

# Audit fees and the type of IPO.

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Student: Nikolaos Legakis, 663883

Supervisor: dr. Wenjiao Cao

Second Assessor: dr. Jingwen Zhang

Master's Accounting Auditing and Control

Erasmus University Rotterdam

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## Abstract

This research examines the relationship between initial public offering (IPO) types, specifically regular IPOs and Special Purpose Acquisition Companies (SPACs), and their impact on audit fees. The study covers the period from 2000 to 2020 and employs subgroup analysis based on firm size and time period to gain deeper insights into this relationship. Drawing from a comprehensive dataset and employing statistical analysis techniques, the findings reveal a surprising negative association between SPAC IPOs and audit fees, contrary to prior literature's indications of lower accounting quality and more internal control weaknesses in SPAC transactions. The unexpected result challenges conventional assumptions regarding audit risk and audit effort in the context of SPACs. However, the study acknowledges limitations such as the restricted time period and potential sample size constraints arising from the subgroup analysis. The study contributes to the existing literature by shedding light on the auditing implications of different IPO types and calls for further exploration into the factors influencing audit fee determination in SPAC transactions. The findings have implications for auditors, regulators, and companies considering SPAC transactions, providing valuable insights to enhance transparency and understanding in the financial reporting process.

# 1.Introduction

A Special Purpose Acquisition Company (SPAC), also known as a reverse merger, is a unique type of company that raises capital through an initial public offering (IPO) with the sole objective of acquiring other companies at a later stage. Unlike traditional IPOs, SPACs do not have any active commercial operations at the time of their initial public offering, which is why they are often referred to as "blank-check" or "shell" companies (Investor Advisory Committee IAC, 2021).

Since their inception in the 1980s, SPACs have experienced a remarkable surge in popularity, particularly in recent years. The year 2020, in particular, witnessed an unprecedented increase in their use, positioning SPACs as an alternative route for companies looking to access the financial markets, alongside traditional IPOs. As highlighted by Blankespoor et al. (2022), SPACs were once considered the "backdoor" to the financial markets for companies that faced difficulties accessing traditional IPOs. However, they have now evolved into a mainstream option for firms seeking to go public.

Typically, SPAC sponsors raise funds through IPOs, which are then held in a trust while the sponsors search for a suitable acquisition target. This process allows sponsors to accumulate a pool of capital specifically designated for future acquisitions of private companies. Once a suitable target is identified, the target company undergoes a merger with the SPAC, resulting in the transformation of the previously privately held company into a publicly listed operating entity.

The growing popularity of SPACs can be attributed to several factors. Firstly, SPACs provide an alternative path to going public, bypassing some of the challenges associated with traditional IPOs, such as the lengthy and complex registration process. This appeals to companies seeking a quicker and more streamlined route to accessing the financial markets.

Additionally, SPACs offer potential benefits to investors. They provide an opportunity to invest in early-stage companies with growth potential, as well as in sectors that may not be readily available through traditional IPOs. Moreover, SPACs often involve experienced sponsors or industry experts who possess the necessary knowledge and network to identify promising acquisition targets.

It is important to analyse the historical context of SPACs to gain a comprehensive understanding of their evolution and impact. Initially regarded as an unconventional method, SPACs have transformed from a niche option into a mainstream financing tool for companies. Their growing acceptance and popularity within the financial markets can be attributed to the success stories associated with notable SPAC acquisitions, which have demonstrated the potential for significant returns.

Extensive prior literature has provided valuable insights into the characteristics of SPAC mergers, which have important implications for financial reporting quality, internal controls,

and information asymmetry (Gryglewicz, 2022; Kim, 2022; Floros, 2009). Specifically, studies have revealed that SPAC mergers tend to exhibit lower-quality financial reporting, less effective internal controls, and higher levels of information asymmetry compared to other types of mergers. These findings lead us to hypothesize that audit firms may charge premiums for their services in SPAC reverse mergers, reflecting the higher audit risk and increased audit effort associated with these transactions.

Traditionally, audit business risk is defined as the probability that an auditor will suffer loss as a result of their relationship with a client. This loss can arise from various factors, including litigation, sanctions imposed by regulatory bodies, impaired reputation capital, or failure to collect fees Niemi (2002). In the context of SPAC mergers, the unique characteristics and complexities of these transactions may pose additional challenges and risks for audit firms.

Despite the recent rise in popularity, prior literature is still scarce, especially in the context of SPACs and audit fees. This too is partly due to the relatively recent surge in the popularity of SPACs and the dynamic nature of the financial landscape. The research on the relationship between SPACs and audit fees is still in its nascent stage, leaving a gap in our understanding of the factors influencing the pricing of audit services in the context of SPAC transactions.

Given the unique characteristics of SPACs, such as the absence of active operations at the time of the IPO and the subsequent acquisition of target companies, it is essential to examine the potential implications for audit fees. The complexity and inherent risks associated with SPAC mergers, including the identification and evaluation of suitable acquisition targets, due diligence processes, and potential uncertainties in the post-merger integration, suggest that audit firms may need to allocate additional resources and exert greater effort in the auditing of SPAC transactions. As a result, it is plausible to expect that audit fees in SPAC reverse mergers could differ from those in traditional IPOs.

By addressing the gap in the literature, this research aims to contribute to our understanding of the determinants of audit fees in SPAC mergers. It seeks to investigate whether the unique characteristics of SPACs, such as the information asymmetry, lower financial reporting quality, and higher audit risk associated with these transactions, lead to variations in audit fees compared to traditional IPOs. Furthermore, the study will explore other potential factors that may influence audit fees in SPAC reverse mergers, such as the reputation and expertise of the auditing firm, the size and complexity of the target company, and the regulatory environment.

This research aims to shed light on the potential effects of the IPO type, specifically focusing on SPACs and audit fees. The underlying hypothesis is that the increased audit risk, audit effort, or other unidentified factors associated with SPAC reverse mergers may lead to higher audit fees. By examining the relationship between the type of IPO (i.e., traditional IPO versus SPAC reverse merger) and audit fees, this study seeks to provide insights into the pricing of audit services in the context of SPAC transactions.

The research focuses on examining the relationship between IPO types, specifically regular IPOs and SPACs, and their association with audit fees within the timeframe of 2000 to 2020. To gain deeper insights into this relationship, the data is divided into four subgroups based on the firm's IPO size and the time period of the study. The analysis of these subsamples reveals a statistically significant negative association between audit fees and the independent variable SPAC, which takes a binary value of 1 for SPAC IPOs and 0 for regular IPOs.

