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Gender equality in the workplace and market performance: a preliminary analysis from France

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Abstract: We exploit a regulatory change in France that requires companies to publish a measure of gender equality in the workplace (i.e., Equality Index), to investigate whether there is a relation between firms' Equality Index and their market performance. We find that firms with a higher Equality Index are associated with higher market performance. Our findings can strengthen the motivation of companies' managements to take care of gender equality in their firms, by highlighting the benefits in terms of market performance that may arise from this. Our results also support the EU and, in general, regulatory bodies around the world, in continuing the promotion and enforcement of gender equality measures in the workplace for all companies.

Keywords: gender equality; market performance; Tobin's Q; market-to-book ratio.

JEL codes: C23, K38, M14.

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1 Introduction

Equality between men and women was at the core of the 1945 United Nation (UN) Charter. In addition, the Charter of Fundamental Rights of the European Union prohibits discrimination on any grounds, including sex (Article 21), and recognises the necessity of positive actions for its promotion (Article 23). The UN emphasises that gender equality and the empowerment of all women and girls is not only a goal in itself (Sustainable Development Goal 5 of the 2030 Agenda), but is also a catalyst for the achievement of all the other Sustainable Development Goals (United Nations, 2020). It has also been estimated that closing the gender gap would increase global GDP by 35% on average (Lagarde, 2019).

The Global Gender Gap Index, however, which benchmarks the evolution of gender-based gaps worldwide in four key dimensions (i.e., economic participation and opportunity, educational attainment, health and survival, and political empowerment) suggests that discrimination against women is still taking place within and outside the EU.[1] Moreover, the COVID-19 pandemic has affected women more severely than men (Alon et al., 2020; Dias et al., 2020; Graeber et al., 2021), widening gaps that have been already observed in the past.

Focussing on the EU, the adoption of the Gender Equality Strategy 2020–2025 by the European Commission on the 5th March 2020 is only one of the recent measures taken to enhance gender equality in Europe. In this context, we exploit a regulatory change that took place in one of the EU member states – France – in order to explore the association between gender equality in the workplace and firms' market performances.

With reference to France, the 2021 Global Gender Gap Index shows that women do not experience gaps in the 'educational attainment' and in the 'health and survival' categories. However, with regard to the 'economic participation and opportunity' of women, a persistent 'glass ceiling' still exists. For example, women only occupy 34.6% of senior and managerial positions. Moreover, there is a significant income gap to bridge, given that, based on the last available data, the gender pay gap is 16.5% in France, which is 2.4% higher than the mean of the EU-27 (European Commission, 2021; World Economic Forum, 2021).[2]

In order to enhance gender equality in the workplace, the French Government issued Law No. 2018-771 on 5th September, 2018, on the Freedom to Choose the Professional Future [*Loi No. 2018-771 du 5 Septembre 2018 pour la Liberté de Choisir son Avenir Professionnel*]. This law mandates any company with at least 50 employees to calculate and publish the '*Index Égalité Homme-Femme*' (hereafter Equality Index), which proxies for the level of gender equality within the global workforce of a firm.

Previous research on workforce diversity exists [for a review please refer to McMahon (2010) and Roberson (2019)], and shows that the relation with firms' performance is not linear, and that several moderating factors should be considered. However, this stream of literature has investigated gender diversity mainly focussing on the gender of top managers (e.g., Aziz et al., 2020) and, sometimes, their compensations (e.g., Enos and Gyapong, 2017), as well as on the presence of women on the board of directors (e.g., Clydesdale and Hu, 2019; Wellalage and Locke, 2018). Nevertheless, the mere presence of women in a firm is only one of the multifaceted dimensions of gender equality, and it does not necessarily mean that women are treated fairly. For example, can we really talk about gender equality if a board is composed of 50% women, but women in the rest of the company earn less than men (for the same jobs), and/or are less likely to be promoted than men?

