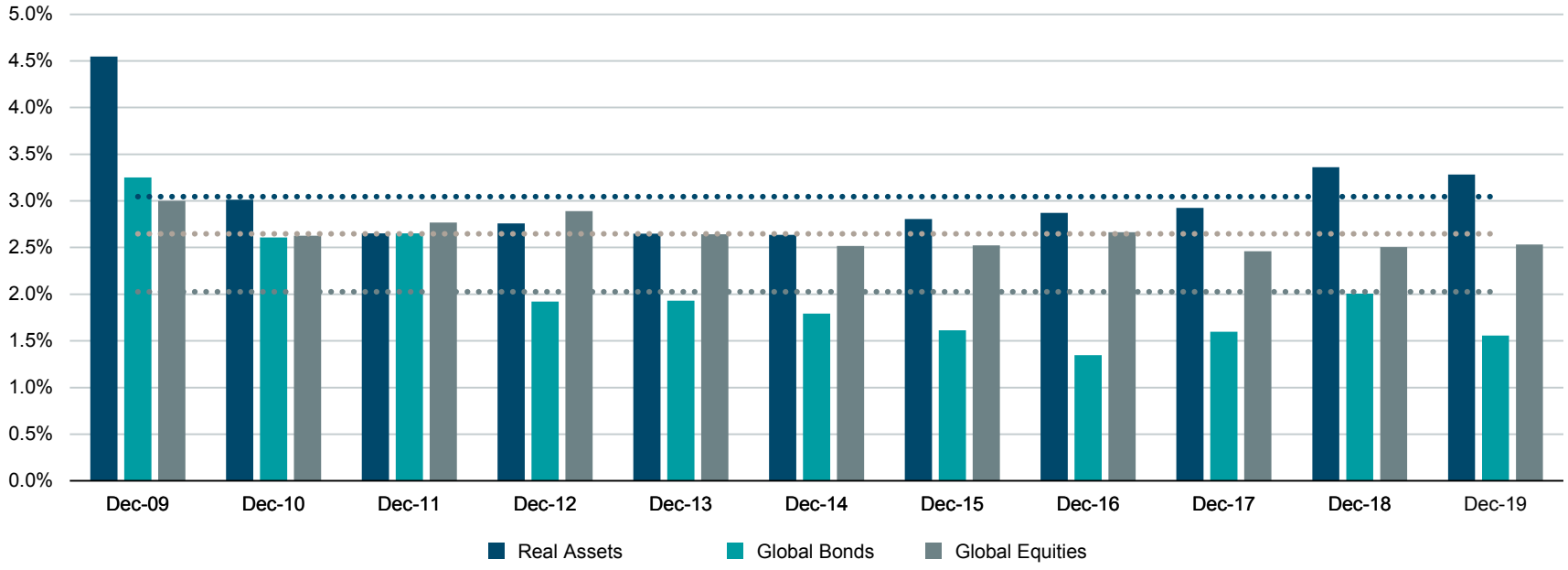



[1] Diversification neither assures a profit nor guarantees against loss.
Sources: Morningstar and DWS as of 12/31/19. **Past performance is not a guarantee of future results.** Asset class representation: **global infrastructure**, Dow Jones Brookfield Global Infrastructure Index; **global real estate**, FTSE EPRA/NAREIT Developed Index; **commodities**, Bloomberg Commodity Index; **TIPS**, Barclays U.S. TIPS Index; **global equities**, MSCI World Index; **global bonds**, Bloomberg Barclays Global Aggregate Index. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

# RELATIVELY ATTRACTIVE INCOME[1]

## Real assets have generated favorable yields

**HISTORICAL YIELDS BY ASSET CLASS AND CORRESPONDING HISTORICAL AVERAGES**




Note: corresponding dashed lines indicate historical average yields.

[1] The comments, opinions and estimates contained herein are based on or derived from publicly available information from sources that we believe to be reliable. This material is for informational purposes only and sets forth our views as of this date. We do not guarantee their accuracy. For illustrative purposes only.

Sources: Bloomberg and DWS; data from 12/31/09 to 6/30/20. **Past performance is not a guarantee of future results**. Asset class representation: **global equities**, MSCI World Index; **global bonds**, Barclays Global Aggregate Index; **real assets**, Real Assets Blended Benchmark, which is a proprietary DWS reference index comprised of the following blend of real assets indices:15% Bloomberg Commodity Index, 30% Dow Jones Brookfield Global Infrastructure Index, 30% FTSE EPRA/NAREIT Developed Index,10% Barclays U.S. TIPS Index, 15% S&P Global Natural Resources Index. Historical yields are not indicative of future yields.

# CREATING AN EFFECTIVE REAL ASSET PROGRAM

## Requires active adjustment as market conditions change

| | Return potential | Diversification benefit | Higher beta to inflation | Attractive income |
|---|---|---|---|---|
| **Attribute** | _ should be meaningful over the long-term<br>_ manages opportunity cost risk if "traditional" markets rally | _ low correlation to rest of portfolio<br>_ differentiated drivers of risk and potential return[1] | _ helps mitigate purchasing power for the entire portfolio[2]<br>_ enables capital efficiency in the hedge[2] | _ historically offered yields in line or above global equities<br>_ historically stable and predictable in nature |
| **Asset classes** | _ REITs, infrastructure, global natural resource equities | _ TIPS, commodities | _ commodities, global natural resources equities, REITs | _ REITs, infrastructure, global natural resource equities |

- **Strategic**: diversity by asset class and sub-asset classes
- **Tactical**: flexibility to make active shifts both among and within real return asset classes

[1] Diversification neither assures a profit nor guarantees against loss. [2] Traditional portfolios of stocks and bonds are exposed to inflation risk. Commodities and TIPS have historically been the most effective inflation hedges in both the short-term and long-term; their relationship with inflation has been statistically strong. Commodity prices are a recognized driver of inflation and TIPS are inflation-linked bonds. Inflation beta measures the responsiveness of nominal returns to inflation. If an asset does not keep pace with rising inflation (exhibit inflation beta >=1), its purchasing power will fall if inflation rises. Therefore, adding assets that exhibit inflation beta to a portfolio may mitigate lost purchasing power in times of rising inflation. Reducing risk comes with a cost – commodities and TIPS are among the lowest expected-return assets

Source: DWS. **Past performance is not a guarantee of future results.** These are the attributes of an effective hypothetical program and do not directly represent any DWS product. Real return defined as percentage return on an investment that is adjusted for inflation. No assurance can be made that investment objective will be achieved.

