



Special Purpose Acquisition Company Report

A SPACulative Market?

In 1993, investment banker David Nussbaum and lawyer David Miller invented the special purpose acquisition company. SPACs remained unpopular for nearly three decades, struggling to compete with traditional IPOs, before seeing an unprecedented boom in 2020. Throughout this report, we will discuss the history and the rise of SPACs, analyze recent developments, and discuss the outlook of these investment vehicles going forward.

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Introduction

The History of SPACs

Special Purpose Acquisition Companies, more commonly referred to as SPACs, have existed for decades in various iterations as public shells or blank check companies. They were created by investment banker David Nussbaum and lawyer David Miller in 1993. The founders initially had a trademark on the term SPAC, but eventually let others use it.

In the beginning, SPACs were mainly used for smaller companies that were not positioned for a traditional IPO. This, along with a lack of regulations, led to an overall poor performance which stopped SPACs from taking off. The SEC has since made many changes, making SPACs a more attractive investment vehicle. However, SPACs are still much less regulated than traditional IPOs, and the SEC is looking to put in place more regulations following the SPAC revolution.

The use of SPACs has varied throughout the years across industries. In the 1990s, the focus was on technology, media and health care companies. SPACs have historically struggled to compete with traditional IPOs but have been on an increase since 2013, with an unprecedented number of SPAC IPOs being issued in 2020. To put it into perspective, 248 SPAC IPOs were executed in 2020 with gross proceeds amounting to over \$83 billion USD, representing a near 500% increase from 2019.

What is a SPAC and how does it work?

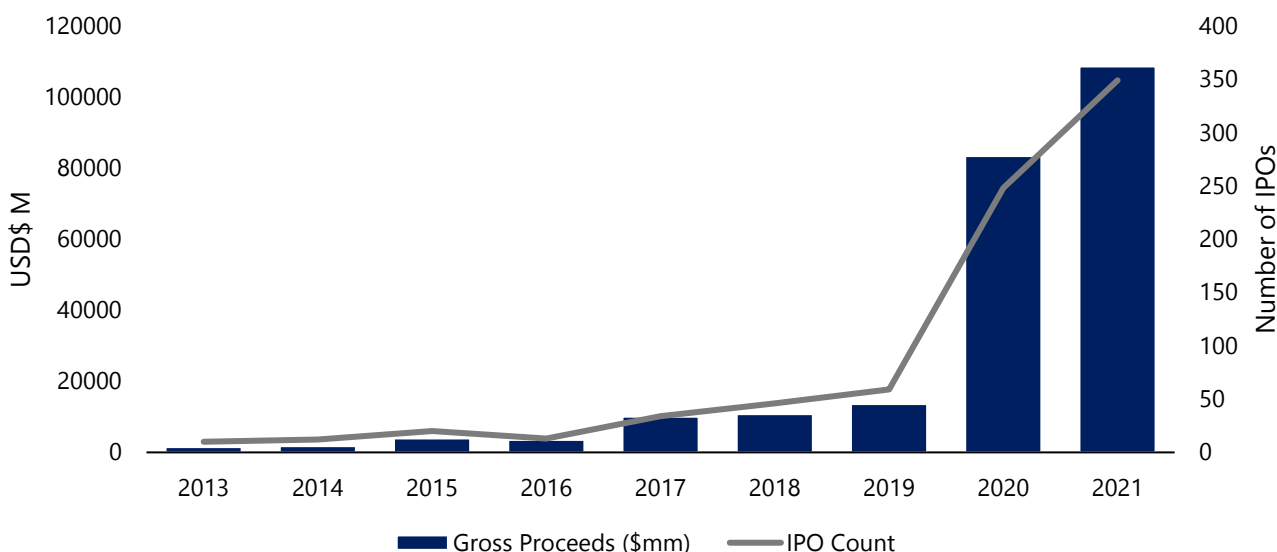
SPACs are investment vehicles that raise capital similar to a traditional IPO. However, unlike an IPO which would result in the company being listed and ready for trade on a stock exchange, the funds are held in a trust until the management team finds a suitable M&A target.

Typically, management has between 18-24 months to execute a deal; failure to do so results in the investors receiving their money back. Once the target is identified, investors vote to accept or reject. The valuation of the target is decided and agreed upon beforehand between the SPAC and the target company and is validated through equity funding commitments from investors in the form of PIPEs.

Private Investment in Public Equity (PIPE) refers to buying shares below their current market value, typically by large investment firms, mutual funds and other accredited investors. There are two types of PIPEs, the first being the traditional PIPE, in which common or preferred stock is issued at a fixed price; the second being a structured PIPE, in which common or preferred shares of convertible debt are issued.

Once further funding is raised and the management team receives approval from shareholders, the merger is executed, and the target company becomes publicly listed.

