THE RISING POPULARITY OF SPECIAL PURPOSE ACQUISITION COMPANIES: HIDDEN DANGERS, REGULATORY CHANGES, AND A LOOMING BUBBLE

by

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Dedication

Dedicated to my daughter KayMarie Saul. Education is the most empowering force. It creates knowledge, breeds self-confidence, and breaks down barriers to opportunity. Whether education is formal, informal, or autodidactic nobody can ever take it away from you. Educating oneself allows for a creative and systematic process to increase one's knowledge. KayMarie, know that education is power, and knowledge is infinite. Never stop learning!

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ABSTRACT

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Special-purpose acquisition companies, or SPACs, have existed in various structures for decades. SPACs, often referred to as blank-check companies, are an unconventional investment to make a company public. Instead of the traditional IPO route, the SPAC is a shell structure that raises capital by buying or merging with an existing company in under two years. SPAC investments soared to new records during the COVID-19 pandemic in 2020 and 2021. This research analyzes the hidden dangers specific to retail investors and the actions regulators may take to protect the retail investor given that SPACs are likely the next bubble to burst. The research uses quantitative SPAC data on post-merger returns, SPAC index, deal size, and bookrunner count. The research also consults two openly available surveys examining retail investor knowledge of SPACs.

This research suggests that regulators and SPAC sponsors endorse more stringent disclosure and reporting requirements around costs, fees, and sponsor incentives. This research concludes by suggesting that if SPAC transactions come to a pause or return to normal levels, there could be retail investors holding losses and, like all bubbles, the SPAC bubble could burst.

Key Words: Special-purpose acquisition company, SPAC, IPO, SPAC sponsor, bookrunner, retail investor, regulatory, post-merger returns, COVID-19, bubble, danger

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LIST OF ABBREVIATIONS AND TERMINOLOGY

AMEX	American Stock Exchange; now NYSE American
Blue Sky Laws	U.S. state anti-fraud laws regulating the sale of securities
Bubble	Economic cycle characterized by the rapid escalation of market value, especially in the price of assets
COVID-19	Coronavirus disease 2019
deSPAC	Company merger of the SPAC and Target Firm
EGC	Emerging growth company
ETF	Exchange-traded fund
FINRA	Financial Industry Regulatory Authority
FinTwit	Financial Twitter
Generations	Gen Z (b. 1997-2012), millennial (b. 1981-1996)
IPO	Initial Public Offering
M&A	Merger and Acquisition
NASDAQ	National Association of Securities Dealers Automated Quotations
NYSE	New York Stock Exchange
OTC	Over The Counter
PCAOB	Public Company Accounting Oversight Board
PIPE	Private investment in public equity
PSRA	Private Security Regulation Authority Act
Quarter (Q)	A quarter is a 3-month period on a firm's financial calendar that acts as a basis for periodic financial reports. A quarter refers to ¼ of a year and is expressed Q1 2022, Q2 2022, Q3 2022, Q4 2022

Russell 2000	Small-cap stock market index tracking the smallest 2,000 stocks in the Russell 3000 index. Maintained by FTSE Russell, a subsidiary of the London Stock Exchange
S&P 500	Standard & Poor's 500 – stock market index tracking 500 large companies listed in the U.S. stock exchanges
SEC	U.S. Securities and Exchange Commission
SPAC	Special-purpose acquisition company
SPACDex	SPAC Index total return (including rights and warrants) tracker for every tradable SPAC
SPACInsider	Industry-leading provider of SPAC data and analysis based in the United States
SRO	Self-regulatory organization
T-Bill	Treasury Bill – short term U.S. government debt obligation
The Motley Fool	Private financial and investing advice company based in the United States

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List of Abbreviations and Terminology. Source: Investopedia Financial Terms Dictionary (n.d.) *'Dictionary'*, Investopedia, accessed 8 September 2022. https://www.investopedia.com/financial-term-dictionary-4769738

CHAPTER 1

INTRODUCTION

1.1 Introduction

Special-purpose acquisition companies, or SPACs, have existed in various structures for decades. Often referred to as blank-check companies, SPACs soared to new records during the COVID-19 pandemic in 2020 and 2021. According to Shephard and Bhirud (2021) the rising popularity of SPACs is powered by the extraordinary market volatility caused by the COVID-19 pandemic. Jasinski (2021) notes that market volatility, along with extremely low interest rates that diminish the opportunity cost of putting away capital in a SPAC and appetite for new-found emerging companies, have set the stage for SPACs' upsurge throughout the pandemic market. Moreover, 2020 and 2021, based on the researcher's perspective with extensive financial experience, represented the time for the retail investor, with herd mentality investing influenced by social media channels (i.e., Reddit, Twitter) and a generational shift in investing to millennials and Gen Z on popular brokerage trading platforms (i.e., Robinhood). Data that substantiates SPAC popularity is evidenced in both Figure 1.1 and Table 1.1 which shows SPAC growth over the past two decades since their tracking began in 2003. Table 1.1 reports approximately 613 SPACs have gone public in 2021 up to December 31, representing a 147% and 320% increase, respectively, compared to 2020 and 2019.

SPAC deal flow has risen and fallen since the inception of this form of investment, but the flood of SPAC IPOs during the COVID-19 pandemic is by far the largest. According to Gahng et al. (2022) the 2020 fiscal year marked a banner year as its 248 SPAC IPO deals raised more than $83 billion, which generated more capital than all prior years combined. As of 2021 fiscal year-end on December 31, there were 613 SPAC IPO deals that raised north of $162 billion in capital (SPACInsider, n.d.(a)).

Figure 1.1: SPAC IPO Transactions: Summary by Year

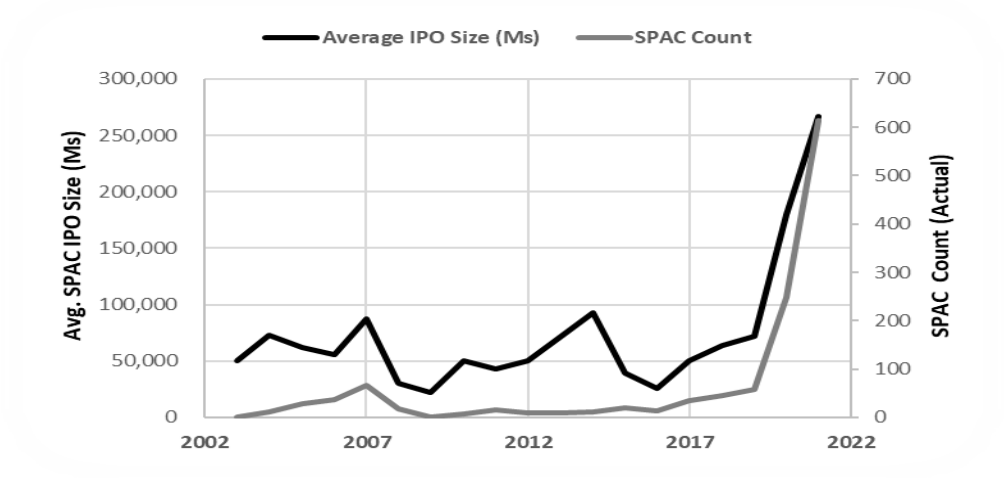


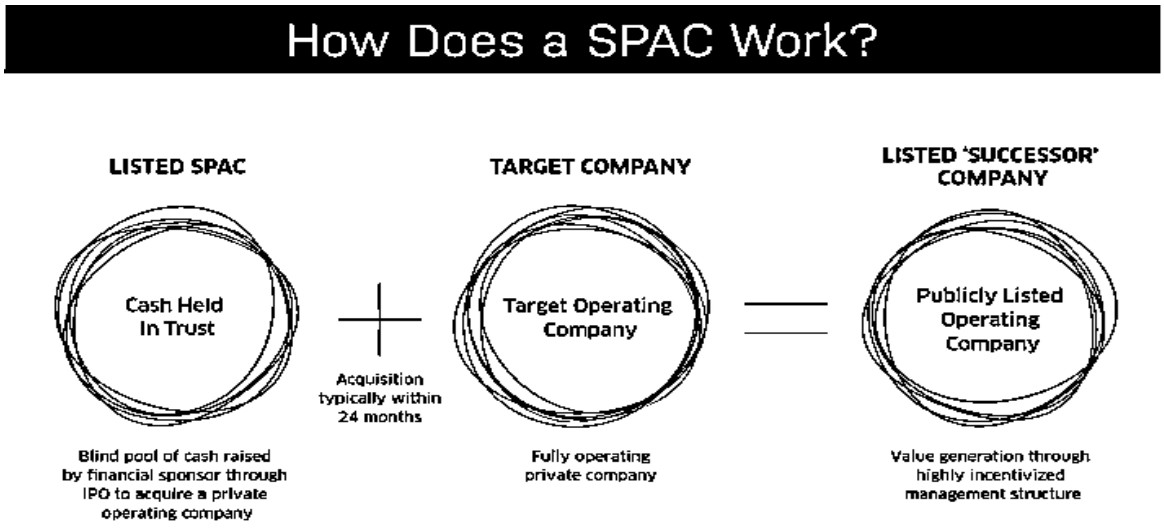
Table 1.1: SPAC IPO Transactions: Summary by Year

Year	SPAC Count	SPAC Proceeds (MMs)	Average IPO Size (Ms)
2021	613	162,394	266,400
2020	248	83,379	179,389
2019	59	13,608	72,200
2018	46	10,752	63,890
2017	34	10,049	50,268
2016	13	3,499	25,779
2015	20	3,903	39,232
2014	12	1,750	93,040
2013	10	1,455	70,777
2012	9	491	50,131
2011	15	1,082	43,240
2010	7	503	50,583
2009	1	36	21,676
2008	17	3,842	30,092
2007	66	12,094	87,204
2006	37	3,384	55,754
2005	28	2,113	61,893
2004	12	485	72,865
2003	1	24	49,954
Total	1,248	$314,841	$252,276

SPAC IPO Transactions: Summary by Year. Source: SPACInsider (n.d. (a)). *SPAC statistics*, SPACInsider, accessed 3 January 2022. https://spacinsider.com/stats/

According to Hamilton (2021), the unprecedented surge in SPACs among unsophisticated retail investors and sophisticated institutional investors on Wall Street presents a myriad of concerns including fees, conflicts, and sponsor compensation. Moreover, it requires a blind leap of faith for the unsophisticated retail investor choosing to invest in a SPAC. Brush (2021) notes that SPACs include numerous blind spots as there are hidden dangers inside that can hurt uninformed investors. Figure 1.2 highlights the shell structure of the SPACs, which start with cash held in a trust for up to two years as they wait to be utilized to acquire a target firm.

Figure 1.2: SPAC Structure Diagram



SPAC Structure Diagram. Source: NASDAQ (n.d.). SPACs: *Special Purpose Acquisition Companies. Listing a SPAC on Nasdaq*. NASDAQ, accessed 3 January 2022. https://www.nasdaq.com/solutions/spac

The shell structure of SPACs carry hidden dangers as the retail investor cannot know what they are truly investing in because they do not know what the SPAC sponsor is targeting. As such, retail investors must rely heavily on SPAC sponsors to make prudent judgments that add value.

SPACs: A Condensed History

SPAC research emerged in 2007, coincidentally just before the U.S. financial crisis from 2007 to 2008. According to Shachmurove and Vulanovic (2017), SPACs entered as a listed over-the-counter (OTC) security in the U.S. financial markets in 2003 as a way to raise $5 million or more in capital. However, the history of SPACs is debatable as researchers have SPAC transactions going as far back to the 1970s and 1980s in the form of blank-check companies, which were subjected to fraudulent OTC penny stock schemes in the form of "pump and dump" methods. This generates major interest (the pump) for the shares which is then manipulated, resulting in the shares being worthless (the dump). As such, blank-check companies were put on close watch but not fully banned because, if done prudently, these investment vehicles could be a satisfactory method for generating capital. Research by Heyman (2007) suggests that the 1990s saw the official introduction of SPACs as this was a time when blank-check companies were prohibited in the U.S. and SPACs were intended to replace blank-check companies. Per Table1.1, over 1,248 SPACs have been listed since 2003, raising over $314 billion (about $970 per person in the U.S.). While the capital raises used to be small - typically in a range of $50 to $100 million per transaction (average IPO size range: 2003 to 2010) - SPACs have now become more established and range from $100 to $266 million per transaction (average IPO size range: 2011 to 2021).

SPACs: Beginnings and Modifications by Generation

According to Riemer (2007) SPACs were an upgrade from the blank-check company as SPACs afford protections to accredited investors through trustworthy SPAC sponsors, whereas unsophisticated retail investors were deceived by untrustworthy management of blank-check companies. However, the present research demonstrates that due to their hidden dangers and poor post-merger returns, SPACs are only marginally

better than blank-check companies. Moreover, Rodrigues and Stegemoller (2011) and Wall Street traders would argue that there is no system of reputation-building for SPACs because of their shell structure (Figure 1.2) and the condensed SPAC life cycle.

Riemer (2007) breaks SPACs down into a generational view. The first generation was launched in the 1990s by investment banker David Nussbaum and lawyer David Miller. Nussbaum and Miller developed hybrid SPACs in the early 1990s, but this form struggled to attract investors as many firms could access capital via the more reputable and traditional IPO, especially during the tech boom up until the U.S. dot-com bubble from 2000 to 2002. Rodrigues and Stegemoller (2011) note the second generation started in 2003 with Nussbaum's financial firm Early Bird Capital. By 2008, second-generation SPACs qualified to be listed on both the NYSE and NASDAQ. Table 1.1. highlights that SPACs went from one transaction in 2003 to a peak of 66 in 2007. However, SPAC transactions subsequently died out during the U.S. financial crisis from 2007 to 2008, and Table 1.1 indicates that SPACs went back to one transaction by 2009. It was not until 2017 that SPAC transactions started to grow, surging in 2020 and continuing to grow into 2021, with peak volumes occurring in Q1 2021.

The data reflects that SPACs took a nosedive in 2003 and 2009 during periods of financial crisis in the U.S. attributed to a tech bubble and the so-called Great Recession. In 2009, after the fallout of the fiscal crisis, there was a single $36 million SPAC IPO, but in 2020 and 2021 deal flow was greater than $83 billion (about $260 per person in the U.S.) and $162 billion (about $500 per person in the U.S.), respectively. Thus, periods of fiscal crisis driven by situations where certain financial assets suddenly lost a large part of their nominal value in 2020 (i.e., due to the stock market crash from February 2020 to April 7, 2020) caused a huge surge in SPAC deal flow in 2020 and 2021. Jasinski (2021) believes this phenomenon grew at record pace and deal flow not in spite of the

consequences of COVID-19 but highly likely because of them. Moreover, Jasinski (2021) identified a generational shift in the retail investor, who have become more risk-tolerant and gained access to more information (not necessarily all appropriate). Additionally, many businesses were under greater stress than prior to financial disasters, thus creating a target-rich environment for SPAC sponsors and a faster, more reliable route to the public market. Hence, Jasinski (2021) and this research propose that the quality of those acquisitions of target-rich firms is sure to suffer as more SPACs chase limited opportunities and retail investors continue to invest blindly. SPACs could become the dot.com of the 2021 stock bubble.

1.2 Research Problem

Due to the surge of SPACs during the COVID-19 pandemic, research is sparse on the new phenomenon of the impact of the 2020-2021 SPAC surge affect on retail investors. This research examines how SPACs' rise in popularity has overshadowed their hidden dangers and recommends more oversight and scrutiny from investors, regulators, and SPAC sponsors. This research examines the information gap regarding a potential SPAC bubble that could burst and identifies the various layers of protection, in the form of legislation and regulation, needed to protect retail investors from the hidden dangers. According to Naumovska (2021), almost everyone who is structuring a SPAC, from U.S. Presidential advisors, to international sports stars, to wealthy tycoons show signs beyond the headline figures suggest that SPACs are the next bubble to burst.

Oversight is the next logical step to protect retail investors, but a gap remains regarding the action steps (i.e., the how and what). Furthermore, only limited research highlights why unsophisticated retail investors flocked to SPACs during the pandemic versus prior documented periods of financial crisis. This research consults two openly

available surveys and quantitative data sources that provide insight into SPAC investment hidden dangers, as well as potential retail investor behavior and knowledge on SPACs.

1.3 Research Purpose and Objective

The purpose of this research is to highlight the hidden dangers of SPACs by analyzing SPAC data and metrics, structure, and retail investor behavior. This research predicts that SPACs are a bubble waiting to burst and advocates for more oversight by regulators and better disclosure from SPAC sponsors and bookrunners. When the researchers Klausner et al. (2022) examined the performance of SPACs, during the pandemic surge, they determined that SPAC sponsors were financially successful, while retail investors were not. Moreover, Klausner et al. (2022) found that SPAC expenses are not absorbed by the firms they take public but rather by the SPAC retail investors, who experience sharp post-merger losses while SPAC sponsors make substantial profits.

The objective of this research is to highlight the dangers of SPACs by examining qualitative and quantitative research on post-merger returns, SPACDex data to understand SPAC performance (benchmarked against the S&P 500 index), SPAC redemption rates, SPAC expirations, SPAC bookrunner deals and fees and openly available surveys specific to retail investor familiarity with SPACs and retail investor investments by generation. The main objective of this research is to underline the need for protection for retail investors against the dangers of SPACs and to better understand how and why they invested heavily in SPACs during the COVID-19 pandemic. Caporal (2021) and Marvin (2021), survey directors at The Motley Fool and SPACInsider, respectively, highlight the generational shift in investors, media influences, and investment knowledge. Research on SPACs to date have not examined retail investor behavior to understand their contribution to the SPAC surge in 2020 and 2021 and why

they invested carelessly. This exploratory research objective is key to the discovery of ideas and insights about SPACs, their dangers, and the retail investor.

1.4 Significance of the Study

The research focal points contribute to filling the information gap regarding SPACs, and further investigation may help to avoid repeating financial crises such as the U.S. tech dot-com bubble from 2000 to 2002 and the U.S. financial crisis from 2007 to 2008. These events were driven by numerous factors but D'Alvia (2021) condenses these to excessive risk-taking, overvalued structured financial products, and lack of regulation or oversight; all of these factors are present, to varying degrees, in SPACs. Hence, there is a need for retail investors to educate themselves and for regulators to view such investments from the retail perspective. In this way, their behavior and their own efforts can help uncover the hidden dangers in SPACs to make for better alternative investments.

Regulators and SPAC sponsors should endorse more stringent disclosure and reporting requirements around costs, fees, and sponsor incentives. Furthermore, if SPAC transactions come to a halt or return to normal levels, retail investors could be holding losses, causing the SPAC bubble to burst.

1.5 Research Questions

This study focuses on retail investors buying SPACs during the COVID-19 pandemic. Retail investors may gain access to SPACs either by buying IPO shares from the underwriter or by buying shares in the secondary market following the SPAC's IPO and prior to the merger. However, according to Klausner et al. (2022) SPAC ownership shows restricted participation from retail investors via these channels. By gathering data in U.S. Securities Exchange Commission (SEC) 13F filings (quarterly reports that must be filed by institutional investment managers with over $100 million in assets under management), Klausner et al. (2022) found that institutional ownership is 85% after the

SPAC IPO and this increased to 87% prior to the SPAC merger. Importantly, these findings marginalized the remaining 13% to 15% held by retail investors. Per Table. 1.1, this percentage represented over $24 billion (about $74 per person in the U.S.) in 2021. Moreover, there is sparse trading data on public secondary market trading, which is the primary way retail investors would invest in SPACs, especially given the surge in 2020 and 2021. Given that a SPAC sponsor has up to two years to find a target, SPACs funded during the pandemic have until 2022 and 2023 to find a target and offer shares for sale to more retail investors in the public secondary market. Based on these points the following questions are proposed:

(1) What are the hidden dangers of SPACs for retail investors?

(2) What can regulators do to protect retail investors from SPACs' hidden dangers?

(3) Do the identified dangers and regulations indicate that SPACs are the next bubble to burst?

CHAPTER 2

REVIEW OF LITERATURE

2.1 Literature Review

This literature review covers an assortment of previous SPAC research, with an emphasis on recent studies to account for the surge in SPAC deal flow. The comprehensive review was conducted thematically with the objective of educating individuals in SPACs' dangers, regulatory environment, and potential to burst.

SPACs: Hidden Dangers

The SPAC pandemic surge has taken hold of public markets as private firms explore exit prospects or targets and as the COVID-19 pandemic has produced doubt in IPO transactions. There is no shortfall of research surrounding SPACs' advantages, disadvantages, and risks in relation to SPACs' structures and pre- and post-merger returns, but there is a shortfall in research targeting the dangers specific to retail investors. This study defines "danger" as an exposure or liability to loss. It is reasonable to argue that retail investors flocked to SPACs as they are a better route to going public than the traditional IPO and are easier for retail investors to access. Moreover, Buhayar et al. (2021) note that the surge of SPACs has taken private businesses onto U.S. stock exchanges because SPACs' greatest advantage is reaching markets far faster than traditional IPOs.

