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Does it make you better off? Initial Public Offerings (IPOs) and corporate sustainability performance: empirical evidence

Murad Harasheh
Department of Management
University of Bologna

Going public (or an IPO) is a strategic decision for value creation motivated by various reasons such as capital raising, windows of opportunities that reflects the perfect market timing, and publicity. It is associated with financial and business attributes. In this paper, we establish an original linkage between the IPO event and sustainability performance post-IPO, emphasizing the impacts of listing on enhancing sustainability performance. We integrate IPO theories and sustainability views in explaining the effect of the IPO on sustainability measures. We study a sample of Italian firms that went public from 2009 to 2018. Sustainability performance is measured by a sustainability rating which is a composite rating that comprises ten elements. Using empirical testing, we show a positive effect of the IPO on sustainability and governance indicators in the three years following the IPO, suggesting an image-improving and better compliance practices. And a mixed impact on financial performance.

Keywords: initial public offerings (IPOs), financial indicators, ESG rating, SMEs, governance.

JEL codes: G30, G10, G24, M21

1. Introduction

Several reasons induce firms to go public at certain stages of their business life cycle. The IPO literature is well-developed in financial economics; previous studies provide divergent theories and hypotheses to explain why firms go public. Perhaps, the dominant explanations besides capital needs are windows of opportunities in which the firms profit from the perfect market timing (high market valuation or sometimes called “hot issue”) to issue overvalued shares and life cycle theories (Loughran & Ritter, 1995). The motives for listing vary from raising equity capital to fuel growth, windows of opportunities, quality signaling, ownership and liquidity, and publicity. (Bradley et al., 2003; Brau et al., 2003; Chemmanur et al., 2005; Pagano et al., 1998; Zingales, 1995). Perhaps asymmetric information theories dominate the IPO arena in explaining the motives, implications, and related attributes such as underpricing (Beatty & Ritter, 1986; Brau & Fawcett, 2006; Füllbrunn et al., 2020). In this regard, the mounting information on sustainability performance creates confusion among market participants causing markets to be driven by sentiment rather than fundamentals. Publicly traded firms in Europe must publish

sustainability-related information according to the EU directive on Non-Financial reporting (2014/95/EU)¹ that entered into force in 2017, establishing a new mandatory compliance regime to disclose non-financial information. Therefore. It is in the interest of the firm going public to improve the quality of information disclosed to the stakeholders as part of the new compliance regime and as a factor of attractiveness for external users (Al-Shaer & Zaman, 2018; Harasheh & Provasi, 2022).

Given that assurance of non-financial information is still pioneering and there is no standardization at the international level, different rating agencies might generate divergent sustainability ratings for the same company resulting in a certain degree of asymmetric information. Such asymmetries affect the flow of information and might impact the investor's rational decision-making for stock selection (Harasheh & Provasi, 2022; Petelczyc, 2022; Sahoo & Kumar, 2022).

On the other hand, firms need to cope with the new paradigm for doing business by improving their sustainability performance and image, motivated by demand, supply, and regulations. Firms follow voluntary or mandatory business sustainability practices and disclosure according to their context. Corporate governance models have also been changing to integrate Environmental, Social, and Governance (ESG²) factors in the business models as a strategic value creation approach. In this regard, several active stakeholders pressure managers to ensure that their companies adopt responsible practices and incorporate ESG issues in business activities to shape a new corporate identity (Al-Shaer & Zaman, 2018; Amran et al., 2014; Dutta et al., 2012; Jizi, 2017). Therefore, corporate sustainability-related risks are becoming an integral part of executive-level enterprise risk management. Studies on the impact of sustainability performance on a firm's performance show mixed results (Al Abri et al., 2017; Provasi & Harasheh, 2021). Moreover, a stream of research links corporate governance attributes to sustainability performance, showing that good governance practices and attributes enhance corporate sustainability performance. More specifically, gender issues in business (as a corporate governance proxy) have attracted researchers to show whether gender diversity enhances value through sustainability channels (Al-Shaer & Zaman, 2016; Provasi & Harasheh, 2021).