# CONSTRUCTING A REAL ASSETS PORTFOLIO

## Seek to maximize real return potential

We believe real estate and listed infrastructure form the foundation of a solid liquid real assets strategy.

| AVERAGE CALENDAR YEAR RETURNS – SINCE INCEPTION | | | |
|---|---|---|---|
| Since 1990 | | Since 2003 | |
| **Global Real Estate** | 10.2% | **Global Infrastructure** | 13.7% |
| Global Equities | 8.5% | Global Equities | 11.1% |
| Avg excess return | 1.7% | Avg excess return | 2.6% |

Begin with a solid foundation

Source: Bloomberg and DWS as of 6/30/20. **Past performance is not a guarantee of future results**. No assurance is made that investment objectives will be met. Asset class representation: **global real estate**, FTSE EPRA/NAREIT Developed Index; **global infrastructure**, Dow Jones Brookfield Global Infrastructure Index; **global equities**, MSCI World Index. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

# CONSTRUCTING A REAL ASSETS PORTFOLIO

## Seek to enhance through diversification

Potentially enhance risk return profile via strategic and tactical complements

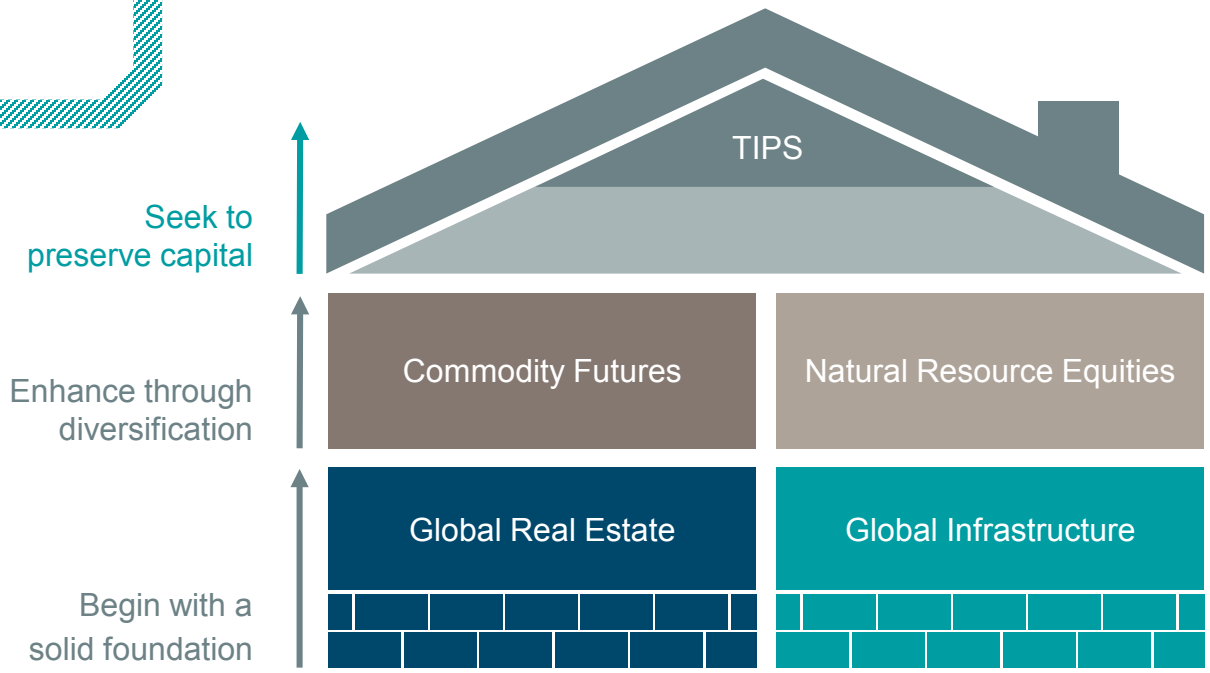
| COMMODITIES – AVERAGE ROLLING 5Y CORRELATIONS[1] | | |
|---|---|---|
| vs. Global Equities | vs. Real Estate | vs. Infrastructure |
| 0.33 | 0.22 | 0.49 |

[1] Rolling five-year correlations shown for Global Equities and Real Estate 7/31/00 to 6/30/20; and Infrastructure 12/31/02-6/30/20.
Sources: Bloomberg and DWS for period 12/31/02 to 6/30/20. Past performance is not a guarantee of future results. Asset class representation; **real estate**, FTSE EPRA/NAREIT Developed Index; **infrastructure**, Dow Jones Brookfield Global Infrastructure Index; **global equities**, MSCI World Index; **commodities**, S&P GSCI TR Index. No assurance is made that investment objectives will be met. Diversification neither assures a profit nor guarantees against loss.

# CONSTRUCTING A REAL ASSETS PORTFOLIO

## Seek less downside capture during turbulent times

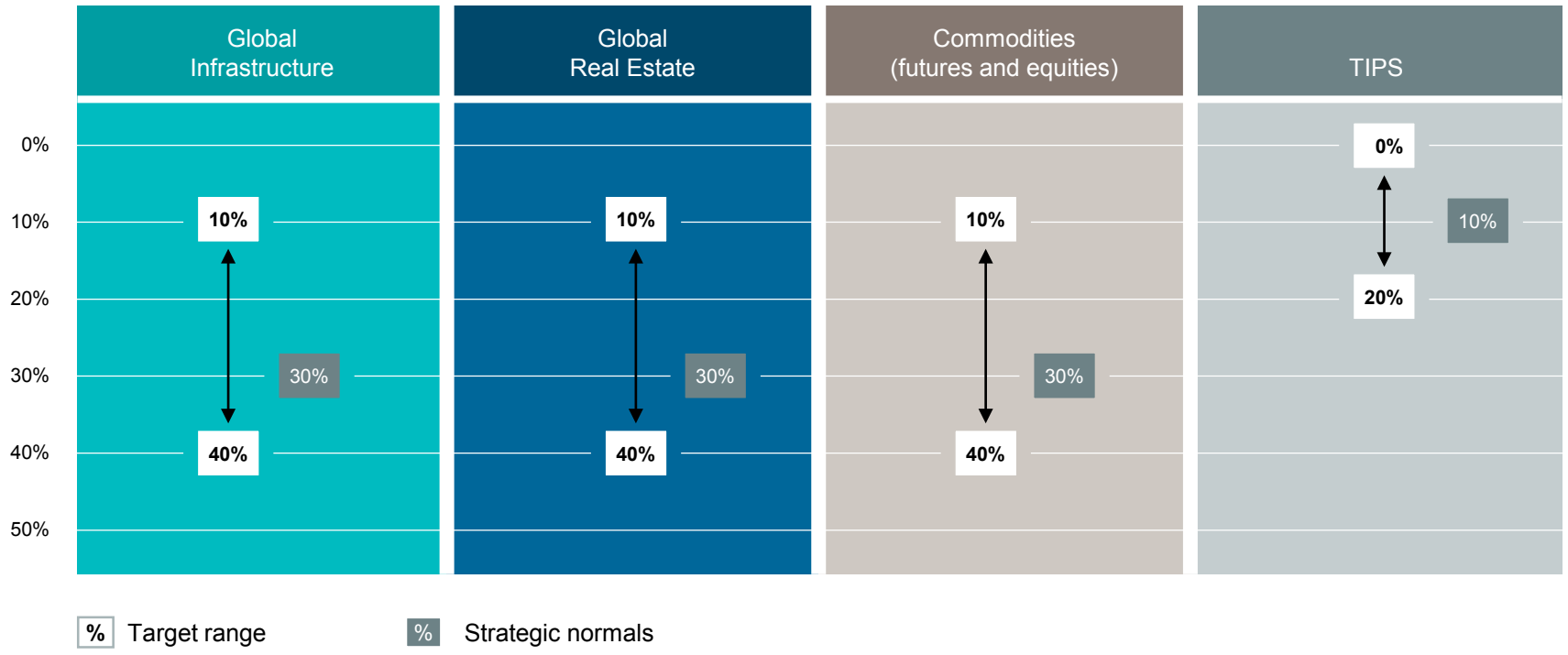
Use TIPS to help preserve capital and lessen the downside capture