Buhayar et al. (2021) sifted through Bloomberg market data and regulatory findings of more than 190 SPAC mergers since early 2018, and they found that SPACs significantly underperformed compared to typical IPOs. Buhayar et al. (2021) noted that SPACs that went to a merger (deSPAC) were on average 11% higher than their initial stock listing, but given SPACs' structure, this is a generous interpretation. Buhayar et al. (2021) maintain that a more accurate view involves interpreting the SPAC from the date

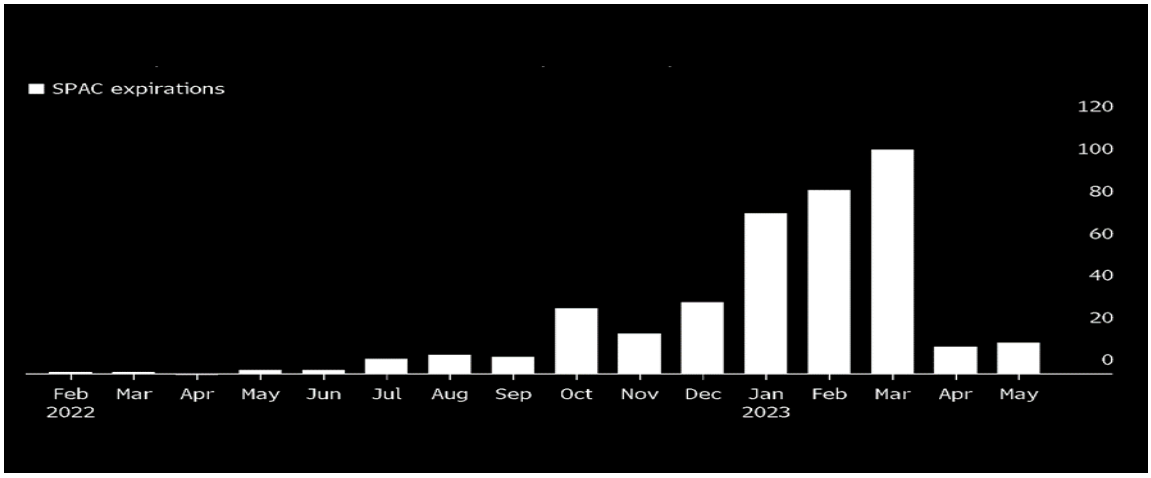
the merger occurred, which would mean that SPACs have dropped an average of 9.9%. SPAC sponsors and bookrunners may argue that this difference is not equal since retail investors often cannot buy IPOs at their offer price and must wait until they come to market. The research by Buhayar et al. (2021) points out that retail investors could have known about the deficient performance of SPACs based on publicly available data from Bloomberg and other sources; nonetheless, the allure of SPACs has remained as SPAC investments jumped from 248 in 2020 to 613 in 2021. This retail investor mentality is itself a danger, but when it is combined with SPACs' lack of detailed disclosures and due diligence compared to traditional IPOs, it becomes an arduous process for the retail investor to identify the SPAC investment failures.

Most existing research has discussed costs and sponsor compensation as significant hidden dangers, but another crucial hidden danger is fees during the SPAC life cycle. The present research, through collective examination of SPAC data on underwriter league tables from SPAC Research (n.d. (b)) and SPACInsider (n.d. (a)), found that investment banks (bookrunners) generate the following fees: (i) fees to sell SPAC shares to the public; (ii) fees for M&A consulting and advising; (iii) fees to sell additional SPAC shares to private clients and on secondary markets; (iv) fees via PIPEs (private investment in public entities) that offer more shares to institution's family offices, ultra-high-net-worth clients, and accredited investors. The number of fees is already concerning, but the hidden danger to retail investors is the "Hype of the PIPE" as bulge bracket banks like Goldman Sachs and Citigroup have fueled SPAC deals by lining up retail investors through the pitch that SPACs are actually PIPEs. Investment banks engage in underwriting deals as a best effort (to promote and market) or firm commitment (to promote and hold shares of the IPO). SPACs are no different. Klausner et al. (2022) discovered that SPACs include large fees paid to investment banks and

bookrunners, in addition to what they called “the promote,” or the piles of free stock that go to the SPAC sponsor. The “promote” implies that SPACs are money machines for the institutional side and a poor deal for the retail side.

The surge of SPACs has resulted in large volumes, especially in 2021 (613 deals). The most significant hidden danger to retail investors is that SPACs must complete mergers starting in 2022 and continuing until Q2 2023. Figure 2.1 predicts that approximately 250 SPACs will expire in Q1 2023 at the expiration peak.

Figure 2.1: SPAC Expiration in the U.S.



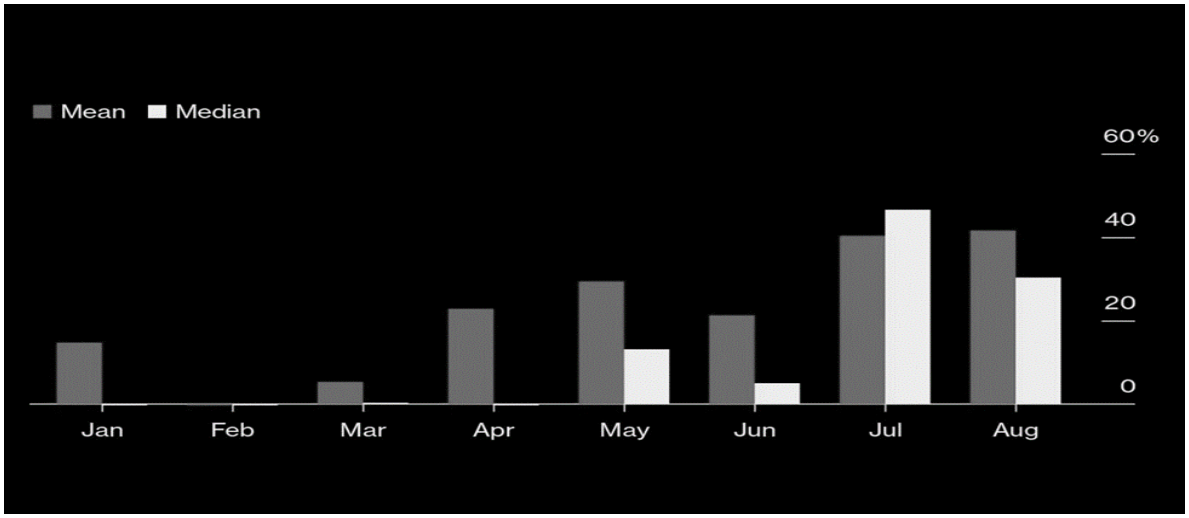
SPAC Expiration in the U.S.. Source: Baker, L., Qasim, N. and Tobin, M. (2021). *SPAC Surge May Benefit Targets That Can Play a Waiting Game*, Bloomberg News, accessed 22 January 2022. https://www.bloomberg.com/news/articles/2021-06-02/spac-surge-may-benefit-targets-that-can-play-a-waiting-game

According to Baker et al. (2021) and the Bloomberg data in Figure 2.1, more than 500 U.S.-listed SPACs have finished IPOs and are seeking a target to go public, which is twice the number of SPACs that have gone public since 2018. Here, the hidden danger is the pressure to close a deal before the end of the 24-month period to avoid returning

capital to investors. As such, deSPAC deals may become riskier and more costly as sponsors become impatient.

In addition to SPAC expiration, researchers have identified dilution and redemptions as a major hidden danger to retail investors. According to Bryant (2021), the redemption right has been the biggest advantage for institutional investors, a huge disadvantage for retail investors, and a key indicator driving the SPAC pandemic surge. The redemption right for sophisticated investors, like hedge funds, represents their ability to reclaim cash from a poor SPAC deal. Bryant (2021) considers the redemption right a no-lose situation for institutional investors if they redeem it at the right time. However, this right is not afforded to retail investors, and if their affinity for SPACs fades, the institutional investors' advantage could become toxic. Figure 2.2 indicates that the median redemption rate in North America was just south of 50% through August 31, 2021.

Figure 2.2: North American SPAC Redemptions in 2021



North American SPAC Redemptions in 2021. Source: Bryant, C. (2021). *Hedge funds are demanding their SPAC money back*, Bloomberg, accessed 22 January 2022. https://www.bloomberg.com/opinion/articles/2021-08-16/hedge-funds-are-demanding-their-spac-money-back-too-fast

Based on this data, if redemptions continue to increase, this will challenge the belief that SPACs are a more conventional way of going public than the traditional IPO. Importantly, when redemptions are high, the transaction costs and dilution assumed by all investors who elect to do the deal are also higher.

SPACs: Regulatory History

SPACs are not a new corporate structure; in fact, they have existed for 30 years. However, in 2020 and 2021, they became a sudden sensation. According to Greenspan (2021), SPAC sponsors' marketing tactics shepherded by investment banks, book runners, and exchanges as a dominant competitor with the traditional IPO have been a lengthy process. SPAC investments began to circumvent U.S. Securities Exchange Commission (SEC) rules responding to the blank-check era (1970s to 1980s) of fraudulent "pump and dump" and boiler room schemes. Research from Greenspan (2021), Murray (2014), and Rose (2021) provides a condensed SPAC regulation history, but very sparse research exists on what regulations have resulted from the pandemic surge, especially at the state level in the US. It is therefore necessary to provide a summary of SPAC regulatory and legal history in order to suggest next steps for regulation and blue sky laws.

Greenspan (2021) notes that the concern about blank-check company frauds was so acute that state regulators pushed for the U.S. Congress to ban these companies altogether as investors could not help themselves from buying into these investments. While the U.S. Congress did not ban SPACs, it did acknowledge that the regulatory market had permitted the use of such offerings to facilitate pump and dumps, boiler rooms, and other schemes to harm investors. U.S. Congress passed the Penny Stock Reform Act of 1990 (PSRA), which did not ban but did restrict these offerings, resulting in the birth of the SPAC circa 1993. As per Greenspan (2021), the PSRA regulation

added an amendment to Section 7 of the Securities Act that called for the SEC to develop specific registration statement rules for blank-check firms. In response to the PSRA, the SEC published Rule 419 to cover blank-check issuers.

Features of SEC Rule 419 merit discussion as they provide the framework within which SPACs were established. Firstly, the PSRA added a definition for penny stock to the Securities Exchange Act of 1934. Greenspan's (2021) definition of penny stock is a security not listed on a national securities exchange with a share price under $4/share, shareholder equity under $5 million, or market capitalization under $50 million. Rule 419 defined a blank-check company as one that issues penny stocks. Therefore, post-PSRA, SPACs were structured so as to avoid being a penny stock by pricing shares at $10 per share and raising at least $5 million in shareholder equity. From a fraud perspective, SPAC investments were made more difficult because of regulations, but SPACs were mainly started to avoid Rule 419. According to Greenspan (2021), as time progressed, the first generation of SPACs fell out of favor and were less scrutinized following the dot-com bubble from 2000 to 2002. Prior to the SPAC being tracked in 2003, the first generation of SPACs made significant efforts to attract reputable individuals and firms to legitimize them following minor changes in regulations after Rule 419 (Greenspan, 2021). Even today, SPACs publicize their experienced management teams and celebrity advisors to signal legitimacy.

In 2005, the SEC adopted sweeping reforms of public offering rules according to Rose (2021) that prohibited shell companies from relying on longer time periods to disclose investment information and fortified Form 8-K disclosures to be more equivalent to Form 10 registration around new assets and company operations. Rose (2021) goes on to state that those aspects of the SPAC process referred to such changes as the "Super 8-K." Moreover, the SEC prohibited SPACs from using Form S-8 (used to register

securities sold pursuant to employee compensation plans) until 60 calendar days after the SPAC ceased being a shell company and had filed information equal to Form 10. Coates and Munter (2021) note that in 2008 the SEC overhauled Rule 144, which facilitated the resale of restricted securities by affiliates of an issuer. According to Rose (2021), the SEC reduced the holding period for resale of restricted securities from one year to six months.

However, Rose (2021) also pointed out that the SEC chose to treat shell companies and SPACs differently, permitting their investors to rely on Rule 144 one year after they ceased being a shell company. Importantly, SPACs could not list on U.S. security exchanges, NYSE, or NASDAQ until 2008 (Rose, 2021), however research from Shachmurove and Vulanovic (2017) cites SPACs were listed in 2003 through OTC markets and 2005 on the AMEX. Exchanges are deemed self-regulatory organizations (SROs), and Rose (2021) highlights that SROs retain the discretion to determine whether a SPAC listing is appropriate based on several factors, such as the reputations of the SPAC sponsors, underwriters, bookrunners, and affiliated entities. In 2010, the SEC authorized changes to the NASDAQ's SPAC listing requirements and gave SPACs the option to exempt proposed business combinations from shareholder votes if the SPACs made a tender offer pursuant to Rule 13e4 and Regulation 14e. Rose (2021) identified this as a crucial change in response to greenmail problems in shareholder voting standards. In 2012, just four years after the main U.S. exchanges permitted SPAC listings, the U.S. Congress passed the Jobs Act, generating a new category of security issuer called an "emerging growth company" (EGC). Research from Rose (2021) notes that EGCs have substantial benefits, including a reduced level of reporting disclosures during a start-up period that lasts for up to five fiscal years after the IPO is completed. In 2017, the NYSE changed their SPAC listing requirements regarding SEC approval and in line with the NASDAQ. Finally, following the surge in SPACs in late 2020 and 2021, the

SEC made statements and slight modifications to tighten SPAC accounting guidance, mostly in relation to treatment of redeemable shares as mezzanine equities versus permanent equities and SPAC deal markets, which have become a booming business for Wall Street over the last two years.

It is obvious based on the research that large gaps characterize the regulatory history of SPACs. Most regulation focused on SPACs' listing status until the recent SEC modifications to accounting standards and deal markets. Research has documented fewer preliminary regulatory inspections than in IPOs and recent SEC communications, and the surge in SPAC deals during the pandemic have left retail investors in particular at risk. As such, more regulatory changes are needed in the SPAC sector to manage SPAC marketing and fees, disclosures, conflicts of interest, and accounting treatment. According to Coates and Munter (2021) in April 2021 the SEC issued a staff statement recommending that SPACs treat equity warrants as debt which caused the balance sheet treatment of SPACs to change (i.e., from equity to debt / liability) and pushing forces to test new contracts. However, it is uncertain whether the SEC will issue directions on this issue given that SPAC transactions hit their peak in 2021. Lastly, as of October 2021, the Financial Industry Regulatory Authority (FINRA) began to examine the firms that provide services to SPACs and affiliates such as sponsors, board members, and key shareholders. FINRA (2021, para. 1) issued a targeted exam letter in October 2021 stating, "Unless otherwise noted, SPACs and their affiliates will be examined for the relevant period for each request being July 1, 2018 through September 30, 2021 to provide, but not limited to, written supervisory procedures, description of all services offered by the firm and its affiliates, and more."

While there are federal securities regulations and laws, blue sky laws represent a gap in SPAC regulatory history. This is a crucial topic in this research as SPACs have

been marketed to a large pool of investors, 13% to 15% of which are retail investors, because SPACs can be listed on U.S. major stock exchanges (AMEX, NYSE, NASDAQ) and are not subject to state blue sky laws. Mahoney (2001) describes these laws as state regulations created as protections for investors to combat security fraud. The laws can be modified by the state, usually to require sellers of new issues to register their offerings and supply financial details of the transaction to participating firms. According to early regulation research from Murray (2014), exchange-listed SPAC IPOs are exempt from blue sky laws suggest that such factors increase risk for less sophisticated investors, such as retail investors, who are lured by the possibility of big gains and who authorize unsuitable business combinations just to find a target to close a deal. According to Bensur and Heyworth (2021), there has been an increase in federal securities lawsuits against pre-SPAC and deSPAC firms, and a similar trend may be emerging at the state level based on claims of breach of fiduciary duties. Bensur and Heyworth (2021) highlight that litigation and potential regulatory reform at the state level may lead retail investors to claim a speedy course to complete a merger deal due to conflicts of interest and that underperforms market expectations. This study recommends more disclosures and fewer conflicts of interest. However, like the SEC, the states need to take a stronger stance against federal regulation regarding contradictions and imbalances that incentivize SPAC sponsors, officers, and affiliates to finalize a deSPAC deal even when SPAC investors do not benefit. SPAC investors. Moreover, as SPACs from the surge look to close in 2022 and 2023, Bensur and Heyworth (2021) believes litigations against investment banks may not be avoided as deals with inadequate quality targets may go south, which will leave retail investors with losses and make investment banks a rich target for lawsuits and regulatory scrutiny if the SPAC bubble bursts.

SPACs experienced minimal transaction growth until 2005 due to a lack of meaningful regulation (Table. 1.1). According to Greenspan (2021), retail investors helped pioneer SPACs through retail customers from small investment banks and motivated SPAC sponsors seeking alternative growth companies. Coincidentally, it is the retail investor who was at the front during the COVID-19 pandemic from short squeezes, meme stocks, crypto currency, and the revitalized SPAC.

SPACs: Studies On Post-Merger Share Returns

Several studies have been performed of SPAC post-merger returns, but each had different time horizons and methods of return. Post-merger returns are crucial to retail investors as they mark the point at which the target firm begins trading publicly, exactly in the same fashion as a traditional IPO. Post-merger return research here is structured in chronological order (2007 to 2021) with special attention to the most influential research.

Jog and Sun's (2007) research results demonstrated that retail investors earned -3% annualized abnormal returns, whereas management earned approximately 1,900% annualized returns. These research results on annualized returns leveraged data for SPACs that raised capital from 2003 to 2006. This research was limited given the small number of SPAC transactions, estimated at 62 firms for the three-year period, and benchmarked pre-merger returns to the U.S. T-Bill and post-merger returns to the Russell 2000 (Microcap) Index. Jog and Sun could have used low-risk exchange-traded funds (ETFs) as a better benchmark because this index is rebalanced on an as-needed basis, whereas the Russell 2000 Index is fully rebalanced each year, often resulting in excessive and costly turnover for retail investors. As such, Jog and Sun may have included transaction costs at a higher amount by using the Russell 2000 Index, which may have had a negative impact on return calculations. Jog and Sun (2007) noted that in earlier SPACs, retail investors wrote a blank-check to management.

Jenkinson and Sousa (2011) found that investors who agreed to the SPAC sponsor and management's proposal rather than listened to the market endured average aggregate returns of -39% within six months, which increased to -79% after one year. Moreover, the authors declared that SPAC structures are fundamentally flawed and designed to provide large incentives in the form of good annualized returns for SPAC founders. Importantly, Jenkinson and Sousa's (2011) research indicated that SPAC sponsors, founders, and management could still make money even if the merger destroys value. This research had more data in 2012 than Jog and Sun in 2007, and the study was performed on the upswing from the U.S. financial crisis. Despite the negative post-merger returns, the study explained SPAC performance as a pattern of behavior from the retail investor. Jenkinson and Sousa (2011) stated that the approval of several value-destroying SPACs suggested that retail or small institutional investors did not pay close enough attention to their critical role of voting, in addition to their well-known blind faith in sponsors' value-creating skills. This research elaborates on retail investors' role by consulting two open surveys on retail investor behavior and SPAC knowledge during the COVID-19 pandemic.

Lakicevic and Vulanovic (2013) went beyond post-merger returns of common shares to investigate warrants. They determined that shareholders who had warrants incurred abnormal returns of approximately 10.49% on the merger announcement day compared to 2.42% among common stock shareholders. However, warrants are reinforced from long-term returns, and substantial research has highlighted that warrants typically outperform common and preferred shares on a one-year, equally weighted buy-and-hold strategy. This idea was further supported by Gahng et al. (2022), who reported that warrants substantially surpass common shares on a one-year equally weighted return

of 44.3% warrants vs -15.6% common shares. Nonetheless, common-share retail investors still experienced negative returns on the announcement day and post-merger.

According to Dimitrova (2017), block-holding by institutional investors had a negative impact on all investors but more so on retail investors. Dimitrova (2017) notes the impact to annualized returns was in a range of 8 to 10 basis points of return for every 10% spike in block-holding. Importantly, given that institutional holders represent the majority of investors in SPACs, Dimitrova (2017) contends that their exit from being block-holders places a downward pressure on price, producing an adverse effect on returns for retail investors left holding shares. A mass exodus of institutional investors in 2022 and 2023 after the SPAC pandemic surge could leave retail investors holding losses and could signal a SPAC bubble.

Klausner et al.(2022), Lin et al. (2021), and Gahng et al. (2022) have researched the relationship between high dilution and underperformance in the post-merger cycle, which has come to be known as the deSPAC period. Moreover, they discovered that a high-level redemption ratio forecasts poor deSPAC returns and that the primary hidden costs of the SPAC at the time of a merger are diluted. Gahng et al. (2022) further stated that the safe harbor provisions behind SPACs are a hidden danger and a more accurate indicator of poor performance than dilution because the provisions' design allows low-quality firms to form SPACs and deSPACs. Thus, there is an information gap regarding the regulatory oversight of SPACs and a need for modifications to adapt to the surge in SPACs processed during the pandemic.

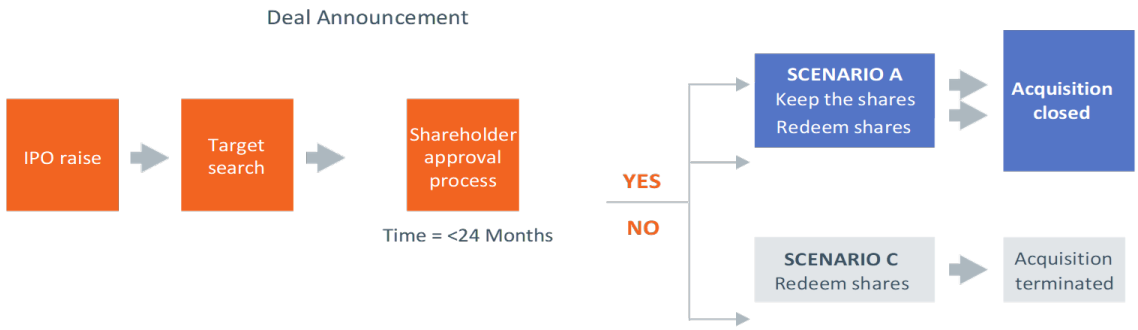
SPACs: Contributions to the Pandemic Surge 2020-2021

Research has pointed to several factors contributing to how listed SPACs surged during the COVID-19 pandemic, including ultra-low interest rates, small businesses looking to access capital, and so on. The factors identified are categorized into the

following categories to better understand why SPACs surged: sponsors, private firms, and retail investors.

For sponsors, SPACs provide a more efficient IPO process for accessing capital compared to the traditional IPO. According to Layne and Lenahan (2018), SPAC IPOs utilize less time and have lower risk due to their shell structure, implying that SPACs have fewer hurdles to overcome in terms of operating history, legal ramifications, and so forth compared to traditional IPOs. Furthermore, research has observed that SPAC underwriting fees (pre-target merger) for the sponsor are lower than in traditional IPOs. Layne and Lenahan (2018) reported that SPAC IPO underwriting fees incurred an average discount of 2% (pre-target merger) versus a range of 5% to 7% for traditional IPOs. However, Layne and Lenahan (2018) make the distinction that an additional 3.5% in fees is calculated only if a target firm is announced and a merger is successfully completed. As such, the "all-in" fee for the sponsor on the SPAC IPO is 5.5%, which is slightly higher than the minimum fee for traditional IPOs. If there is no successful merger, then the additional fee is not applicable. Even before the pandemic, SPACs saw a slight uptick in the "all-in" fee. Key factors behind the surge in SPACs, especially from the sponsor side, were the temporary freeze in traditional IPO markets caused by COVID-19 and growing support from high-quality sponsors (Strauss and Blitz, 2022). Moreover, Strauss and Blitz (2022) noted the IPO market freeze combined with lower fees, less regulation, and access to capital markets ushered in a surge of SPAC IPOs and mergers from the sponsor side. Figure 2.3 illustrates the SPAC timeline and shows the benefits to the sponsor until they reach a merger.