¹ Currently, EU rules on nonfinancial reporting apply to large public-interest companies with more than 500 employees. However, On April 21, 2021, the Commission adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), which would amend the existing reporting requirements to include all companies listed on regulated markets (except listed micro-enterprises).

² We know that there is no clear cut definition of ESG and sustainability. We will proceed in this paper referring to them as broadly the same thing.

In this regard, the framework of this study is built on two essential premises; improving informational flow to external stakeholders and compliance. Thus, the IPO decision (the public listing) is considered a means of reducing information asymmetries to improve the business image and comply with the new directives. This study establishes an original linkage between going public decisions and sustainability performance. In particular, we investigate whether the IPO event affects the company's sustainability in the years following the IPO. We expect the IPO event to improve sustainability performance as the companies become publicly traded, induced by quality signaling, reputation, and compliance.

The contribution of this paper is two-fold. First - to our knowledge - this is the first paper to bundle the IPO finance literature with business sustainability literature to investigate the implications of the IPO decision on business sustainability performance. Second, we add to the inconclusive debate on the role of sustainability issues at the business level.

We focus on Small and Medium-sized Enterprises (SMEs) because they traditionally constitute the backbone of the Italian and European industrial systems regarding the number of enterprises, employment, and share of GDP. SMEs play a crucial role in knowledge spillover, technology transfer, and fostering innovations; such features contribute to a higher degree of informational asymmetry than large firms. Moreover, recent updates of the EU directive³ on non-financial reporting obligates all publicly-traded companies – independently of their size – to comply with sustainability reporting.

The rest of the paper is organized as follows: Section 2 covers the literature on ESG, corporate performance, and IPO theories. Section 3 explains data, sampling, and the model. Section 4 demonstrates the results and discussions. Section 5 reports conclusions.

2. Related literature

2.1. ESG and financial performance

The past years have witnessed a growing amount of academic studies and practitioners' reports that highlight the relationship between the implementation of ESG policies and corporate financial performance, measured with backward- and forward-looking variables (Albuquerque et al., 2020; Buchanan & Marques, 2018; Servaes & Tamayo, 2013; Yadav et al., 2017). Several theories support this positive relationship (Tensie et al., 2021). Such theories (views) can be

³ Currently, EU rules on non-financial reporting apply to large traded companies with more than 500 employees. However, On 21 April 2021, the Commission adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), which would amend the existing reporting requirements to include all companies listed on regulated markets (except listed micro-enterprises).

adopted independently or mutually exclusively to explain such a positive relationship; here, we report the dominant explanations:

- Stakeholder theory: firms with better performance can manage a wide range of social stakeholders more effectively through advanced and efficient risk management.
- Shared value theory: well-performing firms create value for several stakeholders.
- Conflict-resolution theory: firm's sustainability processes help firms augment the corporate financial performance through the innovation and differentiation processes
- Legitimacy theory: firms – especially publicly traded - must comply with the ESG guidelines set by regulations.
- Resource-based view: when efficiently allocated, internal resources help firms gain a competitive advantage.

Although most papers postulate a positive correlation between ESG policy implementation and financial performance, the literature also provides mixed evidence. For instance, (Brammer et al., 2006) find a negative relationship between a firm's ESG risk inclusion and performance, while (Tensie et al., 2021) suggest that the relationship mentioned above might depend on the kind of firms investigated – for example, financial firms and non-financial firms. Finally, (Bauer et al., 2005; Renneboog et al., 2008) found a non-statistically significant relationship between firm sustainability and financial performance. In this context, the main argument supporting this evidence is the Overinvestment theory (Barnea & Rubin, 2010), in which corporate managers and large block holders might over-invest in Corporate Social Responsibility (CSR) activities to extrapolate private benefits to improve their reputation as good global citizens.