Source: DWS. **Past performance is not a guarantee of future results.** No assurance is made that investment objectives will be met. **TIPS**, Treasury Inflation-Protected Securities

# STRATEGIC ALLOCATIONS

## Target ranges & normals




Source: DWS. For illustrative purposes only. Benchmarks: **global real estate**, FTSE EPRA/NAREIT Developed Index; **global infrastructure**, Dow Jones Brookfield Global Infrastructure Index; **commodity futures**, Bloomberg Commodity Index; **commodity equities**, S&P Global Natural Resources Index; **TIPS,** Barclays U.S. TIPS Index. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

# BROAD INVESTMENT UNIVERSE

## Unique categories with distinct risk & return attributes

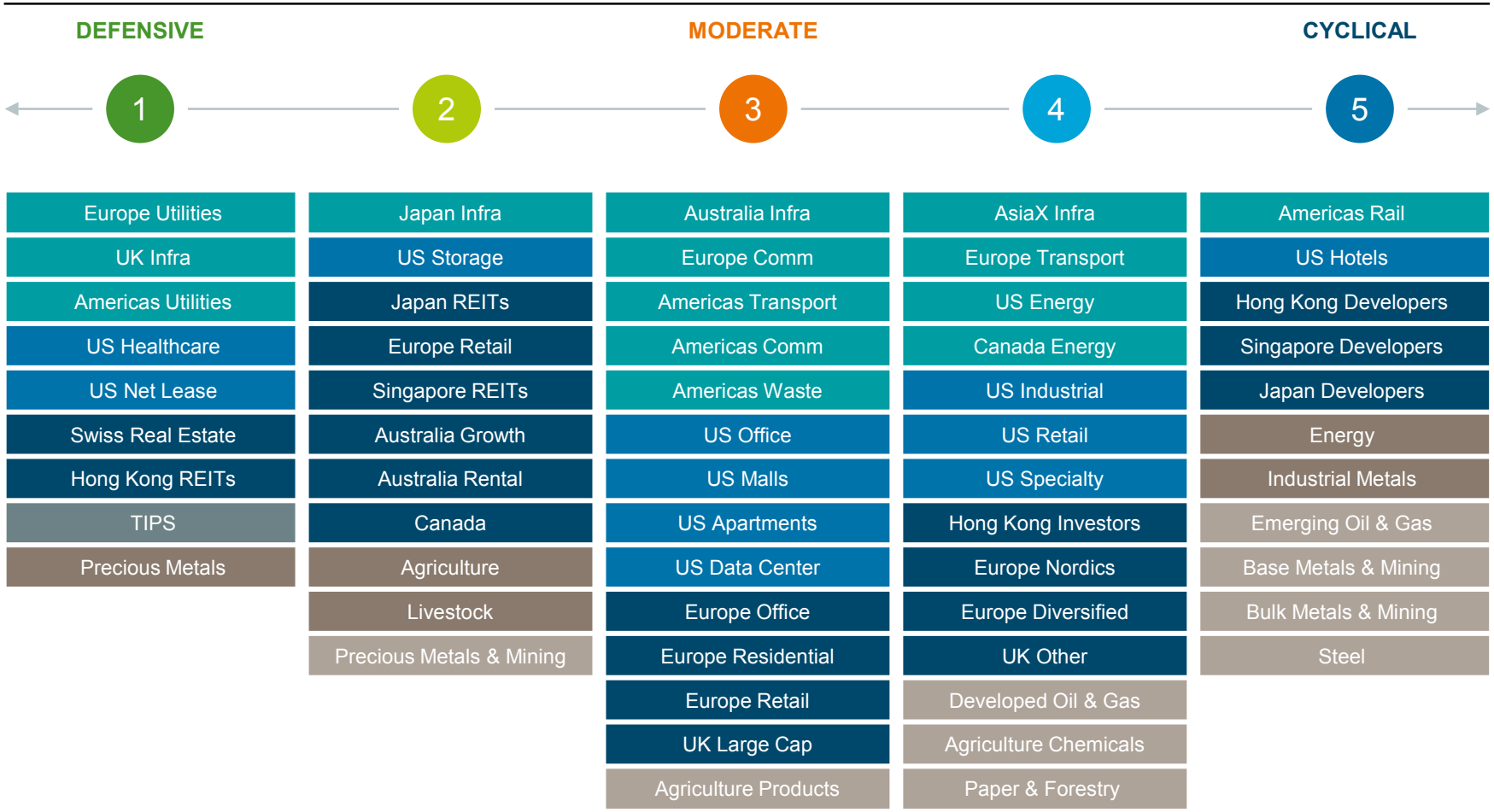
| Global Infrastructure | U.S. REITs | xU.S. Real Estate | Natural Resource Equities | Commodity Futures | TIPS |
|---|---|---|---|---|---|
| 14 | 11 | 18 | 9 | 5 | 1 |
| AsiaX Infra | US Hotels | Hong Kong Developers | Developed Oil & Gas | Energy | US TIPS |
| Japan Infra | US Industrial | Hong Kong Investors | Emerging Oil & Gas | Industrial Metals | |
| Australia Infra | US Office | Singapore Developers | Agricultural Chemicals | Agriculture | |
| Europe Transport | US Retail | Japan Developers | Agricultural Products | Livestock | |
| Europe Comm | US Malls | Japan REITs | Base Metals & Mining | Precious Metals | |
| Europe Utilities | US Apartments | Europe Nordics | Bulk Metals & Mining | | |
| UK Infra | US Healthcare | Europe Diversified | Steel | | |
| US Energy | US Specialty | Europe Office | Precious Metals & Mining | | |
| Canada Energy | US Storage | Europe Retail | Paper & Forestry | | |
| Americas Rail | US Data Centers | Europe Residential | | | |
| Americas Transports | US Net Lease | UK Large Cap | | | |
| Americas Comm | | UK Other | | | |
| Americas Waste | | Swiss Real Estate | | | |
| Americas Utilities | | Hong Kong REITs | | | |
| | | Singapore REITs | | | |
| | | Australia Growth | | | |
| | | Australia Rental | | | |
| | | Canada | | | |
| 100 | 150 | 200 | 90 | 20 | – |

**Approximate # of securities in benchmark**

Sources: Bloomberg, S&P, Factset, and DWS as of 12/31/19. Figures represent the number of securities in each asset class as represented by the appropriate index. Asset class representation: **global infrastructure**, Dow Jones Brookfield Global Infrastructure Index; **US REITs**, MSCI US REIT Index; **xUS real estate**, FTSE EPRA/NAREIT Developed ex US Index; **commodity futures**, Bloomberg Commodity Index; **TIPS,** Barclays U.S. TIPS Index; **natural resource equities**, S&P Global Natural Resources Index. Composition is subject to change.

