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PAPER

The Impact of Liquidity, Subsequent Share Issuance, and ESG Risk Indicator on Share Value

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ABSTRACT

This study examines the impact of liquidity, subsequent share issuance, and environmental, social, and governance (ESG) risk indicators on the value of publicly traded shares. By integrating theoretical insights with empirical analysis, the research examines both financial and non-financial factors that influence share performance. Liquidity was assessed through bid–ask spreads and purchase-to-sale volume ratios for companies listed on the Nasdaq Stockholm exchange. Results indicate that larger firms exhibit narrower spreads and greater market depth, while smaller firms experience higher illiquidity and reduced investor demand. The effect of subsequent share issuances was analyzed using an event study approach, measuring abnormal and cumulative abnormal returns (AR and CAR) within a seven-day event window. Findings suggest that market reactions depend on investor perceptions: positive when capital is raised for expansion and negative when issuance signals dilution or financial weakness. The analysis of ESG risk indicators reveals that lower ESG risk ratings are correlated with greater investor trust, transparency, and higher share valuation, while higher risk ratings are associated with weaker market performance. Overall, the results confirm that strong liquidity, transparent and strategically motivated share issuances, and robust ESG performance jointly enhance share value and investor confidence in modern financial markets.

KEYWORDS

liquidity, share issuance, environmental social and governance (ESG) risk indicator, share value, event study, investor behavior

1 INTRODUCTION

Global financial markets are facing increasing uncertainty, caused by rapid technological advances, geopolitical tensions, and climate-related disruptions. In such a turbulent environment, the reliability of classical economic theories and traditional valuation models is being questioned, as mechanisms that once ensured market stability may no longer fully explain current dynamics. The growing complexity of

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investment environments highlights the need to reassess the factors determining share value in modern financial systems.

Recent evidence highlights a significant rise in retail investor activity. According to the JPMorgan Chase Institute, retail investing increased by approximately 50% between 2023 and early 2025, with younger generations entering the market earlier and engaging more actively in investment decisions. This development has heightened the need for investors to recognize and understand a wider range of factors influencing share prices beyond traditional indicators such as company fundamentals or macroeconomic conditions.

While traditional valuation metrics remain vital to investment analysis, several additional factors—particularly liquidity, subsequent share issuance, and environmental, social, and governance (ESG) indicators—have gained increasing importance in assessing share value. Despite this, these variables are often underexplored in both academic research and practical investment strategies. Over the past two decades, ESG indicators have become a key part of financial analysis, reflecting growing investor interest in corporate sustainability, transparency, and social responsibility (S) [1]–[5]. At the same time, firms aiming to maintain investor confidence and access to capital markets must not only manage their financial performance but also ensure sufficient share liquidity [6]–[10] and adopt strategically sound share issuance policies [11]–[14]. These factors collectively influence investor perceptions, trading behavior, and overall market valuation.

However, several significant research gaps still exist. First, much of the existing empirical evidence on the relationship between liquidity, share issuance, ESG factors, and share value comes from studies mainly conducted in the early 2000s. Since then, financial markets have changed considerably due to digitalization, the growth of ESG reporting, and shifts in investor behavior, implying that earlier findings may no longer reflect current realities. Second, previous studies have largely examined these factors separately rather than through an integrated framework, which limits understanding of how they jointly influence market valuation and investor confidence. Third, most existing research has concentrated on large-cap firms in the U.S. or global markets, leaving a gap in empirical evidence from European exchanges such as Nasdaq Stockholm, where market structures, trading liquidity, and ESG disclosure practices differ significantly. Lastly, the increasing influence of retail investors and sustainability-focused investment preferences introduces behavioral dynamics that have not been sufficiently addressed in earlier research.

Addressing these gaps is crucial to accurately reflect the current structure and behavior of global markets. The purpose of this study is to provide updated empirical evidence on how liquidity, subsequent share issuance, and ESG risk indicators influence the value of publicly traded shares. By integrating theoretical analysis with quantitative and event-based empirical methods, the study aims to evaluate the extent to which these financial and non-financial factors collectively determine share valuation. Specifically, the study examines liquidity indicators, market reactions to share issuance announcements, and the effect of ESG risk ratings, thus contributing to a more comprehensive understanding of the mechanisms that drive share value in contemporary financial markets.

