

COMMODITY STRATEGY

March 31, 2025



PGIM
QUANTITATIVE SOLUTIONS



Investment Objective*

Bloomberg Commodity Index outperformance with target tracking error of 1.5% - 2.5% over a full market cycle.

Investment Approach

Systematic, factor-based strategy aims to capture persistent long-term payoff to a broad market of commodities through highly liquid future investments.

Key Features

- Global commodity focus
- Live track record since 2018
- Provides diversification and inflation hedge potential to a multi-asset class portfolio
- Seeks alpha¹ in a risk-controlled systematic process with conservative collateral management
- Highly experienced team provides portfolio oversight and makes continual model enhancements

Experienced Portfolio Management

Marco Aiofli, PhD, Co-Head of Multi-Asset Strategies
Edward Tostanoski, Portfolio Manager

Parameters Typical Portfolio

| | |
|--|-------------|
| Targeted Tracking Error | 1.5% - 2.5% |
| Targeted Beta to Bloomberg Commodity Index | 100% |
| Max Gross Exposure (% AUM) | 100% |
| Typical Number of Holdings | 20 - 25 |

About PGIM Quantitative Solutions

PGIM Quantitative Solutions is the quantitative equity and multi-asset specialist of PGIM. For 50 years, PGIM Quantitative Solutions has helped investors around the world solve their unique needs by leveraging the power of technology and data as well as advanced academic research. PGIM Quantitative Solutions manages \$104 billion in assets under management as of 03/31/2025.

For Professional Investors Only. All investments involve risk, including the possible loss of capital.

*There is no guarantee that the objective will be met.

¹Alpha=excess return above the benchmark.

[^]Inception date for the Commodity Strategy Composite is 5/1/2018.

Source: PGIM Quantitative Solutions, Bloomberg. An investment cannot be made directly in an index.
All data as of 03/31/2025.

Composite Performance & Risk Statistics - Since Inception

| Performance (%) | Commodity Strategy | | Bloomberg Commodity Index | | |
|---------------------------------------|--------------------|-------|---------------------------|-----------|-------------|
| | Net | Gross | Net | Net Alpha | Gross Alpha |
| Year-to-date | 8.58 | 8.65 | 8.88 | -30 bps | -23 bps |
| 1 Year | 10.55 | 10.82 | 12.28 | -173 | -146 |
| 3 Year | -0.91 | -0.66 | -0.77 | -14 | +11 |
| 5 Year | 15.68 | 15.96 | 14.51 | +117 | +145 |
| Since Inception [^] | 6.06 | 6.32 | 5.12 | +94 | +120 |
| Gross Risk Statistics Since Inception | | | | | |
| Tracking Error (%) | 1.66% | | | | |
| Active Information Ratio | 0.72% | | | | |
| Beta | 1.03% | | | | |
| Volatility (%) | 14.96% | | | | |
| Strategy Assets | \$649 million | | | | |

Past performance is not a guarantee or a reliable indicator of future results.

Strategy Position

| | Portfolio Weight (%) | Benchmark Weight (%) | Variance |
|-------------------|----------------------|----------------------|----------|
| Sector | | | |
| Energy | 37.15 | 30.02 | 7.13 |
| Grains | 20.87 | 21.68 | -0.81 |
| Industrial Metals | 14.23 | 15.1 | -0.87 |
| Livestock | 3.71 | 5.4 | -1.69 |
| Precious Metals | 21.42 | 20.35 | 1.07 |
| Softs | 9.81 | 7.45 | 2.36 |

Composite Investment Returns - Net and Gross Returns (%)

| | January | February | March | April | May | June | July | August | September | October | November | December | Full Year |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|------------|------------|--------|-----------|---------|----------|----------|------------|
| 2025** Net Returns | 3.86 | 0.75 | 3.76 | | | | | | | | | | 8.58 |
| Gross Returns | 3.89 | 0.77 | 3.78 | | | | | | | | | | 8.65 |
| Bloomberg Commodity Index | 3.95 | 0.78 | 3.93 | | | | | | | | | | 8.88 |
| Value Added Net (bps) | -9 | -3 | -17 | | | | | | | | | | -30 |
| Value Added Gross (bps) | -6 | -1 | -15 | | | | | | | | | | -23 |
| | 2018* | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | | | | | | |
| Net Returns | -14.31 | 9.30 | 0.08 | 28.41 | 18.78 | -8.16 | 5.36 | | | | | | |
| Gross Returns | -14.16 | 9.57 | 0.33 | 28.73 | 19.07 | -7.93 | 5.62 | | | | | | |
| Bloomberg Commodity Index | -13.13 | 7.69 | -3.12 | 27.11 | 16.09 | -7.91 | 5.38 | | | | | | |
| Value Added Net (bps) | -118 | +161 | +320 | +130 | +269 | -25 | -2 | | | | | | |
| Value Added Gross (bps) | -103 | +188 | +345 | +162 | +298 | -2 | +24 | | | | | | |

*Inception date is 5/1/2018. **YTD as of 03/31/2025. Past performance is not a guarantee or a reliable indicator of future results.