Figure 1: SPAC market activity since 2013



Introduction

A Rivalry: SPACs vs IPOs

The SPAC revolution is attributed to several different factors coupled together. Most notably, an immense amount of unspent capital referred to as “dry powder”, held by private equity firms, was sitting stagnant throughout the first half of 2020, due to the uncertainties caused by the COVID-19 pandemic, which helped finance the SPACs and fuel the boom.

Moreover, SPAC mergers provide more certainty for investors due to the up-front pricing and valuation that is determined prior to the closing of the transaction, whereas IPOs are subject to the volatility of the markets and investor sentiment. Additionally, SPACs offer the possibility of raising additional capital through PIPEs, which can be used to finance the acquisition costs and leave the acquiring company with some left-over cash on-hand post-merger, rendering them an attractive alternative.

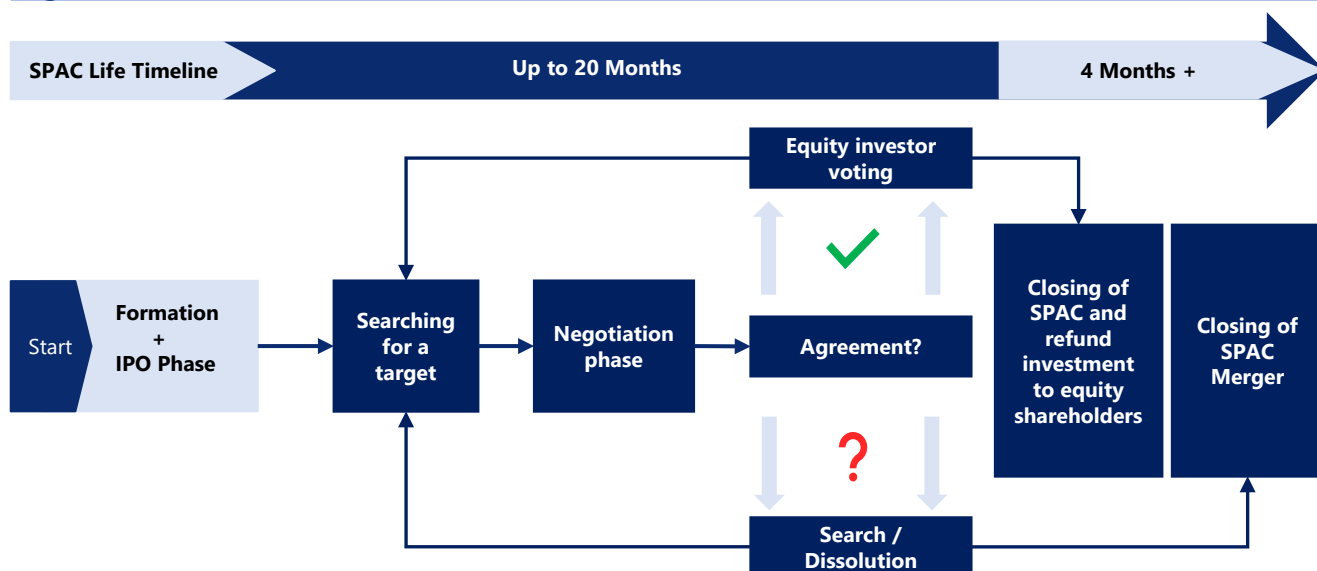
Lastly, SPACs gained significant credibility as well-known investors with proven track records entered the space and started conducting successful transactions. This fueled a further influx of capital and led to an increase in the number of transactions and allowed SPACs to turn their eyes toward larger deals, which would have been unattainable in the past.

In comparison to the traditional IPO, SPAC IPOs have a much shorter timeline, due to their lack of fundamental operation. As mentioned previously, SPACs begin as blank check companies; therefore, the financial statements and the prospectus that are filed with the SEC include significantly less details and can be prepared in as little as 15 weeks, whereas an IPO filing typically takes at least 24 weeks.

Another advantage that the SPAC IPO presents is a smaller underwriting discount. Typically, only 2% of the gross proceeds are paid at the closing of the SPAC IPO, and another 3.5% is placed into the trust and is only paid if a de-SPAC transaction occurs. A de-SPAC transaction consists of a merger between a private company and a publicly traded SPAC, in which shareholders of the private company receive shares of the SPAC.

If it fails to occur, the capital which would have been used to pay the underwriters can be used to redeem the public shares. Looking at the traditional IPO route, underwriters receive roughly 5% of the gross IPO proceeds, which is significantly higher than the 2% that is paid upfront during the SPAC.

Figure 2: Timeline of a SPAC



Developments & Trends: Acquisition Targets & Investors

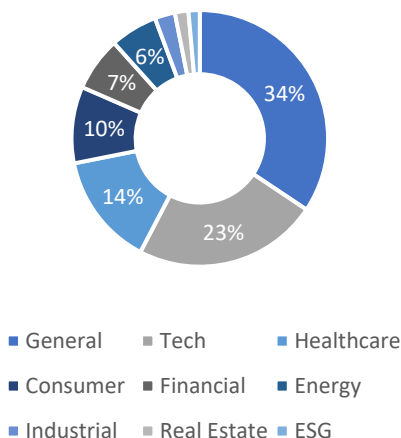
What Makes a Good Acquisition Target?