# A DIFFERENT LOOK AT REAL ASSET BUCKETS

## Unique categories with distinct cyclical sensitivity

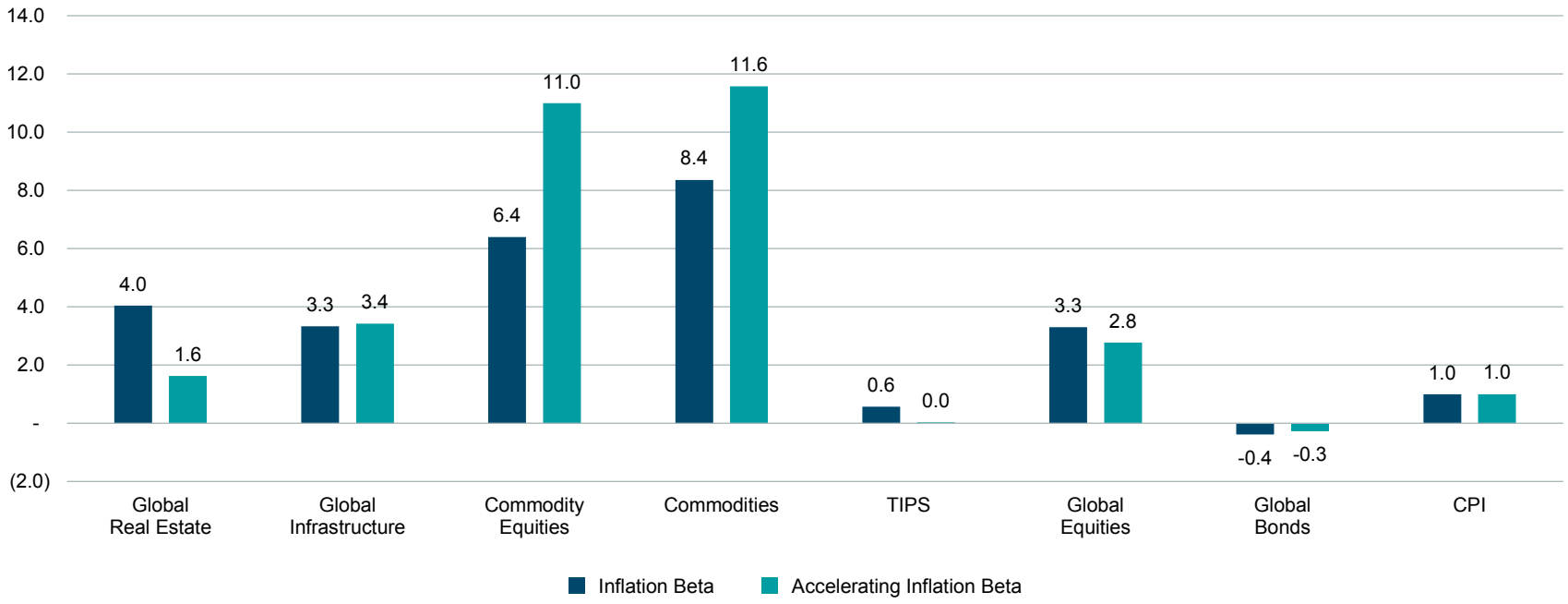



Source: DWS. For illustrative purposes only. No assurance can be made that investment objectives will be achieved.

# HIGHER BETA TO INFLATION

## Certain real assets classes have historically exhibited strong inflation Beta

**HISTORICAL INFLATION BETA VS. HISTORICAL INFLATION BETA WITH ACCELERATING INFLATION**



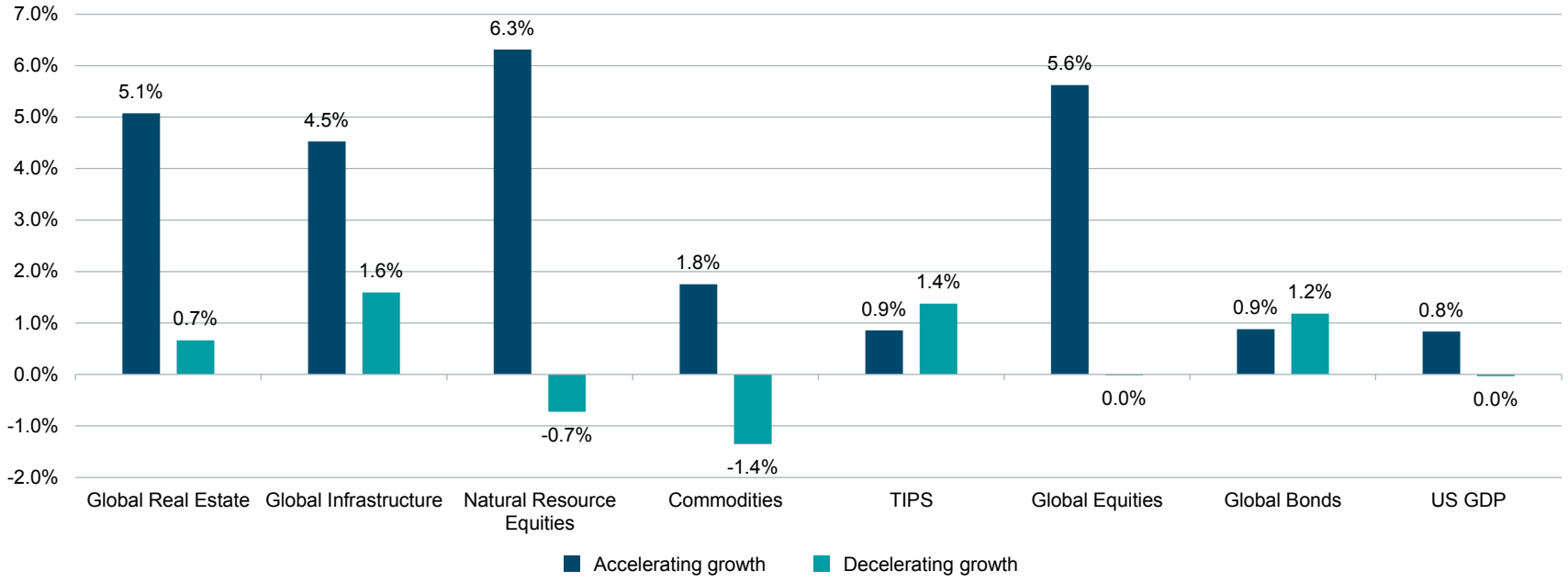

**Accelerating** is calculated using sequential year-over-year percentage changes in inflation based on CPI.
Sources: Bloomberg and DWS from 12/31/02 to 6/30/20. **Past performance is not a guarantee of future results.** Asset class representation: **global infrastructure**, DJ Brookfield Global Infrastructure Index; **global real estate**, FTSE EPRA/NAREIT Developed Index; **commodities**, Bloomberg Commodity Index; **natural resource equities**, S&P Global Natural Resources Index; **TIPS**, Bloomberg Barclays U.S. TIPS Index; **global equities**, MSCI World Index; **global bonds**, Bloomberg Barclays Global Aggregate Index. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