2 LITERATURE REVIEW

This section examines how liquidity, subsequent share issuance, and ESG risk indicators influence the value of publicly traded shares. Previous studies have

emphasized that these factors, although often overlooked in comparison to traditional financial metrics, play a critical role in shaping investor perception, market efficiency, and long-term company valuation.

2.1 Impact of liquidity on share value

In finance, liquidity refers to how quickly and easily an asset can be converted into cash without losing its value. Liquidity is a multidimensional concept that encompasses the dimensions of quantity, cost, and time [15]. The liquidity of shares indicates how quickly shares can be bought or sold without significantly affecting the share price. The primary parameters for calculating liquidity are price, quantity, and time. Liquidity in terms of price is assessed by calculating the difference between the purchase and sale prices. In terms of quantity, liquidity is assessed by subtracting the sale price from the purchase price. Liquidity in terms of time is assessed by subtracting the order execution time from the order initiation time.

Liquidity can influence share prices in various ways. According to Brogaard, "stock liquidity increases the informational efficiency of stock prices" [16], as the ability to easily sell shares encourages greater interest in company information among short-term investors, bringing the market value of shares closer to their true worth. It has also been observed that share liquidity raises the risk of a sudden decline in share prices, as managers of companies with liquid shares tend to hide bad news to avoid losing institutional investors engaged in day trading [17]. This is likely because, in many cases, the incentives for managers and CFOs of publicly traded companies depend on the company's share value [18].

Both expected and unexpected market illiquidity have a stronger influence on small-cap shares, as during periods of illiquidity, a phenomenon known as "flight-to-liquidity" occurs, making large-cap shares relatively more attractive [19]. When this phenomenon takes place, some market participants suddenly prefer to hold highly liquid securities, such as US Treasury bonds, rather than less liquid securities [20]. This phenomenon is most often linked to financial crises, such as currency devaluation, the 1998 Russian bond default, and the collapse of the Long-Term Capital Management (LTCM) hedge fund [21]. Expected market illiquidity positively affects the expected excess return of shares over time, indicating that the expected excess return of shares, also known as the "risk premium," is partly an illiquidity premium [19].

Shares in smaller companies are less liquid [22]. The increased sensitivity of small company shares to illiquidity means these shares face higher illiquidity risk, which, if priced in, should lead to a higher illiquidity risk premium [19]. This phenomenon results in the "small company effect"—small company shares tend to earn higher expected returns on average than large company shares [19].

2.2 Impact of subsequent share issuance on share value

Share issuance refers to the process of releasing shares onto the market. During a share issuance, the issuer (a company or organization issuing securities) puts a certain number of shares into circulation. Various entities, such as commercial banks, government bodies, or investment firms, can act as issuers. A share issuance may involve both new shares and those that were previously issued and are now being re-entered into the market. This process occurs not only on the stock exchange but

also through an over-the-counter system, where shares are offered to prospective investors or existing shareholders are invited to buy newly issued shares.

The impact of a subsequent share issuance on the share price can vary: a share issuance often results in a positive return on shares [23], but it is also true that the share price falls significantly after the announcement of the issuance [23]. The effect of a share issuance on share value can differ for many reasons. The first reason may be an increase in the supply of shares, which causes "share dilution." Share issuances typically generate a negative return on the issuance date. Statistically, about two-thirds of corporate share issuances result in a decline in share value [24]. When a company issues shares, the total number of shares on the market rises. Due to increased supply, the value of existing shares may decrease, as each share represents a smaller portion of the company, and investors might perceive this as an increased risk. Another key factor is the purpose of the share issuance and how investors perceive it. Issuances aimed at reducing financial difficulties often send negative signals about the company's prospects [25]. Suppose investors understand that a company is issuing shares to grow or fund new projects. In that case, they generally view the issuance positively, expecting the company to increase profits or expand, which could raise the share price. Even companies tend to issue larger amounts of shares when their managers believe that growth opportunities will materialize [25]. If the share issuance is solely to cover existing debts or due to other financial issues, the share value tends to fall due to investors' negative reactions to the purpose of the issuance. The issuance price also influences share value, as shares are sometimes issued at a discount to attract investors, which can negatively affect their value. When companies issue shares at prices lower than their market value, existing shareholders often interpret this as a sign of overvaluation or financial trouble [25]. Existing investors may doubt their investment when they see the share issuance value is below the actual market value. Still, such an issue may also attract new investors, usually having a positive influence on the share price. A larger share issuance can expand the shareholder base and boost liquidity, which can enhance market perception of the shares and stabilize their price [25]. Therefore, the impact of a subsequent share issuance on share value mainly hinges on how investors perceive the purpose of the issuance and the company's prospects.