Thanks to the availability of the French Equality Index, we have the opportunity to use a rather comprehensive measure of gender equality, which not only refers to the workforce composition of companies, but takes also into account several aspects of their working conditions. Thus, the main aim of this study is to provide empirical evidence of the association between gender equality in the workplace and firms' performance.

Our results indicate that firms with a higher Equality Index are associated with better market performance. In the robustness section, we also document a positive association between the Equality Index and firms' profitability and a negative association between the Equality Index and firms' risk assessed by the auditors.

The results of this research contribute to the extant literature in several ways. They provide empirical evidence about whether better gender equality in the workplace is associated with the market performance of firms, using a comprehensive measure of gender equality which considers the entire workforce of firms and a broad category of indicators. Our results also have managerial and political implications. Indeed, showing a positive association between gender equality and the market performance of firms, our findings can strengthen the motivation of companies' managements to dedicate particular attention to gender equality in their firms, by highlighting also the firms' economic benefits that may arise from this. The results also support the EU and, more in general, legislators and regulatory bodies around the world, in continuing the promotion and enforcement of gender equality measures in the workplace for all companies.

The remainder of this paper is organised as follows: Section 2 frames the study by using the extant literature and develops our hypothesis; Section 3 describes the research methodology, including the models used to test our hypothesis and the sample selection procedure; Section 4 reports and discusses the results, and offers a series of additional analyses; and Section 5 concludes the paper.

2 Literature review

In the academic literature, the debate on gender diversity is lively (Cranny-Francis et al., 2017). The so-called area of 'gender studies' constitutes an interdisciplinary and dynamic field, and gender equality is a mainstream concern in Western political institutions (Pilcher and Whelehan, 2016).

Looking at the firm level, however, the majority of studies have examined the effect of gender equality focussing almost exclusively on two main aspects: the percentage of women on the board of directors and the presence of females in the top management of

firms. In relation to the former topic, a meta-analysis concerning 140 studies emphasises that the results are mixed (Post and Byron, 2015). For example, the relation between female board representation and accounting returns is generally positive, in particular in countries with stronger shareholder protection and high gender parity. The relation between firm performance and female board representation is instead negative in countries with low gender parity. Other studies suggest that the association between board diversity and firm performance differs across sectors and competitive environments (Amore and Garofalo, 2016). With reference to the presence of females in the top management of entities, previous research generally shows that firms with female CEOs or chairwomen have better performance (Peni, 2014).

Looking at gender diversity with reference to the board of directors or at the top management, however, means having only a partial, although important, view on gender equality inside firms. According to the definition provided by the International Labour Organization (2012, p.2) "gender equality entails the concept that all human beings, regardless of gender, have equal access to resources and opportunities and are valued equally for their behaviors, aspirations, and needs." Thanks to the availability of the French Equality Index, we can contribute to this stream of research by using a measure of gender equality that considers the entire workforce of a firm, and that is closer to the definition of gender equality provided by the International Labour Organization (2012). Indeed, the Equality Index used in this study captures more than the proportion of males and females in the workforce, which sometimes is driven by the sectors in which a firm operates. The Equality Index also focuses on several dimensions of gender equality that summarise the overall working conditions of females in comparison with men within an entity. Indeed, the index consists of the following five indicators:

1 the average gap in total remuneration between women and men weighted by grade and age group

2 the difference in the rates of salary increases between men and women

3 the difference in the promotion rates between men and women

4 the salary increases for employees returning from maternity leave

5 the gender balance of the top ten highest paid employees.

The availability of this type of index allows us to empirically test the relation between gender equality and firms' performance looking at the entire workforce and considering whether firms' practices promote equality and inclusion between genders.

Starting from Adams (1963) many studies have focused on the positive impact of job equity on employees' motivation and performances. In addition, nowadays it is of utmost importance considering that the job market is facing a shortage of truly talented people and, in the workforce, the number of women with higher education is greater than men (Elsesser, 2019). Thus, organisations cannot miss out the contributions of talented women. Moreover, younger generations are more sensitive to equality issues in comparison to older generations. For younger generations inclusion is not as "an abstract ideal that checks a box and makes everyone feel good, but […] a critical tool that enables business competitiveness and growth" (Smith and Turner, 2015). Providing a more equal working environment E the probability to find the right people for firms' vacancies and, thus, observing better job performance.