# REAL ASSET CLASS RETURNS AND GROWTH (GDP)

## Growth rate of change drives divergence

### AVERAGE QUARTERLY RETURNS WITH GROWTH ACCELERATING AND DECELERATING

As of 6/30/20

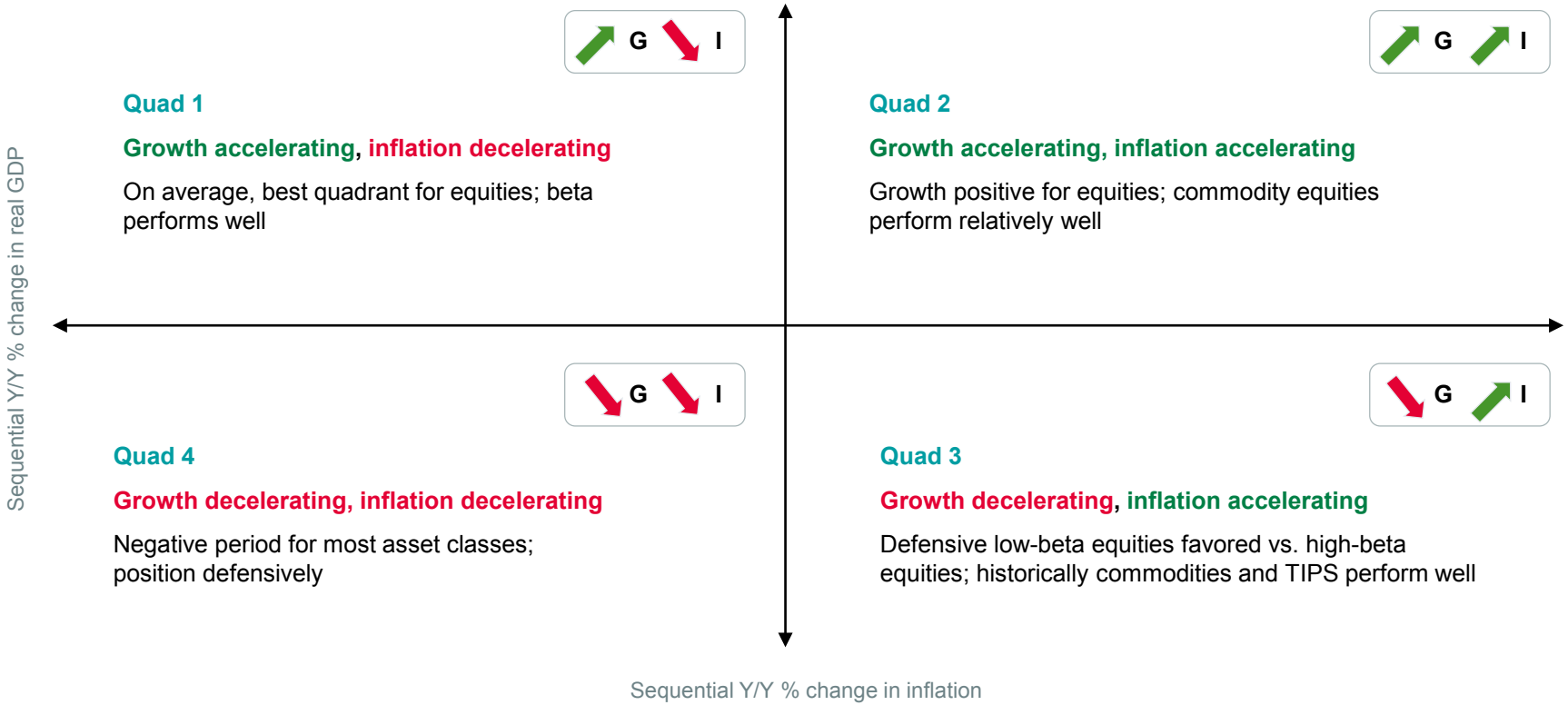



**Accelerating** is calculated using positive sequential year-over-year percentage changes in growth based on GDP.
**Decelerating** is calculated using negative sequential year-over-year percentage changes in growth based on GDP.

Sources: Bloomberg and DWS. All returns shown from 12/31/02 to 6/30/20. **Past performance is not a guarantee of future results.** Asset class representation: **global real estate**, FTSE EPRA/NAREIT Developed Index; **global infrastructure**, Dow Jones Brookfield Global Infrastructure Index; **natural resource equities**, S&P Global Natural Resources Index; **commodities**, Bloomberg Commodity Index; **TIPS**, Barclays U.S. TIPS Index; **global equities**, MSCI World Index; **global bonds**, Barclays Global Aggregate Index. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