Figure 2.3: SPAC Illustrative Timeline



SPAC Illustrative Timeline. Source: Strauss, J. and Blitz, J. (2022) *Special purpose acquisition companies—A blank check for success?* Accessed 17 January 2022. https://wilmingtontrust.com/content/dam/wtb-web/wtb-migration/pdfs/Special-Purpose-Acquisition-Companies-A-Blank-Check-for-Success.pdf

Typically priced at $10/share, each share represents cash deposited in a blind trust and invested in secure short-term marketable securities for the sponsor to keep until a merger is announced. There is an option for detachable warrants at a value of 15% above the IPO price (i.e., $10 + $1.50 = $11.50) for shareholders when the time comes to buy. Figure 2.3. shows the role of the sponsor, which is to find a suitable target in under 24 months and move the SPAC investment along to a shareholder vote. According to Strauss and Blitz (2022), the sponsor underwriting fee of 2% is better viewed as a "risk capital" contribution based off the IPO size to cover bank fees and operating expenses. However, with risk comes reward, and Klausner et al. (2022) found that the sponsor typically receives incentives in the form of private warrants, or founder shares known as the "promote" incentive which can reach as high as 20% of the post-merger company when successfully closed. This type of return in under 24 months in the financial world is considered a profitable payout given the fleeting time horizon. Strauss and Blitz (2022) note that as more unsophisticated retail investors invest in SPACs without knowing the "promote" and coupled with the hidden dangers, it is even easier for the sponsor to win

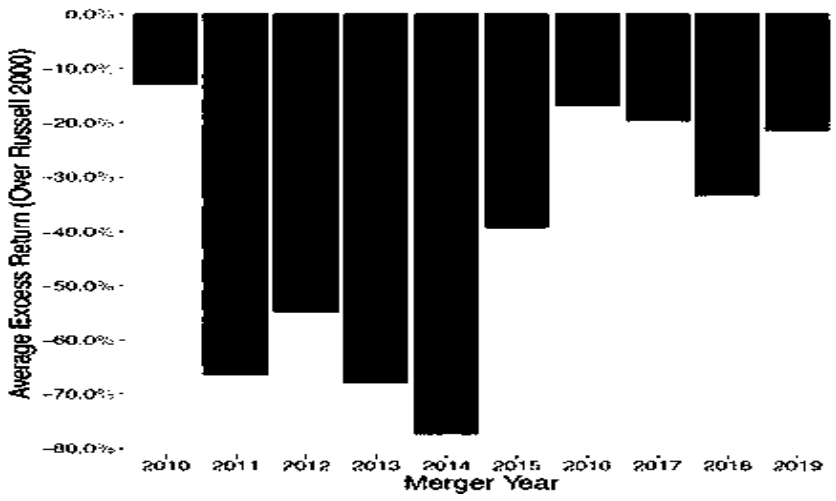
over a target that retail shareholders will feel comfortable voting for to boost the sponsor's reputation and contributed risk capital.

According to Layne and Lenahan (2018), the private firms that merge or are the target of the SPAC provide more efficient and more accessible methods to be listed on major U.S. stock exchanges such as AMEX, NYSE, and NASDAQ compared to traditional IPOs, especially for a target firm domiciled in a foreign nation. Moreover, Chapman et al. (2021) revealed that private firms in a SPAC, like other M&A transactions, are strategic in nature and offer a solution to the SPAC sponsor and management team as the acquirer might be looking to enter a new market, gain operational expertise, or enhance intellectual property. Ultimately, the surge in SPACs during the pandemic put all private firms and sponsors in an advantageous position, particularly private firms that might offer high intrinsic value as the COVID-19 pandemic quickly altered these companies' market capitalizations and enterprise values. As such, the COVID-19 pandemic could be interpreted as a "win-win" for both private firms and SPAC sponsors.

For the retail investor the initial loss caused by the SPAC is the opportunity cost of the money invested during the investment period, plus fees associated with management and underwriting. As noted, the real issue is that before announcement retail investors have little to no knowledge of the viability of the company and are putting blind faith into the SPAC sponsor. In this regard, Strauss and Blitz (2022) observe that the hidden danger or risk is there is no fair value to approximate for an unidentified eventual target. The surge in SPACs for the retail investor stemmed from their view of risks, more than the lack of visibility, in the pre-merger and post-merger periods. Research from Shachmurove and Vulanovic (2017) suggest that pre-merger risks are low for retail investors who can acquire shares at or near the IPO price during the pre-merger period,

which is comparable to a convertible debt instrument (i.e., bond) in combining debt-like downsides with equity upsides. Moreover, the redemption option presented in Figure 2.3 shows downside protection (i.e., acts as a hedge against a share price drop) as shares typically close to the $10/share value pre-merger. According to Klausner et al. (2022), the median SPAC price when searching for a target in 2021, specifically during the peak month of February, was priced around $10.50. The real danger to the retail investor is post-merger risk and return. Bazerman and Patel (2021), Klausner et al. (2022), Gahng, et al. (2022), and other researchers have pointed out that post-merger performance is poor for retail investors benchmarked against major U.S. indexes. Figures 2.4 and 2.5 demonstrate the post-merger returns for retail investors per the Russell 2000 and pre-merger returns per the S&P 500, which are essential resources for retail investors looking to invest in SPACs.

Figure 2.4: Avg. 1-yr Post-Merger Returns vs. Russell 2000



Avg. 1-yr Post-Merger Returns vs. Russell 2000. Source: Klausner, M., Ohlrogge, M. and Ruan, E. (2022) *A sober look at SPACs*., ECGI Finance Working Paper, accessed 17 January 2022. No. 746/2021. doi:10.2139/ssrn.3720919.

Figure 2.5: SPACDex Market Cap and Equal Weighted Return

SPACDex Market Cap and Equal Weighted Return. Source: SPACInsider (n.d. (b)) *SPAC Statistics*, SPACInsider, accessed 3 January 2022. https://spacinsider.com/stats/

*The return tracker for trading SPACs. Represents every tradeable SPAC, along with rights and warrants included in the total return. Comprised of SPACs that have yet to close their combination.

The average one-year post-merger return, per Figure 2.4, demonstrates how SPACs have historically underperformed the small-cap Russell 2000 Index one year beyond their merger date. The returns examined over a decade by Klausner et al. (2022) show a peak in 2014, but for the decade overall the post-merger return is in the negative double digits and does not drop below negative -10% at all. The SPACDex in Figure 2.5 represents a market cap weighted return and equal weighted return to compare with the S&P 500. The initial cost basis is $10/unit, which is what a retail investor would pay for the unit at IPO. According to SPACInsider (n.d. (b)) the market cap weighted return includes an adjustment for free float, and all warrants and rights are adjusted for their size. Once a company emerges from the de-SPAC process and closes its deal, it is removed from the index. The SPACDex has a peak in February 2021 and highlights that

if SPACs continue to see interest from retail investors during the COVID-19 pandemic, it is conceivable that the performance of SPACs will continue to outpace the broader market (see Figure 2.5); however, this figure compares pre-merger returns to the S&P 500. Interestingly, SPACInsider (n.d. (b)) reported that there are so few SPACs that are worth less than $10/unit when including rights and warrants—a risk reducing trait—that the broader market is not reflected by this data. This research indicates that retail investors were attracted to the SPAC surge due to its pre-merger return hype versus the S&P but without knowing SPACs' hidden dangers in one-year post-merger returns. This represents another example of the naivety of retail investors regarding SPACs.

SPACs: Is the Bubble About to Burst

Good investors learn from history. During major crises, investors who protect wealth and exploit opportunities must also anticipate the consequences of said actions. Investors often work with insufficient or even poor data. The dot-com bubble produced a dreadful outcome for stock markets and investors. Additionally, it triggered unethical and manipulative practices that stained Wall Street and financial professionals for years. By 2020 and 2021, the long-dormant SPAC triggered a comparable dynamic in terms of unethical and devious practices and unjustified speculation detached from any fundamental analysis (Naumovska, 2021). Academic findings supporting that a SPAC bubble is about to burst are extremely scarce. However, reputable sources of information such as the *Wall Street Journal, Financial Times*, MarketWatch, CFA Institute, and so on have all questioned whether, given SPACs' pandemic surge, SPAC IPOs have been transparent about risks and returns and the impact on retail investors. These sources are more professional speculations- rather than research-based, but all discuss the topic of a bubble burst. February 2021 was the peak of SPAC deal flow, and the *Harvard Business Review* coincidentally published a study by Ivana Naumovska titled "The SPAC Bubble

is About to Burst." According to Naumovska (2021), SPACs are a form of reverse merger, these mergers have been often criticized and have had similar waves of investor interest as the SPAC. Naumovska (2021) identifies what drove the boom and bust of reverse mergers as lessons to draw from to comprehend SPAC life cycle and practices. Overall, Naumovska (2021) offers an institutionally and sociologically informed explanation of the bubble dynamics of controversial practices like SPACs. Financial and economic factors are what traditionally result in a bubble burst, but the present research and Naumovska's (2021) findings add that such bubbles can be related to institutionally driven dynamics; for example, the popularity of SPACs, like reverse mergers led to their downfall, SPACs may follow the same pattern.

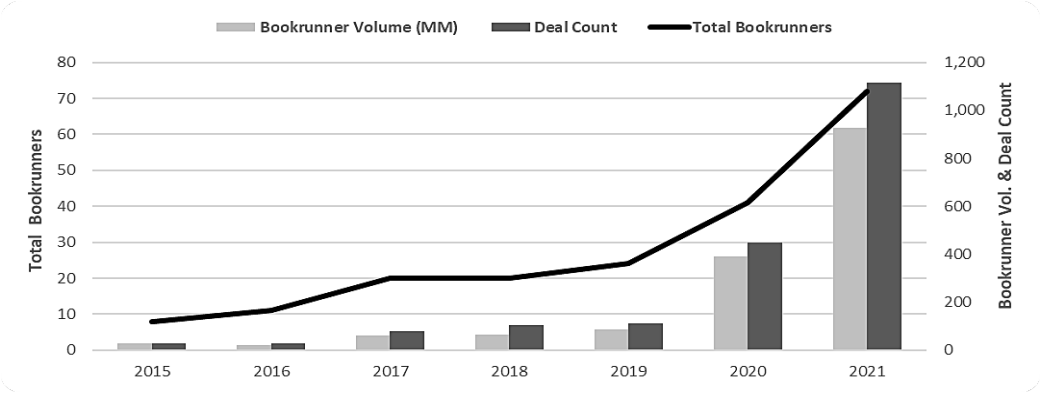
This study relied on two openly available surveys that collected data on retail investors, their knowledge of SPACs, and their investment behavior. Like Naumovska (2021), this research highlighted that the high popularity of SPACs initially generated artificial and further adoption. However, as the number of SPACs have grown, retail investors in 2022 and beyond may become more skeptical. Naumovska (2021) contends that if fast production of controversial investments afflicted by inadequate quality disclosures, big media hype, and regulatory interest sound familiar, it is because similar dynamics have re-emerged in the SPAC surge. Red flags have been raised throughout the surge from the media, the SEC, and even in research, but retail investors could not resist. SPACs are therefore likely to be the next bubble to burst as research on post-merger returns and hidden dangers suggests that the SPAC structure may lead to a lack of investor confidence in the IPO market as a whole and among emerging or high-growth companies. The SPAC IPO structure has allowed Wall Street to extract large fees, as evidenced in Table 2.1 and Figure 2.6, and SPAC structure—which mitigates deal risk—

results in mergers (deSPAC) that are completely unfit for retail investors and the markets at large. In 2020 and 2021, combined bookrunner volume was over $1.3 billion (about $4 per person in the US), and the total number of bookrunners represented 75% and 41% increases compared to 2020 and 2019, respectively. The bulge bracket banks of Goldman Sachs and Citigroup were the largest bookrunners during the pandemic.

Table 2.1: SPAC Total Bookrunners, Deal Count and Bookrunner Volume

Year	Total Bookrunners	Deal Count	Bookrunner Volume (MM)
2015	8	27	$27
2016	11	28	$20
2017	20	79	$62
2018	20	103	$63
2019	24	111	$86
2020	41	449	$391
2021	72	1,114	$927
Total	196	1,911	$1,576

Figure 2.6: SPAC Total Bookrunners, Deal Count and Bookrunner Volume



SPAC Total Bookrunners, Deal Count, and Bookrunner Volume. Source: SPAC Research (n.d. (a)) *Underwriter League*, SPAC Research, accessed 23 January 2022. https://www.spacresearch.com/underwriter

Hence, retail investors stand to suffer losses, especially as fee-motivated bookrunners push deals and overvalued markets enter correction territory due to high inflation, insider selling, and interest rates that are set to rise in 2022. SPACs in 2020 and 2021 had a focus on technology and emerging growth targets, which are sensitive to rising rates because these structures are highly leveraged with debt, and higher rates equate to higher costs that hinder growth and lower the value of future cash flows. The COVID-19 pandemic has precipitated a period of significant volatility, and interest rate moves will place significant pressure on deSPAC valuations in 2022 and 2023, supporting the hypothesis of a bubble burst.

2.2 Theoretical Framework

The theoretical framework is an expansion of the literature review, which highlighted the gaps and shortcomings of past and present research on SPACs. This theoretical framework details how this research addresses the gaps regarding SPACs' hidden dangers, the impact of the lack of regulations on retail investors, and the SPAC bubble. The framework addresses how and why existing theories have been adapted and adopted to the context of this study.

SPACs: The Hidden Dangers Beyond Pros and Cons

Klausner et al. (2022) published "A Sober Look at SPACs," which highlighted the historical lack of transparency around quantitative data on SPACs, particularly on post-merger (deSPAC) returns, and argued that this has left retail investors blind and subject to hidden dangers. Klausner, Ohlrogge, and Ruan's (2022) U.S.-based research has garnered a huge amount attention, especially given the U.S. markets "V-shaped" recovery and major indexes (Dow Jones, S&P 500, and NASDAQ) surpassing all-time records in 2021. Klausner, Ohlrogge, and Ruan's (2022) findings, including poor post-merger returns for retail investors, present a theory of the "promote" incentive wherein SPAC

sponsors are given private warrants or founder shares that can be as much as 20% of the post-merger company. This research has contextualized this theory by using the quantitative data in Table 2.1 and Figure 2.6, which highlights SPAC total bookrunners, deal counts, and bookrunner volume. This data is an extension of the promote incentive but takes the perspective of fees vs warrants.

According to Newman and Trautman (2021), the *Wall Street Journal* reported that SPACs generate significant interest because they produce large paydays for sponsors, making it easy for startups in high-growth industries to capitalize on a frothy run-up in the markets, and offer retail investors a path to potentially high-returns stock. Newman and Trautman (2021) discuss the theory of the SPAC and its less restrictive process as compared to traditional IPOs. The SPAC became the bespoke investment vehicle to raise capital by limiting volatility exposure due to the pandemic. However, retail investors who invested in SPACs late into the pandemic stand to realize big losses (Newman and Trautman, 2021), but how is the retail investor to know when is too late to invest, and what do they know about selecting a target firm for the SPAC IPO? This research attempts to analyze these questions to understand retail investors' knowledge of SPACs by utilizing two available surveys from SPACInsider and The Motley Fool.

This research and earlier theories point to the hidden dangers of fees, warrants, and dilution, which retail investors do not grasp. Moreover, even if they exit pre-merger, they will have bought secondary market post-IPO shares without warrants, will make far less, and will lose money to sophisticated institutional investors.

SPACs: Regulatory Changes and Protection

Existing research on SPACs has discussed their incentive nature and sponsors as well as conflicts of interest, fiduciary responsibility, and lack of transparency. The present study has built upon these theories by showing that IPO bookrunners are

downside-adverse, while SPAC sponsors are less downside-adverse and more concentrated on upside metrics to increase their own value, as evidenced in Table 2.1 and Figure 2.6. Research on SPACs highlights the need to alleviate potential agency issues due to founder "promote" incentive and the Private Securities Litigation Reform Act, which modified SPAC structure. This research only moderately concurs with the PLRA modifications of the SPAC structure as regulations around reporting, disclosures, and longer-term accountability of SPAC sponsors emerged as the more critical regulatory issues in the literature review.

The SEC is aware of several liability rules relevant to deSPACs, but the application of the safe harbor provision is uncertain at best. Safe harbor protects SPACs regarding projections or forward-looking statements. Past research has argued that such projections are protected, and what the issue regulators need to address is whether protection should be opened to include proxy statements like traditional IPOs. The latter is a debate that has not been researched much and is a key area that this research highlights. Regulatory protection for retail investors has shortcomings around U.S. state blue sky laws. This research analyzes blue sky laws in terms of how these laws may apply to fiduciary duties (i.e., disclosures, proxy statements, conflicts of interest) and not procedural steps in SPACs and deSPAC transactions. This is discussed in depth in the literature review to highlight how these laws in addition to federal laws (i.e., SEC) can protect retail investors. Additional protection is offered through self-regulated organizations (SROs) such as FINRA and PCAOB. Blue sky reforms act as a layer of oversight. For example, the Sarbanes Oxley Act protects investors from deceptive accounting and financial practices at publicly traded companies. Moreover, blue sky reforms provide oversight preventing SPAC disclosures and proxy statements from misleading investors and having bias, which regulators have cited as concerns.

SPACs: Boom to Bust

As evidenced in Figure 1.1 and Table 1.1, the explosion of SPAC issuances begs the question of whether a bubble is present. SPACs have emerged as a solution to private companies looking to go public. Moreover, SPACs have become a disruptor, and while bad deals will be an outcome of the pandemic surge, the SPAC phenomenon is a testament to the depth and liquidity of U.S. capital markets. Naumovska (2021) views reverse merger scandals in the 1980s and 1990s and their surge in the mid-2000s followed by a bust as a lesson to be learned for SPACs. The theory of a SPAC bubble combined with the survey data in the present research offers an explanation of the boom to bust (bubble) dynamics comparable to Naumovska (2021). Furthermore, Figure 2.1, which depicts SPAC expirations from 2022 to 2023, presents support for a SPAC bubble, especially if high-growth sectors and U.S. stock indexes enter correction territory, (defined as a drop of 10% or more) in 2022 and 2023. If SPAC transactions come to a pause or return to normal levels, there may be many retail investors holding losses.

2.3 Theory of Reasoned Action

Douglas (1977) reviewed *Belief, attitude, intention, and behavior: An introduction to theory and research,* by Fishbein and Ajzen where they examined attitudes, behaviors, and patterns and their causes and effects, known as the theory of reasoned action. Planned behavior theory is also used, which is more of an extension according to Fishbein and Ajzen (1977). Therefore, this research will examine the factors affecting retail investors' perspectives on SPACs and the relationship between their attitudes and behavioral intentions, this research framework (using aspects of both reasoned theory action and planned behavior theory) is based on existing literature, quantitative data on SPACs' hidden dangers, and two surveys on retail investors' knowledge of and behavior towards SPACs. This research attempts to trace retail

investors' behavioral intent and willingness to invest in SPACs during the pandemic. Prior research suggests that retail investors flocked to SPACs due to the ease of accessing a private company going public versus the traditional IPO; the lack of regulation to protect them from investing; and their ignorance of the hidden dangers around dilution, redemptions, and post-merger returns.

2.4 Summary

The intent of this research is to improve retail investor knowledge of SPACs' distinct hidden dangers, regulatory shortfalls, and potential for a bubble. Such knowledge is significant because retail investors have been subjected to poor SPAC IPO returns, complex regulatory reforms over the decades, lack of transparency, and a SPAC bubble that could leave investors holding losses. More research is needed on regulatory reform at all levels, but state blue sky laws in particular warrant further investigation into SPAC litigation. It is also important to conduct further research on SPACs' pandemic deal flow, which hit 861 deals for 2020 and 2021, to determine how the high redemption rates, projected interest rate hikes in 2022 by the U.S. Federal Reserve, inflation pressure, the Russia-Ukraine War, and the after-effects of COVID-19 on global economies will impact unsophisticated retail investors.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter describes the procedures and methods used and sample population regarding the openly available surveys utilized. Furthermore, the theoretical structure, instrumentation, and data collection are represented. Lastly, the chapter examines the data analysis, collection, and limitations of this research.

3.2 Overview of the Research Problem

This research examines the problem of SPACs' popularity overshadowing its hidden dangers and the need for more oversight and scrutiny from investors, regulators, and SPAC sponsors. This research identifies an information gap and the problematic nature of SPACs that have resulted in a potential bubble that could burst. Various layers of protection in the form of legislation and regulation are needed to call out hidden dangers and protect retail investors.

3.3 Operationalization of Theoretical Constructs

Operationalization means turning SPACs' hidden dangers, regulatory implications, and the looming bubble into measurable observations. Bhandari (2022) states that operationalization allows research to methodically compile data on methods and phenomena that are not clearly observable. This research examines the information gap and problematic nature of SPACs on retail investors and a potential bubble that could burst. Based on the literature review and quantitative data (metrics and surveys), this research examined the variables of SPAC dangers and retail investor knowledge of SPACs. In essence, the data, results, and discussion provide an alternative hypothesis that SPACs' hidden dangers to retail investors and their poor understanding of SPACs is related to poor SPAC performance. This research has developed a practical approach for

measurement. To measure SPACs' hidden dangers and links to poor performance, this research focused on SPAC expirations, redemptions, and post-merger return quantitative data. To measure retail investors' knowledge of SPACs, this research utilized two openly available surveys that asked retail investors aged 18 years and older about how they invest, what they invest in, and how much they know about SPACs. Table 3.1 highlights the SPACInsider and Motley Fool survey concepts of hidden dangers and retail investor knowledge of SPACs in relation to the researcher's assigned quantitative data variables and indicators (measurements), all of which were analyzed during the COVID-19 pandemic for the period from March 2020 to October 2021.