These results are surprising, considering the consistent findings in prior literature that suggest firms undergoing SPAC IPOs tend to have lower accounting quality and more internal control weaknesses. The negative association between audit fees and SPAC IPOs implies that, contrary to expectations, audit firms may charge lower fees for auditing SPAC transactions compared to regular IPOs. This finding raises questions about the underlying factors influencing the determination of audit fees in the context of SPACs.

However, it is important to note that these findings should be interpreted with caution, and further investigation is needed to understand the underlying mechanisms and potential factors influencing audit fee differentials between regular IPOs and SPACs. Future research could explore additional variables, such as the reputation and expertise of audit firms, the complexity of SPAC transactions, and the specific regulatory environment surrounding SPACs, to provide a more comprehensive understanding of the determinants of audit fees in the context of SPAC IPOs.

The findings present an intriguing paradox, with a statistically negative association between audit fees and SPAC IPOs, despite prior literature reporting lower accounting quality and internal control weaknesses in SPACs. These unexpected results highlight the need for further investigation into the factors influencing audit fees in SPAC transactions and call for additional research to gain a more nuanced understanding of the dynamics between IPO types and audit fees.

While the study provides valuable insights into the relationship between IPO types (regular IPOs and SPACs) and audit fees, it is important to acknowledge certain limitations that may impact the generalizability and robustness of the findings.

Firstly, the study's time frame, covering the years 2000 to 2020, may not capture the full extent of the evolving landscape of SPACs and their impact on audit fees. The surge in SPAC popularity in recent years, particularly after 2020, could introduce dynamics and trends that are not fully captured within the study period. Therefore, caution should be exercised when extrapolating the findings to more recent years or future periods.

The subdivision of the data into four subgroups based on IPO size and time period, while providing a more granular analysis, may introduce sample size limitations within each subgroup. The smaller sample sizes in some subgroups could potentially impact the statistical power and precision of the analysis. Future research with larger sample sizes within each subgroup would help validate and strengthen the study's findings.

Moreover, the study focuses on the association between IPO types and audit fees and does not explore the underlying reasons for the observed negative association between SPAC IPOs and audit fees. Further research could delve into the specific factors influencing the determination of audit fees in SPAC transactions, such as the perceived audit risk, complexity of the transaction, or regulatory environment. Understanding these underlying mechanisms would provide a more comprehensive picture of the dynamics between IPO types and audit fees.

Lastly, the study's findings are based on the specific context and data sources used, which may limit their generalizability to other jurisdictions or settings. Different regulatory frameworks,

market conditions, and institutional factors could influence the relationship between IPO types and audit fees differently in various contexts. Replicating the study with data from different regions or markets would help assess the robustness and external validity of the findings.

## 2. Literature Review

Special Purpose Acquisition Companies (SPACs) have recently gained popularity as an alternative way for private firms to go public. While SPACs have several advantages over traditional Initial Public Offerings (IPOs), such as a shorter time frame to go public and reduced costs, there are concerns about the potential impact of this trend on audit fees. This literature review aims to explore the existing research on the relationship between SPAC mergers and audit fees, including the factors that may affect audit fees for post-merger SPACs compared to IPOs. By reviewing the current state of knowledge on this topic, this review aims to identify gaps in the literature and suggest areas for future research.

### *2.1. Accounting quality and internal control weaknesses in post-merger SPACs.*

Prior research theorized that the shorter time frame for private firms to prepare for going public through a SPAC merger may result in lower financial reporting quality compared to traditional IPOs. This is due to several factors, including limited time to hire and train accounting personnel, develop internal controls, and adjust to different accounting requirements for public companies. In addition, auditors may exert less effort in auditing private firms due to lower litigation risk. The reduced SEC review process for SPAC mergers may also contribute to lower-quality financial statements.

Kim, Park, Peterson, and Wilson (2022) conducted a study comparing the financial reporting quality of firms that go public via SPACs and traditional IPOs. Using various measures such as accounting restatements, internal control weaknesses, non-timely filings, amended filings, and SEC comment letters, the authors found that SPAC firms exhibit lower financial reporting quality than IPO firms. Specifically, SPAC firms are more likely to report accounting restatements, both material and immaterial, and are more susceptible to internal control weaknesses in financial reporting. SPAC firms also exhibit a lower level of preparedness and accounting infrastructure, as indicated by their higher likelihood of filing non-timely and amended filings and taking longer to address SEC comment letters. The analysis of the earnings response coefficient shows that the market discounts the earnings information from post-merger SPACs relative to IPO firms, indicating that the market views earnings surprises of SPAC firms as less credible, consistent with lower financial reporting quality documented in previous sections. The study suggests that SPAC firms have lower financial reporting quality primarily due to their lack of accounting infrastructure, including internal control systems and staffing, to meet the regulatory and filing requirements of a public firm.

Burnett, Ghosh, and Kong (2023) aim to re-examine the findings of Kim et al. (2022) using a more comprehensive sample of 145 de-SPACs. By using a larger and more inclusive sample,

they hope to provide a more accurate and robust analysis of the financial reporting problems associated with de-SPACs.

The study finds that de-SPACs are significantly more likely to experience material weaknesses, restatements, and non-timely annual filings compared to IPOs. These financial reporting problems persist for at least two years after the merger and are more severe than previously documented, indicating that information risk is much higher for de-SPACs than for IPOs. The authors suggest that small, private companies that lack the resources and infrastructure necessary to meet the regulatory and filing requirements of public firms may contribute to these problems. They also argue that time pressures associated with meeting regulatory hurdles during the merger year may be a factor.

Gryglewicz, Hartman-Glaser, and Mayer (2022) found that SPAC financing is more valuable for firms with high asset intangibility, innovative business models, or uncertain technology, which are more likely to face adverse selection problems. The study also suggests that SPAC financing expands the set of firms that can go public, particularly early-stage firms that are excluded from traditional private equity-to-IPO financing, which further adds to the argument that post-merger SPACs face financial reporting problems.

## *2.2. Internal control weaknesses and audit premiums.*

According to AS 2301.34, if an auditor plans to rely on internal controls for a financial statement audit but finds them ineffective, the auditor must revise their control assessment and modify the planned substantive procedures accordingly. Modifying planned substantive procedures usually results in an increase in the extent of substantive testing, which is expected to be less efficient than an audit approach relying on internal controls. Prior research has found a positive association between audit fees and internal control weaknesses, suggesting that the increase in fees is due to higher auditor effort. However, due to a lack of data, a fee premium cannot be ruled out for this association between audit fees and material weaknesses.

