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.)

290 Harbor Drive, 4th Floor
Stamford, Connecticut 06902
(Address of Principal Executive Offices) (Zip Code)

(212) 668-1427
(Registrant’s telephone number, including area code)

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(b) of the Act: None

<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>N/A</td>
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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 September 30, 2021, 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 rebalanced the Fund in accordance with the Fund Construction Criteria, as described under “Item 1. Business—Fund Construction Criteria” in the Fund’s Annual Report on Form 10-K for the year ended June 30, 2021 (the “2021 Form 10-K”). In connection with the rebalancing, the Manager determined that Solana (“SOL”) and Uniswap (“UNI”) met the inclusion criteria of the Fund. Accordingly, the Manager adjusted the Fund’s portfolio by selling the existing Fund Components in proportion to their respective weightings and using the cash proceeds to purchase SOL and UNI in accordance with the Fund Construction Criteria. As of October 1, 2021, the Fund Components consisted of 62.19% Bitcoin (“BTC”), 26.08% Ethereum (“ETH”), 5.11% Cardano (“ADA”), 3.24% Solana (“SOL”), 1.06% Uniswap (“UNI”), 0.82% Chainlink (“LINK”), 0.77% Litecoin (“LTC”), and 0.73% Bitcoin Cash (“BCH”), and each of the Fund’s shares represented 0.0004 BTC, 0.0026 ETH, 0.7310 ADA, 0.0067 SOL, 0.0134 UNI, 0.0102 LINK, 0.0015 LTC and 0.0004 BCH. 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, 2021 is attached to this Report as Exhibit 99.1.

The Fund values each Fund Component it holds for operational purposes by reference to a “Digital Asset Reference Rate.” The Digital Asset Reference Rate for each Fund Component at any time is the Index Price for such Fund Component, if Tradeblock, Inc. in its sole discretion determines that it is able to determine such Index Price, or if not, the Indicative Price for such Fund Component as of 4:00 p.m., New York time, on the most recent business day, as determined by Tradeblock, Inc. The “Indicative Price” is a volume-weighted average price in U.S. dollars of a digital asset for the immediately preceding 24-hour period, and the “Index Price” is a volume-weighted index price calculated by applying a weighting algorithm to the price and trading volume data of a digital asset for the immediately preceding 24-hour period, in each case as derived from data collected from trading venues for such digital asset selected by TradeBlock, Inc. As of the date hereof, the Digital Asset Reference Rates for all of the Fund Components, including SOL and UNI, are Index Prices.

The information below has been derived from publicly available information concerning SOL and UNI. Please see Fund’s 2021 Form 10-K for a discussion of risks inherent in digital assets generally, including SOL and UNI.

Solana

SOL is a digital asset that is created and transmitted through the operations of the peer-to-peer Solana network, a decentralized network of computers that operates on cryptographic protocols. No single entity owns or operates the Solana network, the infrastructure of which is collectively maintained by a decentralized user base. The Solana network allows people to exchange tokens of value, called SOL, which are recorded on a public transaction ledger known as a blockchain. SOL can be used to pay for goods and services, including computational power on the Solana network, or it can be converted to fiat currencies, such as the U.S. dollar, at rates determined on digital asset exchanges or in individual end-user-to-end-user transactions under a barter system. Furthermore, the Solana network was designed to allow users to write and implement smart contracts—that is, general-purpose code that executes on every computer in the network and can instruct the transmission of information and value based on a sophisticated set of logical conditions. Using smart contracts, users can create markets, store registries of debts or promises, represent the ownership of property, move funds in accordance with conditional instructions and create digital assets other than SOL on the Solana network. Smart contract operations are executed on the Solana blockchain in exchange for payment of SOL. Like the Ethereum network, the Solana network is one of a number of projects intended to expand blockchain use beyond just a peer-to-peer money system.

The Solana protocol introduced the Proof-of-History (“PoH”) consensus mechanism as an alternative to pure Proof-of-Stake (“PoS”) and Proof-of-Work (“PoW”) blockchains like Ethereum. PoH is a consensus mechanism that automatically orders on-chain transactions by creating a historical record that proves an event has occurred at a specific moment in time. PoH is intended to provide a transaction processing speed and capacity advantage over traditional PoW and PoS networks, which rely on sequential production of blocks and can lead to delays caused by validator confirmations. PoH is a new blockchain technology that is not widely used. PoH may not function as intended. For example, it may require more specialized equipment to participate in the network and fail to attract a significant number of users. In addition, there may be flaws in the cryptography underlying PoH, including flaws that affect functionality of the Solana network or make the network vulnerable to attack.

The Solana protocol was first conceived by Anatoly Yakovenko in a 2017 whitepaper. Development of the Solana network is overseen by the Solana Foundation, a Swiss non-profit organization, and Solana Labs, Inc., a Delaware corporation, which administered the original network launch and token distribution.

