UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K
CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 4, 2023

Grayscale Digital Large Cap Fund LLC
(Exact name of Registrant as Specified in Its Charter)

Cayman Islands
(State or Other Jurisdiction of Incorporation)

000-56284
(Commission File Number)

98-1406784
(IRS Employer Identification No.)

c/o Grayscale Investments, LLC
290 Harbor Drive, 4th Floor
Stamford, Connecticut
(Address of Principal Executive Offices)

06902
(Zip Code)

Registrant’s Telephone Number, Including Area Code: 212 668-1427

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(g) of the Act:

<table>
<thead>
<tr>
<th>Title of each class</th>
<th>Trading Symbol(s)</th>
<th>Name of each exchange on which registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grayscale Digital Large Cap Fund LLC Shares</td>
<td>GDLC</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐
### Item 8.01 Other Events.

On October 3, 2023, Grayscale Investments, LLC, the manager (the “Manager”) of Grayscale Digital Large Cap Fund LLC (the “Fund”), completed its quarterly review of the Fund’s portfolio and initiated the process of rebalancing the Fund in accordance with the fund construction criteria, as described in the Fund’s Annual Report on Form 10-K, filed with the Securities and Exchange Commission on September 1, 2023. In accordance with the fund construction criteria, the digital assets held by the Fund (the “Fund Components”) consist of the digital assets (the “Index Components”) included in the CoinDesk Large Cap Select Index (the “DLCS”), subject to the Manager’s discretion to exclude an Index Component under certain circumstances. The DLCS is rebalanced quarterly, beginning 14 days before the second business day of each January, April, July and October. On October 3, 2023, CoinDesk Indices, Inc. (in this capacity, the “Index Provider”) completed the quarterly rebalancing of the DLCS and determined that Bitcoin (“BTC”), Ethereum (“ETH”), Cardano (“ADA”), Solana (“SOL”), and Polygon (“MATIC”) met the inclusion criteria of the DLCS Index. Accordingly, the Manager adjusted the Fund’s portfolio by purchasing and selling the existing Fund Components in proportion to their respective weightings. As of October 4, 2023, following the rebalancing, the Fund Components consisted of 70.88% BTC, 26.00% ETH, 1.18% ADA, 1.25% SOL, and 0.69% MATIC, and each of the Fund’s shares represented 0.0004 BTC, 0.0024 ETH, 0.7073 ADA, 0.0083 SOL, and 0.1876 MATIC. Additional information regarding the Fund’s quarterly rebalancing is available in the Fund’s periodic reports filed with the Securities and Exchange Commission on Forms 10-K and 10-Q. A copy of the press release announcing the Fund’s quarterly rebalancing for the quarter ended September 30, 2023 is attached to this Current Report as Exhibit 99.1.

### Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

<table>
<thead>
<tr>
<th>Exhibit No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.1</td>
<td>Press Release Announcing Grayscale Digital Large Cap Fund’s Quarterly Rebalancing (OTCQX: GDLC)</td>
</tr>
<tr>
<td>104</td>
<td>Cover Page Interactive Data File (the cover page XBRL tags are embedded within the inline XBRL document)</td>
</tr>
</tbody>
</table>
SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Grayscale Investments, LLC as Manager of Grayscale Digital Large Cap Fund LLC

Date: October 5, 2023

By: /s/ Michael Sonnenshein

Michael Sonnenshein
Chief Executive Officer
Grayscale® Digital Large Cap Fund, Grayscale® DeFi Fund, and Grayscale® Smart Contract Platform Ex-Ethereum Fund Announce Rebalancing of Funds for Third Quarter 2023

STAMFORD, Conn., Oct. 05, 2023 (GLOBE NEWSWIRE) -- Grayscale Investments®, the world’s largest crypto asset manager, and manager of Grayscale® Digital Large Cap Fund (OTCQX: GDLC) (Digital Large Cap Fund), Grayscale® DeFi Fund (OTCQB: DEFG) (DeFi Fund), and Grayscale® Smart Contract Platform Ex-Ethereum Fund (GSCPxE Fund), today announced the updated Fund Component weightings for each product in connection with their respective third quarter 2023 reviews.