Previous literature has also documented behavioural differences between genders (e.g., Byrnes et al., 1999; Croson and Gneezy, 2009) in cognitive information processing, conservatism, diligence, and risk tolerance: females are more accurate and effective in information processing, are more long-run orientated and more risk adverse. Having more gender diverse workforce in a firm could allow the exploitation of behavioural differences between genders, thus obtaining an overall better employees' performance. Finally, the perception of a firm's value by external stakeholders could be influenced by its gender equality (Dobbin and Jung, 2011; Lee and James, 2007). Indeed, the mandatory disclosure of the Equality Index, allows external stakeholders to assess the firm-level situation regarding equality in the workplace inside French companies. Accordingly, the level of gender equality could be considered as a signal of firms' commitment to achieve equality in the workplace, with a positive impact on firms' long-term growth (Roberson and Park, 2007; Wright et al., 1995). This is in line with previous studies that have documented that firms rated high on the Fortune's diversity ranking tend to have higher market value, and also that being the recipient of awards related to diversity initiatives positively affects stock prices (Zhang, 2020). Moreover, investors tend to see firms that follow practices mandated by law as better managed (Zajac and Westphal, 2004).

Based on the above discussion, we formulate the following hypothesis:

H1 There is a positive association between firms' Equality Index and entities' market performance.

3 Methodology

3.1 Variable measurement and empirical model

We use two measures of market performance: Tobin's Q and the market-to-book (MTB) ratio (Lin and Liu, 2015).

Tobin's Q is the most common proxy used for the measurement of market-based performance by the extant literature (e.g., Cremers and Ferrell, 2014; Rachagan et al., 2015). Wernerfelt and Montgomery (1988) argued that the use of a capital market measure of firms' rents in the estimation of Tobin's Q allows this indicator to use the correct risk-adjusted discount rate, to impute equilibrium returns, and to minimise distortions due to tax laws and accounting conventions. Barney (2007) also states that Tobin's Q is a market-based measure of performance that reflects the present value of firms' future cash flows based on their current plans and strategies (Kiel and Nicholson, 2003). Tobin's Q (*TOBINQ*) is calculated by dividing the market value of a company by its assets' replacement cost. However, since the replacement cost of assets is complicated to determine, in accordance with previous studies (e.g., Campa, 2017; Singh et al., 2018), we measured it using their book value.

The second measure of market performance is based on the *MTB* ratio calculated as the market value at the end of the fiscal year divided by the book value of equity at the same period. The choice of this measure is motivated by the study of Clubb and Naffi (2007) that provide strong evidence that this ratio exhibits a significant explanatory power for future security returns. A higher MTB ratio indicates that the market is valuing

companies' net assets more than their book value, revealing additional wealth embedded within a firm.

Our independent variable (*GENDEQUALITY*) is the score obtained in the overall Equality Index disclosed by French companies. More specifically, the Equality Index consists of five indicators that add up to a potential maximum score of 100. These indicators include:

1 the average gap in total remuneration between women and men weighted by grade and age group (max 40 points)

2 the difference in the rates of salary increases between men and women (max 20 points)

3 the difference in the promotion rates between men and women (max 15 points)

4 the salary increases for employees returning from maternity leave (max 15 points)

5 the gender balance of the top 10 highest paid employees (max 10 points).