2.3 Impact of ESG risk indicator on share value

Environmental, social, and governance factors that evaluate companies' activities and their impact on the environment, communities, and management practices. They are often regarded as essential criteria when assessing the sustainability and S of companies. The environmental (E) factor measures a company's impact on the natural ecosystem, including emissions (e.g., greenhouse gases), efficient use of natural resources in production (e.g., energy, water, or materials), pollution, and waste (e.g., spills) [26]. The S component reflects a company's values and relationships with employees and society, evaluating the working environment, employee care, customer communication, and respect for human rights. The governance (G) factor considers the company's management structure, ethics and transparency policies, shareholder rights, and their interests. Indicators across these three areas reveal the impact of a company's activities on the environment, employees, customers, and other stakeholders, as well as how these indicators influence the company's operations. Companies that are willing and able to adopt sustainable

business practices are likely to grow fastest in the future and generate particularly high returns.

The higher the ESG score, the more sustainable the company is. Undesirable corporate behavior related to ESG issues can negatively affect the value of a company's shares. Increasingly, stakeholders recognize the importance of sustainable business practices, making ESG disclosure more beneficial: it enables investors to make better-informed decisions that help reduce risk and secure long-term returns, can give a company a competitive edge through public support, enhance its reputation, and foster long-term relationships with stakeholders [27].

Sustainable business practices are gaining more attention, which is reflected in the value of their shares. Investors are increasingly seeking companies whose portfolios align with sustainability principles. Therefore, businesses with high ESG ratings are more appealing to investors. This indicator is especially important for institutional investors, as the portfolios they invest in reflect their values and concern for the environment, sustainability, and human well-being. The greater the number of institutional investors a company has, the better it is for the company itself, as this attracts even more investors. A large number of institutional investors serves as a sign that the company is genuinely reliable and worth investing in. Companies that undertake major sustainability initiatives and publish them in integrated reports also tend to attract many long-term shareholders [28]. Regular ESG reporting further benefits the company's share price. Investors typically view this positively because when a company provides various reports beyond regulatory requirements, it suggests transparent business practices, which enhances investor confidence. A strong corporate reputation also boosts trust among investors and the public. The company's reputation largely depends on effective corporate social responsibility, which is reflected in high ESG disclosure scores [29].

As sustainability becomes increasingly important over time, companies that address this issue are viewed positively by society as a whole, both by customers and investors, which enhances the company's reputation and can increase the number of investments, thereby raising the value of the company's shares. A high ESG rating increases the company's attractiveness to investors, including institutional investors, fosters trust, as regular reports demonstrate the transparency of the company's activities, and improve its reputation. All of this increases the value of the company's shares. If socially responsible companies commit to high standards of transparency and publish as little bad news as possible, they have a lower risk of failure [30]. Therefore, it can be said that a high ESG rating has a positive impact on a company's share value.

3 METHODOLOGY

In this section of the study, the main aspects of the research, including the aim, hypotheses, and data sources, will be presented. Additionally, key concepts, formulas for calculations, research design, and criteria for selecting companies for the research will be presented.

When making investment decisions, retail investors rarely consider how liquidity, subsequent share issuances, and ESG risk indicators affect share value. Instead, they tend to focus more on traditional aspects such as those related to a specific company, macroeconomic conditions, and market factors. Although the aspects analyzed in the study are not widely utilized by investors, they can nonetheless have a significant impact on share value.

The liquidity of shares indicates how quickly they can be bought or sold without significantly affecting their price. It is typically assessed based on three factors: price, volume, and time. Price liquidity is measured by the difference between purchase and sale prices; volume liquidity by the difference in the volumes of purchases and sales; and time liquidity by the interval between placing and executing an order. Another seldom discussed factor that can influence share prices is a subsequent share issuance, where a company or organization offers shares to investors through stock exchanges or over-the-counter markets. The effect of an issuance on share value is often examined through event analysis. ESG factors evaluate a company's sustainability and ethical practices related to E impact, social responsibility, and corporate governance, affecting share value through their influence on risk, reputation, and long-term financial performance. One of the simplest yet most effective methods to assess ESG impact is through an event study incorporating an ESG risk rating.