Based on these arguments, the relationship between firm sustainability performance is not clear a priori. It remains an empirical question since scholars focused on specific constituent pillars of the firm's ESG performance (Koçak et al., 2022), different empirical strategies, agents and contexts of analysis, and sample periods. In the same regard, the COVID-19 pandemic severely affected financial markets and the real economy and brought a new emphasis on the debate about the role of sustainability in firm performance considerations. Implementing ESG policies is often considered one of the main drivers of the firm's resilience to unexpected social and economic shocks (Albuquerque et al., 2020). For instance, (Ding et al., 2021; Lee et al., 2022) find that firms with higher ESG scores fare during the pandemic are better than firms with lower scores experiencing milder drops in their stock prices. This might be evidence that ESG investing might provide downside protection during bad states of the economy (Tensie et al.,

2021) and is coherent with recent asset managers' practices of integrating ESG risks into investment and financial decisions (Wu & Juvyns, 2020).

2.2. Going Public Decision

Going public is a strategic business and financial decision in which the firm joins the public trading on financial markets and raises the capital needed for investment purposes. Until the early 1980s, access to external finance through an IPO could be placed in the final phase of a financing cycle for growing firms, thus outlining an IPO as a physiological phase, as well as a final stage in the process of growth of a business (Brau & Fawcett, 2006; Pengda, 2018). Firms usually go public for various reasons, including capital raising, liquidity, diversification, M&A issues, cashing out, and publicity considerations. In this regard, life cycle theories (Pagano et al., 1998) and windows of opportunities theories (Subrahmanyam & Titman, 1999) explain such an important financial event in a firm's life cycle. Moreover, to continue their growth and regain initial investment, firms often recourse to an initial public offering of equity (IPO) and attempt to select the most auspicious time to offer shares, and they can be clustered and synchronized to market conditions (Schultz, 2003). Several participants are involved in this process—investment banks, firms seeking capital, and investors. In this regard, studies show that firms that go public earlier or later outside the window of opportunity are more likely to fail (Carter et al., 2012).

In this context, SMEs are usually characterized by high growth potentials, thus framing an IPO, on the one hand, as a potential value maximization tool and also an institutional incentive for the listing. The empirical evidence shows divergent conclusions and outlines various reasons for the listing. In the United States, young and small companies registered rapid growth rates after listing (Carpenter & Rondi, 2006). Meanwhile, Italian companies reported that mature and large companies benefit from public listing, registering inconsistent growth after the IPO (Pagano et al., 1998). In terms of information, the listing reduces information asymmetries by allowing diversification of sources of financing, a lower rationing, a lower burden to obtain finance by the primary lender, and a greater bargaining power towards banks (Pagano et al., 1998).

Regarding listing decisions as an opportunity to improve business performance, the empirical evidence does not support profitability and business performance improvement. The literature provides that firms underperform post-IPO compared to pre-IPO expectations. Indeed, companies tend to underperform in the long term. As for sustainability implications, the frameworks that could explain the impact of the listing on sustainability are quality signaling

(derived from asymmetric information) and compliance. Compliance belongs to the legitimacy theory implying that becoming publicly traded increases compliance with social values and climate-related issues

Additionally, stakeholder theory in which firms, after becoming publicly traded, can manage a wide range of social stakeholders more effectively through advanced and efficient risk management techniques. Shared value theory states that the listing stimulates outperforming firms to create value for internal and external stakeholders. Finally, the resource-based view in which the IPO improves internal resources allocation, gaining a competitive advantage. Accordingly, our main hypothesis is stated as follows :

H1: Initial Public offerings improve firms' ESG performance.

3. Data, Methods, and Models

The panel analysis includes the FTSE AIM ITALIA index, a basket of securities of SMEs with 129 companies. 39 companies were selected and observed from 2009 to 2018, creating a balanced panel of 390 observations after excluding financial companies. We studied all SMEs that went through an IPO with available information from 2009 to 2018. Since we investigate financial and sustainability performance three years post-IPO, the dataset covers the performance variables until 2021 (2018+3). Companies belong to three macro sectors (Service, Industrial, and ICT) and nine Italian regions. Financial companies are excluded as they should adhere to different scopes of regulations. Industrial companies are more capital intensive, leaving more carbon footprints and environmental externalities.

Moreover, sustainability regulations are unlike in every region and sector (more or less stringent). Therefore, controlling for the region and the sector where the company belongs allows us to differentiate such fixed effects. Table 1 demonstrates the sectorial and regional distribution of the firms.