Table 3.1: Variable and Indicator

Concept	**Variable**	**Indicator**
SPAC Hidden Danger	Expirations	Total number of expirations Feb 2022 to May 2023
SPAC Hidden Danger	Redemptions	Total number of redemptions in North America in 2021
SPAC Hidden Danger	Post-Merger Returns	Average 1-yr post merger returns vs. Russell 2000
Retail Investor SPAC Knowledge	Expertise / Regulation	Level of SPAC investor: novice, intermediate, expert
Retail Investor SPAC Knowledge	Future Investment	Plan to continue to invest in SPACs in future: Yes or No
Retail Investor SPAC Knowledge	Celebrity Influence	Do celebrities influence your SPAC investment: Yes or No
Retail Investor SPAC Knowledge	Investing Ability	Investing ability vs Institutional investors: Below, Equal, Above
Retail Investor SPAC Knowledge	Timing	When do you invest in a SPAC: Rarely, Sometimes, Usually, Always
Retail Investor SPAC Knowledge	Risk vs Reward	Discount/Premium factor: rank by choice (i.e. SPAC Team, Industry)
Retail Investor SPAC Knowledge	Comfort	EGCs in SPACs. Comfort investing: uncomfortable to very comfortable
Retail Investor SPAC Knowledge	IPO vs SPAC	Invest in later stage IPO (uber/airbnb) of EGC SPAC - % indicator
Retail Investor SPAC Knowledge	Regulation	Should retail investors be allowed to invest in SPACs: Yes or No
Retail Investor SPAC Knowledge	Investments Held	Nominal scale by % showing retail investors aged 18 – 40 who held or owned SPACs
Retail Investor SPAC Knowledge	Sectors Invested In / Regulation	Nominal scale by % showing which sectors retail investors aged 18 – 40 invested in
Retail Investor SPAC Knowledge	Factor to Buy SPACs	Ordinal scale by importance (i.e., 1 to 9) ranking what determines whether retail investors buy or not buy a SPAC

3.4 Research Purpose and Questions

The purpose of this research is to highlight the hidden dangers of SPACs by utilizing the theoretical constructs of the reviewed literature, two openly available surveys on SPACs (by SPACInsider and The Motley Fool), SPAC data and metrics, structure, retail investor behavior, and how SPAC popularity has overshadowed its dangers. The research objective is to explain how SPACs are a bubble waiting to burst and to advocate for the need for more oversight by regulators and better disclosure from SPAC sponsors and bookrunners.

This research addresses the following research questions:

(1) *What are the hidden dangers of SPACs impacting retail investors?*

(2) *What can regulators do to protect retail investors from SPACs' hidden dangers?*

(3) *Do the identified dangers and regulations indicate that SPACs are the next bubble to burst?*

The research questions address the information compiled in the SPACInsider and Motley Fool surveys and the SPAC quantitative metrics. The surveys were answered by members aged 18 years and older and also addressed a subgroup of Generation Z and millennial (18–40 years old) retail investors regarding what type of investments they hold, which sectors they invest in, and what factors they consider when investing. Moreover, the surveys specifically targeted SPACs to protect investors and better understand how retail investors think about the SPAC asset class. The research questions and purpose also address retail investors' observations, regulatory implications of the theoretical constructs in the literature review and quantitative data, and the near-term threat of a SPAC bubble.

3.5 Research Design

This research examined the hidden dangers and regulatory implications of SPACs specific to retail investors through a primary quantitative approach by consulting two

openly available surveys. The surveys used nominal, ordinal scale, and closed-ended questions to gain insight into retail investors' knowledge of SPACs during the COVID-19 pandemic. The surveys were cross-sectional in design and collected information from respondents at a single point in time during the pandemic. According to Cottrell (2016), the cross-sectional design is common among surveys, where a sample (often random) of individuals are asked a string of questions. The surveys used in this research targeted random retail investors and asked retail investors a series of questions about their investments and investment knowledge to determine if they were SPAC investors and their level of SPAC knowledge. Cottrell (2016) notes limitations to cross-sectional designs compared to traditional experimental designs, such as the lack of before-and-after comparisons. The surveys in this research used Pollfish (The Motley Fool Survey) a U.S.-based online survey platform, and Twitter's FinTwit (SPACInsider), a U.S.-based online microblogging and social networking platform. FinTwit is a highly informational sub-layer of Twitter for well-informed individuals, and it is a strong method of obtaining free insights from some of the most respected finance professionals. According to Suskie (1996), surveys are an effective way of collecting data without the risks of reliability that may occur with other collection methods. Personal interviews and observations would not have given the authenticity that the anonymous surveys permitted. Additionally, interviews, observations, or even focus groups may increase the possibility for bias and variation in the administration of the surveys.

A mixed-method approach was taken to examine regulatory oversight and the looming SPAC bubble. A qualitative approach was used to explore the nature of SPAC regulation and the bubble due to sparse existing research. The quantitative research design utilized data on SPAC expirations, redemptions and post-merger (deSPAC) returns. These datasets and the timeframe of the surveys were specifically selected

because Suskie (1996) argues that a survey provides generalizability and permits the researcher to formulate assessments (similar, different, or relational) among the respondents.

3.6 Population and Sample

According to Taherdoost (2017), the research design should clearly define who or what the research will focus on and provide a process for selecting research participants. To generalize from a population sample, Taherdoost (2017) explains that samples must be of sufficient size to avoid errors and biases. Taherdoost (2017) notes that it is not the proportionality of the sampled research population that is significant, but the total sample size compared to the available population and the aims of the researcher.

The surveys were exclusive to retail investors and the SPAC investment product. Non-probability convenience sampling was the primary research method. According to McCombes (2022), this sampling technique is mostly used in exploratory and mixed-methods research as the aim is not to test a hypothesis about a broad population but to create preliminary knowledge of an under-researched topic and population. Convenience sampling made the most sense for this research because these survey datasets were the most accessible to the researcher as well as cost-effective and efficient. However, McCombes (2022) warns that the sample may not be representative of the population and thus may not yield generalizable results. These surveys examined retail investors' knowledge of SPACs, who represent around 15% of all SPAC investment holders.

The population and sample size have a 95% confidence level and a margin of error of 1 and thus meet Gill and Johnson's (2010) measures for accuracy. Table 3.2 and Table 3.3 reflect the number of respondents versus the total population. Response rates for online surveys are very rarely 100% according to Taherdoost (2017). Nonetheless, the samples recorded over 50% of the population. Table 3.4 presents basic descriptive

statistics and is the researcher's attempt to describe the mean, standard deviation, and coefficient of variation for selected survey variables (see the Appendices for full lists). Based on the standard deviation and coefficient of variation for the variables listed, such as expertise and investing ability, Table 3.4 may indicate that these variables correlate to higher risk-taking among retail investors for SPACs. These tables highlight the validity of the approach of the survey population and sample. The tables are presented in the research to help other researchers see the quantitative data showcases adequate samples.

Table 3.2: Survey Population and Sample

Type	**Population**	**Sample (# of respondents)**	**Sample Demographic**
Motley Fool	1,400	1,148 (82% of population)	Gen Z, millennial Retail Investors (aged 18 to 40)
SPACInsider	1,200	936 (78% of population)	Finance Professionals & Investors (aged 18 & Over)

Table 3.3: Sample Size Accuracy

	Variance of the Population P = 50%		
	Confidence Level = 95% | Margin of Error		
Population Size	5	3	1
50	44	48	50
75	63	70	74
100	79	91	99
150	108	132	148
200	132	168	196
250	151	203	244
300	168	234	291
400	196	297	384
500	217	340	475
600	234	384	565
700	248	423	652
800	260	457	738
1,000	278	516	906
1,500	306	624	1,297
2,000	322	696	1,655
3,000	341	787	2,286
5,000	357	879	3,288
10,000	370	964	4,899

Table 3.4: Basic Descriptive Statistics for Selected Survey Variables

	SPACResearch Survey				Motley Fool Survey				
	x	Mean	x-Mean	Square	x	Mean	x-Mean	Square
Expertise					**SPACs Held**				
Some Experience	412	234	178	31,627	Gen Z	149	155	(6)	33
Significant Experience	309	234	75	5,607	Millennials	161	155	6	33
Expert	131	234	(103)	10,601	*Sum of Square*				*66*
Novice	84	234	(150)	22,428	*N (Sample Size)*				*1,148*
Sum of Square				*70,263*	*VaR (Sum of Square / N)*				*0.06*
N (Sample Size)				*936*	*Std (Square Root of Variance)*				*0.24*
VaR (Sum of Square / N)				*75*	*CV (Coefficient of Variation)*				*7*
Std (Square Root of Variance)				*9*					
CV (Coefficient of Variation)				*4*					
Celebrity / Media Influence					**Sectors Invested**				
Yes - Celebrity	861	468	393	154,543	Financial	482	330	152	23,137
No -Celebrity	75	468	(393)	154,543	Information technology	459	330	129	16,680
Yes - Media	768	468	300	89,856	Marijuana	207	330	(123)	15,230
No -Media	168	468	(300)	89,856	Consumer discretionary	172	330	(158)	24,917
Sum of Square				*488,799*	*Sum of Square*				*79,964*
N (Sample Size)				*936*	*N (Sample Size)*				*1,148*
VaR (Sum of Square / N)				*522*	*VaR (Sum of Square / N)*				*70*
Std (Square Root of Variance)				*23*	*Std (Square Root of Variance)*				*8*
CV (Coefficient of Variation)				*2*	*CV (Coefficient of Variation)*				*3*
Investing Ability									
Above	103	234	(131)	17,171					
Equal	243	234	9	88					
Just Below	290	234	56	3,154					
Below	300	234	66	4,293					
Sum of Square				*24,706*					
N (Sample Size)				*936*					
VaR (Sum of Square / N)				*26*					
CV (Coefficient of Variation)				*1*					
Timing - Par Value $10									
Above	702	312	390	152,100					
At	117	312	(195)	38,025					
Below	117	312	(195)	38,025					
Sum of Square				*228,150*					
N (Sample Size)				*936*					
VaR (Sum of Square / N)				*244*					
Std (Square Root of Variance)				*4*					
CV (Coefficient of Variation)				*63*					

3.7 Participant Selection

Participant selection for the survey was anonymous, and all participants were either a frequent user, member, and/or subscriber of The Motley Fool and SPACInsider. All participant responses were logged and recorded with privacy. The Motley Fool survey was distributed to 1,400 U.S. stock investors ages 18 to 40 via Pollfish on April 19, 2021, and responses were categorized based on generation (Gen Z and millennial) and gender (male and female). However, gender data was excluded from this research and had no impact on population or sample size. SPACInsider distributed this survey to 1,200 finance professionals and investors ages 18 and over via Twitter (FinTwit) on October 6, 2021. The SPACInsider survey did not disclose if the population base was U.S.-based or global. The SPACInsider survey population was understood to be comprised of global retail investors based on the use of FinTwit and Twitter as of January 2022 had north of 206 million monetizable daily active users worldwide (Dixon, 2022).

3.8 Research Instrumentation

Instrumentation and implementation practices for the surveys used external validity methodology. Streefkerk (2022) defines external validity as when findings from a survey can be employed or universally adapted to other groups, events, or circumstances. Streefkerk (2022) notes that a common threat to external validity is sampling bias, whereby participants in a survey differ substantially from the population. This research had 82% and 78% survey response rates, respectively. However, the respondents of the Motley Fool survey were aged 18 to 40 only, whereas the SPACInsider respondents only had to be 18 or over.

The Motley Fool survey (Appendix C) consisted of four closed-ended questions, of which two were on a nominal scale, one was on an ordinal scale, and one was yes or no. The SPACInsider survey (Appendix F) consisted of 11 questions, of which five were

closed-ended (four yes or no, one later vs earlier), one open-ended, four multiple choice, and one ordinal.

Permission to use the surveys was requested by the researcher, Patrick J. Saul, Swiss School of Business and Management Doctoral Candidate (Appendix A & D). The request was forwarded to the Motley Fool and SPACInsider Media and Editorial departments. Approval to use the data from the Motley Fool survey was granted on April 19, 2022, via email (Appendix B). Approval to use the data from the SPACInsider survey was granted on April 22, 2022, via email (Appendix B).

In addition, the research instruments were utilized as covered by the Fair Use Doctrine, Section 107 of the U.S. Copyright Act, which states that the reproduction of copyrighted works may be made for "purposes such as criticism, comment, new reporting, teaching (including multiple copies for classroom use), scholarship, or research" (U.S. Copyright Office (2021). The research instruments were not used commercially or for monetary purposes and were applied solely for non-profit educational research. The work is a publicly available source, and the surveys represent only a limited portion of the whole study. Lastly, the inclusion of both surveys may be classified as a transformative use per U.S. Copyright Office (2021) as the use provides a new purpose that the original survey creators did not intend.

3.9 Data Collection Procedures

Participants in the surveys included retail investors and finance professionals all ages 18 and over and based in the United States or overseas. Participants were also categorized by generation (Gen Z and millennial) and recruited via the Motley Fool and SPACInsider by e-mail and FinTwit. All respondents' information was anonymous and confidential.

The data was collected via openly and publicly available surveys, datasets, and analytic software from Bloomberg, The Motley Fool, SPACInsider, and SPAC Research. Moreover, this research utilized data mining capabilities to extract usable data from larger sets of raw data and survey results through the use of Microsoft Excel. Basic data manipulation was performed to move data around and carry out mathematical and logic operations to compile the charts, figures, and tables. Slight modifications were made to the surveys to better align respondents' categorical data regarding SPAC understanding. Qualitative content was measured by analysis of content grouped into themes (thematic), as highlighted in Chapters 1 and 2.

The surveys were administered in April and October 2021. The period of April 2021 represents the one-year mark of the COVID-19 pandemic and when vaccines first became available in the U.S.. October 2021 marks six months after the first survey and was when U.S. stock markets experienced a V-shaped recovery. Both time periods also mark crucial points in SPAC deal flow, with Q1 and Q2 2021 being the peak and a slight drop in deal flow by Q4 2021. The datasets from Bloomberg, SPACInsider, and SPAC Research focused on SPAC expirations in 2022 to 2023 and redemptions through Q3 2021 as these are important indicators of a SPAC bubble and poor retail investor performance (deSPAC).

3.10 Data Analysis

The survey results and data were examined to understand retail investors' knowledge of the hidden dangers, regulatory implications, and looming bubble of SPAC investments.

Thematic analysis was performed on the 15 individual questions along with the datasets on SPAC expirations, redemptions, and returns. According to Braun and Clarke (2006), a researcher usually applies thematic analysis to a set of texts or data to identify

common repeated themes. This data analysis approach is flexible, and Braun and Clarke (2006) consider it a good approach to research to discover more about people's knowledge from a set of qualitative and quantitative data. This research took a deductive approach to the thematic analysis as the researcher interpreted the themes based on their existing understanding of financial services and investments. Moreover, the theoretical framework and research instrumentation provided a strong idea of what kind of themes would be present in the data. Lastly, the data was also semantic in nature and involved the researcher examining the data's explicit content rather than reading into subtext and assumptions.

3.11 Research Design Limitations

No research is without limitations. The datasets used by Bloomberg, SPACInsider, and SPAC Research were pulled from publicly available datasets that were straightforward to process and analyze. However, the surveys utilized provided several limitations. While the surveys provided anonymity and accessibility, the researcher had less control over who responded, and the researcher was only able to consult openly available surveys. Nonetheless, 82% and 78% of the total population responded, yielding an adequate sample size and the desired accuracy and a 95% confidence level with a margin of error of 1 (Gill and Johnson, 2010). Moreover, the Motley Fool survey consisted of closed-ended questions only, while the SPACInsider had 9 closed-ended questions out of 11. Closed-ended questions provide better quantitative results in the form of measurable (numeric) data that can be analyzed to find common themes. The remaining questions allowed the respondent to answer in their own terms and are limited as they might require the researcher to ask additional questions.

To safeguard the reliability and validity of the findings, the researcher was unable to consider each question in the survey as a few questions were not directly relevant to

the survey's purpose. Nevertheless, approximately 81% of the survey questions were directly related. The questions were phrased without bias, but some words may have been slightly vague. The sample size of both surveys was large enough to provide valid conclusions regarding retail investor knowledge of SPACs.

CHAPTER 4

RESULTS

4.1 Introduction

The results are presented in this chapter. According to George (2022) results provide the reader with precise information on what the research discovered and keeps the data independent from the researcher's explanation. All results will be relevant, concise, and objective. Tables, figures, and so on are used to illustrate findings without subjective interpretations. Quantitative and qualitative results are addressed in relation to the research questions. However, it is important to explain and define the following sample demographic data and terminology in Table 4.1 and Table 4.2 prior to the results.

Table 4.1: Sample Demographic Information

Demographic Data Metric	Motley Fool	SPACInsider	**Total**
Survey Population	1,400	1,200	**2,600**
Sample (Respondents)	1,148	936	**2,084**
Sample (Respondents) %	82.0%	78.0%	**80.2%**
*Variance of Population P = 50%	95% CF Level	95% CF Level	**95% CF Level**
Age Range	18 to 40	18 & Over	N/A
Generation	Gen Z, Millennial	N/A	N/A
*Gender	Male, Female	N/A	N/A
Ethnicity	N/A	N/A	N/A
Sample (Respondents) Domicile	United States	U.S. and Aboard	N/A

**Variance of Population P = 50%, Yielded 95% Confidence Interval Level according to Gill and Johnson (2010)*

**Gender excluded and not analyzed for this research*

Table 4.2: Data Terminology for Results

Term	Meaning
SPAC Expiration	Predetermined period lapses before an acquisition is completed, the SPAC is dissolved, and the IPO proceeds held in the trust account are returned to the investors.
SPAC Redemption	The opportunity to exercise a redemption right. Redemption rights relate to ordinary shares (generally not warrants). If shareholders exercise their redemption rights, the SPAC will have to repurchase the relevant shares.
deSPAC	A company merger of the SPAC, the buying entity, and a target private business
Post Merger Return	Is the net gain or loss of an investment (at deSPAC) over a specified time period, expressed as a percentage of the investment's initial cost. Determining the percentage change from the beginning of the period until the end.
Bubble	Economic bubble is a situation in which asset prices are much higher than the underlying fundamentals can reasonably justify.

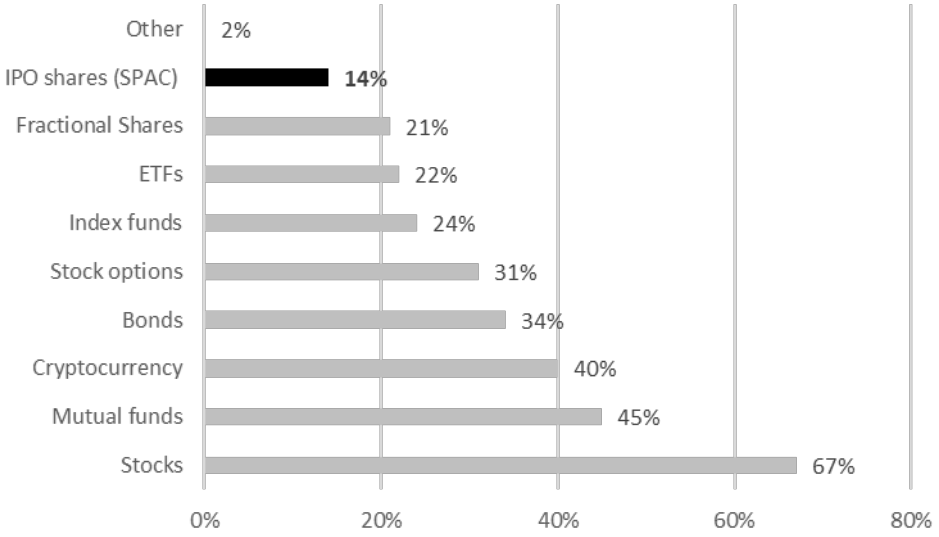
Data Terminology for Results. Source: Investopedia FinancialTerms Dictionary. (n.d.). *'Dictionary'*, Investopedia, accessed 8 September 2022. https://www.investopedia.com/financial-term-dictionary-4769738

4.2 What are the hidden dangers of SPACs for retail investors?

The main objective of the quantitative data (surveys and SPAC datasets) was to investigate the hidden dangers of SPACs to retail investors and retail investors' knowledge of SPACs. The findings below reveal the key (survey) data points by percentage. Full survey questions and results may be found in the Appendices.