For firms that do not achieve a minimum score of 75, it is a mandatory requirement to take corrective actions in order to achieve this minimum required score. If, at the end of the three-year period following a year in which the overall score was below 75, the overall score is still below 75 points, a financial penalty may be imposed by the authorities. The index must be disclosed on the company website or, if not on the website, it must be communicated to the employees by other means (Le Roux and Kim, 2019).[3]

Our measures of performance and our independent variable discussed above are included in the following models (1) and (2) to test our hypothesis.

$$\begin{aligned} TOBINQ_{it} = {} & \beta_0 + \beta_1 GENDEQUALITY_{it} + \beta_2 LEV_{it} + \beta_3 SIZE_{it} \\ & + \beta_4 BOARDSIZE_{it} + \beta_5 CEODUAL_{it} + \beta_6 INDDIR_{it} \\ & + \beta_7 FEMDIR_{it} + \beta_8 CULTDIV_{it} + \beta_9 BIG4_{it} \\ & + \beta_l IND + \beta_m YEAR + \varepsilon_{it} \end{aligned} \tag{1}$$

$$\begin{aligned} MTB_{it} = {} & \gamma_0 + \gamma_1 GENDEQUALITY_{it} + \gamma_2 LEV_{it} + \gamma_3 SIZE_{it} \\ & + \gamma_4 BOARDSIZE_{it} + \gamma_5 CEODUAL_{it} + \gamma_6 INDDIR_{it} \\ & + \gamma_7 FEMDIR_{it} + \gamma_8 CULTDIV_{it} + \gamma_9 BIG4_{it} + \gamma_l IND \\ & + \gamma_m YEAR + \varepsilon_{it} \end{aligned} \tag{2}$$

All variables are defined in Appendix.

The sign and the significance of β_1 from model (1) and the sign and the significance of γ_1 from model (2) provide evidence to test the relationship between corporate market performance and gender equality. In particular, a positive and significant β_1 indicates that higher values of the Equality Index are associated with a higher Tobin's Q. A positive and significant γ_1 suggest that higher values of the Equality Index are associated with a higher MTB ratio.

In line with previous studies on firm performance (e.g., Singh et al., 2018), models (1) and (2) include control variables such as firm leverage, firm size, type of auditor, as well as corporate governance features such as board size, CEO duality, independent directors (Clydesdale and Hu, 2019). We also control for board diversity

and, in particular, for board female directors and board cultural diversity. The inclusion of the controls for corporate governance and board diversity is especially relevant for this study to avoid that the Equality Index may indirectly capture other aspects of firms' corporate governance structure or may simply reflect diversity at the top level of firms (i.e., board of directors).

We estimate our models using OLS. Our parameter estimates are calculated using robust standard errors.

3.2 Sample selection

Our sample includes non-financial French active listed companies from 2018 to 2021. Indeed, financial companies are different from a financial reporting and regulation point of view in comparison with non-financial companies and they are generally excluded from models focused on corporate performance of non-financial companies (Fields et al., 2004). Our time series starts in 2018 because this was the first year in which the Gender Equality Index was published. It ends in 2021 because this was the latest year in which the index was available at the time of the data collection (i.e., January 2023).

We started our sample selection from the list of the French active listed companies resulting from the Refinitiv database. We then paired these companies with the information of the Equality Index published on the official website of the French Government (https://travail-emploi.gouv.fr). When the score for a certain firm did not appear in the government portal, we manually searched for scores on the companies' websites. After excluding the cases with missing data needed for our empirical analysis, our final sample was composed of 630 firm-year observations related to 228 unique companies.

4 Results

4.1 Descriptive statistics and univariate analysis

Table 1 presents the descriptive statistics for the variables used in the study.

Table 1 Descriptive statistics

	No.	*Mean*	*Median*	*St. dev.*	*1st quartile*	*3rd quartile*
TOBINQ	630	1.157	0.717	1.334	0.398	1.318
MTB	630	2.433	1.697	3.212	0.976	3.104
GENDEQUALITY	630	83.752	86.000	10.311	79.000	91.000
LEV	630	0.630	0.619	0.222	0.493	0.751
SIZE	630	13.608	13.278	2.314	11.834	15.376
BOARDSIZE (natural logarithm)	630	2.143	2.197	0.428	1.792	2.485
BOARDSIZE (absolute number)	630	9.300	9.000	3.783	6.000	12.000
CEODUAL	630	0.481	0.000	0.500	0.000	1.000
INDDIR	630	0.392	0.384	0.166	0.280	0.500
FEMDIR	630	0.376	0.400	0.141	0.333	0.455
CULTDIV	630	0.156	0.077	0.193	0.000	0.273
*BIG*4	630	0.803	1.000	0.398	1.000	1.000

Note: The variables are defined in Appendix.