Table 1: Sectorial and regional distribution of companies

Region	Service	Industrial	ICT	Total
Lombardia	9	4	2	15
Emilia Romagna	2	4	1	7
Lazio	3	2		5
Veneto	2	3		5
Toscana		2		2
Piemonte	1	1		2
Marche		1		1
Sardegna	1			1
Umbria		1		1

Total	18	18	3	39
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We collect financial and sustainability-related variables. Data collection is limited to 2018 because our model is constructed to analyze the three years post-IPO, and including more initial years would compromise data availability. Financial data of subsequent years is already included as T+1 to T+3. Therefore, 2018 is the last IPO year, obtaining financial and sustainability data until 2021 (2018+3). Additionally, only a few IPOs have joined this index in the previous three years. Table 2 presents a brief description and measurement of the variables. In this bivariate setup with time dummies, each dependent variable is estimated against the time-variant IPO dummies to capture the impact of the IPO event on financial and sustainability variables post-IPO. For the purpose of this study, dependent variables are estimated individually to capture the time-variant attributes; thus, the multicollinearity issue is not a concern in this particular setup. The IPO effect is incorporated into the model as a binary variable that affects the performance variables based on the value of the estimated regressor. Regression coefficients capture the timing effect of the IPO decision on the performance variables.

TABLE 2: Description of performance variables after the IPO

Variable	Symbol	Description
Total Asset Growth	ln_Growth_Asset	A proxy for asset growth
Size	Size_Ln_TotalAsset	A proxy for the size
Revenues growth	Ln_Growth_Sales	A measure of business growth
Return on sales	ROS	A measure of sales efficiency
Return on asset	ROA	A measure of asset efficiency
Return on equity	ROE	A measure of overall management performance
Cash flow return on asset	CFROA	A measure of financial liquidity
Capital expenditures	CAPEX	A measure of business investments
Asset Turnover	Asset_Turnover	A proxy for assets' efficiency to generate sales
Debt to Equity	D/E	A proxy for financial risk
Equity Financing	Equity_Fin	A measure of equity on total asset
Debt Financing	Debt_Fin	A measure of debt on total asset
Current liabilities on asset	Curr_Liab/TotAss	A proxy for the maturity of liabilities
Medium, long debt to assets	LMT_Liab/TotAss	A proxy for the maturity of liabilities
Liquidity Ratio	Liq_Ratio	A proxy for operating liabilities
Tax	Tax	A measure of payable tax
Employees Growth	ln_Growth_Employees	A proxy for dimensional growth
Female on board	BoD _f	A corporate governance proxy
ESG rating	ESG	A proxy for sustainability performance

Note: variables in this analysis are taken at and after the year of going public ($T_0, T_{+1}, T_{+2}, T_{+3}$) to test the impact of going public at T_0 on a firm's performance (financial and sustainability). Each dependent variable is estimated against the time-variant IPO dummies to capture the impact of the IPO event on performance variables post-IPO according to the following regression:

$$y_{i,t} = \alpha + \sum_{j=0}^3 \beta_j IPO_{t-j} + u_i + d_t + \varepsilon_{i,t}$$

The dependent variable y_{it} is the proxy for the firm's performance i at time t (financial and sustainability). The variable j , for $j = 0 \dots 3$, is a time parameter that refers to the three years following the listing, while IPO_{t-j} is a dummy variable that assumes a value of 1 if the listing took place in year j , and 0 otherwise. Dependent variables are estimated individually to capture the time-variant attributes; thus, the multicollinearity issue is not a concern in this particular setup. β coefficients capture the timing effect of the IPO (dummy) decision on the performance variables.