Bae et al. (2021) conducted a study to examine the relationship between reported material weaknesses in internal controls and audit fees, audit effort, and fee premiums. The study found a positive association between reported material weaknesses and audit fees, with clients having 7.9% higher total audit fees than those without such weaknesses. There was also an economically meaningful fee premium for clients with low-quality internal control, with auditors charging a 6.0% increase in the rate per hour if there is a reported material weakness. The study also found that auditors exert additional effort if there is a reported material weakness for companies with high-quality alternative governance mechanisms, but do not appear to charge a fee premium.

Similarly, Hogan and Wilkins (2008) examined the relationship between internal control weaknesses and audit fees using a sample of firms with material weaknesses in internal control disclosed in their annual reports. The study found a positive association between the presence of material weaknesses and audit fees, indicating that auditors charge higher fees for clients with internal control weaknesses. The study also found that the positive association is stronger for firms with more severe material weaknesses, larger firms, and firms with higher levels of

uncertainty. These findings suggest that auditors perceive greater audit risk in firms with internal control weaknesses and charge higher fees to compensate for the increased risk.

### *2.3. Audit fees and litigation risk.*

Despite extensive research on the determinants of audit fees, the literature has yet to provide a clear understanding of how premiums are incorporated into the overall audit fees and have mainly focused on premiums associated with litigation risk. For instance, Pratt and Stice (1994) argued that audit fees comprise not only the cost of collecting audit evidence but also a premium intended to cover potential litigation risks. This implies that auditors charge higher fees to compensate for the higher risk of litigation they face when auditing clients that are perceived to be more litigious. Similarly, Houston et al. (1999) found that audit fees reflect the risk of irregularities, which suggests that auditors charge higher fees for riskier clients to compensate for the additional effort and resources required to mitigate those risks.

These studies base their research on the fact that when audit firms undertake engagements with higher audit litigation risk, they are anticipated to respond by either increasing fees to account for the additional audit production effort required to reduce the risk of failing to detect material misstatement or adding a risk premium to account for higher expected future litigation costs.

The study by Abbott, Gunny, and Pollard (2017) investigates the impact of going public through a reverse merger on audit fees. The study found that companies that undergo a reverse merger are likely to face higher audit fees due to the increased litigation risk that comes with being a publicly traded company. Specifically, the study found a 27% audit fee premium associated with the increased litigation risk arising from the newly created, publicly traded status for the sample firms' equity. Institutional ownership was also found to be positively associated with audit fees as institutional investors demand greater audit effort. Furthermore, many reverse mergers involve loss firms, which are generally more prone to litigation, further increasing the likelihood of higher audit fees.

Additionally, Badertscher et al. (2014) conducted a study to investigate whether public firms pay higher audit fees than private firms and to identify the factors driving these differences. The study used a sample of U.S. firms that underwent an initial public offering (IPO) between 2001 and 2008, as well as a control group of private firms matched based on size, industry, and other characteristics. The study found that public firms have higher audit fees than private firms, even after controlling for other firm and audit characteristics. The estimated coefficient suggests that audit fees are 20-22% higher for public firms than for private firms. The study suggests that the higher audit fees for public firms are likely due to higher litigation channel effects and that audit fees are higher for public firms due to the increased litigation risk associated with their publicly traded status.

In a similar study, Venkataraman, Weber, Willenborg (2008) investigated the factors that affect audit fees for companies going through an initial public offering (IPO). The authors found that audit fees increase with company size and decrease with profitability. They also found that audit fees are higher for IPOs compared to post-IPO engagements, which may be due to the increased audit responsibilities and litigation exposure that come with an IPO. The study



suggested that auditors expend more effort in accordance with their litigation liability risk exposure. Additionally, the study found that audit fees are generally higher for IPOs and decline for about 90% of the sample after the IPO. The authors concluded that their findings support the view that auditors receive higher fees for the increased litigation risk associated with IPOs, and that IPO proceeds measure the auditor's maximum litigation.

Prior research has established the role of litigation risk as a significant driver of higher audit fees for SPACs. However, there are other potential factors that can also impact audit fees in this context. One such factor is the amount of audit effort required to perform the audit. SPACs are distinct from other companies in terms of their limited operating history and complex capital structures. These unique features of SPACs may require additional audit effort, which could increase audit fees beyond what is predicted by litigation risk alone. Furthermore, the SPAC environment itself may have an impact on audit fees. For example, the compressed timeline of the SPAC process may necessitate more intensive audit procedures, which in turn could result in higher audit fees. Therefore, this study aims to investigate the potential impact of not only litigation risk but also audit effort and other contextual factors on audit fees for SPACs, providing a more comprehensive understanding of the determinants of audit fees in this specific setting.

### 3. Hypothesis Development

There is a growing body of literature that examines the relationship between control weaknesses, financial reporting quality, litigation risk, and audit fees, particularly in the context of SPAC mergers. SPACs are unique in that they are typically formed by experienced investors and entrepreneurs, who may not have the same level of experience with regulatory compliance and financial reporting as established public companies. As a result, they are more likely to exhibit material control weaknesses and lower financial reporting quality. This not only increases the audit effort but also the inherent risk of the underlying firm, which can lead to higher audit fees due to increased litigation risk (Abbott, Gunny, and Pollard, 2017).

Moreover, the SPAC-merger environment is characterized by greater information asymmetry, which can further increase litigation risk for the auditor. Gryglewicz, Hartman-Glaser, and Mayer (2022) suggest that this information asymmetry is due to the fact that SPACs are not subject to the same disclosure requirements as traditional IPOs, which can result in less transparency not only within the company but also between the management and the auditor. This lack of transparency can make it difficult for auditors to evaluate the accuracy and completeness of financial reporting, which in turn increases the risk of material misstatements and potential litigation. As such, it is reasonable to expect that SPAC mergers would be associated with higher audit fees due to increased litigation risk and the need for auditors to devote additional resources to address the unique risks associated with these transactions.

Prior research indicates that SPAC mergers are associated with lower-quality internal controls compared to traditional IPOs (PwC, 2021; KPMG, 2021). The founders of SPACs are often

seasoned investors and entrepreneurs who may lack experience in regulatory compliance and financial reporting, creating internal control weaknesses Bae et al.(2021). These deficiencies make auditors more hesitant to rely on internal controls to evaluate the accuracy of financial reporting, leading to an increase in substantive procedures and audit hours. To better understand the issues, auditors are required to conduct more detailed testing of internal controls, which adds to the overall audit effort.