# DEFINING UNIQUE QUADRANT ENVIRONMENTS

## Integrating a rate of change framework

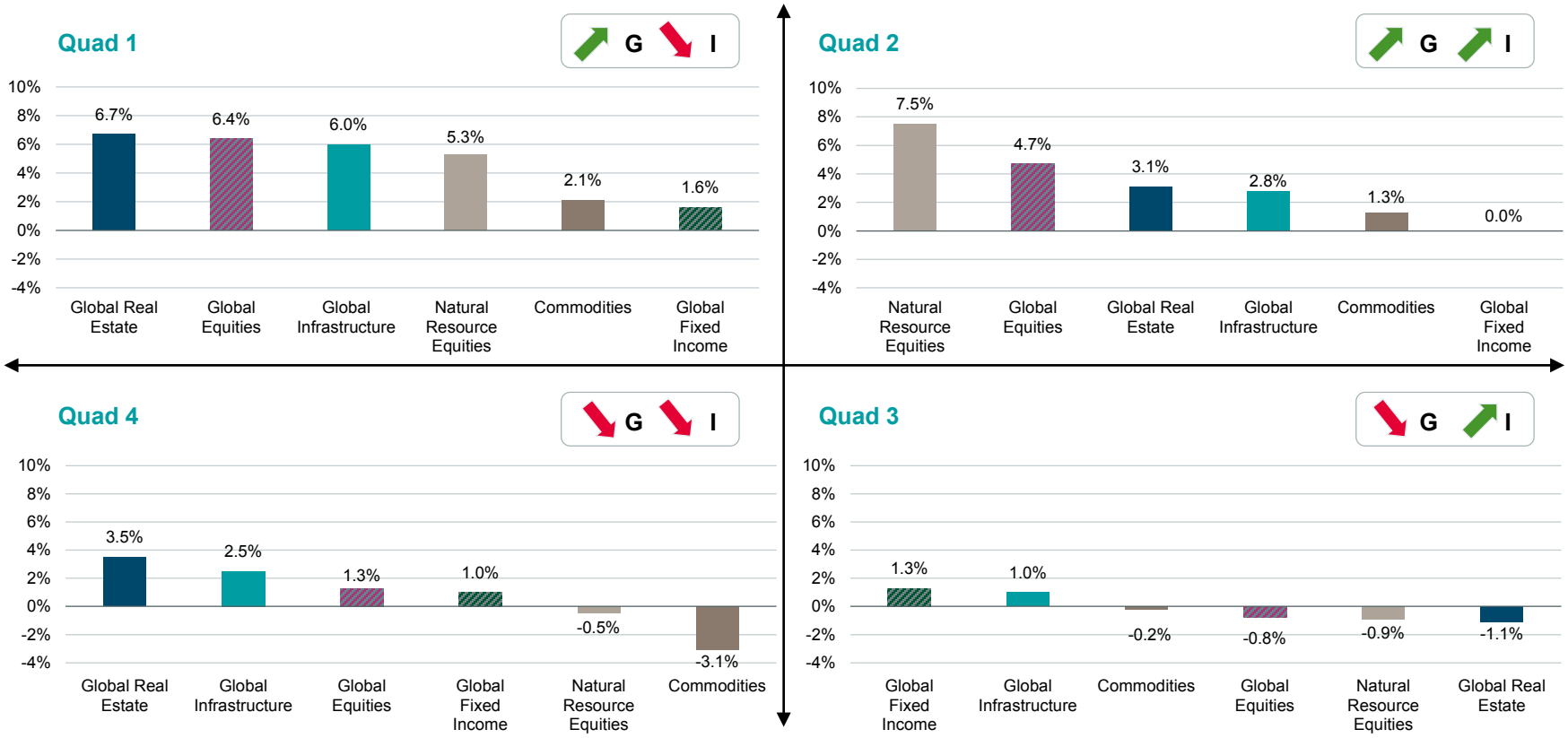



**Accelerating** is calculated using positive sequential year-over-year percentage changes in inflation based on CPI and/or growth based on GDP.
**Decelerating** is calculated using negative sequential year-over-year percentage changes in inflation based on CPI and/or growth based on GDP.

Source: DWS. For illustrative purposes only. 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 reflect our current views only, are subject to change, and are 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.

# ASSET CLASS PERFORMANCE BY QUADRANT

## Optimal portfolio composition changes materially

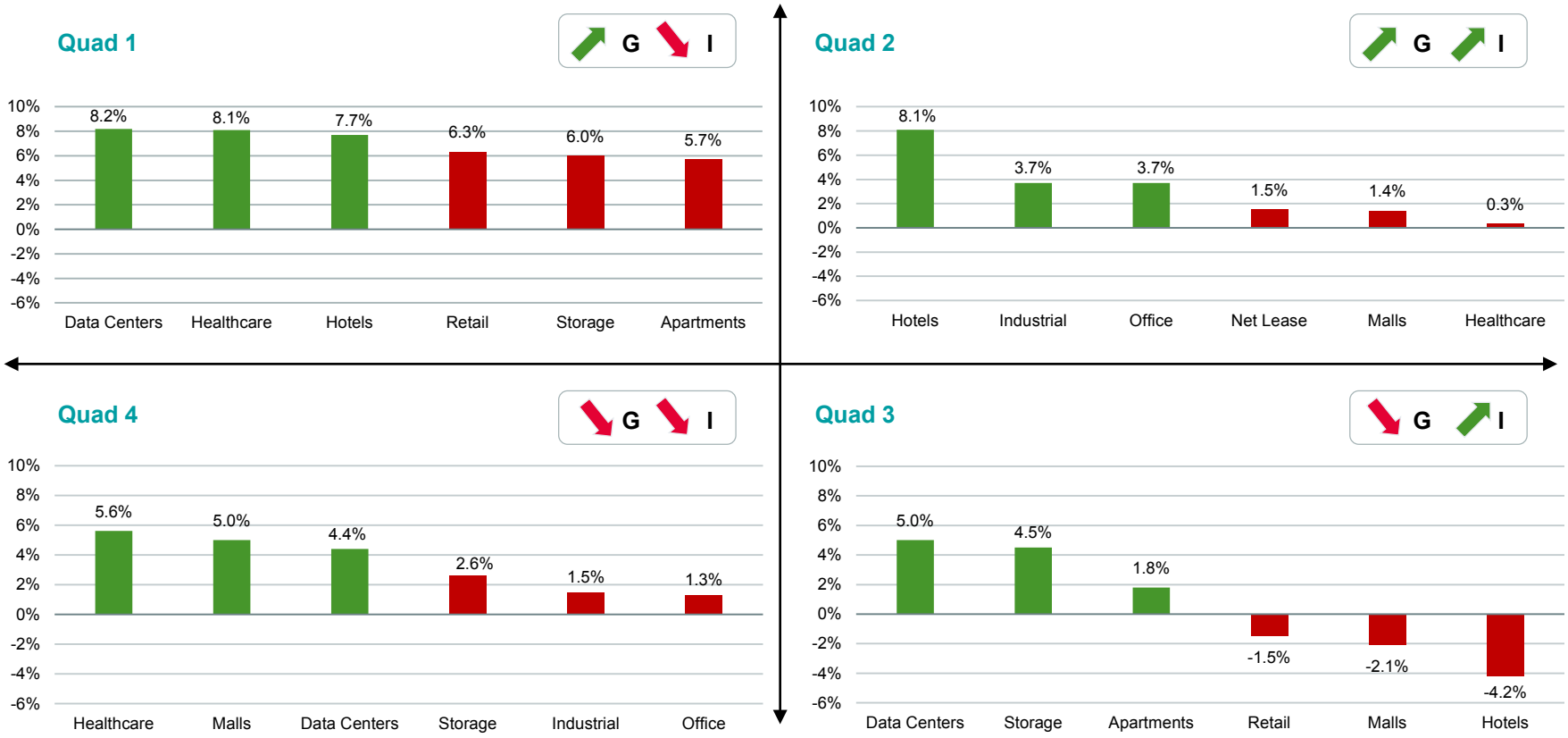



**Accelerating** is calculated using sequential year-over-year percentage changes in inflation based on CPI and/or growth based on GDP. **Decelerating** is calculated using sequential year-over-year percentage changes in inflation based on CPI and/or growth based on GDP. G = Growth. I = Inflation; ↗ = accelerating ↘ = decelerating.

Sources: Bloomberg and DWS for the period 12/31/02 to 6/30/20. **Past performance is not a guarantee of future results.** For illustrative purposes only. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index. Please refer to "Asset Classification" for asset class representation.