Previous research has indicated that higher liquidity increases the value of shares because it reduces transaction costs and enhances market efficiency, enabling prices to better reflect true value. Conversely, low liquidity raises trading risk and diminishes investor interest, resulting in higher required returns, particularly for small-cap shares that are more vulnerable to illiquidity risk. Subsequent share issuances may either decrease or increase share value, depending on investor sentiment and the purpose of the issue. If perceived as a sign of financial difficulties or a decline in share value, prices typically fall; however, if the issues are aimed at funding growth, they can positively influence share value. A high ESG rating positively affects share prices by improving a company's reputation, transparency, and investor confidence, making it more appealing to both individual and institutional investors. Conversely, poor ESG performance can damage reputation, increase perceived risk, and negatively impact share value.

This study aims to test three hypotheses—one for each factor. Since liquidity enhances price efficiency [15], [16], and illiquidity increases risk and required returns [19], [22], the first hypothesis is that the relationship between share liquidity and value is positive. As share prices typically fall sharply after a share issuance [23], [24], and the overall market attitude towards share issuances is negative [25], the second hypothesis is that subsequent share issuances negatively affect share value. Because ESG disclosure, transparency, and responsibility increase investor trust and a company's value [27]–[29], while poor ESG performance raises crash risk [30], the third hypothesis states that ESG risk rating and share value are negatively related.

The study employs both quantitative and qualitative research designs. Its aim is to evaluate the impact of liquidity, subsequent share issuance, and ESG risk rating on share value. To assess the effect of liquidity on share value, eight European companies listed on the Nasdaq Stockholm (OMXSTO) stock exchange (see Table 1), from two different sectors—healthcare and technology—were selected for liquidity calculations. The calculations will be conducted in the currency in which the information is presented on the stock exchange—Swedish krona (SEK)—to avoid significant errors caused by currency conversion, as some share prices are very low. From each sector, four companies were chosen based on their market capitalization: large (>10 billion, <200 billion), medium (>2 billion, <10 billion), small (>250 million, <2 billion), and micro (<250 million). The number of shares is expressed in units, market capitalization in millions of euros, and the exchange rate used is 1 SEK = 0.0868348 EUR. Secondary data was obtained from the Nasdaq.com website. The liquidity of the selected companies will be calculated using data from 22nd November 2024. according to the standard liquidity measures discussed in [15]. The calculations will

include price and volume dimensions; however, the time dimension will not be analyzed due to insufficient data.

Table 1. Number of shares (units) and market capitalization (million EUR) of selected companies

Sector	Healthcare				Technology			
Company's Name	AstraZeneca (AZN)	Ambea (AMBEA)	Senzime (SEZI)	Active Biotech (ACTI)	Sinch (SINCH)	Enea (ENEA)	Precise Biometrics (PREC)	Anoto Group (ANOT)
Number of shares, M	1550.3	89.9	113.3	361.7	844.5	21.6	77.4	331.9
Market capitalization	large cap	mid-cap	small cap	micro-cap	large cap	mid-cap	small cap	micro-cap
Market capitalization, M, EUR	196284.3	8396.9	660.7	7.6	16826.8	2118.3	433.3	62.7

Source: Created by authors.

The liquidity price dimension of shares will be calculated using the formulas below.

$$Spread = A_t - B_t, \tag{1}$$

$$Price\ difference\ to\ purchase\ price\ ratio,\ \% = \frac{A_t - B_t}{A_t} \times 100, \tag{2}$$

$$Percentage\ ratio\ of\ the\ bid\text{-}ask\ spread = \ln(A_t) - \ln(B_t), \tag{3}$$

where A_t is the purchase price (ask), B_t is the sale price (bid), and t is the day. Both the spread and the price difference to purchase price ratio, as well as the percentage ratio of the bid-ask spread, indicate how liquid the shares are. The higher the number, the lower the liquidity, and vice versa. Two formulas were selected to calculate the percentage liquidity of the price difference to ensure that the calculations were correct. The liquidity amount dimension of shares will be calculated using the formulas below.