No new tokens were added or removed from GDLC. At the end of the day on October 4, 2023, GDLC’s Fund Components were a basket of the following assets and weightings.*

- Bitcoin (BTC), 70.88%
- Ethereum (ETH), 26.00%
- Solana (SOL), 1.25%
- Cardano (ADA), 1.18%
- Polygon (MATIC), 0.69%

No new tokens were added or removed from DEFG. At the end of the day on October 4, 2023, DEFG’s Fund Components were a basket of the following assets and weightings.*

- Uniswap (UNI), 41.02%
- Lido (LDO), 17.52%
- MakerDAO (MKR), 17.50%
- Aave (AAVE), 11.84%
- Synthetix (SNX), 6.87%
- Curve DAO Token (CRV), 5.25%

No new tokens were added or removed from GSCPxE Fund. At the end of the day on October 4, 2023, GSCPxE Fund’s Fund Components were a basket of the following assets and weightings.*

- Solana (SOL), 27.28%
- Cardano (ADA), 25.89%
- Polygon (MATIC), 15.01%
- Polkadot (DOT), 14.25%
- Avalanche (AVAX), 10.24%
- Cosmos (ATOM), 7.33%

Neither GDLC, nor DEFG, nor GSCPxE Fund generate any income, and all regularly distribute Fund Components to pay for ongoing expenses. Therefore, the amount of Fund Components represented by shares of each fund gradually decreases over time.
For more information, please visit grayscale.com.

This press release is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal, nor shall there be any sale of any security in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of that jurisdiction.

*The compositions of the GDLC, DEFG and GSCPxEx Fund are evaluated on a quarterly basis to remove existing Fund Components or to include new Fund Components, in accordance with the index methodologies established by the Index Provider. Holdings and weightings of each Fund are subject to change. Investors cannot directly invest in an index.

About Grayscale® Digital Large Cap Fund
Digital Large Cap Fund seeks to provide investors with exposure to large-cap coverage of the digital asset market through a market cap-weighted portfolio designed to track the CoinDesk Large Cap Select Index. Digital Large Cap Fund holds the largest and most liquid digital assets that meet certain trading and custody requirements and are classified in the CoinDesk Digital Asset Classification Standard (DACS); the weightings of each Fund Component change daily and are published around 4:00 p.m. NY-time. Additional information on the Index methodology can be found at: https://www.coindesk.com/indices/dlcs/.

Digital Large Cap Fund’s investment objective is for its Shares to reflect the value of Fund Components held by the Digital Large Cap Fund, less its expenses and other liabilities. To date, the Digital Large Cap Fund has not met its investment objective and the Shares quoted on OTCQX have not reflected the value of Fund Components held by the Digital Large Cap Fund, less the Digital Large Cap Fund’s expenses and other liabilities, but instead have traded at both premiums and discounts to such value, with variations that have at times been substantial.

About Grayscale® DeFi Fund
DeFi Fund seeks to provide investors with exposure to a selection of industry-leading decentralized finance platforms through a market cap-weighted portfolio designed to track the CoinDesk DeFi Select Index. DeFi Fund holds the largest and most liquid digital assets that meet certain trading and custody requirements and are classified in the DeFi sector defined by CoinDesk Digital Asset Classification Standard (DACS); the weightings of each Fund Component change daily and are published around 4:00 p.m. NY-time. Additional information on the CoinDesk DeFi Select Index methodology can be found at https://www.coindesk.com/indices/dfx/.

DeFi Fund’s investment objective is for its Shares to reflect the value of Fund Components held by the DeFi Fund, less its expenses and other liabilities. To date, the DeFi Fund has not met its investment objective and the Shares quoted on OTCQB have not reflected the value of Fund Components held by the DeFi Fund, less the DeFi Fund's expenses and other liabilities, but instead have traded at both premiums and discounts to such value, with variations that have at times been substantial.
About Grayscale® Smart Contract Platform Ex-Ethereum Fund
GSCPxE Fund seeks to provide investors with exposure to a selection of industry-leading Smart Contract Platforms through a market cap-weighted portfolio designed to track the CoinDesk Smart Contract Platform Select Ex ETH Index. GSCPxE Fund holds the largest and most liquid digital assets, excluding ETH, that meet certain trading and custody requirements, and are classified in the Smart Contract Platform sector defined by CoinDesk Digital Asset Classification Standard (DACS); the weightings of each Fund Component change daily and are published around 4:00 p.m. NY-time. Additional information on the CoinDesk Smart Contract Platform Select Ex ETH Index methodology can be found at https://www.coindesk.com/indices/scpxx/.

Grayscale intends to attempt to have shares of this new product quoted on a secondary market. However, there is no guarantee this will be successful. Although the shares of certain products have been approved for trading on a secondary market, investors in this product should not assume that the shares will ever obtain such an approval due to a variety of factors, including questions regulators such as the SEC, FINRA or other regulatory bodies may have regarding the product. As a result, shareholders of this product should be prepared to bear the risk of investment in the shares indefinitely.

About Grayscale Investments®
Grayscale enables investors to access the digital economy through a family of regulated and future-forward investment products. Founded in 2013, Grayscale has a proven track record and deep expertise as the world’s largest crypto asset manager. Investors, advisors, and allocators turn to Grayscale for single asset, diversified, and thematic exposure. Grayscale products are distributed by Grayscale Securities, LLC (Member FINRA/SIPC). For more information, please follow @Grayscale or visit grayscale.com.

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