The lower quality of internal controls associated with SPAC mergers can lead to increased audit effort and higher audit fees. Auditors must perform more detailed testing of internal controls and rely more on substantive procedures, which can increase the cost of the audit. As the popularity of SPAC mergers continues to grow, it is important for auditors to remain vigilant in their audit procedures to ensure the accuracy and reliability of financial reporting for these

Based on the evidence presented, it is posited that the null hypothesis be put forth, namely that Special Purpose Acquisition Company (SPAC) mergers do not offer any additional audit risk premiums as compared to regular Initial Public Offerings (IPOs). This hypothesis is premised on the argument that although SPAC mergers may involve higher risks, they also provide distinctive benefits such as access to experienced management teams and network contacts. Additionally, it is suggested that the increasing popularity of SPACs may have given rise to greater competition among auditors, leading to a decline in fees. Nonetheless, it is imperative that further research be conducted to evaluate this hypothesis and provide a more comprehensive understanding of the association between SPAC mergers and audit fees.

**Hypothesis 1:** *Audit firms do not impose additional fees for Special Purpose Acquisition Companies (SPACs) in contrast to traditional Initial Public Offerings (IPOs).*

## 4. Sample & Methodology

The study was conducted using a sample period from 2000 to 2022, focusing exclusively on firms listed in the United States. For the purpose of controlling potential variations in audit fees attributable to auditors located outside the United States, all firms listed outside the US were excluded from the sample. This approach was taken to ensure greater consistency, as the selection of auditors for non-US listed firms can vary, often aligning with the location of the firm's headquarters. Rigorous data collection procedures were employed to ensure data quality and reliability.

I obtained audit fee data, IPO type, and restatement data from Audit Analytics. To construct the control variables for the analysis, I utilized data from Compustat, a trusted database known for its extensive company information.

**TABLE 1: Sample Selection and Sample Distribution**

Panel A: Sample selection procedure						
			N			
Sample procedure			Cases	Firm-year		
IPOs in US stock exchanges between 2000 and 2020			2138			
<i>Less:</i> IPOs with headquarters outside the US			1457			
Final sample of IPOs and IPO-year observations			681	1925		
<i>Less:</i> missing values to calculate my control variables			80	284		
Final Sample			601	1641		
Panel B: Frequency of IPOs						
Year	Frequency	Percent	Year	Frequency	Percent	
2000	6	1%	2011	24	4%	
2001	5	0.80%	2012	30	5%	
2002	9	1.50%	2013	41	6.80%	
2003	9	1.50%	2014	47	7.80%	
2004	11	1.80%	2015	39	6.50%	
2005	14	2.30%	2016	56	9.30%	
2006	18	3%	2017	44	7.30%	
2007	21	3.50%	2018	49	8.10%	
2008	9	1.50%	2019	58	9.60%	
2009	7	1.10%	2020	82	13.60%	
2010	22	3.70%		601		

During the data cleaning process, I paid careful attention to handling missing values. Observations with missing data were excluded from the final sample to ensure the integrity and accuracy of the analysis. As a result, the sample was refined and consisted of 601 initial public offerings (IPOs), out of which 187 were categorized as Special Purpose Acquisition Companies (SPACs).

To test the research hypotheses, I took a focused approach by considering only the observations from the year of each company's IPO and the two subsequent years of their public operations. This time frame allowed for a comprehensive examination of the IPOs' performance and dynamics during their early stages.

**TABLE 2: Descriptive Statistics and Correlation Matrix****Panel A: Descriptive Statistics Table**

Statistic	N	Mean	Median	Min	Max	Pctl(25)	Pctl(75)	St. Dev.
T_Assets	1,641	5.78	5.74	-1.17	12.33	4.74	6.94	1.78
Intangible	1,641	-1.12	1.57	-9.21	10.04	-9.21	4.52	6.61
Audit_fee	1,641	13.58	13.65	7.56	17.11	12.90	14.30	1.10
Big_4	1,641	0.18	0	0	1	0	0	0.40
SPAC	1,641	0.11	0	0	1	0	0	0.29
ROA	1,641	-0.26	-0.06	-16.70	0.58	-0.32	0.03	0.80
Leverage	1,641	-2.14	0.12	-395.66	186.88	0.00	0.69	98.44

**Panel B: Correlation Matrix**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) T_Assets		0.513***	0.705***	0.135***	0.034	0.479***	-0.058*
(2) Intangible	0.513***		0.454***	0.059*	0.020	0.258***	-0.030
(3) Audit_fee	0.705***	0.454***		0.152***	-0.030	0.251***	0.056*
(4) Big_4	0.135***	0.059*	0.152***		-0.010	0.051*	0.015
(5) SPAC	0.034	0.020	-0.061*	-0.056*		0.022	-0.082**
(6) ROA	0.479***	0.255***	0.251***	0.051*	0.022		-0.004
(7) Leverage	-0.058*	-0.030	0.056*	0.015	-0.082**	-0.004	

Table 1 Panel A presents Pearson correlations between the key variables and Panel B reports descriptive statistics for all test variables. For the Correlation Table \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively

It is worth noting that some IPOs from the year 2020 were included in the final sample, despite not having publicly released their financial data for the year 2022 at the time of analysis. As a

result, certain firm observations have two-year observations, providing a unique opportunity to investigate the longitudinal effects of IPOs.

The final sample size comprised a total of 1,641 firm-year observations, providing a robust foundation for analysing the research hypothesis.

It is worth noting that some observations in the dataset had multiple auditors in the same year. This posed challenges to the sample, necessitating the aggregation of fees from all auditors to calculate the total audit fees. Additionally, in cases where a company had both a non-Big 4 auditor and a Big 4 auditor in the same year, the binary variable  $Big\_4_{i,t}$  was set to 1, treating the auditor as if it was a Big 4 company.

Furthermore, a similar adjustment was made when one auditor reported a restatement of the financial statements for a company in a specific year while another auditor did not. In such cases, the binary variable was modified accordingly.

To explore the intricate relationship between the type of initial public offering (IPO) and audit fees, I conducted a comprehensive analysis using a linear regression model (Equation 1). With a focus on the context of US-based firms, this study aimed to examine how the IPO type, specifically Special Purpose Acquisition Companies (SPAC) IPOs versus regular IPOs, influences the magnitude of audit fees. By delving into this relationship, valuable insights can be gained regarding the financial implications and unique characteristics associated with different types of IPOs.

To ensure the robustness of the analysis, industry-year fixed effects were incorporated into the regression model. This approach effectively controlled for the potential confounding effects stemming from variations across industries and time periods. By accounting for these factors, I aimed to isolate the specific influence of the IPO type on audit fees, thus providing a more accurate depiction of their relationship.

$$Audit.Fee_{i,t} = \beta_0 + \beta_1 SPAC_{i,t} + \beta_2 T_{Assets}_{i,t} + \beta_3 Intangible_{i,t} + \beta_4 Big4_{i,t} + \beta_5 ROA_{i,t} + \beta_6 Leverage_{i,t} + e_{i,t} \quad (1)$$

Where:

$Audit.Fee_{i,t}$ : The total audit fees company  $i$  paid in year  $t$ .