Table 2 Correlation table

	TOBINQ	*BETA*	*GENDEQUALITY*	*LEV*	*SIZE*	*BOARDSIZE*	*CEODUAL*	*INDDIR*	*FEMDIR*	*CULTDIV*
TOBINQ										
BETA	–0.128***									
GENDEQUALITY	0.125***	0.001								
LEV	–0.140***	0.140***	–0.040							
SIZE	–0.154***	0.160***	0.169***	–0.046						
BOARDSIZE	–0.042	0.100**	0.090**	0.000	0.718***					
CEODUAL	–0.002	0.002	0.052	–0.037	0.277***	0.153***				
INDDIR	0.109***	0.050	0.087*	0.041	0.261***	0.148***	0.173***			
FEMDIR	–0.028	0.103***	0.138***	–0.105***	0.411***	0.320***	0.166***	0.295***		
CULTDIV	0.100**	0.137***	–0.034	–0.005	0.070*	0.147***	0.082**	0.213***	0.122***	
BIG4	–0.019	–0.129***	0.030	0.053	–0.028	–0.026	–0.091**	0.011	–0.109***	0.122***

Notes: *, **, *** indicate that a coefficient is statistically significant at the 10%, 5%, and 1% level or better. The variables are defined in Appendix.

The average value of the Equality Index is 83.75, thus above the minimum threshold of 75 set by the French government. In terms of corporate governance variables, we observe that, on average, the board of directors was composed of nine members, 39% of them were independent directors and about 38% were female directors. We also observed CEO duality in 48.1% of our sample and we found that around 16% of the board members were not of French origin. Firms in the sample finance their business mainly through liabilities, and we found that in 80.3% of the sample there was at least one Big 4 audit firm.[4]

A Pearson correlation matrix is reported in Table 2.

Table 2 exhibits a significant correlation between our proxies for market performance and the Equality Index. We find that the Equality Index is positively associated with the gender diversity of the board, the percentage of independent directors as well as firms' and boards' size. The correlation coefficients are not significantly high (the highest is 0.718 between *BOARDSIZE* and *SIZE*). In any case, a diagnostic test for multi-collinearity through the estimation of the variance inflation factor (VIF) coefficients for all regressions was performed. The VIF coefficients are always below the threshold of 5 (Kalnins, 2018).

4.2 Multivariate analyses

Columns A and B of Table 3 presents the estimation of models (1) and (2).

Table 3 Equality Index and firms' market performance and risk

Dependent variable	*A*	*B*
	TOBINQ	*MTB*
Intercept	0.549 (0.305)	0.568 (0.664)
GENDEQUALITY	*0.020*** (0.000)*	*0.022* (0.072)*
LEV	–0.836** (0.029)	–3.435*** (0.000)
SIZE	–0.188*** (0.000)	0.046 (0.615)
BOARDSIZE	0.516*** (0.001)	–0.344 (0.505)
CEODUAL	0.107 (0.315)	0.297 (0.235)
INDDIR	1.180*** (0.000)	0.779 (0.339)
FEMDIR	–0.384 (0.268)	–1.840 (0.124)
CULTDIV	0.552** (0.036)	1.520* (0.083)
BIG4	–0.149 (0.339)	0.621** (0.024)
Observations	630	630
R-squared	0.157	0.110
F-stat	9.50***	6.54***
Year and industry dummies	Yes	Yes

Notes: For clarity, year-specific, industry-specific and country-specific intercepts are omitted. *, **, *** indicate that a coefficient is statistically significant at the 10%, 5%, and 1% level or better. P-values calculated from robust standard errors. The variables are defined in Appendix.