SPACs usually determine an acquisition target within two years of their IPO and generally look for a company that is two to three times the amount of the capital in their trust account.

A good acquisition target company generates free cash flows and has a strong balance sheet, in that its current assets exceed its current liabilities and that shareholders' equity is positive. This allows the target firm to cover its short-term liabilities and does not pose an imminent threat of bankruptcy or liquidity issues to investors. It also enables the firm to use excess cash for new investments, such as machinery, personnel, or to pursue new business opportunities.

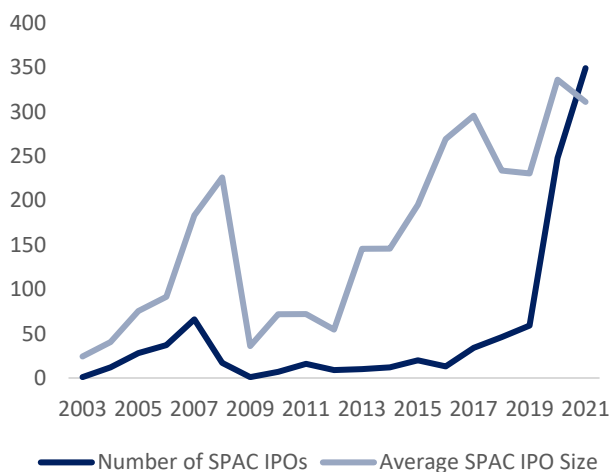
SPACs also favor companies in industries with high barriers to entry and minimal capital markets dependency. This ensures that the target firm will not have any considerable competitors nor be subject to the volatility of capital markets. Having durable moat makes the business model more sustainable and thus a more attractive acquisition target, while having minimal capital markets dependency means the firm's revenues can be more easily predicted and are potentially less risky. Usually SPACs specify a target industry in the initial prospectus, yet it is common to stray from this target industry when there are better opportunities elsewhere. For instance, SPACs that have not specified themselves as being green or ESG-focused may invest in a company in that industry.

Figure 3: SPACs by Industry



Lastly, the most important factor in choosing an acquisition target is valuation. SPACs obviously favor firms whose current market value is lower than their intrinsic value, which can be calculated by modeling and discounting the firm's projected cash flows. The risk with determining intrinsic value is accuracy, as the futures in the next five to ten years are just predictions. This is even more of an issue when trying to value private companies as their equity has not been priced by public markets which may result in a skewed valuation.

Figure 4: SPAC IPO Size and Count by Year



Who Invests in SPACs?

SPACs allow anyone to invest in previously private firms by purchasing shares in the shell company's IPO. Initial share prices are generally around \$10. This provides retail investors with the opportunity to partake in late-stage investing, which is usually reserved for private markets and institutional or accredited investors. There is more risk associated with this type of investment as the acquisition target is typically unknown at the time of the IPO and thus the success and payoff of the SPAC merger is uncertain. More recently, SPAC exchange-traded funds (ETFs) have hit the market, which provide exposure to a greater variety of SPACs in one security. This effectively diversifies the investor's portfolio and reduces the aforementioned risk.

Recent Activity in the SPAC market







Relative to previous financial quarters, SPAC vehicles have seen a noticeable decline in capital investment and equity valuations. Companies that entered the market through a SPAC merger have witnessed an average decline of 39%. This decline can be attributed to fresh fears of regulation, as the SEC looks to clamp down on some of the loose disclosure requirements for SPACs. Nonetheless, blank-check companies are still seeing some deal flow. As discussed, SPACs in 2020 and 2021 have been instrumental in bringing more growth stocks into the stock market, especially green-tech and pharmaceuticals. Table 1 shows SPACs that are currently trading in the market, including vehicles that have announced acquisitions but have not yet 'de-SPACed'.

Notice that the stock price of recent SPAC vehicles and merged companies have dropped significantly from highs for all the reasons mentioned above. Many of these 52-week highs are due to excessive frothiness in the market between January – March of 2021.

Retail investors have fueled hype in several SPACs that sometimes have little to show in terms of business plan or revenue. This is precisely why most SPACs' that have merged see a reduction in share price – as more information becomes available to the public, shareholders realize that the target company is not as valuable as initially perceived. This is an example of market inefficiency which is caused by asymmetric information.

Most SPACs are traded on the reputation of the sponsor, unfortunately, the sponsor's incentives may not always be best aligned with shareholders (Damodaran). Data shows that, investors tend to lose money if they hold a SPAC much after the merger is announced or implemented, strong returns are only earned if an investor can time their market exit once a merger is announced as that is when hype drives the price of the SPAC upwards.