On September 14, 2021, the Solana network experienced a significant disruption, later attributed to a type of denial of service attack, and was offline for 17 hours, only returning to full functionality 24 hours later. While persons associated with Solana Labs and/or the Solana Foundation are understood to have played a key role in bringing the network back online, the broader community
also played a key role, as Solana validators coordinated to upgrade and restart the network. The development of the Solana network is ongoing and any further disruption could have a material adverse effect on the value of SOL.

**Uniswap**

UNI is a digital asset that is created and transmitted through the operations of the peer-to-peer Uniswap network, a decentralized protocol that enables trading of digital assets without a central orderbook by aggregating digital asset trading pairs using smart contracts. No single entity owns or operates the Uniswap network, the infrastructure of which is collectively maintained by a decentralized user base. As of June 30, 2021 the largest 100 UNI wallets held approximately 90.1% of the UNI in circulation.

On Uniswap, users exchange digital assets with one another by paying a transaction fee to the independent market makers called liquidity providers (“LPs”). For example, if an LP contributes 10% of an Ethereum/USD Coin pool, it will receive an “LP” token entitling it to 10% of the fees generated by users trading in that pool. As long as the LP holds its token and does not withdraw the assets it contributed to the pool, it will earn a proportionate amount of fees generated by the network’s Ethereum/USD Coin pool.

Holders of UNI have the ability to propose and vote on improvement proposals to adjust features of the Uniswap network. Examples of proposals include what asset markets to list, what transaction fees to charge and how to distribute such fees, which currently are only distributed to LPs and not UNI holders.

Uniswap was originally conceived in 2016 by Vitalik Buterin, the creator of Ethereum. In 2018, Hayden Adam, a software engineer and Uniswap Labs Inc., a U.S. company, created Uniswap. The Uniswap network was initially funded by grants from the Ethereum Foundation and later venture capital. UNI was created in 2020 as a means of decentralizing the governance of the network. 150 million tokens were initially distributed to anyone who had participated in a transaction on the Uniswap platform prior to the token distribution. Following this distribution, the protocol began issuing tokens to liquidity providers of various pools based on the number of tokens contributed to such pools.

The Uniswap network recently implemented a software upgrade in the form a new implementation protocol (“v3”), which, among other features, could defend against the so-called “vampire attacks” that disrupted the Uniswap network in 2020. Under a “vampire attack,” an upstart protocol developer is able to fork the open-source code of an existing protocol and siphon users and funds away from the existing protocol by incentivizing such users to move their existing protocol rewards over to the new protocol for outsized, temporary rewards. In doing so, a new platform is able to migrate the liquidity, trading volume and users of an existing platform to a new platform. For example, in August 2020 a new project called Sushiswap engaged in a vampire attack on the Uniswap network, at times offering users 200%-1000% annualized returns in exchange for depositing their Uniswap LP tokens on the Sushiswap network in exchange for the Sushiswap network’s associated SUSHI tokens. The Uniswap network’s v3 upgrade is intended in part to protect against such attacks by protecting certain intellectual property rights for two years. Further, in April 2020, the Uniswap network experienced a hack where approximately $300,000 to $1.1 million in digital assets underlying certain Uniswap LPs were stolen from the Uniswap network as part of a larger attack on a Uniswap partner protocol. The attack focused on the smart contract governing the relationship between the Uniswap protocol and the third-party. The v3 upgrade is ongoing and any failure of the UNI network to properly implement v3 or any further attack on the Uniswap network could have a material adverse effect on the value of UNI.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits

<table>
<thead>
<tr>
<th>Exhibit No.</th>
<th>Description</th>
</tr>
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<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 (embedded within the Inline XBRL document)</td>
</tr>
</tbody>
</table>
SIGNATURES

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

Date: October 6, 2021

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

By: /s/ Michael Sonnenshein
    Michael Sonnenshein
    Chief Executive Officer

* As the Registrant is a fund, this report is being filed on behalf of the Registrant by Grayscale Investments, LLC, only in its capacity as the manager of the Registrant. The identified person signing this report is signing in his capacity as an authorized officer of Grayscale Investments, LLC.
Grayscale® Digital Large Cap Fund and Grayscale® DeFi Fund Announce Quarterly Rebalancing of Funds

New York, Oct. 01, 2021 (GLOBE NEWSWIRE) -- Grayscale Investments®, the world’s largest digital currency asset manager, and manager of both Grayscale® Digital Large Cap Fund (OTCQX: GDLC) (the Digital Large Cap Fund) and Grayscale® DeFi Fund (the DeFi Fund), today announced the updated Fund Component weightings for each product in connection with their respective quarterly reviews.