$$Volume\ spread = AV_t - BV_t \tag{4}$$

$$Purchase\text{-}to\text{-}sale\ ratio = \frac{AV_t - BV_t}{AV_t + BV_t} \tag{5}$$

$$Average\ BBO\ depth_t = \frac{AV_t - BV_t}{2} \tag{6}$$

Where AV_t is ask volume, BV_t is bid volume, t is day. Volume spread shows whether supply or demand is greater, while the purchase-to-sell ratio shows how many times one is greater than the other. Average BBO depth describes the average amount that an investor can trade at the best prices [15].

This study will exclude Initial Public Offerings (IPOs) because, although IPOs and subsequent share issuances both involve releasing shares to the market, they

are fundamentally different. IPOs are a company's first issuance of public shares, whereas subsequent issuances refer to additional share offerings by companies that are already listed. This study focuses on subsequent issuances, as they reflect investor reactions to capital-raising events after the company has already entered the market. To assess the impact of subsequent share issuance and ESG risk ratings on share price, an event study will be conducted. Four events will be analyzed in total: announcements of subsequent share issuances by Amentum Holdings, Inc. (12 March 2025), Centuri Holdings, Inc. (20 May 2025), Mobileye Global Inc. (8 July 2025), and EVgo, Inc. (16 December 2024). Companies were selected based on data availability and recentness of announcement. For this, daily closing prices will be used within the seven-day window.

$$[-3, -2, -1, 0, +1, +2, +3], \tag{7}$$

where 0 is the announcement date for the subsequent issuance. Then, daily simple returns will be computed from closing prices using these formulas:

$$R_{st} = \frac{P_{st} - P_{st-1}}{P_{st-1}}, \; R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}, \tag{8}$$

where R_{st} is the daily simple return of the share, R_{mt} is the daily simple return of the S and P500, P_{st} is the daily closing value of the share, P_{mt} is the daily closing value of the share. For this analysis a simplified market model, which assumes $\alpha = 0$, $\beta = 1$, was used:

$$E(R_{st}) = R_{it}, \tag{9}$$

Then, abnormal returns (AR) for each day will be computed:

$$AR_{st} = R_{st} - R_{it}, \tag{10}$$

Then, cumulative abnormal returns (CAR) over the time window will be calculated:

$$CAR_{s,[-3,+3]} = \sum_{t=-3}^{+3} AR_{st}, \tag{11}$$

After all calculations have been done, results will be interpreted.

Table 2. Interpretation of AR and CAR values

AR	0<	0	>0
Market reaction	Positive	Neutral	Negative
CAR	0<	0	>0
Overall market reaction	Positive	Neutral	Negative

Table 2 illustrates how AR and CAR values should be interpreted. For ESG risk indicator analysis, Apple and Amazon were selected. Their ESG ratings and levels of controversy as of 18th April 2024 will be analyzed alongside their closing share prices on the same date. For the event study, secondary data were obtained from the Nasdaq.com and Yahoo! Finance websites.

4 RESULTS AND DISCUSSIONS

This section provides an empirical analysis of how liquidity, subsequent share issuance, and the ESG risk indicator influence share value. Although the theoretical framework describes their conceptual connections to share value, this part aims to verify these assumptions through quantitative methods and event-based analysis.

4.1 The impact of liquidity on share value in practice

The data in Table 3 indicates that larger companies tend to have more liquid shares because the difference between the purchase price (Ask) and the sale price (Bid) is smaller in proportion to the purchase price as the company size increases. This supports the notion that shares of smaller companies are less liquid [22]. Additionally, Table 3 shows that the ratio of the price difference to the purchase price and the percentage of the bid-ask spread are similar across the relevant companies, with insignificant differences. A considerable margin of error is evident in the calculations for very small companies.