Table 1: Notable Announced or Merged SPAC's (As of June 21st, 2021)

SPAC Vehicle / Ticker	(Announced) Target / Ticker	Industry Target	Merger Date	Sponsor	Current Price (\$)	52-week High (\$)
VG Corp / VGAC	 23andMe	Biotech	17/06/21	Richard Branson	12.5	17.6
Pershing Square Tontine / PSTH*	 UNIVERSAL UNIVERSAL MUSIC GROUP	Entertainment	-	Bill Ackman	22.8	34.1
Social Capital V. / IPOE	 SoFi	Fintech	01/06/21	Chamath Palihapitiya	22.7	28.3
Social Capital III. / IPOE	 Clover Health	Telehealth	06/01/21	Chamath Palihapitiya	11.2	28.9
CIIG Merger Corp. / CIIG	 Paysafe	Fintech	30/03/21	Peter Cuneo	11.3	19.6
Churchill Capital IV / CCIV	 LUCID	Electric Vehicle	-	Michael Klein	23.0	64.9

*As of 19th Sept. 2021, the SEC halted the SPAC merger of PSTH with Universal Music Group due to some regulatory concerns. This adds to the continued downward pressure on the SPAC market, as discussed in this paper.

Developments & Trends: Green SPACs

What are Green SPACs?

Green SPACs target companies whose business is focused on the Environmental, Social, and Governance (ESG) space such as clean energy, climate change, and sustainability. As more and more firms emerge in this up-and-coming space, SPACs could be the solution to a lot of start-ups' financing troubles. Some prevalent SPACs currently looking for ESG acquisition targets are Northern Genesis Acquisition Corp. II (NGAB), Star Peak Corp II (STPC), and Star Peak Energy Transition (STPK) at IPO sizes of USD \$414 million, \$402.5 million, and \$350 million respectively.

In 2016, ESG-focused SPACs saw an average return of 10% after announcing their acquisition target, while all other SPACs experienced an average loss of 3%. Shares of green SPACs astonishingly outperformed those of other SPACs. This enthusiasm continued until Q4 2020, when things started to go south for green SPACs. The post-announcement share prices of green SPACs actually saw average losses of 24%, while other SPACs lost only 9% on average. This points to the fact that ESG SPACs might be merely a trend and in fact not sustainable strategies to finance ESG businesses.

Despite green SPACs having raised more than \$120 billion USD since March 2020, their success is starting to decline due to a lack of target companies available in the ESG space. It is proving difficult to find firms in the ESG space that fulfill the basic requirements that most SPACs look for – good valuation, free cash flow, and durable moat. The two-year time frame in which SPAC management teams must determine their acquisition target has led to the demise of many green SPACs and thus caused an overall decline in the sector's success. Furthermore, green SPACs are generally unable to meet ESG criteria at the time of their IPO, as the target has not been determined and which prohibits rating agencies from evaluating the SPAC as they are still a shell company. This lack of complete transparency may also deter investors as the ESG acquisition target is not set. An example current struggling green SPACs are electric vehicle firms Lordstown Motors Corp. and Nikola Corp, both of which further exemplify the complexity of green SPACs and why their success is coming to an end.

Figure 5: Post-Announcement Share Performance Q4 2020

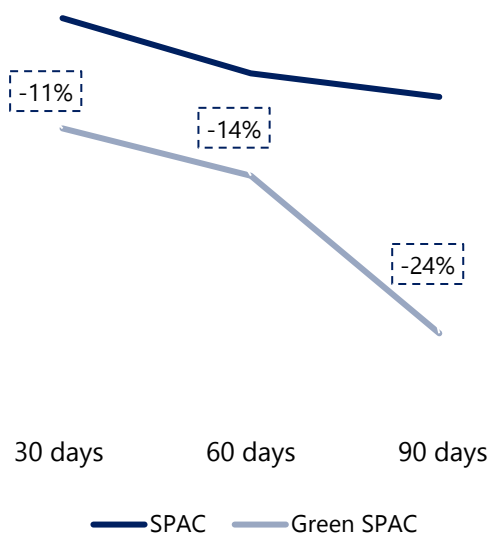
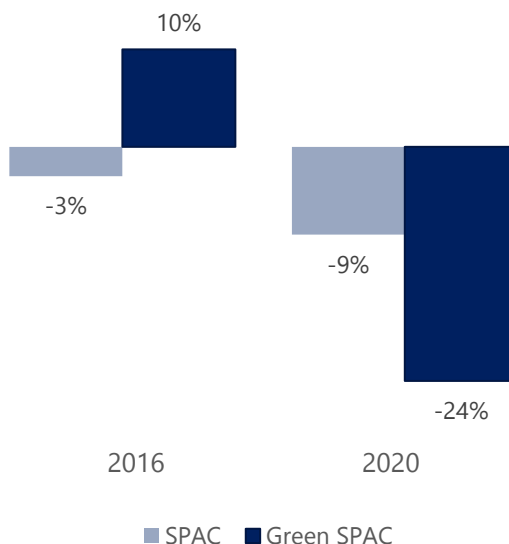