In column A, the coefficient β_1 associated with the variable *GENDEQUALITY* is positive and significant at the 1% level, and indicates that firms with a higher Equality Index are

associated with a higher Tobin's Q. Moreover, we find that, in column B, the coefficient γ_1 associated with the variable *GENDEQUALITY* is also positive and significant at the 10% level, which suggests that firms with a higher Equality Index are associated with higher MTB ratios.

These results support our hypothesis that predicts that firms with a higher Equality Index are associated with better market performance. This evidence indicates that there are benefits for entities that implement equality measures in the workplace, and supports the idea that external stakeholders consider organisational gender equality in assessing the value of firms.

4.3 Additional analyses

In this section, we offer a set of additional analyses to assess the robustness of our main results.

First of all, we use an alternative measure for firm performance. In particular, we focus on financial performance since the market performance of a given firm heavily depends on that (Gentry and Shen, 2010). In line with the majority of previous literature (e.g., Wang et al., 2015; Dicko, 2020), we use the return on equity (ROE) calculated as net income divided by shareholders' equity (*ROE*). Thus, we use the ROE as an alternative dependent variable in the following model (3):

$$\begin{aligned} ROE_{it} = {} & \delta_0 + \delta_1 GENDEQUALITY_{it} + \delta_2 LEV_{it} + \delta_3 SIZE_{it} \\ & + \delta_4 BOARDSIZE_{it} + \delta_5 CEODUAL_{it} + \delta_6 INDDIR_{it} \\ & + \delta_7 FEMDIR_{it} + \delta_8 CULTDIV_{it} + \delta_9 BIG4_{it} + \delta_l IND \\ & + \delta_m YEAR + \varepsilon_{it} \end{aligned} \tag{3}$$

All variables are defined in Appendix.

A positive and significant δ_1 would suggest that higher values of the Equality Index are associated with a higher ROE. The control variables in model (3) are the same as in models (1) and (2).

Second, we introduce a measure of perceived firms' risk based on audit fees. Indeed, market performance depends on the level of risk associated with a given company. We use audit fees because they allow us to focus on the source of firm risk as assessed by the auditors who possess private information about their clients. Indeed, audit fees are adjusted for the so-called litigation risk, i.e., the risk that the auditor could be sued in relation to a given engagement (Simunic and Stein, 1996). This means that if firms' litigation risk increases, auditors charge higher audit fees to clients to compensate for potential future losses that may arise from such a risk (Simunic and Stein, 1996). Indeed, auditors may bear the consequences of clients' financial issues simply because they are connected with them (Green, 1999). Previous literature cited in Section 2 documented that gender equality policies have a positive impact on firms' performance. Thus, they are expected to reduce the litigation risk assessed by the auditors. Moreover, auditors' litigation risk may decrease when the Equality Index is higher because a good score in the Equality Index may signal that managers is committed to achieve equality in the workplace, as required by the regulator, thus reducing the risk that financial penalties may be imposed by the authorities. Accordingly, we use the natural logarithm of the audit fees as a proxy for auditors' litigation risk and test whether there is an association with the Equality Index of companies, using the following audit fee model (4).

$$AUDFEE_{it} = \lambda_0 + \lambda_1 GENDEQUALITY_{it} + \lambda_2 LEV_{it} + \lambda_3 SIZE_{it} + \lambda_4 BIG4_{it} + \lambda_5 SUBS_{it} + \lambda_6 ROA_{it} + \lambda_7 CATA_{it} + \lambda_8 LOSS_{it} + \lambda_l IND_{it} + \lambda_m YEAR + \varepsilon_{it} \quad (4)$$

All variables are defined in Appendix.

A negative and significant λ_1 would suggests that higher values of the Equality Index are associated with lower levels of audit fees because of a lower litigation risk perceived by the auditors.