Table 3. Results of calculations and price dimension

Company's Name	AstraZeneca (AZN)	Ambea (AMBEA)	Senzime (SEZI)	Active Biotech (ACTI)	Sinch (SINCH)	Enea (ENEA)	Precise Biometrics (PREC)	Anoto Group (ANOT)
Purchase price (Ask), SEK	1457.00	93.50	5.84	0.248	19.93	98.40	5.6	0.1965
Sell price (Bid), SEK	1456.00	93.35	5.80	0.244	19.92	98.00	5.57	0.189
Spread, SEK	1.00	0.15	0.04	0.004	0.01	0.4	0.03	0.0075
Price difference to purchase price ratio, %	0.07	0.16	0.68	1.61	0.05	0.41	0.54	3.82
Percentage ratio of the bid-ask spread	0.07	0.16	0.69	1.63	0.05	0.41	0.54	3.89

Source: Created by authors.

Based on calculations of the ratio of purchase to sale volumes (refer to Table 4), we observe that demand for Senzime and Sinch shares significantly exceeds supply, while the supply of Enea and Precise Biometrics shares greatly surpasses demand. The demand and supply of AstraZeneca shares are the closest to each other. The closer the demand and supply are, the more liquid the shares are considered. The average depth of the shares of very small companies analyzed is considerably greater than that of larger companies. This suggests that, due to the low liquidity of these companies' shares, there is little buying and selling activity, although the

purchase and sale volumes indicate a willingness to trade these shares, but not at the proposed price.

Table 4. Results of calculations and quantity dimension

Company's Name	AstraZeneca (AZN)	Ambea (AMBEA)	Senzime (SEZI)	Active Biotech (ACTI)	Sinch (SINCH)	Enea (ENEA)	Precise Biometrics (PREC)	Anoto Group (ANOT)
Purchase (Ask) Volume, units	838	123	605	35449	615	135	2299	41781
Sell (Bid) Volume, units	958	64	30	16312	10	465	5826	28084
Volume spread, units	(120)	59	575	19137	605	(330)	(3527)	13697
Purchase-to-sale ratio	–0.07	0.32	0.91	0.37	0.97	–0.55	–0.43	0.20
Average BBO	898.0	61.5	287.5	17724.5	312.5	300	1763.5	34932.5

Note: Results of calculations, quantity dimension.
Source: Created by authors.

The analysis shows that larger companies have more liquid shares, as evidenced by smaller bid-ask spreads and balanced demand and supply ratios. Conversely, smaller companies display lower liquidity, indicated by wider bid-ask differences, demand-supply imbalances, and higher average market depth.

4.2 The impact of repeated share issuance on share value in practice

Calculation results of abnormal daily returns and cumulative abnormal returns for the analyzed period are presented in Table 5. Amentum's abnormal returns fluctuated around the issuance announcement, peaking with a positive +7.61% reaction on day 0 and ending with a CAR of +5.22% over the seven-day window. This suggests that investors may have interpreted the share issuance as a strategic move to fund growth or strengthen operations, rather than as a sign of financial distress. The slightly positive CAR aligns with market confidence in the company's stable cash flows and contract-based business model. Centuri's share performance showed a negative response before and after the announcement, with small rebounds that were insufficient to offset earlier declines. Its CAR of –7.63% indicates a moderately adverse market reaction. Investors may have viewed the issuance as potentially dilutive or questioned the necessity of new capital, especially in a mature, low-growth industry. However, the relatively limited decline suggests that the market reaction was cautious rather than strongly negative. Mobileye's CAR of –11.75% reveals a notable negative investor reaction to the issuance. Although the company operates in a high-growth technology sector, investors may have perceived the additional issuance as unfavorable timing or an indication that existing capital was insufficient. Negative abnormal returns after the announcement date (–7.69% on +1, –4.03% on +2) could

indicate that the market has lowered its expectations for short-term profitability or a decline in the value of existing shareholders' shares. EVgo experienced the strongest adverse reaction of all analyzed companies, with CAR of –37.44% over the event window. The sharp decline immediately after the announcement (–25.56% on +1) suggests that the market interpreted the issuance as a sign of financial pressure or overvaluation. Given EVgo's reliance on external financing and limited profitability, investors likely viewed the new issuance as highly dilutive, leading to a substantial short-term decline in value.