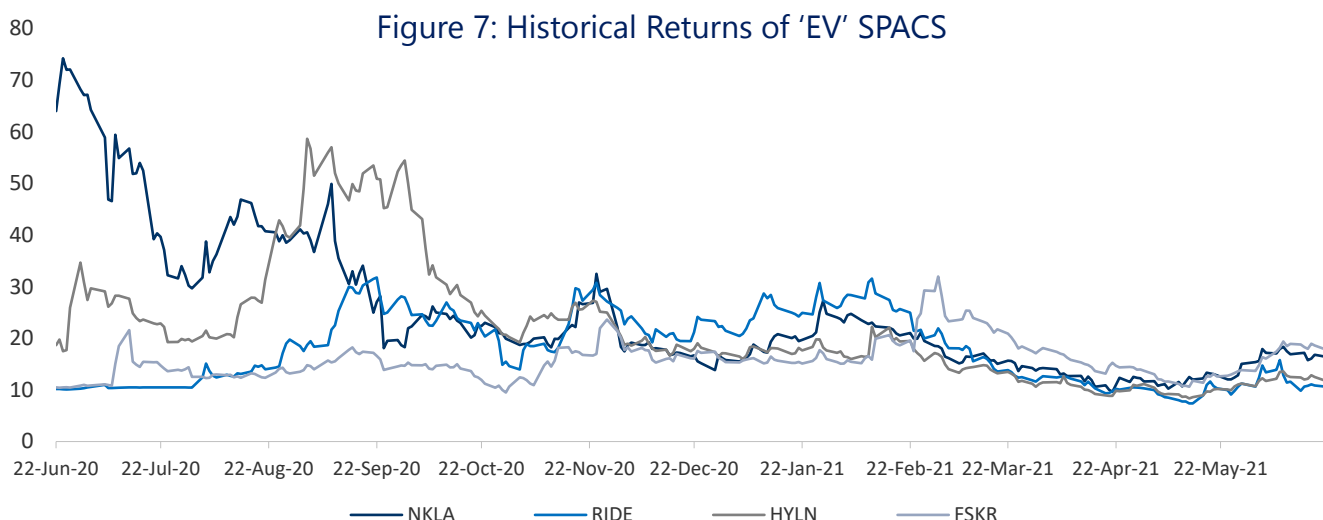
Figure 6: Post-Announcement Share Performance 2016 vs 2020



Case Study: The SPACtacular downfall of Lordstown Motor - an example of why regulation is needed in the market.

SPAC mergers have come under serious scrutiny with a barrage of short selling and lawsuits for misguiding investors with overoptimistic financial and operational forecasts. This is one of the main criticisms coming out for SPACs – they sometimes bring companies to public that are unprepared. Electric Vehicle stocks that were brought to the market via SPACs have seen the highest of highs and lowest of lowest, recently witnessing a \$40 billion loss in market capitalization.

Lordstown is an American electric vehicle (EV) startup that went public via the 'DiamondPeak' SPAC on November 2nd 2020. DiamondPeak had invested \$280 million in cash alongside \$500 million in PIPE which included a notable \$75 million investment from General Motors. Most of the cash proceeds would be used to invest in essential Capex, such as plant retooling, product development and operational expansions that would help bring their product to market.



Lordstown was hailed as a 'revolutionary' electric truck manufacturer, starring their flagship 'Endurance' pickup truck which was meant to be the first electric vehicle to enter the 'U.S. Full-Size Fleet Pickup Truck' market segment - valued at \$65 billion in 2020. Lordstown plans to price their truck at \$52,000, under cutting the likes of Tesla, Rivian and Nikola as its long-term aim is to enter the SUV market.

While Lordstown only had one working prototype of their Endurance truck and no manufacturing capacity when the merger was nearing completion, DiamondPeak claimed that the company had ~\$1.4 billion in pre-orders.

Table 2: Cash Sources for Lordstown and Uses

Sources	Amount	Uses	Amount
SPAC Cash in Trust	\$280 million	Cash to Balance Sheet	\$675 million
PIPE Proceeds (excluding GM)	\$425 million	PIK for GM	\$60 million
GM PIPE Proceeds	\$75 million	Deal Expense	\$45 million
Total	\$780 million	Total	\$780 million

Lordstown Motor Corp

Table 3: Lordstown Key Financial Information

Last Price	\$10.07
Market Cap	\$1.78 billion
Net Debt	(\$586.02) million
EV	\$1.19 billion
FY 2021 EV/Revenue	17.74x
FY 2021 EPS	(\$2.06)