For More Information Please Contact:

Brad Zenz
(415) 653-3205
brad.zenz@pgim.com

Kevin O'Rourke, CFA, CAIA
(973) 367-5395
kevin.orourke@pgim.com

Derek Towle
(781) 910-8236
derek.towle@pgim.com

Cyrus Cottin
+44 (0) 20 7663 3440
cyrus.cottin@pgim.com

Chris Jackson
+44 (0) 7816 251 048
chris.jackson@pgim.com

Notes to Disclosure

Performance results are stated gross and net of model fees. PGIM Quant's highest advisory fee in effect for each period is the model fee used to calculate net of fee performance. Performance has been calculated in US dollars and reflects the reinvestment of dividends and other earnings. Returns for each client will be reduced by such fees and expenses as described in their individual contract. Returns are shown net of actual foreign withholding taxes, if any. Accounts in the composite may have a performance-based fee. The returns provided above are time-weighted.

The performance results herein represent the investment performance record for Commodity strategy managed by PGIM Quantitative Solutions LLC. Characteristics are for the representative portfolio within the composite, and are subject to change. Diversification does not protect against a loss in a particular market; however, it allows you to spread that risk across various asset classes. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

PGIM Quantitative Solutions LLC ("PGIM Quantitative Solutions" or "PGIM Quant") is an investment adviser registered with the U.S. Securities and Exchange Commission (the "SEC"). Registration with the SEC does not imply a certain level of skill or training. PGIM Quant is an indirect, wholly-owned subsidiary of PGIM, Inc. PGIM is the trading name of PGIM, Inc and its global subsidiaries, representing the principal asset management business of Prudential Financial, Inc. ("PFI"), a company incorporated and with its principal place of business in the United States. PFI of the United States is not affiliated in any manner with Prudential plc, which is headquartered in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom.

This document may contain confidential information and the recipient hereof agrees to maintain the confidentiality of such information. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of its contents, without the prior consent of PGIM Quant, is prohibited. These materials are not intended for distribution to or use by any person in any jurisdiction where such distribution would be contrary to local or international law or regulation. Certain information in this document has been obtained from sources that PGIM Quant believes to be reliable as of the date presented; however, PGIM Quant cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Quant has no obligation to update any or all such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy.

These materials are for informational or educational purposes. In providing these materials, PGIM Quant is not acting as your fiduciary. These materials do not take into account individual client circumstances, objectives or needs. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. These materials do not purport to provide any legal, tax or accounting advice.

The information contained herein is provided on the basis and subject to the explanations, caveats and warnings set out in this notice and elsewhere herein. Any discussion of risk management is intended to describe PGIM Quant's efforts to monitor and manage risk but does not imply low risk.

There can be no guarantee that the objectives will be achieved. PGIM Quant has based these investment objectives on certain assumptions that it believes are reasonable. There is no guarantee, however, that any or all of such assumptions will prove to be accurate in the face of actual changes in the securities market or other material changes in regional or local markets specific to this strategy. Factors that would or could mitigate against achieving this investment objective would include material changes in the economic environment and factors that are not included in our model or are underperforming in our model. The investment objectives contemplated herein are over a complete market cycle which is generally between five and ten years for this strategy. The investment objectives described above are calculated net of management fees.

Investing in securities involves risk of loss that investors should be prepared to bear. In addition, model-based strategies present unique risks that may result in the model's not performing as expected. These risks include, for example, design flaws in the model; input, coding or similar errors; technology disruptions that make model implementation difficult or impossible; and errors in externally supplied data utilized in models. To the extent that portfolio manager judgment is applied to model output, decisions based on judgment may detract from the investment performance that might otherwise be generated by the model.

Investing in securities of non-U.S. issuers generally involves more risk than investing in those of U.S. issuers. Foreign political, economic and legal systems, especially in developing and emerging countries, may be less stable and more volatile than those in the U.S. Foreign legal systems generally have fewer regulatory requirements than does the U.S. legal system. The changing value of foreign currencies could also affect the value of securities. Foreign countries may impose restrictions on the ability of their issuers to make payment of principal and interest or dividends to investors located outside the country, due to the blockage of foreign currency exchanges or other problems. Investments in foreign securities may be subject to non-U.S. withholding and other taxes. Emerging market investments are typically subject to greater volatility and price declines than investments in developed markets.

The financial indices referenced herein are provided for informational purposes only. The manager's holdings and portfolio characteristics may differ from those of the benchmark(s). Additional factors impacting the performance displayed herein may include portfolio-rebalancing, the timing of cash flows, and differences in volatility, none of which impact the performance of the financial indices. Financial indices assume reinvestment of dividends but do not reflect the impact of fees, applicable taxes or trading costs which may also reduce the returns shown. You cannot invest directly in an index. The statistical data regarding such indices has been obtained from sources believed to be reliable but has not been independently verified.