$SPAC_{i,t}$ : Binary variable equal to 1 for companies that went public via SPAC mergers and 0 otherwise.

$T\_Assets_{i,t}$ : The logarithm of the total assets of company  $i$  in year  $t$ .

$Intangible_{i,t}$ : The logarithm of the total intangible assets of company  $i$  in year  $t$ . This is an absolute number and not a percentage of total assets.

$Big\_4_{i,t}$ : Binary variable equal to 1 if the auditor of company  $i$  in year  $t$  was a big-4 company and 0 otherwise.

$ROA_{i,t}$ : Return on assets of company  $i$  in year  $t$ .

$Leverage_{i,t}$ : A ratio of company's  $i$  total debt to equity in year  $t$ .

To gain a deeper understanding of the relationship between audit fees and the type of IPO, I divided the sample into four distinct groups based on the size of the company and the time period. Specifically, the groups consist of large firm IPOs before 2015, small firm IPOs before 2015, large firm IPOs after 2015, and small firm IPOs after 2015. The categorization of large firms is determined by their total assets being above the median value. The choice of 2015 as the dividing year was guided by several considerations. Firstly, the majority of observations in the sample are a result of IPOs that occurred in the last decade, with relatively fewer observations from earlier years. By selecting 2015, I aimed to ensure a more even distribution of observations in each time period, enhancing the statistical power and comparability of the results.

Splitting the sample based on both the size of the company and the time period offers several advantages in analysing the relationship between audit fees and IPO type. Firstly, it allows for a comprehensive examination of potential variations over time. By comparing audit fees and IPO types across two distinct time periods (pre-2015 and post-2015), I can assess if there are any noteworthy changes or trends in the relationship.

Moreover, the size-based grouping provides valuable insights into the influence of company size on audit fees and IPO types. Large and small firms often exhibit distinct characteristics, such as differences in financial resources, organizational complexity, and market presence. By separately analysing the two size groups, I can explore if the effects of variables such as auditor reputation, financial performance, or regulatory requirements vary between large and small firms.

Conducting a comparative analysis between large and small firms within each time period offers a deeper understanding of the factors influencing audit fees and IPO types. It allows me to examine whether the relationships hold consistently across both size groups or if there are specific dynamics unique to each group. This comparative approach facilitates the identification of potential disparities or similarities, contributing to a more nuanced interpretation of the findings.

Furthermore, by investigating the relationship between audit fees and IPO types in different subgroups, the research outcomes become more robust and generalizable. Consistent patterns or divergent effects observed across various groups enhance the reliability and validity of the research conclusions. The findings can be extended to a broader context, providing insights into the factors shaping audit fees and IPO types in companies of different sizes and during different time periods.

## 5. Results

Table 3 provides the regression results, examining the impact of the type of IPO on audit fees. The analysis is divided into two separate samples: one comprising large firms (Columns 1 and 2) and the other consisting of smaller-sized firms (Columns 3 and 4). Additionally, the time periods covered in the analysis differ, with Columns 1 and 3 representing the years 2016 to 2022, while Columns 2 and 4 encompass the years 2000 to 2015.

**Table 3: The impact of the type of IPO on Audit fees.**

	<i>Dependent variable:</i>			
	Audit_fee			
	(1)	(2)	(3)	(4)
SPAC	-0.337*	-1.388***	-0.498*	-0.853**
	(0.180)	(0.255)	(0.264)	(0.344)
T_Assets	0.354***	0.467***	0.486***	0.432***
	(0.053)	(0.097)	(0.055)	(0.052)
Intangible	0.026**	-0.004*	0.010*	0.005*
	(0.011)	(0.012)	(0.013)	(0.011)
ROA	-0.722***	-0.512*	-0.109**	-0.048**
	(0.194)	(0.393)	(0.043)	(0.031)
Big_4	0.086	0.057	0.223***	0.007
	(0.079)	(0.070)	(0.075)	(0.089)
Leverage	0.001***	0.001	-0.001	-0.008*
	(0.0001)	(0.003)	(0.008)	(0.004)
Observations	472	350	453	366
R <sup>2</sup>	0.642	0.852	0.618	0.673
Adjusted R <sup>2</sup>	0.535	0.776	0.538	0.565
Residual Std. Error	0.570 (df= 363)	0.450 (df= 230)	0.632 (df= 374)	0.577 (df= 274)

Table 3 presents the results Table 2 presents the results from estimating the following OLS regression:

$$\begin{aligned}
 Audit.Fee_{i,t} = & \beta_0 + \beta_1 SPAC_{i,t} + \beta_2 T_{Assets}_{i,t} + \beta_3 Intangible_{i,t} + \beta_4 Big_4_{i,t} + \beta_5 ROA_{i,t} \\
 & + \beta_6 Leverage_{i,t} + e_{i,t}
 \end{aligned}$$

The dependent variable is Audit fees and the independent variable is SPAC, binary which is equal to 1 for SPAC mergers and 0 for regular IPOs. Columns 1 and 2 represent the regression results for large IPO firms while columns 3 and 4 present the results for smaller firms. Columns 1 and 3 represent the period from 2016 to 2022 and columns 2 and 4 the period from 2000 to 2015. . Estimated t-statistics are presented in parentheses. Detailed variable definitions are provided in Appendix A. t-statistics are provided in parentheses. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

In Column (1), focusing on the large firm sample, the coefficient estimate for the variable "SPAC" is -0.337, indicating a negative relationship with audit fees. The coefficient is statistically significant at the 10% level, suggesting that larger firms undergoing SPAC IPOs pay approximately 29% less in audit fees compared to their counterparts who opt for regular IPOs during the immediate post-IPO period.

Furthermore, the significance of this finding is even more pronounced in the context of smaller-sized firms, as indicated by the regression results in Column (2). The coefficient for small firms undergoing IPOs with a SPAC merger is estimated to be -0.498, indicating that these smaller SPAC IPOs pay almost 40% less in audit fees compared to firms choosing the traditional IPO route. The coefficient is statistically significant at the 10% level.

These findings provide strong evidence that the type of IPO has a substantial impact on audit fees, with both large and small firms that opt for SPAC IPOs experiencing lower audit fees compared to firms conducting regular IPOs. These results suggest that the unique characteristics and regulatory aspects associated with SPAC IPOs may contribute to the observed cost savings in audit fees.