We extended the model of (Carpenter & Rondi, 2006; Pagano et al., 1998; Paleari et al., 2008) to capture the impact of listing on corporate financial and sustainability performance. The model is designed to capture the time-variant attributes explicitly, considering T_0 (year of IPO) to T_3 (three years after the IPO) in a way that demonstrates the impact of the IPO event on financial and sustainability variables in every single year (T_0, T_1, T_2, T_3). The model is run as many as the number of the dependent variables (in this case, financial and sustainability performance) to capture the time/year effect.

$$y_{i,t} = \alpha + \sum_{j=0}^3 \beta_j IPO_{t-j} + u_i + d_t + \varepsilon_{i,t}$$

The dependent variable y_{it} is the proxy for the firm's performance i at time t . It represents financial and sustainability performance indicators. ESG rating is collected manually from sustainability rating providers. It is a rating that takes nine letters as indicators of ethical performance similar to the credit rating, it is provided by the ethical rating agency Standard Ethics and the ratings are as follows: from EEE (very strong) to F (very weak): EEE, EEE-, EE+, E.E., E.E. -, E+, E, E-, F. The rating comprises ten elements (*Sustainability, Independence, Systemic Approach, Credibility, Standard, Competitive, Reputational, Comparability, ESG Risks, Transparency*) that capture the ethical and responsible performance of the company. The approach for calculating the ESG rating is stable throughout the study. Still, the rating per each company is subject to periodic revisions (upgrade or downgrade), and the ESG score is taken as a proxy for sustainability integration. We also included another proxy for corporate governance, the ratio of females on the board of directors, which is hand-collected from corporate reports.

The variable j , for $j = 0 \dots 3$, is a time parameter that refers to the three years following the listing, while IPO_{t-j} is a dummy variable that assumes a value of 1 if the listing took place in year j , and 0 otherwise. The IPO effect is incorporated into the model as a binary variable that affects the performance variables based on the value of the estimated regressor.

The variables u_i and d_t , respectively, represent the fixed effects (sector and region) that affect firm i and the temporal effects of period t . The parameter ε_{it} constitutes the error term. The

intercept a is considered as part of the individual and temporal effects. Various diagnostic statistics were applied to verify the appropriate model; fixed effect, random effect, or OLS. Table 3 presents the descriptive statistics for the panel dataset.

TABLE 3: Descriptive statistics of the IPO model (Panel model)

Variable	Mean	CV	S.D.	Min	Max
Ln_Growth_Asset	3.1	0.49	1.52	-2.95	9.74
Size_Ln_TotalAsset	9.72	0.15	1.44	3.91	12.9
Ln_Growth_Sales	2.96	0.51	1.51	-1.07	6.95
ROS	5.14	2.51	12.9	-59.7	74
ROA	5.66	1.65	9.36	-33.2	39.2
ROE	8.89	3.65	32.42	-141	96.3
CFROA	6.02	1.30	7.82	-27.4	28.82
CAPEX	520.3	3.03	1577	-9 481	12 579
Asset Turnover	0.899	0.77	0.69	0	4.41
D/E	1.38	1.96	2.71	0	24.3
Equity_Fin	39	0.56	22	-0.15	99
Debt_Fin	61	0.39	24	0	115
Curr_Liab/TotAss	74	0.28	21	1	100
LMT_Liab/TotAss	20	1.05	21	0	99
Liquidity Ratio	1.41	0.82	1.15	0.14	8.86
Tax	617	1.83	1134	0	9 088
Ln_Growth_Employees	2.86	0.51	1.46	-1.42	7.24
BoD _f	0.37	0.56	0.21	0.10	0.45
ESG	6.63	0.19	1.28	2	8

Notes. Ln variables are In units. ROS, ROA, ROE, CFROA, Equity_Fin, Debt_Fin, Curr_Liab/TotAss, LMT_Liab/TotAss are expressed in %. Asset turnover, D/E, Liquidity Ratio are multiples ("x"). Tax in thousands of euros. CV = Coefficient of Variation.