In line with the main auditing literature (Hay et al., 2006), our audit fee model controls for several firm-level features associated with audit fees such as leverage, firm size, type of auditor, engagement complexity proxied by the number of subsidiaries, the weight of the account receivables and inventories, as well as the performance of firms measured by the level of ROA and the presence of net losses.

Table 4 Robustness test: Equality Index and alternative measures for performance and risk

Dependent variable	*A*	*B*
	ROE	*AUDFEES*
Intercept	–0.543*** (0.006)	8.644*** (0.000)
GENDEQUALITY	*0.003* (0.087)*	*–0.010** (0.027)*
LEV	–0.179** (0.031)	–0.128 (0.530)
SIZE	0.048*** (0.000)	0.390*** (0.000)
BOARDSIZE	–0.129** (0.019)	
CEODUAL	0.041 (0.161)	
INDDIR	0.063 (0.488)	
FEMDIR	0.005 (0.972)	
CULTDIV	–0.435*** (0.000)	
BIG4	–0.047 (0.127)	0.314*** (0.000)
SUBS		0.002*** (0.000)
ROA		–0.479 (0.249)
CATA		0.628** (0.011)
LOSS		0.117 (0.361)
Observations	630	630
R-squared	0.175	0.564
F-stat	3.13***	44.33***
Year and industry dummies	Yes	Yes

Notes: For clarity, year-specific, industry-specific and country-specific intercepts are omitted. *, **, *** indicate that a coefficient is statistically significant at the 10%, 5%, and 1% level or better, one tail. P-values calculated from robust standard errors. The variables are defined in Appendix.

The estimations of models (3) and (4) are reported in column A and B of Table 4, respectively.

In column A, the coefficient associated with the variable *GENDEQUALITY* is positive and significant at the 10% level, and highlights that firms with a higher Equality Index are more likely to exhibit higher returns on equity.

Table 5 Robustness test: alternative measure of Equality Index and firms' market performance and risk

Dependent variable	*A*	*B*
	TOBINQ	*MTB*
Intercept	1.977*** (0.000)	2.382*** (0.009)
*GENDEQUALITY*2	*0.285*** (0.004)*	*0.594** (0.025)*
LEV	–0.822** (0.033)	–3.403*** (0.000)
SIZE	–0.185*** (0.000)	0.030 (0.742)
BOARDSIZE	0.522*** (0.001)	–0.317 (0.535)
CEODUAL	0.129 (0.221)	0.319 (0.199)
INDDIR	1.196*** (0.000)	0.817 (0.312)
FEMDIR	–0.337 (0.341)	–1.831 (0.123)
CULTDIV	0.496* (0.066)	1.457* (0.095)
*BIG*4	–0.149 (0.338)	0.577** (0.034)
Observations	630	630
R-squared	0.146	0.113
F-stat	9.61***	6.52***
Year and industry dummies	Yes	Yes

Notes: For clarity, year-specific, industry-specific and country-specific intercepts are omitted. *, **, *** indicate that a coefficient is statistically significant at the 10%, 5%, and 1% level or better, one tail. P-values calculated from robust standard errors. The variables are defined in Appendix.

In column B, we find that the coefficient associated with the variable *GENDEQUALITY* is negative and significant at the 5% level, which suggests that firms with a higher Equality Index are associated with lower levels of audit fees. This indicates that the litigation risk perceived by the auditor decreases in the presence of a higher Equality Index.[5]

We have also created an alternative version for our variable of interest. More specifically, we divided the firms included in our sample based on whether they exhibit an Equality Index higher or lower than the median Equality Index of the industry in which each firm operates. Indeed, there could be industries where, for historical reasons, equality in the workplace between genders is more difficult to reach, such as professions like nurses and pilots that are predominately characterised by female and male employees, respectively. Accordingly, we created a dichotomous variable, *GENDEQUALITY*2, that takes 1 for firms with an Equality Index higher than the median Equality Index of their industry and 0 otherwise. We use this variable in our model (1) and (2). The results are reported in Table 5.