In Column (2), we present the results for larger IPO firms prior to 2015. The coefficient of SPAC in this group is -1.388, which is statistically significant at the 1% level. This negative and significant coefficient indicates that larger firms that went public through a SPAC merger before 2015 paid approximately 75% less in audit fees compared to firms that followed a regular IPO.

Similarly, in Column (4), we observe a coefficient of -0.853, which is statistically significant at the 5% level. This suggests that smaller-sized firms that underwent a SPAC merger before 2015 paid around 58% less in audit fees compared to their counterparts.

These results reveal a substantial economic and statistical difference between the two time periods. It appears that in the past, companies opting for SPAC IPOs experienced significantly lower audit fees. However, the magnitude of this effect has become less pronounced in recent years.

The findings from Gryglewicz, Hartman-Glaser, and Mayer (2022), which highlight that private companies excluded from the traditional IPO process often pursued SPAC mergers, align with the results of this research. Together, these findings suggest that regulatory changes, such as the FAST Act and Regulation A+, may have had a significant impact on the relationship between audit fees and the type of IPO.

The FAST Act and Regulation A+ had a notable impact on the IPO landscape by providing opportunities for companies that may have previously encountered regulatory obstacles in pursuing a traditional IPO. These acts aimed to promote capital formation and expand access to public markets, particularly for smaller and emerging companies.

The unexpected negative coefficients could be attributed to several factors. Previous literature has highlighted that SPAC firms often experience less lengthy SEC review processes and encounter fewer legal preparation requirements (Floros and Travis, 2011). This streamlined process and simplified operations may result in lower direct expenses for SPACs and, consequently, lower audit fees.



Furthermore, regulatory differences between SPACs and regular IPOs may contribute to the observed relationship. Specifically, one regulatory difference relates to the financial reporting requirements. The Private Securities Litigation Reform Act (PSLRA) introduced several reforms to securities litigation, such as stricter pleading requirements, limitations on class actions, and safe harbour provisions for forward-looking statements. These provisions were intended to reduce the costs and uncertainties associated with securities litigation and provide certain benefits to issuers (SEC 2021).

In the context of SPACs, it is possible that the provisions of the PSLRA, which aim to mitigate the risk and potential costs of securities litigation, could indirectly contribute to decreased audit fees. By providing certain protections to issuers, including SPACs, the PSLRA may enhance the perceived level of legal and regulatory risk associated with these companies, potentially reducing the audit work required and, consequently, the audit fees.

However, it's important to note that the PSLRA's impact on audit fees for SPACs specifically has not been extensively studied in the academic literature.

To further explore the dynamics between IPO type and audit fees, future research could consider the long-term effects of the IPO type beyond the initial IPO year. By focusing on the subsequent years and excluding the IPO year from the analysis, it becomes possible to assess whether the IPO type has a lasting impact on audit fees. This approach allows for a more accurate evaluation of the persistent effects of the IPO type on audit costs, independent of any temporary fluctuations or unique circumstances associated with the IPO year.

By adopting this long-term perspective, it is possible to gain insights into the ongoing implications of the IPO type on audit fees, providing a comprehensive understanding of the relationship. Sensitivity analyses can be conducted to compare the results with and without the IPO year included in the model, further evaluating the robustness of the findings.

Furthermore, an additional hypothesis can be proposed to explain the higher audit fees observed for regular IPOs compared to SPAC IPOs. It is plausible that the more lengthy and expensive process associated with a regular IPO may have an effect on audit fees. This can be attributed to the extensive legal and regulatory requirements involved in a traditional IPO, including the preparation of detailed prospectuses, compliance with securities laws, and thorough due diligence procedures. These processes often necessitate significant time and resources, which can contribute to higher audit fees.

In contrast, SPAC IPOs may benefit from a streamlined and expedited process, as they involve a merger with an existing entity rather than the traditional route of conducting an initial public offering. This simplified process could result in lower transaction costs and reduced legal and regulatory complexities, potentially leading to lower audit fees for SPAC firms.

To test this hypothesis, future research can delve deeper into the specific factors that contribute to the higher costs associated with a regular IPO process. This can include an examination of legal and advisory fees, regulatory compliance expenses, and the additional due diligence required for traditional IPOs. By quantifying these factors and their impact on audit fees, a more comprehensive understanding of the underlying drivers of audit costs can be gained.

Moreover, sensitivity analyses can be conducted to assess the robustness of the findings and the significance of the IPO year. By excluding the IPO year from the analysis and focusing on subsequent years, it becomes possible to disentangle the long-term effects of the IPO type from

the immediate impact of the IPO process itself. This approach allows for a more accurate evaluation of the persistent effects of the IPO type on audit fees, independent of any temporary fluctuations or unique circumstances associated with the IPO year.

In summary, the higher audit fees observed for regular IPOs compared to SPAC IPOs may be influenced by the more lengthy and expensive process associated with a traditional IPO. The extensive legal and regulatory requirements, along with the significant time and resources involved, may contribute to the higher audit costs. On the other hand, the streamlined and simplified process of SPAC IPOs may result in lower audit fees. By exploring the specific factors driving these cost differentials and conducting sensitivity analyses to account for the timing of the IPO, a more nuanced understanding of the relationship between IPO type and audit fees can be achieved. The complexity and variability of these findings highlight the intricate interplay between audit-related factors and IPO types. Understanding the underlying factors and mechanisms that contribute to these outcomes is crucial for making well-informed decisions and considering appropriate regulatory measures within the realm of SPAC IPOs. Further research and exploration are warranted to gain a more comprehensive understanding of the intricate dynamics at play in order to provide valuable insights and guidance to stakeholders involved in the IPO process.

## 6. Additional Analysis

In order to gain further insights into the relationship between the type of IPO and audit fees, I conducted an additional cross-sectional analysis to examine potential variations across industries within the sample. This analysis draws inspiration from prior studies, specifically Abbott, Gunny, and Pollard (2017) and Francis, Philbrick, and Schipper (1994). To capture potential differences in the probability of accounting-related litigation across industries, the sample was divided into two subgroups.

Following the approach outlined by Abbott, Gunny, and Pollard (2017) and Francis, Philbrick, and Schipper (1994), the split was based on the probability of accounting-related litigation as a proxy for legal risk within each industry. This approach allows for a more nuanced examination of the association between the type of IPO and audit fees within distinct industry segments.

By dividing the sample into subgroups characterized by varying levels of litigation risk, it becomes possible to explore whether the relationship between IPO type and audit fees is more pronounced in industries with higher litigation risk compared to those with lower litigation risk. This cross-sectional analysis offers a valuable perspective to understand how the association between IPO type and audit fees may vary across different industry contexts.

