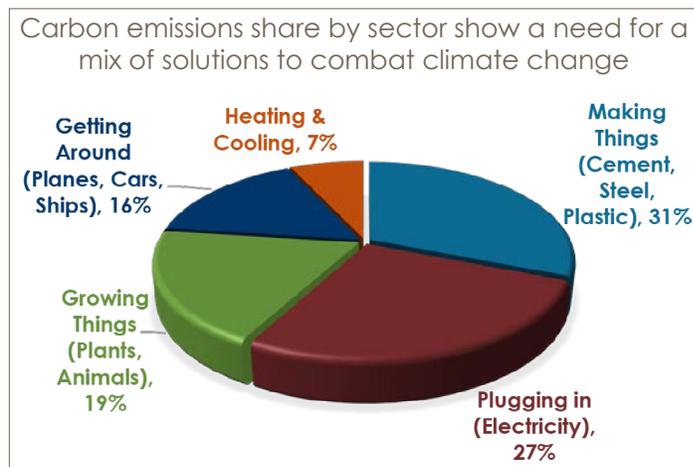


Can SPACs Drive New Climate Change Solutions?

March 2021

Fifty-one billion tons of carbon have been added to the atmosphere annually over the past decade, an amount that needs to decrease dramatically by 2050 to avert the most damaging effects of climate change.¹ A holistic set of solutions is required — more renewable energy, different ways to produce steel and cement, new plant-based foods to consume and innovative ways to get around, which is the focus of this piece.

Sixteen percent of all greenhouse emission originate from cars, planes, buses and ships.² Over the past two decades, companies specializing in solving this problem via electric vehicle (EV) and other mobility solutions have entered the marketplace, but the path to the public markets and scale have largely remained long and arduous. More recently, sustainability-oriented companies have chosen to go public by being acquired by a special purpose acquisition company (SPAC) to bypass the traditional initial public offering (IPO) process and take advantage of increasing investor enthusiasm to harness their ability to combat climate change — one of Glenmede's three sustainable and impact investment themes of 2021.



Source: Breakthrough Energy

Data through 3/2021

Today, over \$100 billion of market value is now in mobility-related solutions, including EV startups.³ Over the course of 2020, 23 sustainability-oriented mobility companies went public via, or announced upcoming mergers with, SPACs, which are often referred to as publicly traded “blank check” companies with the purpose of acquiring a target company. What is fueling this drive, and what risks exist in these newly popular vehicles?⁴

Bypassing the traditional IPO

2020 was the busiest year so far for SPACs: 75 deals with target companies were announced or completed.⁵ As a testament to investor interest, the value of SPACs rose more than 6% on average on their first day of trading in 2021, up from 1.6% in 2020.⁶

Both institutional and retail investors are showing an increased desire to invest in sustainability-oriented companies for two main reasons:

- More evidence linking sustainability and strong return, and
- Mounting interest, particularly from younger generations, to align capital with companies solving sustainability challenges.

¹ “Getting to Zero.” Breakthrough Energy. <https://www.breakthroughenergy.org/our-challenge/getting-to-zero>

² Ibid

³ Hussain, A., and Z. Carmean. “The EV/Mobility SPAC Handbook.” PitchBook, January 15, 2021.

⁴ This article intends solely to explore the reasons behind the increased interest in SPACs and should not be construed as a recommendation to invest in SPACs or in any company mentioned in this article.

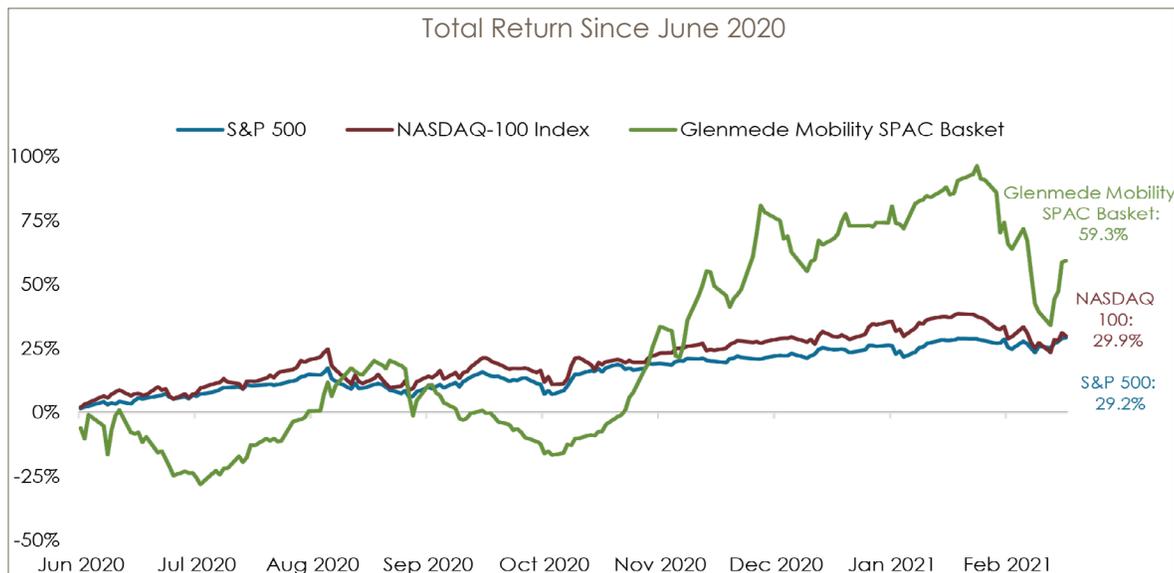
⁵ “SPAC Status by Year of IPO.” SPAC Insider. <https://spacinsider.com/stats/>