# THE QUADRANTS – EXAMPLE

## Real estate subsectors (top three, bottom three)

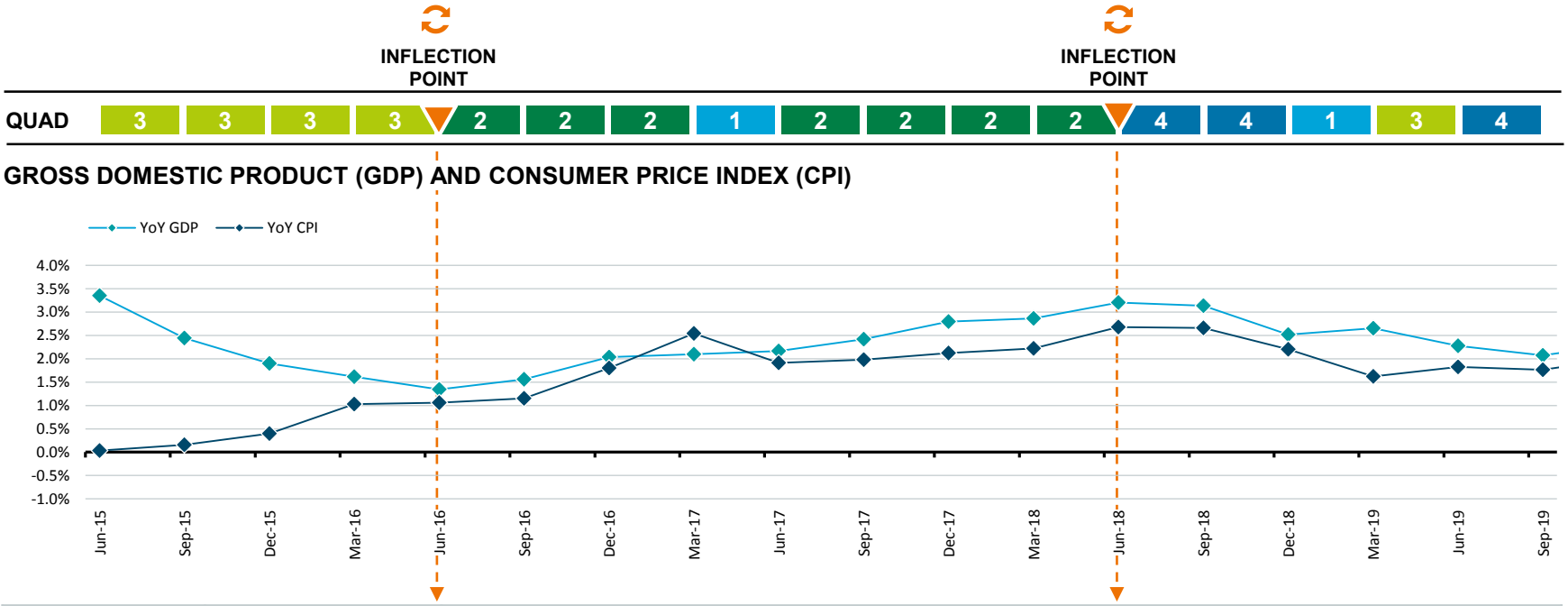



**Accelerating** is calculated using sequential year-over-year percentage changes in inflation based on CPI and/or growth based on GDP. **Decelerating** is calculated using sequential year-over-year percentage changes in inflation based on CPI and/or growth based on GDP. G = Growth. I = Inflation; ↗ = accelerating ↘ = decelerating.

Sources: Bloomberg and DWS for the period 12/31/02 to 6/30/20. **Past performance is not a guarantee of future results.** For illustrative purposes only. Representative of the MSCI U.S REIT Index. Equity index returns include reinvestment of all distributions. Index returns do not reflect fees or expenses, and it is not possible to invest directly in an index.

# DIVERGENT REAL ASSETS PERFORMANCE

## Quadrant changes cause dispersion



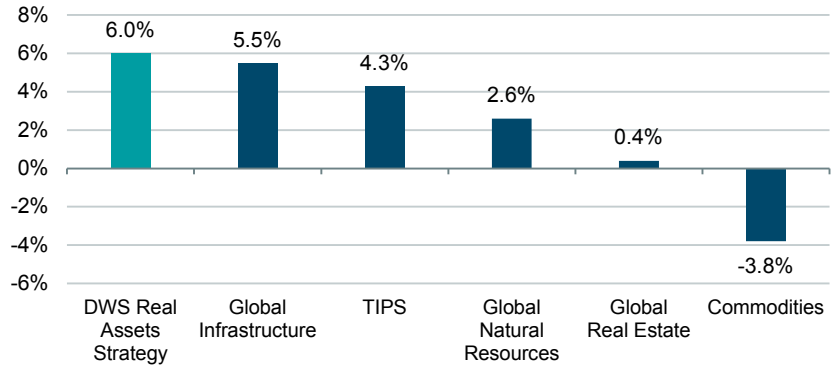

| Asset Class | Index | Jun 2016 to Sep 2018 | Jun 2018 to Sep 2019 |
|---|---|---|---|
| Global Real Estate | FTSE EPRA/NAREIT Developed TR Index | **+5.6%** | **+13.0%** |
| Global Infrastructure Securities | Dow Jones Brookfield Global Infrastructure Index | **+9.8%** | **+16.5%** |
| Global Natural Resources | S&P Global Natural Resources Index | **+44.0%** | **-11.6%** |

(1) Represents the probability of each quad in Q1 2020.
Sources: Bloomberg and DWS as of 3/31/20. **Past performance is not a guarantee of future results.** For illustrative purposes only. No assurance is given that forecast or target will be achieved. Inflection points represent near-term changes in the rate of growth and inflation. Not a recommendation for the purchase or sale if any investment or security.