The regression models were then run separately for the two subgroups, allowing for a direct comparison of the estimated coefficients associated with the type of IPO. This enables an assessment of whether the magnitude or statistical significance of the relationship between IPO type and audit fees differs between the two industry subgroups.

Table 4 provides an overview of the results obtained from the cross-sectional analysis, which aimed to investigate the relationship between the type of IPO and audit fees, considering

variations in litigation risk across industries. The analysis was conducted using a sample of 1,641 firm-year observations, of which 792 were classified as high litigation risk observations, while the remaining 849 were categorized as lower litigation risk observations.

**Table 4: Cross-Sectional Analysis**

	<i>Dependent variable:</i>	
	Audit_fee	
	(1)	(2)
SPAC	-0.419** (0.185)	-0.600*** (0.185)
T_Assets	0.434*** (0.033)	0.465*** (0.038)
Intangible	0.013* (0.008)	0.016* (0.010)
ROA	-0.067*** (0.022)	-0.088** (0.070)
Big_4	0.146*** (0.045)	0.096* (0.057)
Leverage	-0.002 (0.003)	0.001*** (0.0001)
Observations	792	849
R <sup>2</sup>	0.702	0.784
Adjusted R <sup>2</sup>	0.672	0.724
Residual Std. Error	0.582 (df= 719)	0.604 (df= 666)

Table 3 presents the results of the cross-sectional analysis. The dependent variable is Audit fees and the independent variable is SPAC, binary which is equal to 1 for SPAC mergers and 0 for regular IPOs. Column 1 presents the results from the higher risk subsample and Column (2) presents the results from the lower risk subsample. . Estimated t-statistics are presented in parentheses. Detailed variable definitions are provided in Appendix A. t-statistics are provided in parentheses. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

In Column (1) of Table 4, the results pertaining to the high litigation risk subsample are presented. The coefficient for the variable SPAC is estimated to be -0.419, and the statistical analysis reveals that this coefficient is significant at the 5% level. This finding suggests that, on average, firms opting for a SPAC IPO within high-risk industries experience a reduction of approximately 35% in their audit fees compared to their counterparts who choose a traditional IPO. These results indicate that the presence of higher litigation risk in these industries is associated with a notable decrease in audit fees for SPAC firms during their initial years as publicly traded entities.

Moving to Column (2) of Table 4, the focus shifts to the subsample consisting of lower litigation risk firms. The coefficient for the SPAC variable in this subsample is estimated to be -0.600, with the statistical analysis demonstrating that it is significant at the 1% level. This outcome suggests that, on average, SPAC firms operating in lower-risk industries exhibit a reduction of approximately 45% in their audit fees compared to their counterparts who pursue a traditional IPO. These results highlight that, even within industries characterized by lower litigation risk, the choice of a SPAC IPO is associated with substantial savings in terms of audit fees.

To assess the statistical significance of the observed difference in coefficients, a Chow test was employed, a commonly used technique in time series analysis as well as in cross-sectional studies, first introduced in the 1960s by the economist Gregory Chow. The Chow test is particularly useful for examining structural changes or variations between different subgroups or samples. In this analysis, it was employed to investigate the significance of the coefficient differences within an industry context.

The Chow test yielded a notable Chow statistic of approximately 6.9, indicating a substantial deviation from the null hypothesis of no difference in coefficients between the two regression models. Additionally, the associated p-value was found to be remarkably close to 0, suggesting an exceedingly low probability of obtaining such a large difference in coefficients by chance alone.

These compelling results provide strong evidence to support the claim that the observed disparity in coefficients is statistically significant in magnitude. Thus, we can confidently conclude that there is a substantial and meaningful discrepancy in the effects of the binary independent variable across the analysed industry groups. This finding enhances our understanding of the distinct relationships between the independent variable and the dependent variable within each industry, emphasizing the importance of considering industry-specific factors in the regression analysis.

The findings of the analysis reveal an intriguing pattern regarding the coefficients of the SPAC variable across different industry risk levels. Specifically, in the subsample of less risky industries, the coefficient for the SPAC variable is both greater in magnitude and more statistically significant compared to the high-risk industries subsample. This suggests that industry risk plays a pivotal role in driving audit fees, with the type of IPO (SPAC or traditional) exerting a relatively less pronounced influence.

Prior literature has established a link between SPAC firms and higher litigation risk, which aligns with the prevailing perception of SPACs as riskier ventures. Consequently, it is plausible to attribute the observed difference in coefficients to the increased risk associated with SPACs. In less risky industries, where overall litigation risk is relatively lower, the impact of the type

of IPO becomes more discernible, leading to a more significant coefficient for the SPAC variable.

However, it is crucial to acknowledge that additional factors may contribute to the observed discrepancies in coefficients. These factors could encompass variations in competitive dynamics, prevailing market conditions, or idiosyncratic characteristics of the firms themselves. Therefore, while the heightened litigation risk linked to SPACs likely plays a role, it is important to consider the influence of other variables in order to obtain a comprehensive understanding of the differential coefficients.

Taken together, these findings underscore the robustness of the relationship between the type of IPO and audit fees across different levels of litigation risk within various industries. The significant negative coefficients obtained for both the high litigation risk and lower litigation risk subsamples indicate that the cost advantage of opting for a SPAC IPO persists regardless of the prevailing litigation risk level. This suggests that the potential benefits of the SPAC route in terms of audit fee reduction extend beyond industries with higher litigation risk to encompass sectors characterized by lower litigation risk as well.

## 7. Conclusion

In conclusion, this research investigated the relationship between IPO types (regular IPOs and SPACs) and audit fees, focusing on the period from 2000 to 2020. By analysing the data and conducting subgroup analysis based on firm size and time period, several important insights emerged.

The findings revealed a statistically negative association between SPAC IPOs and audit fees, contrary to prior literature's indication of lower accounting quality and more internal control weaknesses in SPAC transactions. This unexpected result challenges the conventional assumption that SPAC mergers would lead to higher audit risk and increased audit effort, subsequently resulting in higher audit fees. The observed negative association suggests the presence of other factors influencing audit fee determination in the context of SPACs that have yet to be fully explored.

However, it is important to acknowledge the limitations of this study. The research period covering 2000 to 2020 might not fully capture the recent surge in SPAC popularity and its evolving dynamics. The subdivision of the data into subgroups based on firm size and time period may also introduce sample size limitations, which could impact the statistical power of the analysis.

Further research is warranted to delve into the underlying reasons for the observed negative association between SPAC IPOs and audit fees. Exploring factors such as perceived audit risk, transaction complexity, and regulatory environment specific to SPAC transactions could shed more light on this relationship.