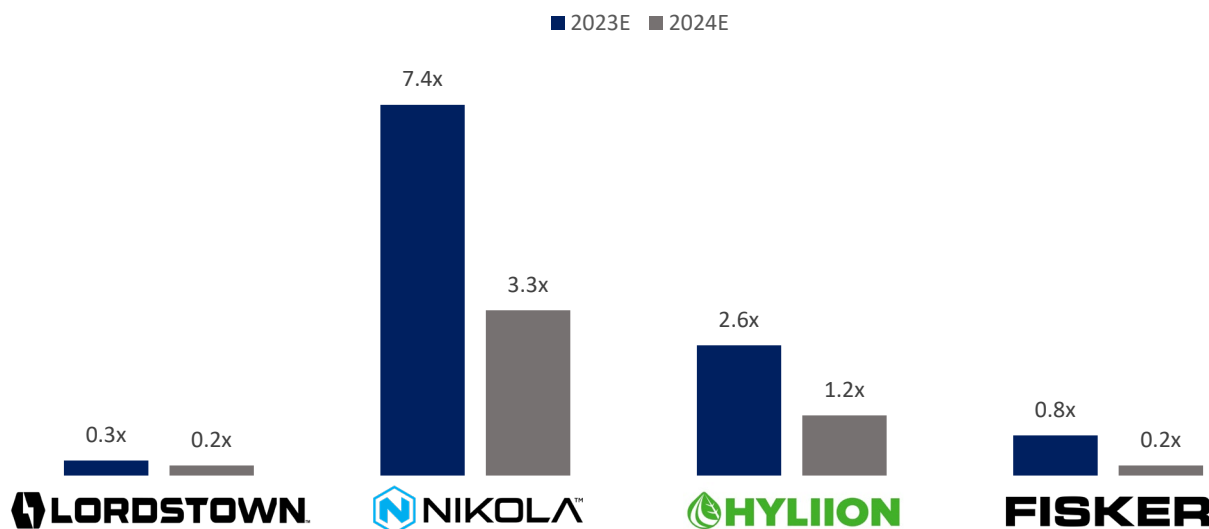
With \$675 million in cash post-merger, Lordstown announced that they would start mass production of their trucks by Q3 2021, and ramp up to sell 107,000 trucks in 2024, giving \$5.7 billion in revenues and \$600 million in EBITDA. As a result, the implied enterprise value of Lordstown was \$965 million when merging.

It may seem that Lordstown has all the ingredients for rapid growth, including large amounts of cash on the balance sheet for Capex, experienced executives, and most importantly, demand for their trucks.

However, Hindenburg Research reported in March 2021 that the 100,000 pre-orders paraded about are 'largely fictitious and used as a prop to raise capital'. The EV truck maker has reported a deficit of \$260 million in Q1 2021 and is now seeking to raise 'additional capital' to stay afloat. Lordstown is also subject to two subpoenas from the SEC, the first for its misguided pre-order numbers, and the other for its merger with DiamondPeak.

A key piece of information that Lordstown essentially hid from the public is that an independent auditor had raised substantial doubt about the firm's ability to continue as a going concern. Now, the CEO and CFO of Lordstown have resigned, following a statement in which Lordstown conceded that the company may go bankrupt in late 2021 – without producing a single EV truck. Nikola, Hyliion, and Fisker have also faced a similar situation to Lordstown, resulting in deflated stock prices. With Lordstown's unrealistic revenue CAGR of 165% over 4 years, it yields a bargain forward looking EV/Sales multiple when compared to other Electric Vehicles stocks.

Figure 8: Forward EV/Sales for SPAC Merged EV stocks



Regulation of the SPAC market

Between 2016 and 2019, SPACs have helped bring 104 companies to the public market. In comparison, 2020 and 2021 have already brought 197+ companies public. This rapid growth has the SEC's attention, as they are looking to protect investors from accentuated volatility. It is no longer a matter of if the SEC will regulate, but it is a matter of when, and by how much the SEC will regulate. This, Of Course brings uncertainty into the market, and when the SEC indicated its initial intention to scrutinize the SPAC boom back in early April, deal flow fell off a cliff. The SEC is worried that investors are not fully aware of all the risks linked to blank-cheque companies, as such, future regulation will look to inspect some of the accounting and financial practices in a SPAC. There are 3 key issues identified by market participants that, in due time, will be addressed by the SEC.

1) Safe Harbor

When a SPAC vehicle finds a target and 'merges' / 'de-SPACs,' the sponsor can provide forward-looking forecasts to essentially 'woo' current shareholders into approving the deal. Many sponsors such as Chamath have believed that forward-looking statements for SPACs are 'safe harbor' under the Private Securities Litigation Reform Act (PSLRA) of 1995 – this is far from the truth. John Coates, Corporate Finance director at the SEC questioned the applicability of the PSLRA law for SPAC transactions, saying that the so-called limited liability touted by sponsors is "potentially seriously misleading.". The PSLRA notes that 'initial public offerings' are excluded from safe harbor. John Coates argues that the 'de-SPAC' process is the main transaction which brings the private firm to the public market – thus by definition an 'initial public offering'. Accordingly, investors have the right to sue SPAC sponsors and companies for withholding key information or providing incorrect forecast estimates as they are not shielded by safe harbor.