4. Analysis and Discussion

Table 4 summarizes the panel results for the impact of the IPO on corporate financial and sustainability performance. For each of the variables listed, we estimate the above model specification that captures the effect of the IPO decision on financial and sustainability variables three years post-IPO. The Tabel reports the single coefficients with statistical significance and the R-squared. The p-value (not reported here) of an F-test of the hypothesis is that the sum of the coefficients of all the post-IPO dummies equals zero. **Please note that each dependent variable is estimated against the time-variant IPO dummies to capture the impact of the IPO event on financial and sustainability variables post-IPO. In this particular context, dependent variables are estimated individually to capture the time-variant attributes; thus, the multicollinearity issue is not a concern in this research setup. β coefficients capture the timing effect of the IPO (dummy) decision on the performance variables.**

TABLE 4: Effect of IPO decision on performance variables

Variable	β_0 (IPO _{t+0})	β_1 (IPO _{t+1})	β_2 (IPO _{t+2})	β_3 (IPO _{t+3})	R ²
ln_Growth_Asset	0.7384***	0.3852	0.1750	-1.1231**	0.58
Size_Ln_TotalAsset	0.3125***	0.3026**	0.4070**	0.2989*	0.81
Ln_Growth_Sales	-0.3541	-0.6102*	-0.9054**	-0.6006	0.57
ROS	2.3654	-3.5879 *	-4.1264 *	-5.8921**	0.53
ROA	-1.7750	-3.4258***	-4.7354***	-6.0970***	0.64
ROE	-3.6874	-12.1150*	-6.6125	-12.8936*	0.39
CFROA	0.0008	-0.0264	-0.0315*	-0.0684***	0.57
CAPEX	155.124	520.014*	233.623	410.025	0.36
Asset Turnover	-0.1702 **	-0.1125	-0.1236	-0.2124*	0.72
D/E	-0.7982**	-0.6220	-0.5111	-0.6669	0.51
Equity_Fin	0.1892***	0.1456***	0.1045***	0.1054***	0.70
Debt_Fin	-0.2014***	-0.1361***	-0.0811***	-0.1354***	0.72
Curr_Liab/TotAss	0.0141	0.0154	-0.0487	-0.1102**	0.48
LMT_Liab/TotAss	-0.0265	-0.0133	0.0422	0.1108**	0.50
Liquidity Ratio	0.7051**	0.2155	0.2254	0.4221*	0.46
Tax	-112.052	-132.695	217.114	305.954*	0.71
ln_Growth_Employess	-0.2025	-0.1885	-0.1258	0.1825	0.44
BoD _f	0.2114*	0.3856**	0.1624*	0.1447	0.38
ESG	0.0504**	0.0589*	0.0336**	0.0425*	0.44
Sector Dummy	yes	yes	yes		
Region Dummy	yes	yes	yes		

*** p<0.01, ** p<0.05, * p<0.1

Note: For each of the variables listed, we estimate the following model specification that captures the effect of the IPO decision on financial and sustainability variables post-IPO according to the following model.

$$y_{i,t} = \alpha + \sum_{j=0}^3 \beta_j IPO_{t-j} + u_i + d_t + \varepsilon_{i,t}$$

The dependent variable y_{it} is the proxy for the firm's performance i at time t ; the list includes financial and sustainability variables. The sustainability rating is collected manually from sustainability rating providers. The variable j , for $j = 0 \dots 3$, is a time parameter that refers to the three years following the listing, while IPO_{t-j} is a dummy variable that assumes a value of 1 if the listing took place in year j , and 0 otherwise. The IPO effect is incorporated into the model as a binary variable that affects the performance variables based on the value of the estimated regressor. And β coefficients capture the timing effect of the IPO decision on the performance variables.

The Table shows mixed effects of the IPO event on financial indicators; The IPO prevalently negatively impacts financial performance in the years following the IPO except for size, debt ratio, liquidity, capital expenditure, and tax. Such findings are consistent with a stream of financial economics literature demonstrating that firms financially underperform after the listing due to increased compliance and agency cost; thus, cash flows and value are reduced. (Pagano et al., 1998) document that companies appear to go public not to finance future investments and growth but to rebalance their accounts after high investment and growth. IPOs are also followed by lower credit costs and increased control turnover. The mixed impact of the listing on financial indicators is not uncommon; the effect depends on the context, time, and economic cycle (Carpenter & Rondi, 2006; Pagano et al., 1998; Paleari et al., 2008).