Table 5. Results of daily abnormal returns and cumulative abnormal returns for the event window

Company	AR							CAR
	–3	–2	–1	0	1	2	3	[–3; +3]
Amentum Holdings, Inc. (AMTM)	+8.50	–4.46	–7.43	+7.46	–1.60	–1.96	+4.55	+5.22
Centuri Holdings, Inc. (CTRI)	–3.00	–2.85	–3.06	+3.76	–4.56	+1.13	+0.94	–7.63
Mobileye Global Inc. (MBLY)	+4.1	+0.07	–4.93	+3.68	+7.69	–4.03	–3.03	–11.75
EVgo Inc. (EVGO)	–2.49	–3.32	–2.09	+3.40	–25.56	–16.95	+9.58	–37.44

Source: Created by authors.

Overall, the results indicate that market reactions to subsequent share issuances vary widely across companies and mainly depend on investor perceptions of the issuance purpose and the company's financial strength. Amentum's positive CAR suggests confidence in strategic growth financing, whereas Centuri, Mobileye, and particularly EVgo experienced negative reactions driven by dilution concerns or weak fundamentals. These findings partly confirm that subsequent share issuances tend to have adverse effects on share value unless they are clearly linked to credible expansion opportunities.

4.3 The impact of ESG on share value in practice

In practice, the ESG risk indicator is similar to an ESG rating but not identical, so its assessment slightly differs from the usual ESG indicator. The lower the ESG risk indicator, the better the company's performance across all three factor indicators. Meanwhile, the ESG indicator works inversely. Another factor contributing to the ESG risk rating is the level of controversy, which identifies events that could negatively impact all ESG factors, as well as the company and investors. This indicator is rated on a scale from 1 to 5, with 5 indicating the riskiest controversies and events with the greatest negative impact on the company.

In this section, the results of the two companies' event studies will be discussed. The analyzed companies are Apple Inc. and Amazon.com, Inc. The overall ESG risk score of Apple is low (16.8), which indicates Apple's excellent results in sustainability and social responsibility. Of the three indicators, E factors pose the lowest risk

to this company, while G factors pose the highest risk. The low ESG risk indicator was determined by Apple's waste recycling programs, employee and customer data protection, its goal to become carbon neutral by 2030, and its commitment to transparency. Apple's controversy score is 3, compared to an average of 0.8 for other players in the same market. Thus, Apple's score is quite high, as the company faces various challenges, but its good overall ESG score demonstrates that it is capable of managing current and emerging challenges effectively and reducing their negative impact. Concerning the impact of ESG on price, we can see that it is indeed quite high – $222.65. After the latest ESG report was published on 18 April 2024. the share price rose by about 9% within a couple of weeks. Meanwhile, the price of its competitor, Xiaomi, is only $3.50, which may be partly because they do not provide any reports related to ESG indicators, nor do they publish the indicators themselves. This only proves that the low value of Apple's ESG risk rating likely has a positive impact on its share price. The company is sending a positive signal to investors by examining their ESG risk indicators.

The overall ESG risk score for Amazon is medium risk (29). This is higher than Apple's, indicating that Amazon is less capable of handling emerging challenges and is less sustainable. Of the three indicators, S poses the greatest risk, while sustainability poses the least. However, the sustainability indicator, although still smaller, is ten times higher than that of Apple. Amazon's weaker ESG risk profile is affected by high carbon dioxide emissions, large waste volumes, poor working conditions for employees, lack of transparency, and high energy consumption. Although the company is striving to reduce its negative E and social impact, the scale and complexity of the business mean that this requires considerable time and significant structural reforms. These challenges are also evident in the controversy indicator, which is 3, compared to the market average of only 0.9. This demonstrates that the company faces numerous difficulties with environmental, social responsibility, and G issues. Regarding impact on its share price, Amazon's current share price is $197.93, while its ESG score is lower than Apple's, which has a higher price. The most recent ESG report was published on 6 September 2023; following this, the share price increased for a few days, then likely reacted to a poor indicator and dropped 9% over the month. Therefore, it is clear that Amazon's higher ESG risk score negatively affects its share price, which remains lower than that of its competitors.

In summary, it is very likely that the ESG risk rating and controversy score influence a company's share price. The higher the ESG indicator or the lower the ESG risk indicator, the higher the share price. And vice versa.