References to specific securities and their issuers are for illustrative purposes only and are not intended and should not be interpreted as recommendations to purchase or sell such securities. The securities referenced may or may not be held in portfolios managed by PGIM Quant and, if such securities are held, no representation is being made that such securities will continue to be held.

In the **United Kingdom**, information is issued by PGIM Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Limited is authorized and regulated by the Financial Conduct Authority (the "FCA") of the United Kingdom (Firm Reference Number 193418). In the European Economic Area (the "EEA"), information is issued by PGIM Netherlands B.V. with registered office at Eduard van Beinumstraat 6 1077CZ, Amsterdam, The Netherlands. PGIM Netherlands B.V. is authorized by the Autoriteit Financiële Markten in the Netherlands (Registration number 15003620) and operating on the basis of a European passport. In certain EEA countries, information is, where permitted, presented by PGIM Limited in reliance of provisions, exemptions or licenses available to PGIM Limited under temporary permission arrangements following the exit of the United Kingdom from the European Union. These materials are issued by PGIM Limited and/or PGIM Netherlands B.V. to persons who are professional clients as defined under the rules of the FCA and/or to persons who are professional clients as defined in the relevant local implementation of Directive 2014/65/EU (MiFID II). PGIM Limited and PGIM Netherlands B.V. are indirect, wholly-owned subsidiaries of PGIM, Inc.

In **Switzerland**, information is issued by PGIM Limited, through its Representative Office in Zurich with registered office: Kappelergasse 14, CH-8001 Zurich, Switzerland. PGIM Limited, Representative Office in Zurich is authorised and regulated by the Swiss Financial Market Supervisory Authority FINMA and these materials are issued to persons who are professional or institutional clients within the meaning of Art.4 para 3 and 4 FinSA in Switzerland.

In **Singapore**, information is issued by PGIM (Singapore) Pte. Ltd. ("PGIM Singapore"), a regulated entity with the Monetary Authority of Singapore under a Capital Markets Services License to conduct fund management and an exempt financial adviser. This material is issued by PGIM Singapore for the general information of "institutional investors" pursuant to Section 304 of the Securities and Futures Act 2001 of Singapore (the "SFA") and "accredited investors" and other relevant persons in accordance with the conditions specified in Section 305 of the SFA.

In **Hong Kong**, information is issued by PGIM (Hong Kong) Limited, a regulated entity with the Securities & Futures Commission in Hong Kong to professional investors as defined in Section 1 of Part 1 of Schedule 1 of the Securities and Futures Ordinance (Cap. 571).

In **Japan**, the investment management capabilities and services described in the attached materials are offered by PGIM Japan Co., Ltd (PGIMJ), a Japanese registered investment adviser (Director-General of the Kanto Local Finance Bureau (FIBO) No. 392). Retention of PGIMJ for the actual provision of such investment advisory services may only be effected pursuant to the terms of an investment management contract executed directly between PGIMJ and the party desiring such services. It is anticipated that PGIMJ would delegate certain investment management services to its US-registered investment advisory affiliate.

In **Australia**, information is issued by PGIM (Australia) Pty Ltd ("PGIM Australia") for the general information of its "wholesale" customers (as defined in the Corporations Act 2001). PGIM Australia is a representative of PGIM Limited, which is exempt from the requirement to hold an Australian Financial Services License under the Australian Corporations Act 2001 in respect of financial services. PGIM Limited is exempt by virtue of its regulation by the FCA (Reg: 193418) under the laws of the United Kingdom and the application of ASIC Class Order 03/1099. The laws of the United Kingdom differ from Australian laws.

To the extent that these materials are distributed by PGIM Quantitative Solutions, it is done so under the exemption from the requirement to hold an Australian Financial Services License under the Australian Corporations Act 2001 in respect of financial services. PGIM Quantitative Solutions is exempt by virtue of its regulation by the Securities and Exchange Commission (SEC #801-62692) under the laws of the United States and the application of ASIC Class Order 03/1100.

In **Canada**, PGIM Quantitative Solutions LLC relies upon the "International Advisor Exemption" pursuant to National Instrument 31-103 in certain provinces of Canada.

In **Korea**, PGIM Quantitative Solutions LLC holds cross-border discretionary investment management and investment advisory licenses under the Korea Financial Investment Services and Capital Markets Act ("FSCMA"), and is registered in such capacities with the Financial Services Commission of Korea. These materials are intended solely for Qualified Professional Investors as defined under the FSCMA and should not be given or shown to any other persons.

PGIM, PGIM Quantitative Solutions, the PGIM Quantitative Solutions logo and the Rock design are service marks of PFI and its related entities, registered in many jurisdictions worldwide.

© 2025 PGIM Quantitative Solutions. All Rights Reserved. PGIM Quant-20250416-3473