

NUOVE FRONTIERE DEL REPORTING AZIENDALE

**La comunicazione
agli *stakeholders*
tra vincoli normativi
e attese informative**

**a cura di
Silvano Corbella
Luciano Marchi
Francesca Rossignoli**



**Società Italiana di Ragioneria
e di Economia Aziendale**

FrancoAngeli

OPEN  ACCESS

Collana della Società Italiana dei Docenti di Ragioneria e di Economia Aziendale (SIDREA)

Direzione: Stefano Marasca (Università Politecnica delle Marche)

Comitato Scientifico: Stefano Adamo (Università del Salento); Luca Bartocci (Università di Perugia); Adele Caldarelli (Università di Napoli Federico II); Bettina Campedelli (Università di Verona); Nicola Castellano (Università di Pisa); Vittorio Dell'Atti (Università di Bari); Francesco De Luca (Università di Chieti-Pescara); Anna Maria Fellegara (Università Cattolica – Piacenza); Raffaele Fiorentino (Università di Napoli Parthenope); Francesco Giunta (Università di Firenze); Alberto Incollingo (Università della Campania); Giovanni Liberatore (Università di Firenze); Andrea Lionzo (Università Cattolica – Milano); Rosa Lombardi (Università di Roma La Sapienza); Luciano Marchi (Università di Pisa); Riccardo Mussari (Università di Siena); Paola Paoloni (Università di Roma La Sapienza).

SIDREA è l'associazione scientifica dei docenti di Ragioneria e di Economia aziendale inquadrati nel settore scientifico-disciplinare SECS-P/07. L'associazione è stata costituita nel 2005 allo scopo di promuovere lo sviluppo della base scientifica, della cultura economico-aziendale e dei principi di buon governo delle aziende di ogni tipo: dalle imprese alle aziende non-profit; dalle aziende private alle amministrazioni pubbliche; dalle piccole e medie imprese alle grandi imprese; dalle aziende familiari alle reti d'impresa.

La Collana pubblica studi e ricerche realizzati nell'ambito dei Gruppi di Studio SIDREA sulle tematiche di rilevante interesse teorico e applicativo nell'area della Ragioneria e dell'Economia Aziendale. L'obiettivo è quello di sviluppare sia modelli teorici sia applicazioni, in rapporto alle teorie economico-aziendali ed alla prassi delle aziende e della professione, sulle specifiche tematiche di riferimento dei gruppi di studio:

- Bilancio e principi contabili;
- Comunicazione non finanziaria;
- Governance e Controlli interni;
- Linee guida per il Controllo di gestione;
- Contabilità pubblica;
- Valutazione d'azienda;
- Diagnosi precoce della crisi d'impresa;
- Capitale intellettuale, Smart Technologies e Digitalizzazione;
- Studi di Genere.



Il presente volume è pubblicato in open access, ossia il file dell'intero lavoro è liberamente scaricabile dalla piattaforma **FrancoAngeli Open Access** (<http://bit.ly/francoangeli-oa>).

FrancoAngeli Open Access è la piattaforma per pubblicare articoli e monografie, rispettando gli standard etici e qualitativi e la messa a disposizione dei contenuti ad accesso aperto. Oltre a garantire il deposito nei maggiori archivi e repository internazionali OA, la sua integrazione con tutto il ricco catalogo di riviste e collane FrancoAngeli massimizza la visibilità, favorisce facilità di ricerca per l'utente e possibilità di impatto per l'autore.

Per saperne di più:

http://www.francoangeli.it/come_publicare/publicare_19.asp

I lettori che desiderano informarsi sui libri e le riviste da noi pubblicati possono consultare il nostro sito Internet: www.francoangeli.it e iscriversi nella home page al servizio "Informatemi" per ricevere via e-mail le segnalazioni delle novità.

NUOVE FRONTIERE DEL REPORTING AZIENDALE

**La comunicazione
agli *stakeholders*
tra vincoli normativi
e attese informative**

**a cura di
Silvano Corbella
Luciano Marchi
Francesca Rossignoli**



**Società Italiana di Ragioneria
e di Economia Aziendale**

FrancoAngeli
OPEN  ACCESS

Copyright © 2018 by FrancoAngeli s.r.l., Milano, Italy.