Moreover, expanding the study to include a wider range of years and incorporating data from different regions or markets would enhance the generalizability of the findings. Additionally, examining other dimensions of audit quality beyond audit fees, such as audit duration or the

nature of audit procedures, could provide a more comprehensive understanding of the auditing implications related to SPAC transactions.

Despite these limitations, this research contributes to the existing literature by examining the relationship between IPO types and audit fees in the context of SPACs. The findings challenge conventional assumptions and highlight the need for further investigation into the factors influencing audit fee determination in SPAC transactions.

Overall, this research contributes to the understanding of the auditing implications associated with different IPO types and provides a foundation for future studies to explore this area in greater depth. The insights gained from this research have implications for auditors, regulators, and companies considering SPAC transactions, helping them navigate the complexities of audit fee determination and enhance transparency in the financial reporting process.

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## Appendix A: Variable definition

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<b>Variable</b>	<b>Definition</b>
<i>Audit.Fee</i> <sub><i>i,t</i></sub>	The total audit fees company <i>i</i> paid in year <i>t</i> .
<i>SPAC</i> <sub><i>i,t</i></sub>	Binary variable equal to 1 for companies that went public via SPAC mergers and 0 otherwise.
<i>T_Assets</i> <sub><i>i,t</i></sub>	The logarithm of the total assets of company <i>i</i> in year <i>t</i> .
<i>Intangible</i> <sub><i>i,t</i></sub>	The logarithm of the total intangible assets of company <i>i</i> in year <i>t</i> . This is an absolute number and not a percentage of total assets.
<i>Big_4</i> <sub><i>i,t</i></sub>	Binary variable equal to 1 if the auditor of company <i>i</i> in year <i>t</i> was a big-4 company and 0 otherwise.
<i>ROA</i> <sub><i>i,t</i></sub>	Return on assets of company <i>i</i> in year <i>t</i> .
<i>Leverage</i> <sub><i>i,t</i></sub>	A ratio of company's <i>i</i> total debt to equity in year <i>t</i> .

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## References

Abbott, L.J., Gunny, K. and Pollard, T. (2017), “The impact of litigation risk on auditor pricing behavior: evidence from reverse mergers”, *Contemporary Accounting Research*, Vol. 34 No. 2, pp. 1103-1127

AS 2301.34, issued by the Public Company Accounting Oversight Board [https://assets.pcaobus.org/pcaob-dev/docs/default-source/standards/auditing/documents/auditing\\_standards\\_audits\\_after\\_december\\_15\\_2020.pdf?sfvrsn=5862544e\\_4](https://assets.pcaobus.org/pcaob-dev/docs/default-source/standards/auditing/documents/auditing_standards_audits_after_december_15_2020.pdf?sfvrsn=5862544e_4)

Bae, Gil Soo and Choi, Seung Uk and Lamoreaux, Phillip T. and Lee, Jae Eun, Auditors’ Fee Premiums and Low Quality Internal Controls (March 24, 2020). *Contemporary Accounting Research*, Forthcoming, Available at SSRN: <https://ssrn.com/abstract=3564505>

Blankespoor, Elizabeth and Hendricks, Bradley E. and Miller, Gregory S. and Stockbridge, DJ, A Hard Look at SPAC Projections (February 1, 2022). *Management Science*, 68 (6), 4742-4753., Available at SSRN: <https://ssrn.com/abstract=3961848>

Burnett, Brian and Ghosh, Al (Aloke) and Kong, Lingfei, Information Risk and Stock Returns of Companies Going Public by Merging with SPACs (January 23, 2022). Olin Business School Center for Finance & Accounting Research Paper No. 2022/02, Available at SSRN: <https://ssrn.com/abstract=4143440>

Chow, G. C. (1960). Tests of Equality between Sets of Coefficients in Two Linear Regressions. *Econometrica*, 28(3), 591-605.

Floros Ioannis V. and Shastri, Kuldeep, A Comparison of Penny Stock Initial Public Offerings and Reverse Mergers as Alternative Mechanisms to Going Public (August 24, 2009). Available at SSRN: <https://ssrn.com/abstract=1460979>

Francis, J., Philbrick, D., & Schipper, K. (1994). Shareholder Litigation and Corporate Disclosures. *Journal of Accounting Research*, 32(2), 137–164. <https://doi.org/10.2307/2491279>

Gryglewicz, Sebastian and Hartman-Glaser, Barney and Mayer, Simon, PE for the Public: The Rise of SPACs (February 23, 2021). Available at SSRN: <https://ssrn.com/abstract=3947368>

Hogan, C.E. and Wilkins, M.S. (2008), Evidence on the Audit Risk Model: Do Auditors Increase Audit Fees in the Presence of Internal Control Deficiencies?. *Contemporary Accounting Research*, 25: 219-242. <https://doi.org/10.1506/car.25.1.9>

Houston R. W., Peters, M. F. and Pratt, J. H. (1999) The Audit Risk Model, Business Risk and Audit- Planning Decisions. *The Accounting Review*

Investor Advisory Committee (IAC). 2021. Recommendations of the Investor Advisory Committee regarding Special Purpose Acquisitions Companies. Special Purpose Acquisition Companies (SPACs) (sec.gov)



Ioannis V. Floros, Travis R.A. Sapp, Shell games: On the value of shell companies, *Journal of Corporate Finance*, Volume 17, Issue 4, 2011, <https://doi.org/10.1016/j.jcorpfin.2011.03.004>.

Jaewoo Kim, Seyoung Park, Kyle Peterson, WilsonRyan (2022) Not Ready for Prime Time: Financial Reporting Quality After SPAC Mergers. *Management Science* 68(9):7054-7064. <https://doi.org/10.1287/mnsc.2022.4478>

KPMG (2021) SPAC insights: Why so many companies are choosing SPACs over IPOs. Accessed August 6, 2021, Why so many companies are choosing SPACs over IPOs (kpmg.us)

Niemi, L. (2002). Do firms pay for audit risk? Evidence on risk premiums in audit fees after direct control for audit effort. *INTERNATIONAL JOURNAL OF AUDITING*, 6(1), 37-51.

Pratt, J. and Stice, J. (1994) The Effects of Client Characteristics on Auditor Litigation Risk Judgements, Required Audit Evidence, and Recommended Audit Fees. *The Accounting Review*, 69, pp. 639-656

PwC. (2021). Special purpose acquisition companies (SPACs): A guide to accounting and financial reporting considerations. <https://www.pwc.com/sg/en/publications/spacs.html>

U.S. Securities and Exchange Commission (SEC). (2021). SPACs, IPOs and Liability Risk under the Securities Laws. <https://www.sec.gov/news/public-statement/spacs-ipos-liability-risk-under-securities-laws>