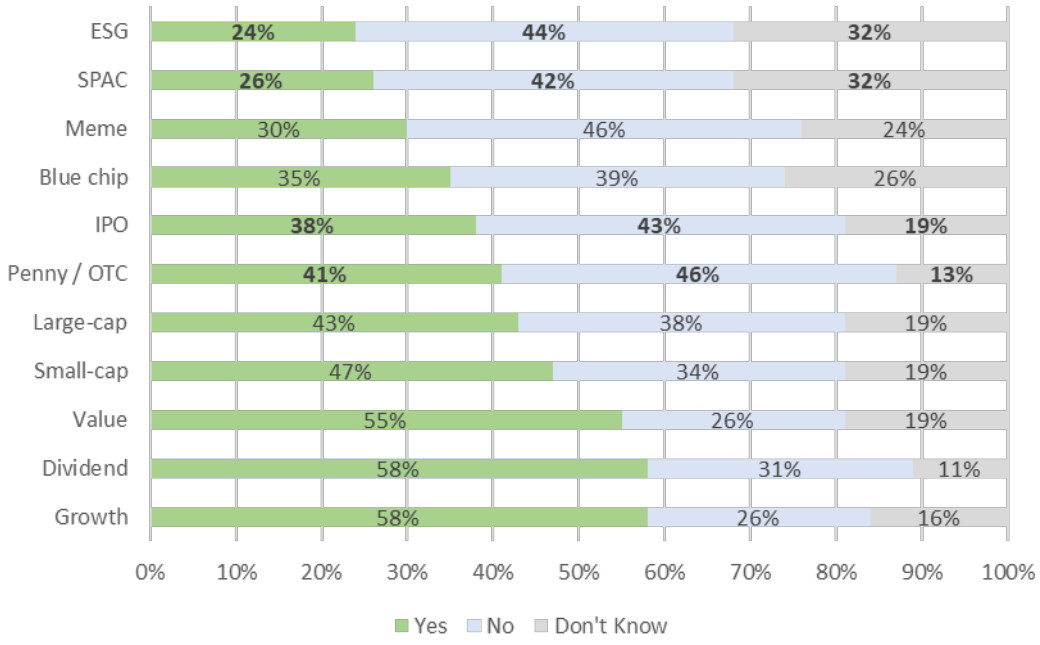
The Motley Fool key survey results are below. All data was prepared using Microsoft Excel in the form of 2-D bar charts (i.e., cluster, stacked, and 100% stacked)

Figure 4.1: Types of Investments Owned (Investors Aged 18 to 40)



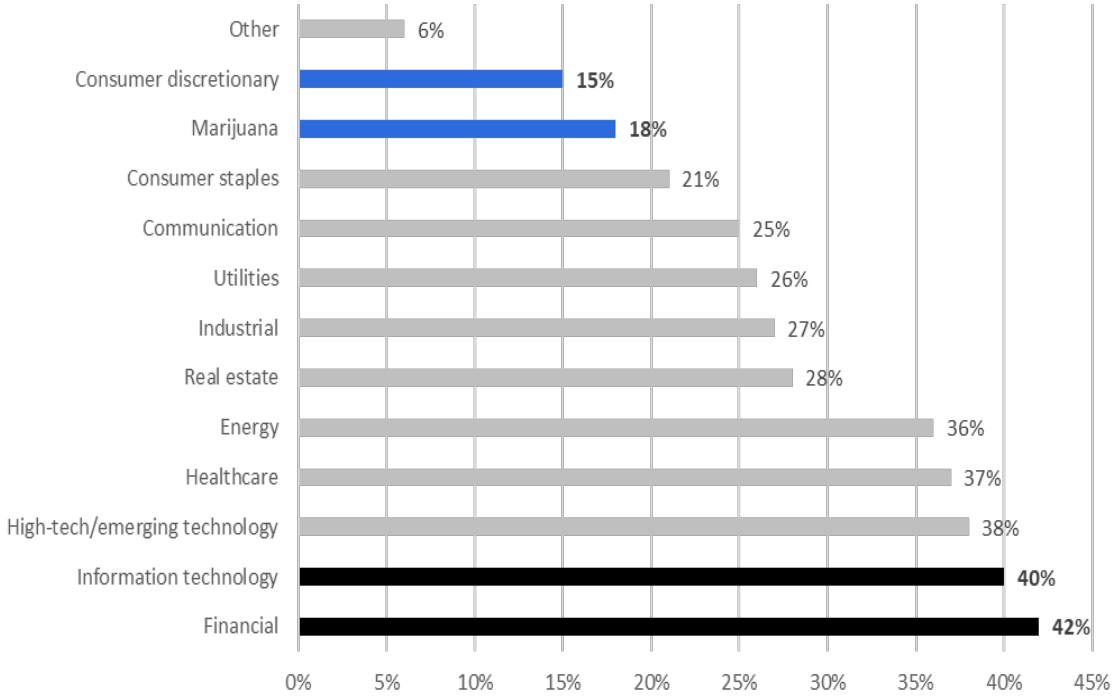
Q1: 14% (161) of total respondents (all investors aged 18 to 40) owned SPAC investments. SPAC was defined as pre-deSPAC. This result is in line with earlier findings by Klausner et al. (2022), where SPAC ownership was identified at 85% institutional investors and 13% to 15% retail investors. It is important to note that respondents may have, in error, assumed SPACs were part of stocks. Therefore, it is possible that the 67% of respondents invested in stocks may include some portion related to SPACs.

Figure 4.2: Types of Stocks Owned (Investors Aged 18 to 40)



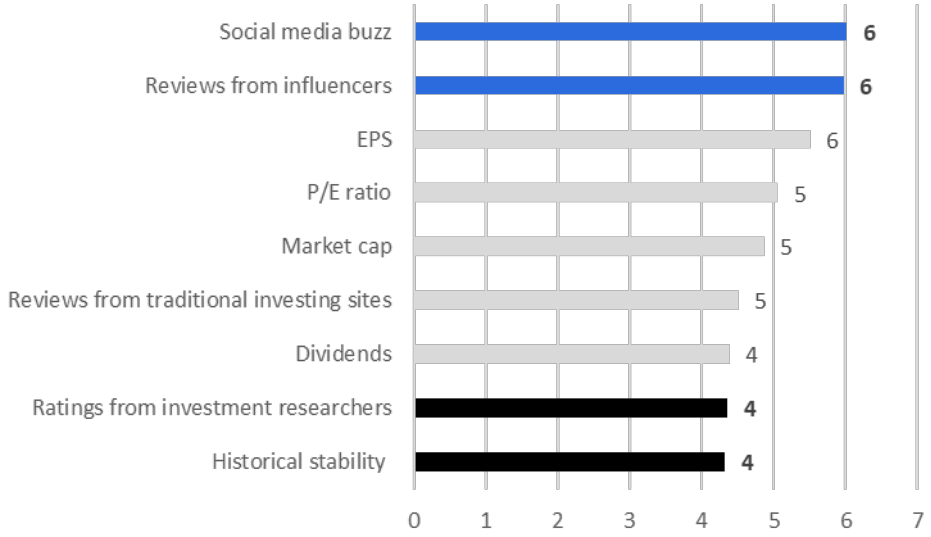
Q2: In response to the question regarding SPAC stock holdings and ownership, 26% (298) of respondents answered “Yes,” 42% (482) “No,” and 32% (367) “Don’t Know.” Stock for a SPAC is defined as deSPAC and is listed on a primary or secondary market. It is important to note that respondents may have, in error, assumed SPACs were part of the ESG and IPO stock types. Despite SPACs being listed as their own stock type, it is possible that the ESG and IPO stock percentages may have included respondents invested in SPAC stocks. The results of the “Don’t Know” category were higher than expected and reflect the injudicious nature of retail investors, adding to the hidden dangers of SPACs.

Figure 4.3: Sectors in Which Stocks Are Owned (Investors Aged 18 to 40)



Q3: The financial (42%, 482) and information technology (40%, 459) sectors were the top two sectors in which retail investors held SPAC investments and stocks. The marijuana (cannabis; 18%, 206) and consumer discretionary (15%,172) sectors were the bottom two sectors in which retail investors held SPAC investments and stocks. The information technology sector, like SPACs, also experienced unprecedented growth as businesses at the biggest technology firms remained stable during the COVID-19 pandemic and even thrived (Wakabayashi et al., 2021). These results correlate with those of the prior questions but were expected given the amount of hype around SPACs in the media and younger investors using the FinTech brokerage platform Robinhood.

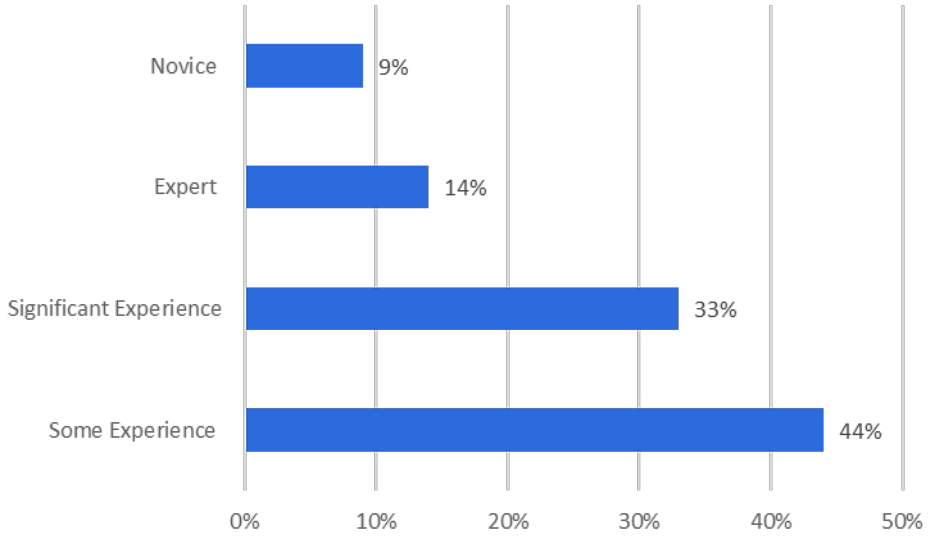
Figure 4.4: Rank by Importance for Buying a Stock (Investors Aged 18 to 40)



Q4: Respondents identified researcher ratings and dividends as the two most important factors for buying a stock, ranking both 4 out of 9 (1 = most important, 9 = least important). Respondents identified the two least important factors as reviews from influencers and social media buzz, ranking both 6 out of 9. These results contradicted previous results in which 32% (367) of respondents did not know if they owned a SPAC, and—combined with the opaque structure of SPACs—the results represent a significant hidden danger. Respondents cared most about research ratings and stability (historically), but a sizeable number did not know if they owned a SPAC and still ranked social media and influencer reviews at a 6 (slightly over the midpoint for importance level).

The SPACInsider key survey results are below. All data was prepared by the researcher using Microsoft Excel in the form of 2-D bar charts (i.e., cluster, stacked, and 100% stacked).

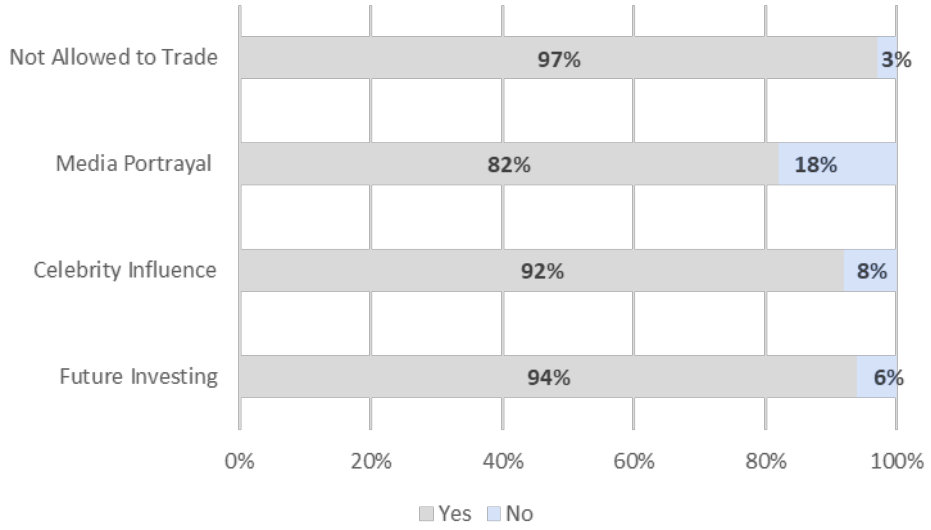
Figure 4.5: SPAC Investor Level of Knowledge (Investors Aged 18 & Over)



A total of 44% (412) and 33% (309) of respondents considered themselves to have "Some" or "Significant" expertise as a SPAC investor, respectively, whereas 14% (161) reported being an "Expert" and 9% (103) a "Novice." These results imply that most respondents consider themselves to have substantial experience investing in SPACs. A limitation of this question is that is it self-determined (i.e. the definition of "experience level" was not defined in the survey, i.e., defined by trading experience, business acumen) and may present a hidden danger of SPACs as the largest group of respondents indicates they have "Some Experience". With respondents at 44% for "Some Experience" indicates that retail investors may define experience differently than professional or institutional investors. Another limitation of this question is that experience was not

defined based on years of trading experience, years of financial knowledge, finance education, and so on.

Figure 4.6: SPAC Indicators (Investors Aged 18 & Over)



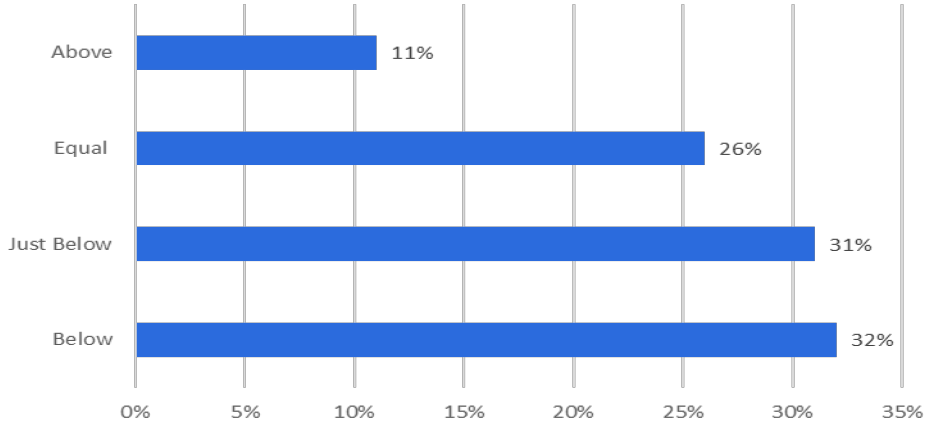
Four questions in the survey were closed-ended (yes or no) and addressed the following indicators (Figure 4.6):

- Plan to continue to invest in SPACs in the future
    - 94% (880) of respondents said they would continue to invest in SPACs in the future, while 6% (56) said "No." This reflects the hidden dangers of SPACs as the overwhelming majority wanted to invest in SPACs despite a negative outlook based on expiration and redemption data and low deSPAC returns.
- Celebrities on SPAC teams influence investors to buy a SPAC
    - 92% (861) of respondents said that celebrities do not influence their investments, while 8% (75) said "Yes." These results did not match reality

and earlier research by Naumovska (2021) which measured a bubble by headlines and celebrities involved in influencing SPAC retail investors.

- Media portrays retail investors as not smart enough to invest in SPACs
    - 82% (768) of respondents said the media unfairly portrays retail investors as not smart enough to invest in SPACs, while 18% (168) disagreed. A limitation of this question is that it is self-determined, but it identifies a hidden danger as it indicates that retail investors may invest to counter their portrayal in the media.
- Retail investors should NOT be allowed to invest in SPACs
    - 97% (908) of respondents answered that retail investors should not be allowed to invest in SPACs, while 3% (28) of respondents said "Yes." This indicates that retail investors do not want to be excluded from SPACs despite a predicted downfall in SPACs based on SPAC expirations and redemptions in late 2022 and the first half of 2023.

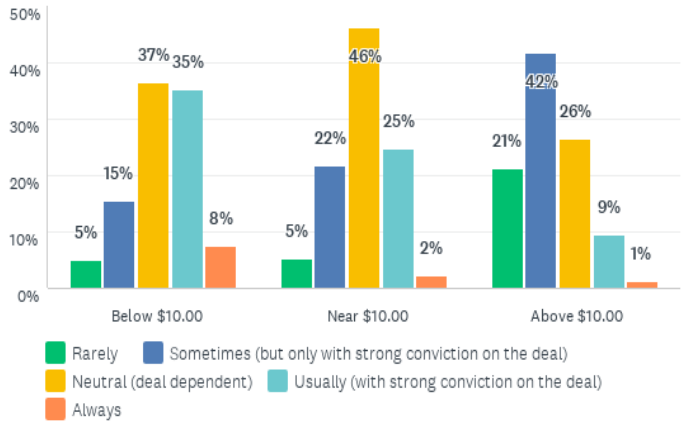
Figure 4.7: Investing Ability: Retail vs. Institutional (Investors Aged 18 & Over)



63% (590) of respondents indicated that their investing ability was below that of institutional investors, while 26% (243) said it was equal and 11% (103) above. This

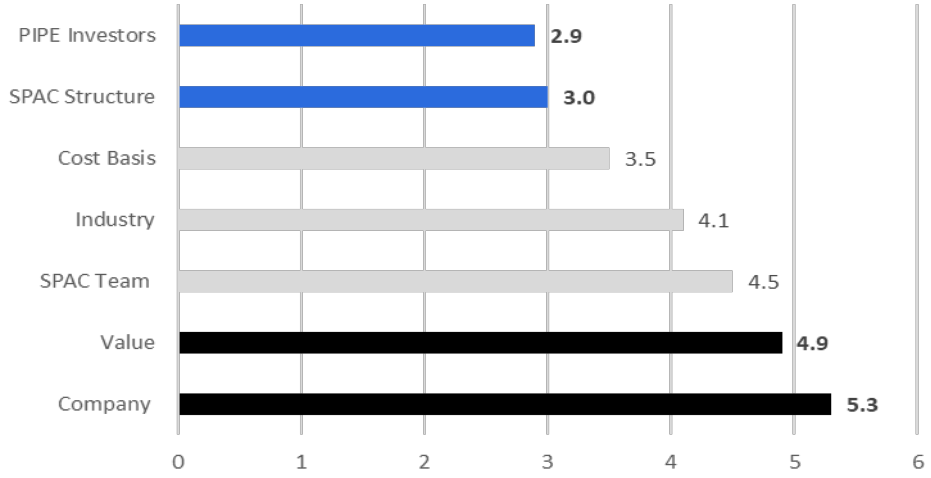
indicates that 37% (346) of respondents consider themselves to be equal or better in their investing abilities than institutional investors. Thus, when the researcher combines the results of above, equal and just below (at par) then 68%, (636) of retail investors consider themselves on par or better than institutional investor skill level.

Figure 4.8: When to Invest in a SPAC (Investors Aged 18 & Over)



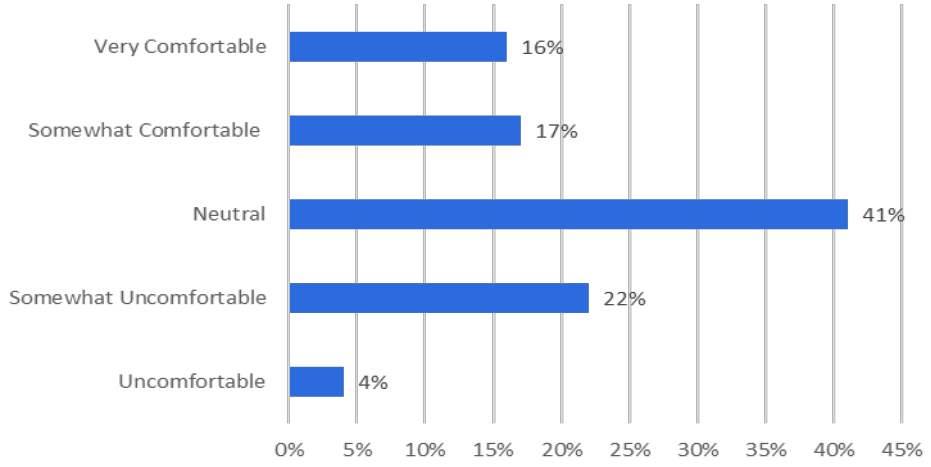
Only 4% (37) of respondents always invest in SPACs at, above, or below $10 per share. Of the remaining respondents, 36% (337) felt neutral, 34% (319) responded "rarely/usually," and 26% (244) "sometimes." This question suggests a significant hidden danger of SPACs in terms of at what price to invest and when.

Figure 4.9: Discount/Premium to Risk/Reward Indicators



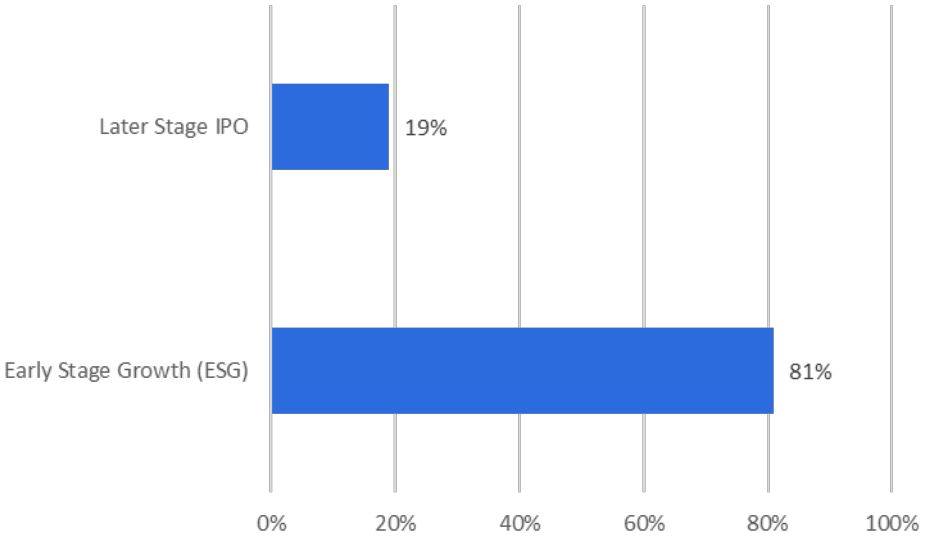
On a scale from 0 to 6 (0 = least important, 6 = most important), respondents indicated that company, valuation, and SPAC team were the top three indicators for risk/reward to discount/premium. The bottom two indicators were SPAC structure and PIPE investors.

Figure 4.10: Comfort Level with ESG SPACs (Investors Aged 18 & Over)



A total of 33% (309) of respondents were in the range of "Very to Somewhat Comfortable," 26% (243) "Somewhat Uncomfortable," and 41% (384) "Neutral" regarding SPACs becoming a deSPAC with an early-stage-growth (ESG) company. This underlines the need for protection of retail investors, especially from ESGs where risk is very high. Combining the "Somewhat," "Very Comfortable," and "Neutral" responses, 74% (693) or approximately 3 out of 4 retail investors are comfortable with investing in ESGs.

Figure 4.11: Later Stage IPO vs. ESG (Investors Aged 18 & Over)



A total of 81% (758) of respondents said they would rather invest in an ESG via a SPAC, while 19% (178) preferred to invest in a later-stage IPO (i.e., Uber). Hence, 81% of respondents prefer a SPAC IPO to a traditional IPO. The danger here is that retail investors prefer to move away from conventional, regulated IPOs to non-conventional, opaque SPACs.

4.3 What can regulators do to protect retail investors from SPACs' hidden dangers?

This research examined the information gap in the regulatory history of SPACs. These findings are qualitative in nature and based on thematic analysis techniques used from the quantitative data to identify any patterns or repeated concepts. Table 3.1 identifies three questions surrounding SPAC regulations. Almost 50% (574) of respondents saw themselves as having significant expertise in SPACs at the same level or above that of institutional investors who, according to Klausner et al. (2022), own approximately 85% to 87% of all outstanding SPAC shares. Moreover, 97% (908) of respondents believed they should be allowed to invest in SPACs despite their speculative nature and lack of transparency. Lastly, 81% (758) of respondents said they prefer to invest in ESG SPACs versus later-stage IPOs such as Uber, AirBnB, Coinbase, or Robinhood. Hence, retail investors have a tendency to choose high risk/high reward and speculative investments.