5 CONCLUSION AND RECOMMENDATIONS

This study examined the impact of liquidity, subsequent share issues, and ESG risk indicators on the value of publicly traded shares. By combining theoretical frameworks with empirical analysis, the study provided an evidence-based assessment of how both financial and non-financial factors together influence share valuation. Liquidity measurements were used to evaluate market depth and trading efficiency; an event study approach was utilized to measure investor reactions to share issue announcements; and ESG risk indicators were analyzed to explore the relationship between sustainability performance and market value.

The results confirm that high liquidity, transparent share issuance strategies, and low ESG risk ratings significantly enhance share valuation. The analysis of eight Nasdaq Stockholm-listed companies shows that firm size and trading activity

directly influence liquidity, thereby affecting investor perception and share price. Large-cap firms such as AstraZeneca and Sinch demonstrated narrow bid–ask spreads and balanced trading volumes, indicating greater informational efficiency and market confidence. Conversely, smaller companies, including Active Biotech, Enea, and Anoto Group, experienced wider spreads, lower liquidity, and diminished investor demand, supporting earlier findings that illiquidity raises transaction costs and risk premiums.

The event study findings further revealed that investor interpretation plays a crucial role in market reactions to subsequent share issuances. Companies perceived as issuing new equity for growth and expansion, such as Amentum Holdings (CAR = +5.22%), experienced positive market responses, while issuances linked to financial strain or dilution—such as those of Centuri Holdings, Mobileye Global, and EVgo—elicited negative or strongly adverse responses (CARs ranging from –7.63% to –37.44%). These results align with previous research [24], [25], highlighting that market sentiment and strategic communication surrounding the purpose of the issuance can outweigh the issuance event itself in shaping valuation outcomes.

The ESG analysis showed a strong inverse relationship between ESG risk and share performance. Companies with lower ESG risk scores, such as Apple Inc. (ESG risk score = 16.8), gained higher investor confidence, and their share prices increased after sustainability disclosures, while those with higher ESG risk, like Amazon.com Inc. (score = 29), faced a decline in market value. These findings support the growing view that ESG transparency and responsible G build long-term market trust and improve access to capital.

Overall, the findings demonstrate that share value is influenced not only by financial fundamentals but also by the interaction between market efficiency, corporate financing strategies, and sustainability performance. In modern financial markets, investors are increasingly considering both tangible and intangible indicators—such as liquidity, transparency, and ESG resilience—as markers of stability and long-term viability.

For corporate managers, the results emphasize the importance of maintaining market liquidity through consistent disclosure, investor engagement, and collaboration with market intermediaries. Improving trading volumes, adopting dual listings, or employing market-making mechanisms can boost liquidity and reduce volatility. Companies should also approach future share issuances strategically, clearly communicating their long-term objectives to minimize dilution concerns and sustain investor trust. Additionally, integrating robust ESG management systems and transparent reporting can enhance reputational capital and attract long-term, sustainability-focused investors.

For investors, the findings emphasize the importance of analyzing liquidity indicators (bid–ask spreads, volume depth), issuance context, and ESG risk ratings when assessing equity opportunities. Sensible portfolio diversification should consider not only traditional valuation metrics but also behavioral and sustainability factors that increasingly impact market performance.

Although offering valuable insights, this study has several limitations. Firstly, the sample size was relatively small and restricted to a subset of firms across specific sectors and regions, which limits the generalizability of the findings. Secondly, data limitations narrowed the scope of liquidity and ESG analyses, while the event study design primarily captured short-term market reactions, potentially missing longer-term valuation effects. Thirdly, macroeconomic and behavioral variables such as interest rate changes, inflation, or investor sentiment were not explicitly modelled, despite their potential to significantly influence share dynamics.

Lastly, reliance on publicly available ESG ratings may result in measurement inconsistencies across various data providers.

Future research should expand the analysis across multiple exchanges and industries to enhance external validity and enable cross-market comparisons. Employing advanced econometric methods, such as panel data analysis or multifactor regression, can improve the accuracy of causal inference and capture effects that vary over time. Future studies could also examine the long-term performance of firms following share issuances or significant ESG disclosures to identify persistent valuation trends. Additionally, cross-regional comparisons might explore how regulatory frameworks, disclosure standards, and investor cultures influence the relationships between liquidity, capital-raising decisions, and sustainability outcomes. Finally, integrating behavioral finance and sentiment analysis could offer deeper insights into how psychological factors and informational asymmetries impact market reactions.

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