2) Misaligned incentives of sponsors

Investors in SPACs are not always aware of the hidden costs associated with the current SPAC structure.

These costs are related to the dilution of shareholder value which is caused by three distinct features of a SPAC - underwriting fees, sponsors stake, and post-merger warrants. When sponsors initiate a SPAC, they usually receive 20% of shares outstanding after going public.

The sponsor receives a disproportionate share of the SPAC, on top of deal making fees which reduces the value of a share from \$10 to \$6.67. Given that sponsors only get their 20% subsidized share if a deal is approved, the sponsor is incentivized to find a deal at all costs, and it does not matter if that deal is worth the money. The cashflows for a sponsor in a 'done deal' situation, whether good or bad, is always higher than a 'no deal' situation. This brings a misalignment of interest between shareholders and sponsors, as shareholders will have to bear the brunt of a crashing stock post-merger if a bad deal is done.

Market participants have already made adjusted to the SPAC structure to solve the issue of skewed incentives. In Bill Ackman's recent PSTH SPAC, as the sponsor, he chose to hold warrants that were 20% out of money to give him greater cashflows only if he can get a good deal done. This is just one of the ways in which the SPAC structure can change to better align the interest of sponsors and investors.

3) Accounting standards of Warrants

When a SPAC has found a company to merge with, shareholders have the right to 'redeem' their initial \$10 investment plus some interest earned over time. However, when shares are redeemed, these shareholders still own a warrant that comes with each unit of a SPAC's IPO. Essentially, if someone redeems their initial share, and the deal still goes through, it is more than likely that the warrant they own will be in-the-money as the stock price tends to go above the \$11.5 strike price. This is an easy arbitrage opportunity for warrant holders as they technically own that warrant for free since they redeem their initial \$10 investment. Influential people in corporate law have called for amendments to the structure of a SPAC's IPO, as too many have tried to profit from this arbitrage opportunity, leading to further dilution of investor profits.













Valuation and Performance

Not all SPACs are created equal

A key driver for the SPAC frenzy is the broader appetite for high-growth investment opportunities. For a while, we have seen a trend of younger, predominantly tech, companies preferring private capital sources and delaying listings in order to protect their proprietary information. SPACs are the perfect vehicle for starved public market investors to access those businesses due to the quick process and the capability to give five-year forward projections for the target company—which is particularly advantageous for hard-to-value, pre-revenue companies. The resulting phenomenon of more companies going public earlier than they otherwise would through a regular-way IPO, combined with the enthusiasm around these growth companies and the blind nature of a pre-DMA SPAC, inevitably leads to a high degree of speculation. That is to say, SPAC investors are often playing on a