The literature review revealed a gap regarding regulators' oversight of SPACs and indicated that more needs to be done via state blue sky laws and by the SEC. As evidenced in Table 2.1 and Figure 2.6, a concern emerged regarding the amount of sponsor compensation and other fees associated with SPAC and deSPAC combination deal flow and its dilutive effects on shareholders. Moreover, Figure 2.4 identified poor returns for investors in companies following deSPAC transactions. In combination with the results on SPAC expirations and redemptions, it becomes clear that the SEC needs to propose new rules for SPACs to address the effects of the COVID-19 pandemic and retail investors. Furthermore, the finding that retail investors would rather invest in ESGs versus later-stage and traditional IPOs indicates that regulators need to ensure that retail

investors investing in SPACs receive protections like those for investing in traditional IPOs. Lastly, the quantitative and qualitative data here recommend that regulators introduce rules that seek to address retail investor protection by mandates on but not limited to additional disclosures/transparencies to retail investors, standards for marketing practices on liability for protections (i.e., monitoring bookrunner volumes), and gatekeeper or issuer obligations.

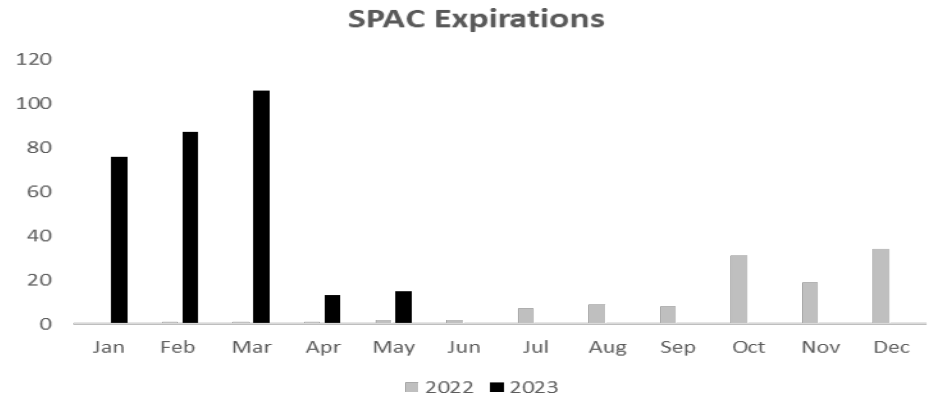
4.4 Do the identified dangers and regulations indicate SPACs are the next bubble to burst?

The quantitative results below indicate a potential SPAC bubble. This finding coincides with Naumovska (2021) but went a step further by exploring key SPAC bubble performance indicators including expirations, redemptions and post-merger returns.

Table 4.3: U.S. SPAC Expirations January 2022 thru May 2023

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
FY 2022	0	1	1	1	2	2	7	9	8	31	19	34	**115**
FY 2023	76	87	106	13	15	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**297**

Figure 4.12: U.S. SPAC Expirations - January 2022 thru May 2023

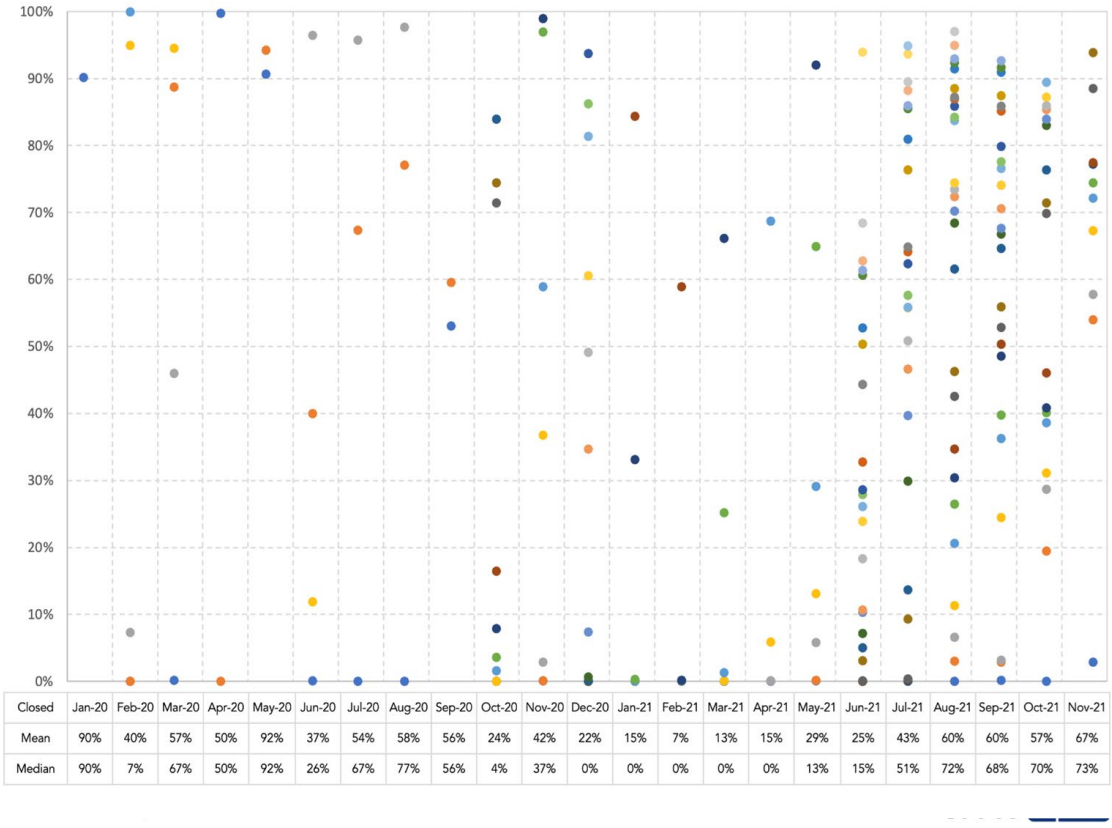


U.S. SPAC Expirations January 2022 thru May 2023. Source: Baker, L., Qasim, N. and Tobin, M. (2021). *SPAC Surge May Benefit Targets That Can Play a Waiting Game*, Bloomberg News, accessed 22 January 2022. https://www.bloomberg.com/news/articles/2021-06-02/spac-surge-may-benefit-targets-that-can-play-a-waiting-game

SPAC expiration data for October 2022 predicts that the number of SPACs will approximately quadruple in size from the previous month of September (increasing from 8 to 31). Baker et al. (2021) note and evidenced in Figure 4.12 quantified the impact of

these expirations at roughly $10.2 billion. By March 2023, the data predicts 106 SPACs set to expire in the month of March and a total of 269 in Q1 2023. The data by reviewed by Baker et al. (2021) quantified the impact of these expirations at roughly $34.5 billion. The data from a year-over-year comparison revealed a growth in SPAC expirations of 158% for a total of 297 from January 2023 to May 2023, up from 115 for the full year of 2022.

Figure 4.13: U.S. SPAC Redemptions - January 2020 to November 2021



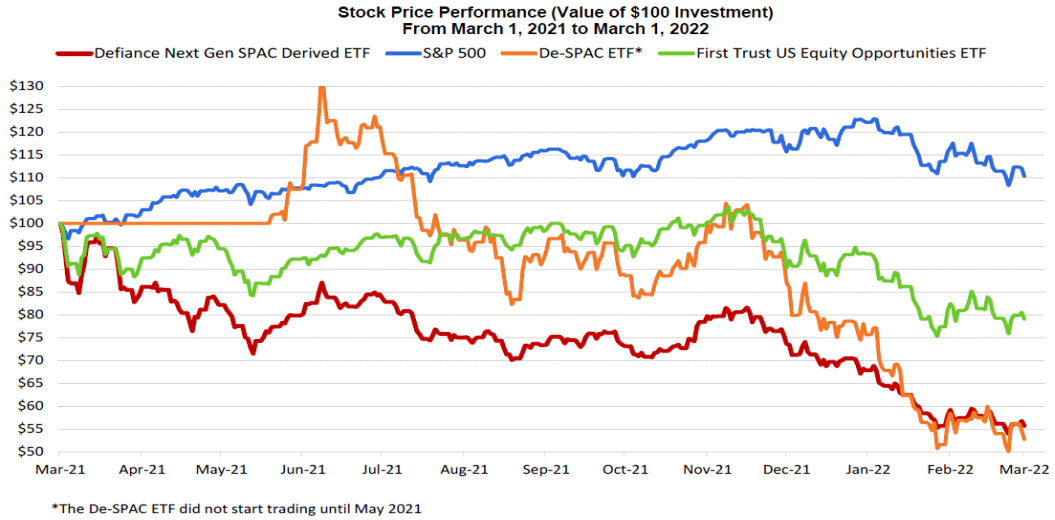
Closed	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Mean	90%	40%	57%	50%	92%	37%	54%	58%	56%	24%	42%	22%	15%	7%	13%	15%	29%	25%	43%	60%	60%	57%	67%
Median	90%	7%	67%	50%	92%	26%	67%	77%	56%	4%	37%	0%	0%	0%	0%	0%	13%	15%	51%	72%	68%	70%	73%

U.S. SPAC Redemptions – January 2020 to November 2021. Source: Barton, E. (2022). *High Redemption Rates see SPACs relying on Alternative Financing*, Reuters, accessed 25 January 2022. https://www.reuters.com/legal/transactional/high-redemption-rates-see-spacs-relying-alternative-financing-2022-01-14/

According to Barton (2022) and data compiled by the researcher in Figure 4.13, SPAC redemption data showed the average monthly SPAC redemption rate in a range of 7% to 43% from January 2021 to July 2021. From July 2021 to November 2021, this range jumped to 43% to 67%, with the average SPAC transaction resulting in a 60% redemption rate during this period. The data was presented with statistical results in both mean (the average of the dataset) and median (the middle of the set numbers). Both measures of data represent the statistical central tendency, but the researcher utilized the mean (average) for the sample of U.S. SPAC redemptions over a particular timeframe versus a population mean against the total SPAC redemption population (i.e., the US and abroad).

Quantitative data on post-merger SPAC (deSPAC) performance addressed the information gaps on both SPACs' hidden dangers and a looming bubble. The figure below represents SPAC data after the completion of deSPACs.

Figure 4.14: SPAC Stock Performance



SPAC Stock Performance. Source: Murphy, T. (2022) *'The aftermath of the 2021 SPAC frenzy'*, Meridian Compensation Partners, accessed 22 April 2022. https://www.meridiancp.com/insights/the-aftermath-of-the-2021-spac-frenzy/

According to Murphy (2022), the deSPAC data demonstrated that the S&P 500 increased by 10% during the one-year period from March 1, 2021, to March 1, 2022. Moreover, the Defiance Next Gen SPAC-Derived ETF and the deSPAC ETF both declined by approximately 45%. The First US Equity Opportunities ETF was down 20% throughout the same period. It is important to note that the Defiance Next Gen SPAC-Derived ETF and deSPAC ETF track the performance of U.S.-based private companies that were classified as public because of a merger with a SPAC (deSPAC). Moreover, the First US Equity Opportunities ETF tracks the performance of the biggest and most liquid U.S.-based traditional IPOs.

Per Table 1.1, as of December 31, 2021, approximately 613 U.S.-listed SPACs were seeking a company to take them public within a two-year period (2022 to 2023). The deSPAC ETFs and in comparison to Table 1.1, total listed SPACs, resulted in more than 1.5 times the number of SPAC transactions that completed a deSPAC and went public over 12 years (2009 to 2021). This data related to expirations, redemptions, and post-merger returns and omitted pending deSPAC transactions (i.e., representing only completed transactions).

4.5 Summary of Findings

Approximately 613 U.S.-listed SPACs must find a target firm to take public in the next two years (creation of the deSPAC). This indicates that SPACs are competing to close deals, whether they are suitable or not. Moreover, bookrunners and investment banks are also very motivated to close deals. Expirations are expected to peak by Q1 2023, and over-supply and impending deadlines will impact retail investors' post-merger returns. Redemption results also indicate a reduction in retail investors' post-merger returns for investors who choose not to redeem as they will incur more costs and fees. High expiration and redemption results do not signal that SPAC and deSPAC shares will

perform poorly, but they do suggest that retail investors will have to be more risk-averse then they might realize. The survey data found that retail investors think their knowledge of SPACs is at or even better than that of institutional investors, who hold 85% to 87% of SPAC assets versus retail investors' 13% to 15%. Lastly, the data on expirations, redemptions, post-merger returns, and the need for regulatory protections indicate that a SPAC bubble is probable.

4.6 Conclusion

If SPAC transactions return to pre-pandemic levels and continue with poor post-merger annualized returns the need for regulatory oversight is feasible. This research and its results recommend the SEC make changes expeditiously in the way of new rules to govern SPACs and retail investors to understand forewarnings from this research. If not, a SPAC bubble is likely. Moreover, even if SPACs find a target and combine to form a deSPAC, it still must be determined how SPACs can create sustained value for investors and shareholders. The creation of shared value is a focal point not just for this research but also for retail investors and regulators who must be more conscientious when investing in SPACs.

CHAPTER 5

DISCUSSION AND LIMITATIONS

5.1 Introduction

This chapter elaborates on and evaluates the research findings and their importance. In addition to linking the results to the research questions and previous literature, this chapter explores how relevant the research findings are to the field of finance, specifically SPACs' impact on the stock market, retail investors, and structured financial products and identifies the research limitations.

5.2 Research Problem Restated

Due to the surge of SPACs during the COVID-19 pandemic, research is sparse on the new phenomenon of the impact of the 2020-2021 SPAC surge effect on retail investors. This research examines how SPACs' rise in popularity has overshadowed their hidden dangers and recommends more oversight and scrutiny from investors, regulators, and SPAC sponsors. This research examines the information gap regarding a potential SPAC bubble that could burst and identifies the various layers of protection, in the form of legislation and regulation, needed to protect retail investors from the hidden dangers.

5.3 Summary of Results – Recap of the Results Chapter

This section highlights the key findings in relation to the research questions.

The research findings based on critical quantitative data (surveys, SPAC redemptions, SPAC expirations, SPAC post-merger returns) are presented in Table 5.1.

Table 5.1: Findings and Results Recap

Method	Instrument	Variable / Indicator	Findings / Results
Quantitative	Survey	SPACs Investments Owned Retail Investors	14% of respondents - in line with earlier research by Klausner et al. (2021) 13% to 15% of SPACs are owned by retail investors
Quantitative	Survey	Retail Investor Stocks Owned	26% Yes, 42% No, 32% Don't know of total respondents identified SPAC stock holdings - Yes and Don't know identifies the injudicious nature of retail investors and hidden danger
Quantitative	Survey	Sectors Invested in by Retail Investors	40% IT, 42% Financial, 38% High Tech / Growth - identify correlation with prior research on IT sector booming during COVID pandemic, hype of SPACs via media channels and retail investors using FinTech trading platforms (i.e. Robinhood)
Quantitative	Survey	Retail Investor - Factors to buy Stocks	Scale 1 to 10, 1 most important & 10 least important - Respondents identified history and ratings from investment researchers as top factors. However, social media buzz and influencers ranked somewhat important at 6 out of 10. Data contradicts prior results of 32% of retail investors don't know if the owned a SPAC. This along with opaque structure of SPACs is a clear hidden danger.
Quantitative	Survey	Retail Investor Knowledge	47% of respondents identified as having expert and significant experience knowledge of SPACs. Given only 26% of retail investors identified as knowing they own SPACs was low as the researcher, based on experience %, should have yielded a higher % of retailing investors knowing they hold SPACs.
Quantitative	Survey	Future Investing and Portrayal	94% of respondents will continue to invest in SPACs in the future despite risks and market conditions, 82% believe the media unfairly portrays retail investors as unsophisticated.
Quantitative	Survey	Regulatory Implication	97% of respondents do not want to be kept out of SPAC investing at the hands or direction of regulatory agencies.
Quantitative	Survey	Investing Ability	68% of respondents considered themselves on par or better than institutional investor skill level
Quantitative	Survey	SPAC Investing Comfort Level	74% of respondents were comfortable to neutral about investing in ESG SPACs deemed high risk / speculative. Correlates to prior research on poor post merger returns and regulatory changes on SPAC disclosures, reporting, etc. Also, 81% of respondents said they would invest in ESGs via SPAC vs. traditional later stage IPOs such as Uber
Quantitative	Expiration Data	Jan 2022 to May 2023 / Bubble Indicator	By October 2022 SPAC expirations will quadrupole in size with an estimated nominal value of $10.2 Billion. By March 2023 this value more than triples to $34.5 Billion. Number of expirations jump by 158% from FY 2022 to Q1 2023. Major bubble indicator.
Quantitative	Redemption Data	Jan 2020 to Nov 2021 / Bubble Indicator	Data suggested that the average SPAC redemption rate was 60% during the measurable period. Peak redemption months were July 2021 to November 2021. This data is in line with prior research highlighting redemptions as a hidden danger to investors.
Quantitative	Post Merger Returns	SPAC Stock Performance / Meridian	Data suggested, as compared to Table 1.1., that 1.5x the number of SPAC transactions that completed a deSPAC / gone public in a 12 year period (2009 -2021). If SPACs decline and go back to normalized levels suggests that a SPAC bubble is possible.
Qualitative	Regulatory	Blue Sky Law / Book Runner Volumes	Prior research and this research identified a compliance gap on regulating SPACs and this research supports research and theories that suggest stronger guidance and laws at the Federal level, but more so at the State Level via Blue Sky laws as evidenced in the literature review and quantitative data.

5.4 Discussion of: What are the hidden dangers of SPACs for retail investors?

SPACs test the foundation of the traditional IPO model by their ability to allow early-stage companies and unsophisticated retail investors to access public capital markets (see Table 1.1 on SPAC transactions and Table 5.1 for a recap on retail investing knowledge self-assessments). The dangers and what the results mean, why they matter, and how they may be interpreted are discussed below.

The Motley Fool key survey results indicate the following points:

(i) Per Figure 4.1, 14% of respondents reported holding or owning a SPAC, which aligns with Klausner, Ohlrogge and Ruan's (2022) finding that retail investors comprise 13% to 15% of SPAC ownership. Applying this percentage of ownership to SPAC proceeds equates to approximately $23 billion in SPAC stock value. The 14% of respondents owning SPACs combined with their injudicious nature and SPACs opaque structure is a plausible explanation that this is a great hidden danger.

(ii) Per Figure 4.2, approximately 42% of respondents stated that they did not know if they owned or held a SPAC in their investment portfolio. These results further support the analysis at PricewaterhouseCoopers by Bellin et al. (2022), as of June 30th, 2022 (Q2 2022), that the increasing influence of private capital piling up may lessen if SPAC equity is redeemed. Thus, the prominent level of redemptions is a hidden risk to retail investors, along with their lack of voting or proxy rights as shareholders.

(iii) Per Figure 4.3, respondents identified the information technology and financial sectors as their target investment sectors. During the COVID-19 pandemic, SPACs surged. Retail investors focused on the tech and financial sectors because both SPACs and these sectors witnessed a

proliferation of solutions, especially among startups wanting to use new technological advances to break away from traditional markets (Banco Bilbao Vizcaya Argentaria, 2022). The technology sector is characterized as volatile, innovative, and high-growth and carries substantial risk, but where there is substantial risk there are also high rewards. According to the survey data, SPAC ownership in the technology sector was the biggest target for retail investors. The opaque structure of SPACs and the challenges of the technology sector amplify the hidden dangers to retail investors. The most significant hidden danger regards the value SPACs create and what creates the value of the underlying tech company. The results support Wakabayashi et al.'s (2021) claims that technology firms experienced unprecedented growth during the COVID-19 pandemic and even thrived to new growth levels. Moreover, the results correlate with the findings that retail investors hold investments in SPACs (IPOs) and Tech stocks. These results were expected given the amount of hype surrounding SPACs in the media, younger investors' preference for big tech solutions, and influences from large tech firms such as Facebook, Apple, Amazon, Netflix, Google, and Instagram.

(iv) Per Figure 4.4, respondents identified ratings from investment firms and historical stability as their key deciding factors when investing in stocks/SPACs. These results were not expected and contradict the claims of Naumovska (2021), who contended that big media hype and regulatory interest regarding reverse mergers have re-emerged in the SPAC surge. Red flags have been raised throughout the SPAC surge by the media and

the SEC to warn retail investors. However, retail investors ignored these hidden dangers and *caveat emptor* warnings.

The SPACInsider key survey results indicate the following:

(i) Per Figure 4.5, approximately 9% of respondents view themselves as novice SPAC investors. However, the majority (47%) believe they are experts or have experience in SPAC investments. According to Marvin (2021), retail investors have matured significantly and are no longer novices when it comes to investing; the present results substantiate this claim. More importantly, these results indicate that respondents believe that they are investing in SPAC deals with the wisdom of experience. However, poor post-merger returns and lack of transparency conflict with what the respondents believed to be true and presents a clear danger.

(ii) Per Figure 4.6, most respondents (94%) want to continue investing in SPACs. Despite a pessimistic SPAC environment with poor returns, the need for more oversight, and hidden dangers, retail investors still have an affinity for SPACs. In addition, Figure 4.6 highlights that 92% of respondents said that celebrities do not influence their investment in SPACs. This result was unexpected given the hype around SPACs and significant celebrity involvement. This disconnect is particularly interesting as prior research has suggested that celebrities played a role in the SPAC surge. Figure 4.6 further highlights that 82% of respondents felt the media portrayed them as unsophisticated and lacking the intelligence to invest in structured financial assets. This result was in line with the researcher's expectation and perpetuates the narrative that retail investing is driven by "dumb money" (SPACInsider, n.d. (a)). This may be mistaken

motivation for retail investors to continue investing in SPACs—despite the dangers—to prove they are sophisticated and smart enough to invest in this asset class.

(iii) Per Figure 4.7, approximately 37% of respondents consider themselves to have equal or better investing skills than institutional investors. Only 31% of respondents see themselves as just below the skill level of an institutional investor. This result implies that almost 68% of respondents consider themselves to be at the level of an institutional investor. As a result of recent technologies (FinTech, e.g., Robinhood Brokerage), more retail investors are trading but in low-to-no-cost trading versus "smart money" investing.