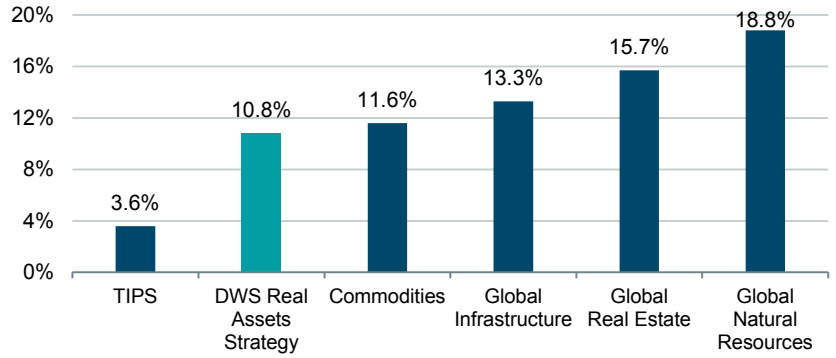
# REAL ASSETS FRAMEWORK

## Whole is greater than the sum of its parts

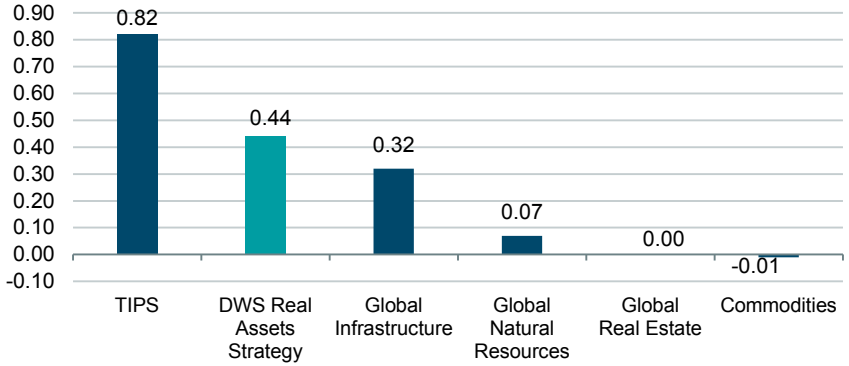
### ANNUALIZED TOTAL RETURN



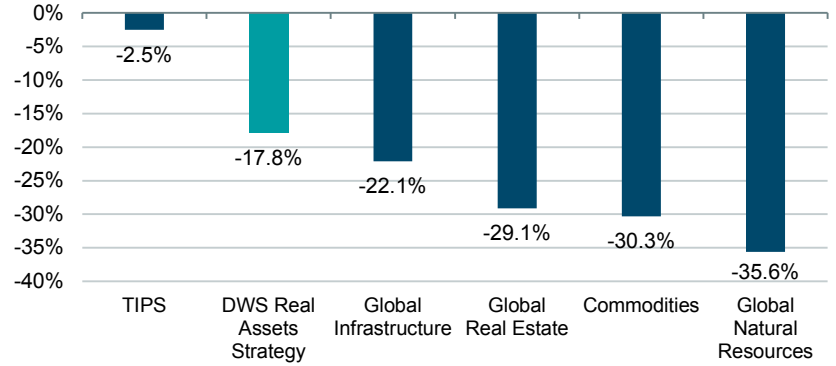

### VOLATILITY




### SHARPE RATIO




### MAX DRAWDOWN (Monthly)

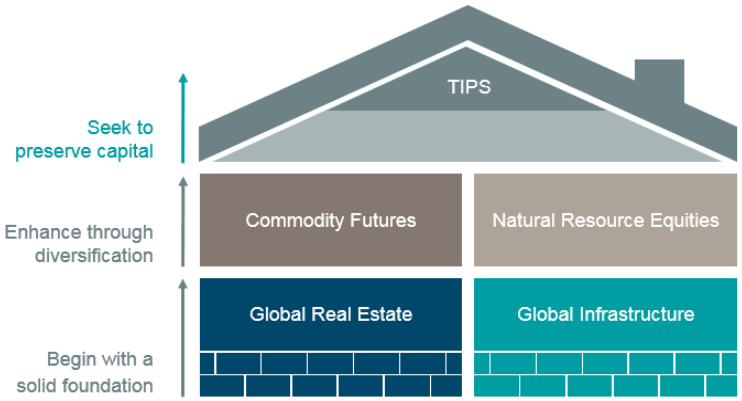



Source: DWS as of 7/31/20. All figures calculated since the inception of the DWS Real Assets Strategy (4/30/16). **Past performance is not a guarantee of future results.** Returns are shown in USD unhedged, net of withholding tax, gross of fees and will be reduced by advisory fees and other expenses. Please refer to "Asset Classification" slide for asset class representation.

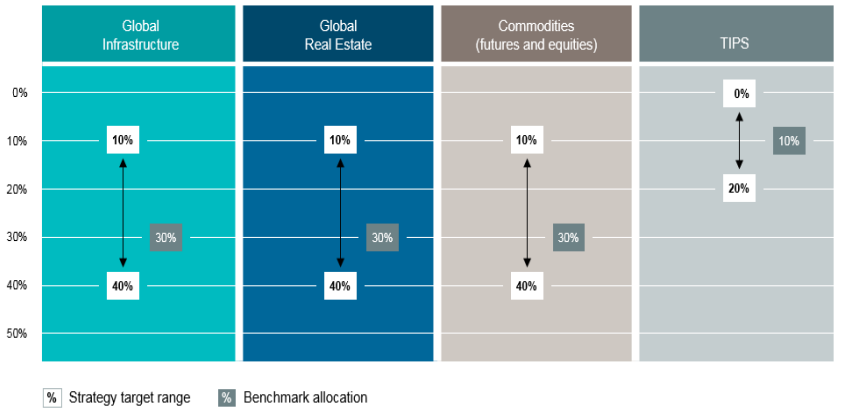
# LIQUID REAL ASSETS OPTIMIZED

## Creating an effective real assets program

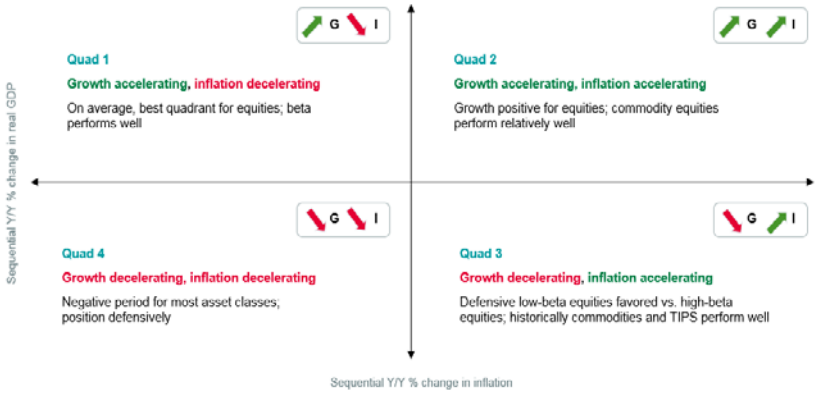
### Diversify strategically




### Make active tactical shifts




### Use global macro signals to optimize exposure




### Allocate capital to discrete buckets

Source: DWS. **Past performance is not a guarantee of future results.** No assurance is made that investment objectives will be met. **TIPS**, Treasury Inflation-Protected Securities

## AJ Baltozer, CAIA
**Assistant Vice President**
Global Client Group

5022 Gate Parkway, Suite 400, Jacksonville, Florida, 32256, USA
Tel. (904) 527-6632 I Mobile (904) 234-5889
E-Mail aj.baltozer@dws.com


---


**IMPORTANT INFORMATION**
The opinions and forecasts expressed are those of the speakers and do not necessarily reflect those of DWS, are as of October 1, 2020 and may not come to pass. This information is subject to change at any time based on market other conditions and should not be construed as a recommendation of any specific security.

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. All investments involve risk, including the potential loss of principal.

Investment products: No bank guarantee | Not FDIC insured | May lose value



DWS Distributors, Inc.
222 South Riverside Plaza
Chicago, IL 60606
www.dws.com



©2020 DWS Group GmbH & Co. KGaA. All rights reserved CRS: I-078747_1 (10/20)