In column A, the coefficient associated with the variable *GENDEQUALITY*2 is positive and significant at the 1% level. This indicates that companies with a better Equality Index than their competitors are also more likely to exhibit a higher Tobin's Q. In column B, the coefficient associated with the variable *GENDEQUALITY*2 is positive and significant at the 5% level. This suggests that companies with an Equality Index that is higher than their competitors are more likely to be associated with higher MTB ratios.

5 Conclusions

Using French data on gender equality in the workplace, we documented that firms with a higher Equality Index are associated with better market performance. This evidence is supported by our additional analyses where we focus on the main components of firm market value: profitability and firm's risk.

Our research contributes to the literature on gender diversity using an indicator that summarises the overall level of gender equality in the workplace, rather than merely focussing on the proportion of females that are employed in a firm. Indeed, the gender equality measure used in this paper is more in line with the definition provided by the International Labour Organization (2012, p.2), according to which "gender equality entails the concept that all human beings, regardless of gender, have equal access to resources and opportunities and are valued equally for their behaviors, aspirations, and needs." Our results also have both managerial and political implications. They highlight incentives for companies to be committed to reaching equality among men and women in the workplace. Indeed, showing a positive association between gender equality and the market performance of firms, our findings could motivate companies' management to dedicate particular attention to gender equality in their firms, given also the market performance benefits related to it. In relation to political implications, our findings encourage legislators and regulatory bodies in continuing the promotion and enforcement of gender equality in the workplace among all companies.

This study is not free of limitations. First of all, we document an association, and not a causality, between the Equality Index and market performance. Furthermore, we aim to present the first preliminary evidence of the impact of gender equality in the workplace and the market performance of firms. Thus, we are aware that our analysis is based on one country, on a relatively small sample, and on a standard, but robust, methodology.

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Notes

1 Detailed data on the Global Gender Gap index can be found on the website weforum.org.

2 The gender pay gap is the difference between the average gross hourly earnings of working men and women employed in the same type of position (European Commission, 2021; World Economic Forum, 2021).

3 Companies are required to publish the overall score for each calendar year in the following year, starting from 1st March 2019, for companies with more than 1,000 employees; this date was the 1st September 2019, for companies with more than 250 and less than 1,000 employees; and the 1st March 2020, for companies with between 50 and 250 employees (Le Roux and Kim, 2019). Companies have to publish not only the overall score obtained, but also the results obtained for each indicator. These publication procedures applied to the 2020 results published in 2021. As a transitional measure, however, companies were granted a period of adjustment: the publication of the overall score had to occur no later than the 1st May 2021. The publication of the results obtained for each indicator had to be made no later than 1st June 2021.

4 Companies listed in France are audited by two audit firms.

5 The results regarding the audit fees also hold if we control for the corporate governance variables included in the other empirical models.

Appendix

Variable definitions (in alphabetical order):

- *AUDFEES:* The natural logarithm of audit fees.
- *BIG4:* 1 if at least one of the company's auditors is a Big 4 audit firm, and 0 otherwise.
- *BOARDSIZE:* The natural logarithm of board size.
- *CATA:* Account receivables plus inventory divided by total assets.
- *CEODUAL:* 1 if a company's CEO is also the chairman of the board of directors, and 0 otherwise.
- *CULTDIV:* The percentage of non-French directors.
- *FEMDIR:* The percentage of female directors.
- *GENDEQUALITY:* The score obtained in the overall Equality Index disclosed by firms.
- *GENDEQUALITY2:* 1 if the score obtained in the overall Equality Index of a firm is higher than the industry median, and 0 otherwise.
- *INDDIR:* The percentage of independent directors.

- *LEV:* Total liabilities divided by total assets.
- *LOSS:* 1 if a company reports a loss, and 0 otherwise.
- *MTB:* Market-to-book ratio.
- *ROA:* Net income divided by total assets.
- *ROE:* Net income divided by total shareholders' equity.
- *SIZE:* The natural logarithm of total assets.
- *SUBS:* The number of firms' subsidiaries.
- *TOBINQ:* A company's Tobin's Q.