(iv) Per Figure 4.8, the most significant concern retail investors have with SPACs has been at what price to invest and when. Prior research has suggested that retail investors have been purchasing SPAC shares above the IPO price; however, the data in Figure 4.8 does not support this and instead demonstrates that retail investors are investing in SPACs at slightly below or at par (cash-in-trust) IPO value. Only 9% of respondents indicated that they invest above the $10.00 par value with strong conviction. Interestingly, 63% stated that they would invest above the $10.00 par value with strong conviction on the trade and depending on the deal. Measuring conviction is necessarily self-determining, but there is nonetheless a correlation between a retail investor's firmly held opinion and what they believe to be true about the SPAC price/value.

(v) Per Figure 4.9, respondents indicated that they invest in SPACs based on the company (5.3/6.0) and valuation (4.9/6.0). SPAC management team

came in third, which is contradictory to Frunza's (2021) finding that SPAC management team is the first determinant in considering the discount/premium to risk/reward. This result was not what the researcher expected as a SPAC team encompasses the skills and experience to guide a newly formed deSPAC, but the actual deSPAC company and valuation were identified as most important to respondents.

(vi) Per Figure 4.10, approximately 74% of respondents (3 out of 4) were comfortable to extremely comfortable investing in ESG companies. This is a clear indication of retail investors' appetite for risk and dangers. The results contradict claims by Brush (2021) that SPACs that target ESG companies are highly speculative and very risky (e.g., principal risk, return risk, liquidity risk, valuation risk, and dilution).

(vii) Figure 4.11 highlights that 81% of respondents would opt for a SPAC IPO versus a later-stage IPO such as Uber, Airbnb, and Coinbase. This result was expected as SPACs take less time than a traditional IPO and have access to liquidity that might not otherwise be available to the company. However, SPACs come with higher transaction costs, high equity dilution from sponsors and bookrunners, and limited redemptive rights for retail investors, all of which pose a great danger and outweigh the benefits to the SPAC team, sponsor, and so forth.

The research has demonstrated that the SPAC asset class has evolved over time and has been market efficient. The hidden dangers underline that SPACs are not working and are not on a level playing field—unlike traditional IPOs which have a static mechanism for bringing companies public—but retail investor demand surged during the COVID-19 pandemic. The surveys and quantitative and qualitative data indicate that

SPACs rose in popularity simply because companies found the traditional IPO process inadequate. As such, the pandemic surge transpired in 2020 and 2021 but without protection for retail investors.

5.5 Discussion of: What can regulators do to protect retail investors from SPACs' hidden dangers?

Regulation is needed for retail investors, but this may threaten SPAC institutional players. The SPAC asset class in 2022 is struggling, with total SPAC transactions at 68 as of June 30, 2022 (SPAC Research, n.d. (c)). The falloff in volume has been steep compared to the surge in 2020 and 2021. This decline also indicates that regulators need to be concerned about a looming bubble. Prior research as well as the present study identified a compliance gap for regulating SPACs, and stronger guidance and laws at the federal level and at the state level via blue sky laws are recommended.

The SPAC is an alternative to the IPO and should have similar protections. SEC Chairman Gary Gensler (2022) echoed these sentiments in a statement on March 30, 2022, stating, "Investors deserve the protections they receive from traditional IPOs with respect to conflicts, fraud, disclosures, marketing practices, sponsors and issuers."

Table 3.1 identified three questions surrounding the regulation of SPACs. Almost 50% (574) of respondents saw themselves as having significant expertise in SPACs that was at the same level or above the knowledge of institutional investors, who own approximately 85% to 87% of all outstanding SPAC shares (Klausner et al. 2022). Moreover, 97% (908) of respondents believed they should be allowed to invest in SPACs despite their speculative nature and lack of transparency. Lastly, 81% (758) of respondents said they prefer to invest in ESG SPACs versus later-stage IPOs such as Uber, AirBnB, Coinbase, Robinhood, and so on. Thus, retail investors have a tendency for high risk/high reward and speculative investments.

The literature review identified a gap regarding regulators' oversight of SPACs and noted that more needs to be done via blue sky laws at the state level and by the SEC. As evidenced in Table 2.1 and Figure 2.6, a concern was identified with the amount of sponsor compensation and other fees associated with SPAC and deSPAC combination deal flow and its dilutive effects on shareholders. Moreover, Figure 2.4 identified poor returns for investors in companies following deSPAC transactions; combined with the results on SPAC expirations and redemptions, it becomes clear that the SEC needs to propose new rules regarding SPACs in response to the conditions precipitated by the COVID-19 pandemic and retail investors.

SEC rules proposed in the first half of 2022 seek to extend underwriters' legal liability for firms, bookrunners, and sponsors. According to Jasinski (2022), regulatory uncertainty has resulted in bookrunners ceasing new SPAC issuances or at least pausing their involvement with SPACs they have already taken to public markets. The stop in new SPAC issuances and bookrunners halting their efforts in SPACs should be at the core of the SEC's objectives for state level laws for projections. This should lead to more scrutiny and review of the adequacy of those disclosed figures and protections. Given that most proposal and rule changes by the SEC are initially broad, regulatory developments will continue to impact the SPAC asset class as well as private litigation against SPACs, their sponsors, and target combinations.

5.6 Discussion of: Do the identified dangers and regulations indicate that SPACs are the next bubble to burst?

Per Table 1.1, approximately 613 U.S.-listed SPACs were presently seeking a company to take public within a two-year timeframe (2022 to 2023) as of December 31, 2021; this is more than 1.5x the number of SPAC transactions that completed a deSPAC and gone public in the previous 12 years (2009 to 2021). This data related to expirations,

redemptions, and post-merger returns and omitted pending deSPAC transactions (i.e., only representing completed transactions).

Bloomberg data as of June 30, 2022, indicates that of the 613 SPACs in 2021, a total of 65 (11%) will need to raise more capital within a 12-month period to avoid bankruptcy, and a total of 78 (13%) are presently trading at $2 per share or below. Moreover, Bloomberg data as of June 30, 2022, shows that 25 of the 78 SPACs are trading at less than $1 and therefore risk being delisted from the NASDAQ stock exchange. SPACs trading below their par value (cash-in-trust) was predicted by this research. The quantitative data in this research on large expiration blocks starting in Q3/Q4 2022 into early 2023 and high redemption/equity dilution highlights that 23% of the SPAC pandemic surge is set to expire worthless. As such, valuations are significant, especially for unprofitable businesses via deSPACs. The survey results reveal that respondents took to the technology and financial sectors (via ESG companies) for SPACs, underlining the hidden danger and the looming bubble.

The SPAC market and U.S. stock exchanges have entered correction territory, and SPACs will continue to be hit hard by high inflation and rising interest rates that will drive a tech-driven sell-off. Survey respondents favored the tech sector for SPAC IPOs. Unfavorable market conditions will result in SPAC sponsors being forced to abandon their deals or run the risk of becoming worthless. Hence, it is reasonable to suggest that the SPAC bubble is starting to burst. SPAC shares, excluding present market conditions, are volatile to begin with given their opaque and speculative nature. Figure 4.14 reveals that the Defiance Next Gen SPAC-derived ETF (SPAK) is down 45% since its peak in June 2021. SPACInsider and SPAC Research reported that 25 deSPAC deals have issued liquidation warnings as of June 30, 2022, and more will follow based on expiration and redemption data.

Many SPACs are running out of time, and with the oversupply created by the pandemic surge (861 total transactions for all of 2020 and 2021), the competition for high-quality deals will be tough. Conditions are further worsened by the current state of the U.S. economy (i.e., record-level inflation, rising interest rates, supply chain issues, the Russia-Ukraine War), which has created economic uncertainty that may prevent firms from accessing public markets via the SPAC. All of these points will lead to a bubble burst by the end of 2022 or in the first half of 2023.

5.7 Research Limitations

No research is without limitations. Firstly, the datasets used by Bloomberg, SPACInsider, and SPAC Research were pulled from publicly available datasets that were uncomplicated to process and analyze. However, the surveys included certain limitations. Online surveys provide great anonymity and accessibility, but the researcher has less control over who responds. The limitation of response control was mitigated as 82% and 78% of the two survey populations responded, respectively, thus representing an adequate sample size that fell within the desired 95% confidence level with a margin of error of 1 (Gill and Johnson, 2010). Moreover, the Motley Fool survey included only closed-ended, questions while the SPACInsider had nine closed-ended questions of 11 questions total. Closed-ended questions provide better quantitative research results in the form of measurable (numeric) data that can be analyzed to find common themes. The remaining questions allowed the respondent to answer in their own terms and were limited as they might require the researcher to ask further questions for clarification.

The researcher was unable to consider the reliability of each question in the survey as the questions were predetermined, and a few questions may not have been directly relevant to the survey's purpose. Nonetheless, approximately 81% of the survey questions had a direct link to the research. The questions were phrased without bias, but

some words may have been interpreted by the respondents as slightly vague. Lastly, the sample size from both surveys was large enough to provide valid conclusions regarding retail investor knowledge of SPACs.

This research was completed by considering variables at a single point in time (i.e., the COVID-19 pandemic) to trace the relationship between SPAC data and their impact on retail investors. As such, this study was cross-sectional in terms of data collection. According to Cottrell (2016), the cross-sectional method provides a snapshot of a particular group at a given point in time. This was appropriate in the present study as the researcher aimed to explore what was happening between SPACs and retail investors during the COVID-19 pandemic. Cottrell (2016) observes that a limitation to this research approach is cohort differences. In the surveys utilized in this research, the individuals surveyed were born in different time periods (generational) and represent various geographic regions (US and abroad). This limitation was mitigated by the data being collected all at once and by exploring the retail investor population specifically to better identify relationships between SPACs' hidden dangers, key data that supports a bubble, and regulations specific to one investor class.

CHAPTER 6

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Introduction

This chapter summarizes the critical research results in relation to the research objectives and questions. Moreover, this chapter discusses the value and significance of this study. Lastly, this chapter reviews the implications of this research and presents recommendations for future research.

6.2 Summary

This section highlights why the qualitative and quantitative data was effective, the expectations of the research, and how well the findings aligned with past literature. This section is broken down by theme.

SPACs: Hidden Dangers

The quantitative survey results and SPAC data clearly indicate that retail investors had and may still have a strong appetite for risk and the dangers that come along with SPACs. Moreover, SPACs have higher transaction costs that remain unknown; high equity dilution powered by sponsors, bookrunners, and others; and restricted redemptive rights for retail investors that all pose a severe danger that outweigh SPACs' potential benefits.

Retail investors hold $23 billion in SPAC assets from the COVID-19 pandemic, and the injudicious nature of retail investors' as well as the opaque structure of SPACs illustrate retail investors' strong appetite for substantial risk and big rewards.

This research underscored the hidden danger of redemptive rights and specifically retail investors' lack of voting or proxy rights in SPAC transactions. Moreover, SPAC ownership was linked to the unknown, high-growth and high-risk technology sector and ESGs. This finding reveals the hidden danger regarding the value SPACs create and how

underlying tech firms are valued. These results were unsurprising given the level of media influence and the buying power of younger retail investors. Despite the SEC's red flags to retail investors during the SPAC surge, retail investors overlooked the warning signs.

Significantly, this research found that survey respondents believed they were experienced in SPAC investing. However, the research data on post-merger returns, redemptions, expirations, and non-transparency contradict what retail investors believe and illustrate that their perceptions do not match the findings.

This research unveils the underlying and material hidden risk regarding at what price investors should buy and when. This study challenged prior research findings that retail investors bought SPACs above the IPO price as the present data indicated that retail investors are buying at the par (cash-in-trust) value. As SPAC transactions have significantly declined in 2022 and have returned to normal levels—and assuming there are no impacts from strong regulatory reforms—the SPAC bubble may burst.

SPACs: Regulatory Changes

Regulatory changes, new proposals, and mandates can be complex and time-consuming. In this study, 97% of retail investors believed that they should be allowed to invest in SPACs regardless of their speculative nature and lack of transparency.

A compliance gap exists around SPAC regulation, and this study recommends stronger guidance and laws at the state level. The states exploration into blue sky laws has been given little consideration to protections for retail investors in the form of regulations. Moreover, sponsors and bookrunners will face more scrutiny in the near term as regulatory developments will impact SPACs, and private litigation will increase as a result.

Like earlier research, this study advocates for underwriters' legal liability and projections or financial statements. However, regulatory changes at the federal level need to align deSPAC transactions with traditional IPOs. Incorporating states through blue sky laws can add another layer of security for retail investors, but this route for regulatory changes has generally been ignored.

SPACs: A Looming Bubble

During the COVID-19 pandemic SPAC surge, this long-dormant asset class, according to Naumovska (2021) triggered unethical and devious practices and unjustified speculation detached from any fundamental analysis. Naumovska (2021) provided an institutionally and sociologically informed explanation of the bubble-to-bust dynamics of controversial practices like SPACs. Finance and economic factors are what traditionally result in a bubble, and this research adds that such bubbles may relate to institutionally driven dynamics; for example, the popularity of SPACs, like reverse mergers led to their downfall, SPACs may follow the same pattern.

This research used SPAC expiration data supporting that by Q4 2022 the number of SPACs will grow four times compared to the prior quarter (8 to 31); the dollar impact of this is $10.2 billion in expiration value. By Q1 2023, this number jumps to $34.5 billion expiration value. SPAC expirations will grow year over year by 158%. Additionally, the average SPAC redemption rate of 60% and the deSPAC Index will have declined by 45%. These points and the current U.S. economic environment (i.e., a transition from low to high interest rates, all-time-high inflation levels, supply chain issues) are signs of a bubble that may burst.

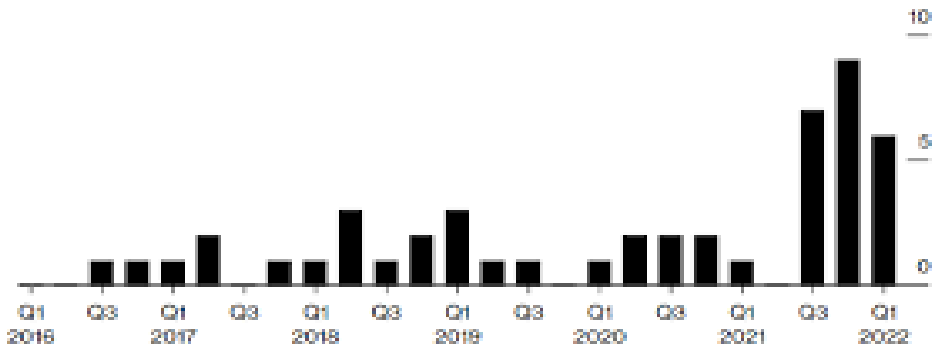
The looming bubble has likely been encouraged by actions and mindsets among retail investors that Naumovska (2021) terms "behavioral financial biases." Indeed, SPAC volumes' meteoric rise during the COVID-19 pandemic are indicative of

behavioral financial biases, for example, herd mentality (SPAC surge in transactions), short-term thinking (looking at immediate returns of SPACs vs deSPACs), and cognitive dissonance (belief that retail investors are on the same level as institutional investors and ignoring warning signs (Kahneman, 2003).

6.3 Implications

The research findings are valuable as they fill the information gap surrounding SPACs. Further investigation may help to avoid repeats of the dot-com bubble from 2000 to 2002 and the U.S. financial crisis of 2007 to 2008. With the first half of 2022 finished, Bloomberg data as of Q1 2022 highlights (per Figure 6.1) that the deSPAC Index, a basket of companies that completed their combination, has dropped by 67%, and over 700 SPACs are still looking for or trying to close deals ahead of deadlines.

Figure 6.1: SPAC Combinations Quarterly Deal Breaks



SPAC Combinations Quarterly Deal Breaks. Source: SPAC Research (n.d. (c)) *July News Letter*, SPAC Research, accessed 29 July 2022. https://www.spacresearch.com/newsletter

According to Mathews (2022), the SEC has proposed a sweeping set of rules that will eventually level the playing field between traditional IPO and SPACs. Mathews (2022) highlights the significance of regulatory changes and the looming bubble that will result in key proposals, such as (i) new disclosure requirements for all parties, (ii) financial statement requirements similar to IPO standards, and (iii) changes to the definition of a SPAC under SEC rules that will allow retail investors to sue if they believe a SPAC's financial pro-forma or projections of its target firm are false or have omitted critical details.

This research has important implications for SPACs and the field of finance as it highlights the need for retail investor protections, identifies hidden dangers, and advocates for regulatory changes that would make SPACs and their requirements equal to traditional IPOs.

6.4 Recommendations for Future Research

Other researchers can leverage these findings to help further educate retail investors and finance communities about SPACs. Based on this study, investors, regulators, and finance professionals should consider behavioral financial biases. Further research into why retail investors flocked to SPACs during a period of economic uncertainty—unlike in previous historical financial downturns in the US—would be valuable.

Further research is also needed to determine how underwriter liability and financial projections can become more robust and how to add layers of accountability at the state level by implementing securities regulations to protect retail investors. This research identified that private ligations might increase if the SPAC bubble persists, future legal and compliance research could build upon the notion of increased regulation at all levels (federal, state, municipal) to help SPACs achieve protections similar to those

for traditional IPOs. Further research around regulatory rule changes and impacts is needed as survey respondents still considered the SPAC team to be less important than company and valuation. Future research should investigate how SPAC leadership and structure are crucial to forming a successful deSPAC.

Retail investors are not permitted to participate in traditional IPOs and must purchase IPO shares on the day of trading in the open market. Because retail investors are excluded, they invest in SPACs. All investors are afforded similar rights to purchase and redeem SPAC shares, but retail investors must purchase common shares on the open market at values greater than the cash-in-trust value versus shares and warrants. For example, brokerage firms like Robinhood, which—like SPACs—skyrocketed in value during the pandemic, do not offer warrants, whereas larger brokerage firms like Vanguard and Fidelity charge large fees to separate units. Future research should therefore investigate the fiduciary duties of these firms regarding the issues identified by other SPAC research as well as comparable topics such as payment for order flow. The area of fiduciary duties raises the question of whether these brokerage firms act in the best interest of their clients and best order execution policy.

The value that SPACs create, what creates the value of underlying targets, and when best time is to buy as a retail investor are important remaining questions. Future research should focus on the steps for identifying asset value beyond intrinsic value and new models to determine real SPAC and deSPAC valuations.

6.5 Conclusion

Rodrigues and Stegemoller (2021) maintain that SPACs have promise if they can address the problem of their hidden dangers, regulatory proposals, and the looming bubble. This study demonstrates that retail investors are still eager for new ways to access capital markets. Current markets have entered correction territory, and with the potential

of a U.S. economic recession in late 2022 into 2023 due to unfavorable micro and macro-economic conditions, a SPAC bubble is likely.

Regulatory changes must place SPACs on the same level as traditional IPOs via underwriter liability, financial projections, and blue-sky law modifications. The hidden dangers identified in this paper need to be reviewed by retail investors, regulators, and professionals. Moreover, the SPAC bubble appears to be approaching given data on expirations expected between October 2022 and Q1 2023 and predictions that SPAC transactions will normalize by the end of 2022.

In conclusion, unsophisticated investors who elect to participate in trading the SPAC asset class should heed the *caveat emptor* warning. If not, the cycle of "dumb money" and "worthless blank-checks" chasing opaque SPACs will persist.

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APPENDIX A

MOTLEY FOOL SURVEY PERMISSION REQUEST

To Whom It May Concern:

I'm a doctoral candidate from the Swiss School of Business and Management (SSBM) writing my dissertation titled The Rising Popularity of Special Purpose Acquisition Companies: Hidden Dangers, Regulatory Changes, and a Looming Bubble, per the guidance of my dissertation committee chaired by Dr. Mario Silic, who may be contacted by phone. The SSBM Dissertation Committee Chair can be contacted by mail at Geneva Business Center, Avenue des Morgines 12, 1213 Geneve Switzerland.

I request your permission to use the Motley Fool Survey Instrument: "What are Gen Z and millennial Investors Buying in 2021?" in my research study. I would like to use and print your survey under the following conditions:

- I will use the surveys only for my research study and will **not** sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.
- I will send a copy of my completed research study to your attention upon completion of the study if you desire.