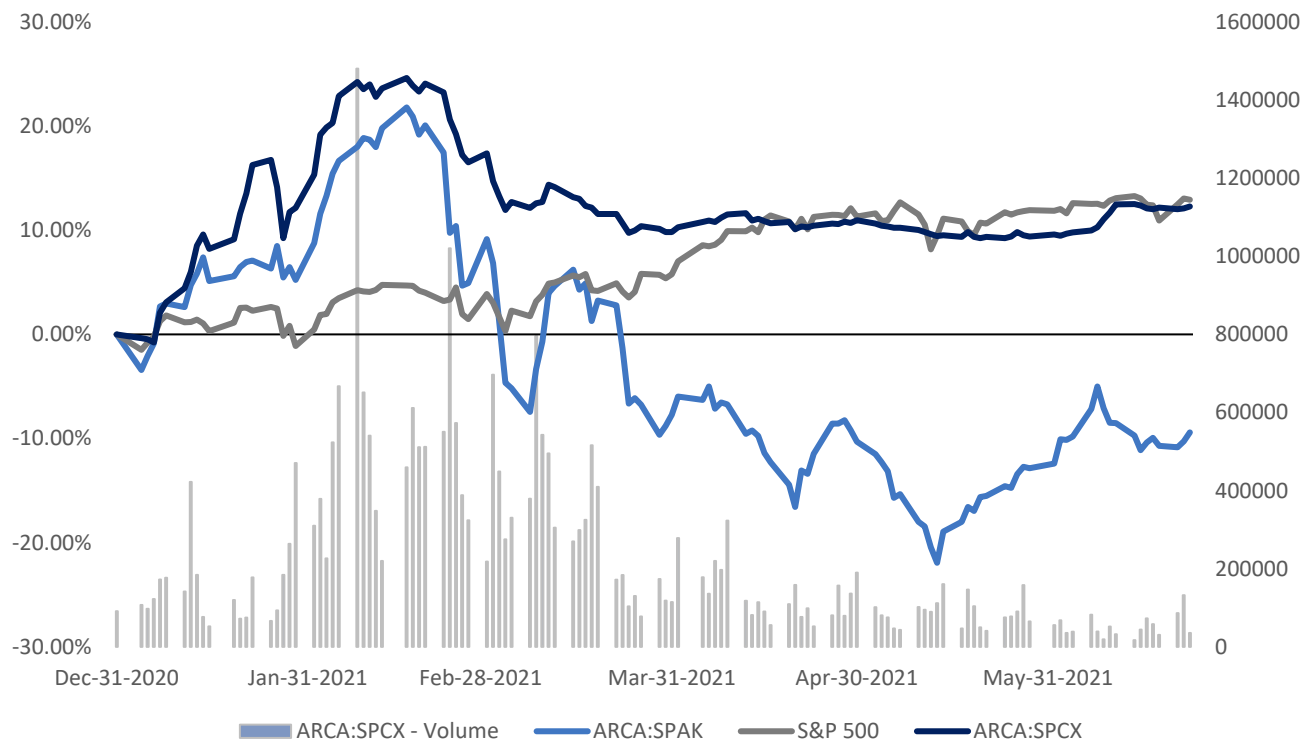
combination of sponsor reputation, momentum, and rumoured deals. Buzzy sectors such as pharmaceuticals and electric vehicles experienced the full spectrum of that effect; exemplified by Michael Klein-backed SPAC Churchill Capital Corp. IV and its merger with EV start-up Lucid. CCIV was trading at 5x the trust value per share after a potential deal was leaked, before falling 50% after the deal was confirmed. Further, SPACs with high-profile sponsors experience accentuated share price movements in response to market news with a notable case being Virgin Galactic shares falling 10% after its sponsor, Chamath Palihapitiya, sold his personal stake in the company he had taken public in 2019 through his SPAC: Social Capital Hedosophia Holdings. The market has been, and will continue to be, more bullish on certain pre-merger SPACs to pursue good deals than others.

Figure 8: SPAC Target Announcement Impact on Share Price

Transaction Details			%Δ in price	
SPAC	Target	Valuation		
2021	 Pershing Square Tontine Holdings	 UNIVERSAL UNIVERSAL MUSIC GROUP	\$41.8bn	-11.9%
	 ALTIMETER	 Grab	\$39.6bn	9.9%
	CHURCHILL CAPITAL IV	LUCID	\$24.0bn	-38.6%
	 SCHH	 SoFi	\$8.7bn	57.9%
2020	 DIAMONDEAGLE ACQUISITION	 DRAFT KINGS	\$3.3bn	6.6%
	 FOLEY TRASIMENE ACQUISITION CORP. II	Paysafe	\$9.0bn	12.5%
	 skillz		\$3.5bn	27.5%
2019	 IPO 2.0 SOCIAL CAPITAL HEDOSOPHIA HOLDINGS	 GALACTIC	\$1.5bn	2.5%

Valuation and Performance

Figure 9: YTD SPAC Performance



Post-merger Performance

While the initial pandemic surge in SPAC transaction volume increased the variance in return, its popularity was not reflected in overall performance. Three evaluation methods suggest that the waning in investor interest towards SPACs stems from performance woes, on top of regulatory concerns. First, according to a report published by JP Morgan, the mean 12-month return for “high-quality” SPACs launched in 2019 and 2020 was 9.7% above the Russell 2000 while the median return was negative 36.3% for the same sample group. This distribution speaks to a few notable outperformers—such as DraftKings, whose stock price quadrupled in 2020—buoying average returns for SPACs which have seen limited success after the transaction takes place. Furthermore, all SPAC performances eroded over time. Second, a basket of full-cycle SPACs revealed that ~50% of the SPACs which saw their share price outpace the S&P 500 in anticipation of a deal underperformed in the weeks after announcing the merger agreement. Similarly, while ~48% of the indexed companies outperformed the S&P

after their merger agreement, only 36% did in the months after their merger close announcement. Third, the figure above shows the YTD performance of the Defiance Next Gen ETF (SPAK), which is weighted in favour of post-SPAC deals, and the SPAC and New Issue ETF (SPCX), which consists only of SPACs in their 2-year life cycle. While both performed exceptionally during the SPAC frenzy at the start of 2021, SPCX slowed to an even pace with the S&P 500 while SPAK experienced a drop in line with the decrease in SPAC activity beginning in February. This illustrates the poor returns of post-merger companies in relation to the pre-merger SPACs. All three perspectives speak to both the aforementioned “hype effect”, as well as the concerns we listed regarding certain mechanisms built into the SPAC model such as the incentive structure for sponsors and the due diligence issues stemming from a lack of regulation. Also note that most of the over 500 SPACs that have IPO’d this year, ~60% have yet to find an operating company.