However, we find a positive impact of the listing on sustainability performance, indicating quality signaling to outsiders and compliance with the emerging regulations on sustainability integration. When firms become publicly traded, they are subject to public monitoring and compliance scrutiny; thus, our hypothesis is supported. Such findings are not surprising, given the deterioration in corporate financial performance; when companies improve their sustainability performance, it often comes at the expense of their financial performance due to the increased cost of compliance and agency costs. The findings are valid in the short run, in which firms incur additional costs (the public tag) to satisfy the internal governance needs and the public requirements. Unless such costs are capitalized or perceived immediately positively by market participants (through information channels), a substitution effect between financial and sustainability performance might be persistent. These findings are also supported by previous research ; (Brammer et al., 2006; Provasi & Harasheh, 2021) find similar results.

In the same regard, in this study, we focus on SMEs that – sometimes – are excluded from certain compliance aspects related to sustainability issues. The findings show that SMEs behave as large companies in integrating ESG factors which might indicate awareness and/or compliance anticipation. Awareness implies that becoming a publicly traded company raises the business consciousness towards sustainability issues. Anticipation implies that SMEs anticipate the extension of regulatory coverage to include not only large companies but also listed SMEs. For example, the EU directive on non-financial reporting was amended in 2021, so listed SMEs are also required to disclose sustainability-related information.

The positive impact on sustainability performance reflects the importance of sustainability reporting as an emerging communication tool with stakeholders. Firms become more aware of their business impact on environmental, social, and governance aspects. Moreover, we also demonstrate a positive association between going public and gender quotas. This is not uncommon since publicly-traded companies in Italy are subject to minimum gender quotas by Golfo-Mosca Law; thus, the listing enhances compliance and improves the public image.

We know that no single theory explains such results; however, the emerging theories relating ESG to financial performance are adopted to offer rational and combined explanations. Stakeholder theory states that after becoming publicly traded, firms can manage a wide range of social stakeholders more effectively through advanced and efficient risk management techniques. Shared value theory, in which the listing stimulates outperforming firms to create value for internal and external stakeholders. Legitimacy theory: becoming public implies more compliance with social values and climate-related issues. Finally, resource-based view: the IPO improves internal resources allocation, gaining a competitive advantage.

Finally, sustainability regulations might vary in every region and sector (more or less stringent). Therefore, controlling for the region and the sector where the company belongs allows us to differentiate such fixed effects. Our results show no significant differences among regions and sectors, providing a homogeneous impact of IPOs on sustainability performance, reflecting the pressure at the national and the EU levels to incorporate sustainability in business practices.

5. Conclusions

Going public or initial public offering research discipline is one of the classical areas investigated in financial economics, covering almost all countries and different types of firms and sectors. However, agreed conclusions have not yet been achieved. The findings may differ according to the market development, the period, and types of firms, large or SMEs, and theories can't be considered mutually exclusive in explaining the IPO process.

In this study, we revise the IPO research by incorporating the sustainability implication of going public. We investigate the decision of public equity offering and whether the listing improves sustainability and financial indicators. Additionally, we explain the results using classical IPO theories and incorporate ESG performance theories (views) in explaining why the IPO should improve a firm's sustainability performance. Motivated by compliance and asymmetric information explanations, we correlate the IPO decision to sustainability and financial performance in the three years following the IPO. The analysis is performed using panel regressions on firms that went through an initial public offering from 2009 to 2018. Financial and ESG variables cover the three years following the IPO (until 2021). The empirical evidence shows a moderate effect of the listing on firms' financial and operating variables with a dominant-negative effect. A positive impact of listing on sustainability and governance indicators, suggesting improved informational asymmetries and law-compliance that can be mainly framed under the legitimacy theory (compliance) and asymmetric information (enhanced flow of information to external users).

Implications: going public is an essential corporate strategic decision for value creation. The decision can – somehow- be considered irreversible since the de-listing is least likely. Firms can use the IPO to show the public the responsible practices the firm is adopting toward society and the environment. Such image-improving could enhance a firm's value through several value drivers, such as maximizing future cash flows or reducing the cost of capital, depending on the relationship to risk categories (systematic or idiosyncratic). However, firms should be

aware that going public is associated with additional costs, such as compliance with regulations that might affect future cash flows and competitiveness.

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