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail: patrick@ssbm.ch ssbm e-mail: patrick@ssbm.ch

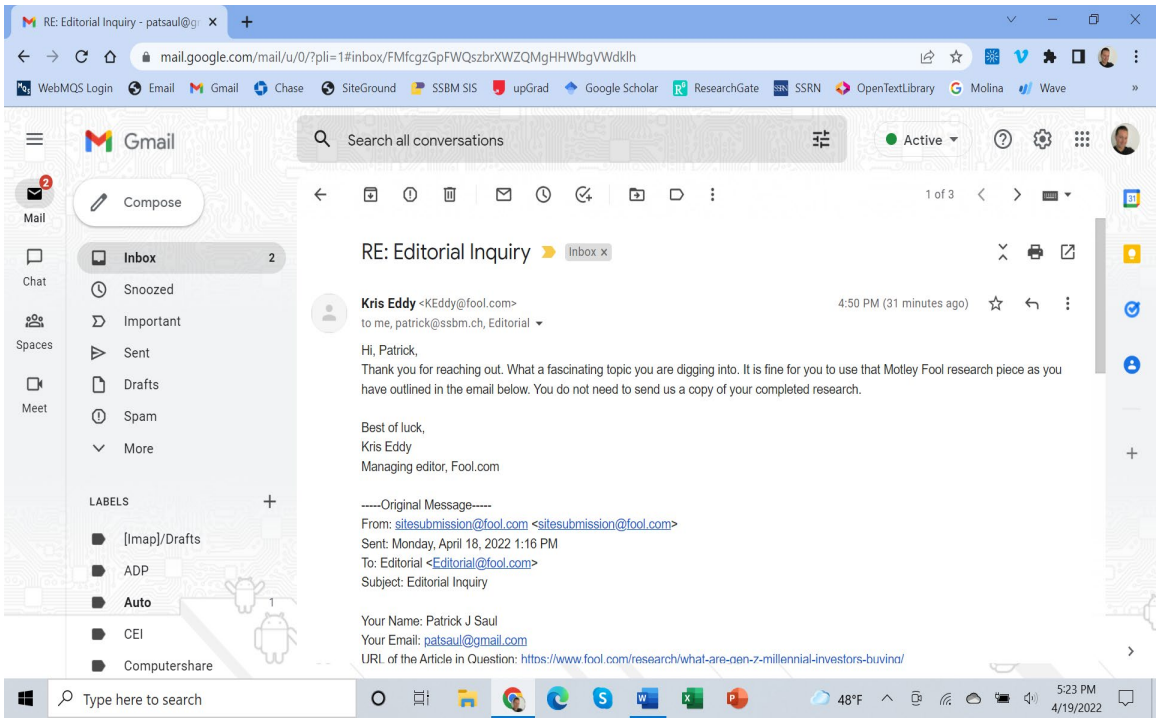
Sincerely,

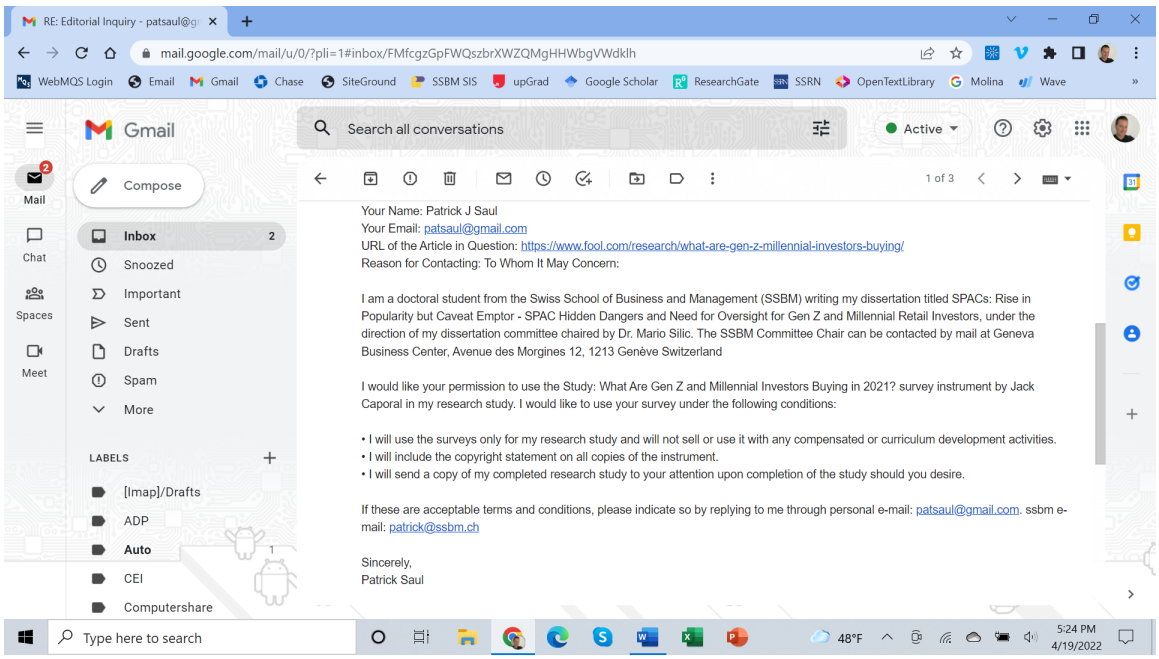
Patrick J. Saul

Doctoral Candidate

APPENDIX B

MOTLEY FOOL PERMISSION TO USE SURVEY





APPENDIX C

MOTLEY FOOL SURVEY RESULTS

	Research Questions	Analysis Technique
Q1:	Which of the following types of investments do you own?	Close Ended. Nominal Scale. Multiple Answers Possible
Q2:	Which types of stocks do you own?	Close Ended. Yes / No / Don't Know
Q3:	Which of the following sectors do you own stock in?	Close Ended. Nominal Scale. Multiple Answers Possible
Q4:	Please rank the importance of the following when determining whether or not you'll buy a stock. Rank them from 1 (most important) to 9 (least important).	Ranking Scale (ordinal)

	Research Question Answers	As % of Respondents		
Q1:	**Which of the following types of investments do you own?**	**Gen Z (aged 18 to 24)**	**Millennials (aged 25 to 40)**	**All investors aged 18 to 40**
	Stocks	73%	66%	67%
	Mutual funds	35%	47%	45%
	Cryptocurrency	47%	39%	40%
	Bonds	30%	35%	34%
	Stock options	39%	30%	31%
	Index funds	22%	25%	24%
	ETFs	15%	23%	22%
	Fractional Shares	16%	22%	21%
	IPO shares (SPAC)	**13%**	**14%**	**14%**
	Other	1%	2%	2%

Q2:	**Which types of stocks do you own?**	**Gen Z (aged 18 to 24)**	**Millennials (aged 25 to 40)**	**All investors aged 18 to 40**
	Growth stocks - Yes, No, Don't Know	57%, 32%, 11%	58%, 25%, 17%	58%, 26%, 16%
	Dividend stocks - Yes, No, Don't Know	50%, 39%, 11%	59%, 29%, 11%	58%, 31%, 11%
	Value stocks - Yes, No, Don't Know	64%, 24%, 12%	54%, 26%, 19%	55%, 26%, 19%
	Small-cap stocks - Yes, No, Don't Know	40%, 46%, 13%	48%, 32%, 20%	47%, 34%, 19%
	Large-cap stocks - Yes, No, Don't Know	44%, 43%, 13%	42%, 38%, 20%	43%, 38%, 19%
	Penny stocks - Yes, No, Don't Know	**48%, 42%, 11%**	**40%, 47%, 13%**	**41%, 46%, 13%**
	IPO stocks - Yes, No, Don't Know	**35%, 47%, 18%**	**39%, 42%, 19%**	**38%, 43%, 19%**
	Blue chip stocks - Yes, No, Don't Know	29%, 45%, 26%	36%, 38%, 26%	35%, 39%, 26%
	Meme stocks - Yes, No, Don't Know	39%, 42%, 19%	28%, 47%, 25%	30%, 46%, 24%
	SPAC stocks - Yes, No, Don't Know	**29%, 47%, 24%**	**26%, 41%, 33%**	**26%, 42%, 32%**
	ESG stocks - Yes, No, Don't Know	30%, 49%, 21%	24%, 43%, 33%	24%, 44%, 32%

Q3:	**Which of the following sectors do you own stock in?**	**Gen Z (aged 18 to 24)**	**Millennials (aged 25 to 40)**	**All investors aged 18 to 40**
	Financial	42%	41%	42%
	Information technology	29%	41%	40%
	High-tech/emerging technology	35%	39%	38%
	Healthcare	33%	38%	37%
	Energy	31%	36%	36%
	Real estate	35%	27%	28%
	Industrial	30%	26%	27%
	Utilities	27%	25%	26%
	Communication	23%	25%	25%
	Consumer staples	15%	22%	21%
	Marijuana	20%	18%	18%
	Consumer discretionary	14%	15%	15%
	Other	6%	6%	6%

Q4:	**Please rank the importance of the following when determining whether or not you'll buy a stock. Rank them from 1 (most important) to 9 (least important).**	**Gen Z (aged 18 to 24)**	**Millennials (aged 25 to 40)**	**All investors aged 18 to 40**
	Historical stability	5	4	4
	Ratings from investment researchers	4	4	4
	Dividends	4	4	4
	Reviews from traditional investing sites	5	4	5
	Market cap	5	5	5
	P/E ratio	5	5	5
	EPS	5	6	6
	Reviews from influencers	6	6	6
	Social media buzz	5	6	6

APPENDIX D

SPACINSIDER SURVEY PERMISSION REQUEST

To Whom It May Concern:

I'm a doctoral candidate from the Swiss School of Business and Management (SSBM) writing my dissertation titled The Rising Popularity of Special Purpose Acquisition Companies: Hidden Dangers, Regulatory Changes, and a Looming Bubble, per the guidance of my dissertation committee chaired by Dr. Mario Silic, who may be contacted by phone. The SSBM Dissertation Committee Chair can be contacted by mail at Geneva Business Center, Avenue des Morgines 12, 1213 Geneve Switzerland.

I request your permission to use the SPACInsider Survey Instrument: "SPAC Retail Survey: October, 2021" in my research study. I would like to use and print your survey under the following conditions:

- I will use the surveys only for my research study and will **not** sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.
- I will send a copy of my completed research study to your attention upon completion of the study if you desire.

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail: patrick@ssbm.ch ssbm e-mail: patrick@ssbm.ch

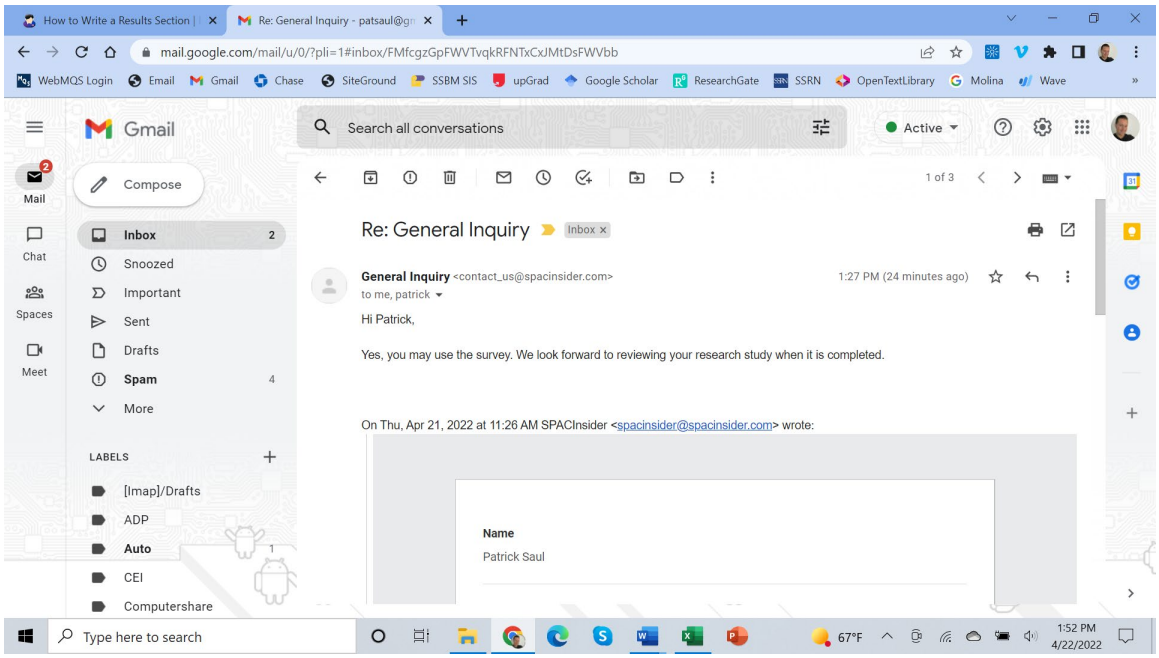
Sincerely,

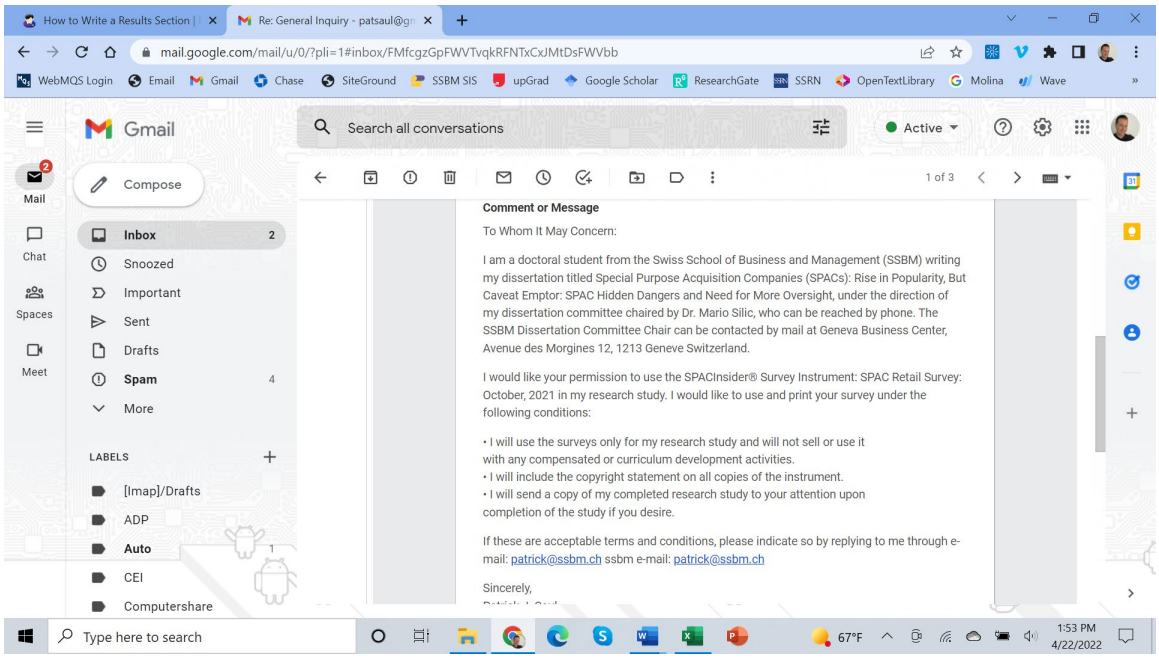
Patrick J. Saul

Doctoral Candidate

APPENDIX E

SPACINSIDER PERMISSION TO USE SURVEY

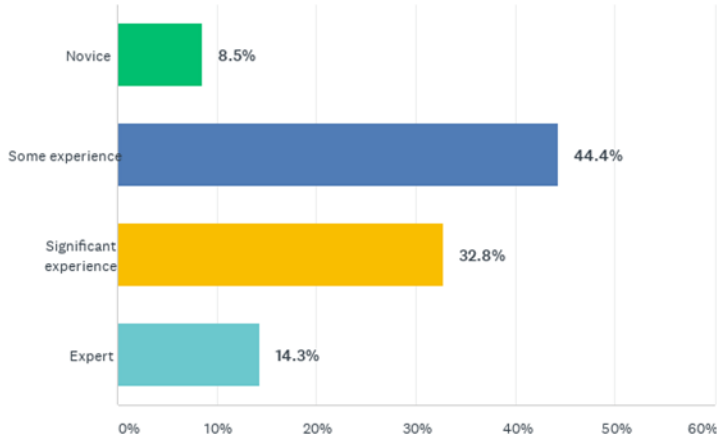




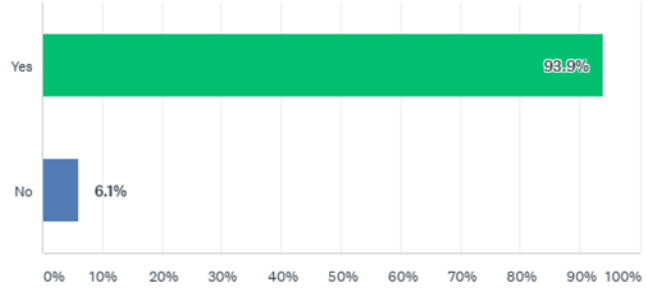
APPENDIX F

SPACINSIDER SURVEY RESULTS

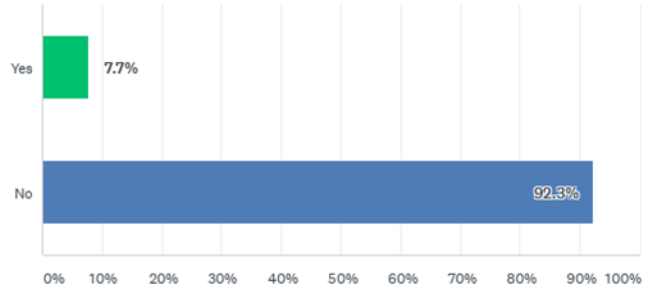
Q1 What level of expertise do you consider yourself as a SPAC Investor?



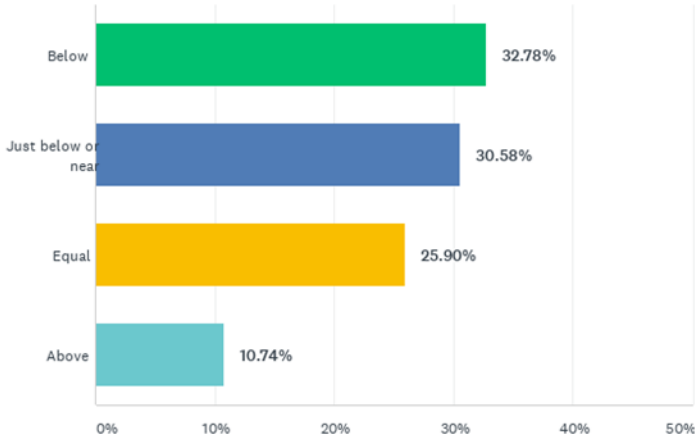
Q2 Do you plan to continue to invest in SPACs in the future?



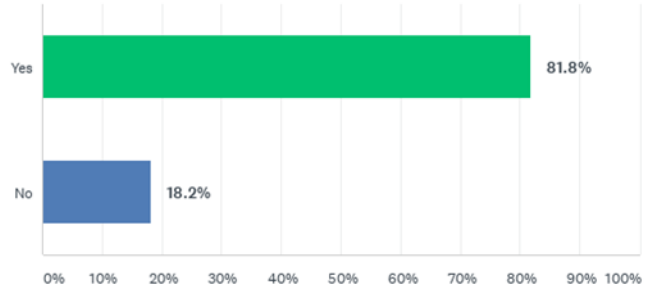
Q3 Do celebrities on SPAC teams influence you to invest in a SPAC?



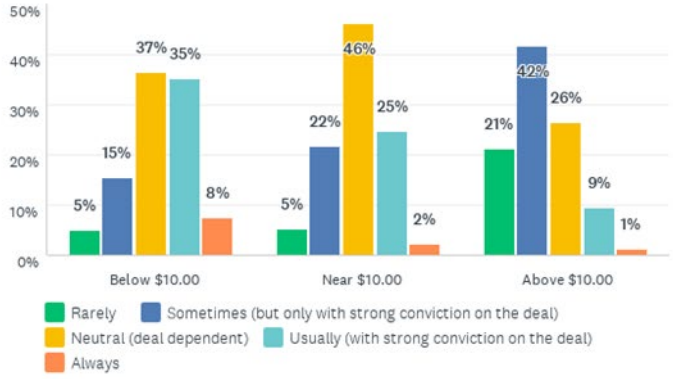
Q4 How would you rate your investing ability compared to Institutional Investors



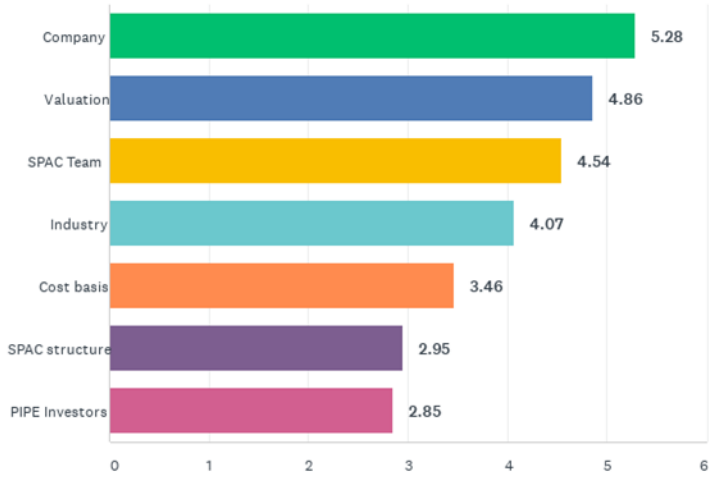
Q5 Do you think the media unfairly portrays retail investors as not smart enough to invest in SPACs?



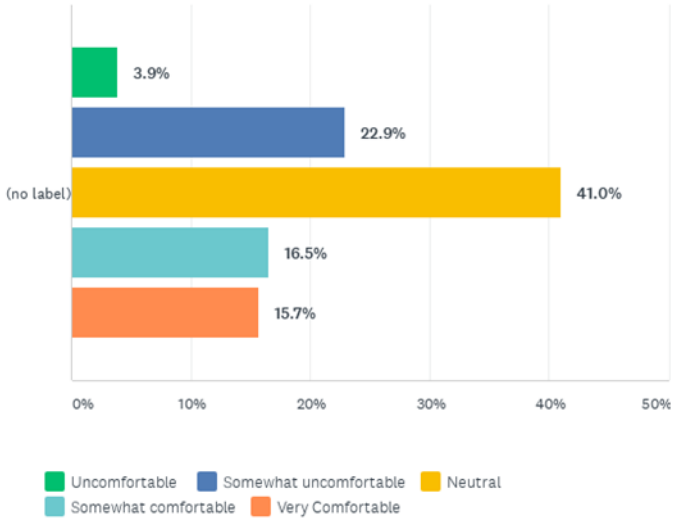
Q6 When do you invest in a SPAC (if it's the share)?



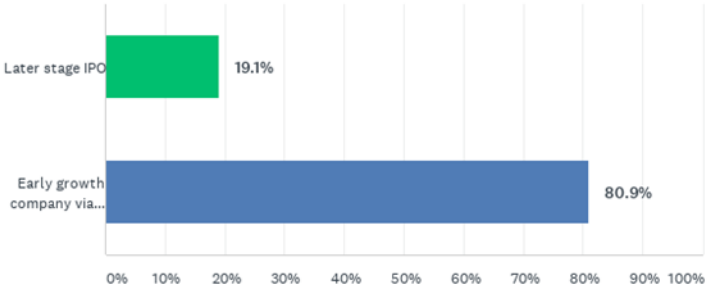
Q7 How do you determine what discount/premium to trust provides appropriate risk/reward? (Rank your choices)



Q8 Since many SPACs combine with early stage growth companies, how uncomfortable does that make your decision to invest?



Q9 Would you rather invest in a later stage IPO like Uber/AirBnb or an early stage growth company via SPAC?



Q10 If you'd rather invest in an early stage growth company, why?

*Q10: Word cloud response – respondents mostly chose early-stage growth firms

Q11 Do you think retail should NOT be allowed to invest in SPACs?