⁶ Ramkumar, A. “GameStop Day Traders Are Moving into SPACs.” The Wall Street Journal, February 1, 2021. <https://www.wsj.com/articles/gamestop-day-traders-are-moving-into-spacs-11612175401>

Mobility as a target sector

In 2020, mobility was one of the most popular target sectors for SPACs, providing investors access to a red-hot EV sector riding on the coattails of Tesla's \$666 billion valuation.⁷ Of the 75 SPAC mergers in 2020, 23 were in sustainability-oriented mobility, which consists of EVs (e.g., Proterra); EV charging and battery technology (e.g., QuantumScape); autonomous vehicles/light detection and ranging, or lidar (e.g., Luminar); online auto commerce (e.g., SHIFT); and micromobility, that is, lightweight vehicles such as scooters (e.g., Bird).

Glenmede created a basket of these 23 sustainability-oriented mobility SPACs to further analyze their performance (the Glenmede Mobility SPAC Basket).⁸ The inception of this basket begins on June 30, 2020, with three equally weighted companies initially comprising its construction. After the launch of another qualifying SPAC, the basket is re-weighted to include the new SPAC and maintain its equal weight among constituents. Prior to June 2020, the basket would have contained too few qualifying SPACs to provide meaningful insight. Taken together, the 23 sustainability-oriented mobility companies (equal weighted) generated a return of 59.3% since June 30, 2020,⁹ well above the S&P 500 Index total return of 29.2% and the Nasdaq 100 total return of 29.9% in the same time period.



Source: Glenmede, PitchBook, FactSet

Data through 3/12/2021

One cannot invest directly in the Glenmede Mobility SPAC Basket or any index. The performance shown should not be construed as a recommendation or solicitation to invest in any of the companies included in the Basket or an index. Past performance may not be indicative of future results.

⁷ Share price as of market close February 15, 2021.

⁸ The Glenmede Mobility SPAC Basket was created by Glenmede with an inception date of June 30, 2020. Its 23 constituents are sourced from a list of 26 SPACs in PitchBook's "EV/Mobility SPAC Handbook." Urban air mobility companies are excluded from the basket given misalignment with sustainability, in Glenmede's view. Updated daily pricing data sourced from FactSet. Constituents are added one day after their target announcement, thereby excluding the "first day pop" effect. Constituents are equal weighted in the basket. After the launch of another qualifying SPAC, the basket is re-weighted to include the new SPAC and maintain its equal weight among constituents.

⁹ Based on its share price as of market close February 23, 2021.

While some mobility SPACs have performed well since launch, others have not, as shown below.

Wide range of outcomes for recent mobility SPAC launches

Outperformers	Underperformers
QuantumScape (EV batteries): 211.2%	Nikola Motor Company (EV hydrogen B2B): -74.8%
Luminar (Lidar): 140.9%	Hyllion (EV hydrogen B2B): -54.7%
ChargePoint (EV charging): 123.4%	Shift Technologies (Digital auto marketplace): -25.0%

Source: FactSet

Performance from June 30, 2020 to March 12, 2021. Identification of a specific company by name is provided solely for illustrative purposes and should not be construed as a recommendation or solicitation for investment in such company. Past performance may not be indicative of future results.

Overall, while the sector is playing into some favorable macro trends, it could also become a prime example of overheated valuations. SPACs are indicative of the interest by investors for exposure to new, exciting and environmentally friendly businesses, though the prices for that exposure appear to be lofty. QuantumScape, a next-generation solid-state lithium-metal batteries developer, has obtained a valuation of \$21.4 billion⁹ despite not being expected to generate meaningful revenue until 2025. Nikola, a hydrogen-electric trucking company, has maintained a \$6.7 billion¹⁰ valuation, although it is the subject of multiple allegations of fraud and subsequent investigations by the Securities and Exchange Commission and Department of Justice. Valuations in the space could also experience a pullback if high-profile stocks such as Tesla or Nikola decline. Such a pullback could serve to stifle interest in SPACs over the long-term and bring the industry back to utilizing IPOs as the major go-to-market strategy.

Conversely, strong exits for these startups may serve to attract more capital to the mobility industry. While the mobility and electrification landscape remains a nascent sector, the market acceptance of SPACs as viable long-term vehicles may result in the acceleration of mobility solutions at scale, serving as a significant contributor to harnessing investors' ability to combat climate change in the decades ahead.

^{9,10} Based on its share price as of market close February 23, 2021.

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