In accordance with the Digital Large Cap Fund’s construction criteria, Grayscale has adjusted the Digital Large Cap Fund’s portfolio by selling certain amounts of the existing Fund Components in proportion to their respective weightings and using the cash proceeds to purchase Solana (SOL) and Uniswap (UNI). This announcement follows the July 2021 news that Grayscale adjusted the Digital Large Cap Fund’s portfolio and purchased Cardano (ADA), and is the first time Solana (SOL) will be included in a Grayscale investment vehicle.

Solana

SOL is the native token of the Solana network, a smart contract platform first conceived by Anatoly Yakovenko in a 2017 whitepaper. Like the Ethereum network, the Solana network is one of a number of projects intended to expand blockchain use beyond just a peer-to-peer money system. The Solana protocol introduced the Proof-of-History (PoH) consensus mechanism as an alternative to pure Proof-of-Stake (PoS) and Proof-of-Work (PoW) blockchains like Ethereum. PoH is intended to provide a transaction processing speed and capacity advantage over traditional PoW and PoS networks, which rely on sequential production of blocks and can lead to delays caused by validator confirmations.

Uniswap

UNI is the native token of the Uniswap network, a decentralized exchange originally conceived in 2016 by Vitalek Buterin, the creator of Ethereum, and later developed in 2018 by Hayden Adams and Uniswap Labs. Uniswap enables trading of digital assets without a central order book by aggregating digital asset trading pairs using smart contracts. On Uniswap, users exchange digital assets with one another by paying a transaction fee to independent market makers called liquidity providers. Holders of UNI have the ability to propose and vote on improvement proposals to adjust features of the Uniswap network.
At the end of the day on October 1, 2021, the Digital Large Cap Fund’s Fund Components were a basket of the following assets and weightings.

- Bitcoin (BTC), 62.19%
- Ethereum (ETH), 26.08%
- Cardano (ADA), 5.11%
- Solana (SOL), 3.24%
- Uniswap (UNI), 1.06%
- Chainlink (LINK), 0.82%
- Litecoin (LTC), 0.77%
- Bitcoin Cash (BCH), 0.73%

No new tokens were added or removed from the DeFi Fund. At the end of the day on October 1, 2021, the DeFi Fund’s Fund Components were a basket of the following assets and weightings.

- Uniswap (UNI), 45.20%
- Aave (AAVE), 14.11%
- MakerDAO (MKR), 7.84%
- SushiSwap (SUSHI), 7.18%
- Compound (COMP), 6.73%
- Synthetix (SNX), 6.29%
- Yearn Finance (YFI), 3.92%
- Curve (CRV), 3.53%
- Bancor Network Token (BNT), 3.04%
- UMA Protocol (UMA), 2.16%

Neither the Grayscale Digital Large Cap Fund nor the Grayscale DeFi Fund generate any income, and both 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.
About Grayscale® Digital Large Cap Fund
Grayscale Digital Large Cap Fund enables investors to gain exposure to a market-cap weighted portfolio of large-cap digital currencies through a singular investment vehicle without the challenges of buying, storing, and safekeeping digital currencies directly. Through a rules-based portfolio construction methodology derived from the CoinDesk Large Cap Index, the Digital Large Cap Fund targets coverage of the upper 70% of the digital currency market and is re-evaluated each quarter; however, 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://tradeblock.com/markets/dlcx.

The 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 time been substantial.

The Digital Large Cap Fund is an investment vehicle with Shares titled in the investor’s name, providing a familiar structure for financial and tax advisors and easy transferability to beneficiaries under estate laws. Additionally, Shares are eligible to be held in certain IRA, Roth IRA, and other brokerage and investor accounts.

About Grayscale® DeFi Fund
Grayscale Decentralized Finance (DeFi) Fund holds digital assets that make up the CoinDesk DeFi Index. These digital assets are drawn from the universe of investable digital assets native to decentralized finance or DeFi. The Index methodology includes liquid DeFi assets on a market cap-weighted basis and is re-evaluated each quarter; however, 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://tradeblock.com/markets/dfx/.

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 new 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.

*The compositions of the Digital Large Cap Fund and the DeFi Fund are evaluated on a quarterly basis to remove existing Fund Components or to include new Fund Components in their portfolios, in accordance with the Construction Criteria established by Grayscale or the Index Provider, as applicable.
About Grayscale Investments®

Founded in 2013, Grayscale Investments is the world’s largest digital currency asset manager, with more than $41.5B in assets under management as of October 1, 2021. Through its family of investment products, Grayscale provides access and exposure to the digital currency asset class in the form of a security without the challenges of buying, storing, and safekeeping digital currencies directly. With a proven track record and unrivaled experience, Grayscale’s products operate within existing regulatory frameworks, creating secure and compliant exposure for investors. Grayscale products are distributed by Genesis Global Trading, Inc. (Member FINRA/SIPC, MSRB Registered). For more information, please visit grayscale.com and follow @Grayscale.

Jennifer Rosenthal
press@grayscale.com