L'opera, comprese tutte le sue parti, è tutelata dalla legge sul diritto d'autore ed è pubblicata in versione digitale con licenza *Creative Commons Attribuzione-Non Commerciale-Non opere derivate 3.0 Italia* (CC-BY-NC-ND 3.0 IT)

L'Utente nel momento in cui effettua il download dell'opera accetta tutte le condizioni della licenza d'uso dell'opera previste e comunicate sul sito
<http://creativecommons.org/licenses/by-nc-nd/3.0/it/legalcode>

INDICE

AZIENDE PUBBLICHE E NON PROFIT

- 1. Integrated reporting e informativa extra-contabile nelle aziende pubbliche e private: differenze o convergenze?**, di *Francesco Badia, Grazia Dicuonzo, Andrea Perrone e Vittorio Dell'Atti* pag. 13
- 2. Popular financial reporting, a new information tool for social cooperatives**, by *Paolo Pietro Biancone, Silvana Secinaro, Valerio Brescia and Daniel Iannaci* » 35
- 3. Il ciclo della sostenibilità dalla programmazione al reporting. Proposta di un modello di sustainability management per gli enti locali**, di *Elio Borgonovi, Fabio De Matteis e Daniela Preite* » 71
- 4. Financial e performance disclosure nelle fondazioni di comunità**, di *Bettina Campedelli, Chiara Leardini, Gina Rossi e Andrea Beretta Zanoni* » 101
- 5. Potenzialità e limiti delle comunità di pratica in sanità: un caso studio**, di *Cristiana Cattaneo, Silvana Signori e Elisabetta Acerbis* » 122
- 6. Could hospital recovery plan improve information for stakeholders?**, by *Marianna Mauro, Giorgia Rotundo and Monica Giancotti* » 155
- 7. Il reporting per segmenti nel controllo di gestione. Un'esperienza nel settore delle autolinee di trasporto pubblico**, di *Domenico Nicolò* » 175
- 8. Ruolo e rappresentazione del fondo di dotazione nelle aziende non profit**, di *Luigi Puddu, Christian Rainero, Alessandro Migliavacca e Riccardo Coda* » 196

9. La rendicontazione sociale come strumento di public school accountability. Un'analisi empirica del contesto scolastico italiano , di <i>Domenico Raucci e Stefano Agostinone</i>	pag. 209
10. Riflessioni critiche sull'evoluzione manageriale del sistema di Reporting previsionale delle Università , di <i>Claudia Salvatore e Stefania Di Carlo</i>	» 243
11. Tendenze evolutive e criticità del reporting informativo nelle aziende pubbliche: configurazione e implementazione dell'Integrated Popular Reporting , di <i>Paolo Tartaglia Polcini, Giuseppe Sannino, Francesco Agliata e Natalia Aversano</i>	» 272
12. L'espressività del conto economico per le cooperative sociali: primi risultati di un'indagine condotta nel Veneto , di <i>Angela Broglio, Corrado Corsi e Paolo Farinon</i>	» 301

BILANCIO, PRINCIPI CONTABILI E REVISIONE

1. Determinants of cash flow classification under IAS 7: An analysis from a weak equity country , by <i>Michele Bertoni and Bruno De Rosa</i>	» 329
2. L'informativa di bilancio nelle situazioni di crisi , di <i>Paolo Bogarelli</i>	» 343
3. The EU banking industry perspective on non financial reporting. A research note from an Italian case study , by <i>Maura Campra and Paolo Esposito</i>	» 379
4. The rationale of goodwill and its link with P/B ratios. A study on Italian banks , by <i>Chiara Comoli, Fabrizio Fratini and Patrizia Tettamanzi</i>	» 401
5. Key Audit Matters: prime evidenze sull'utilizzo della forma estesa della relazione del revisore , di <i>Giuseppe Ianniello, Marco Mainardi e Fabrizio Rossi</i>	» 430
6. Gli impatti dell'IFRS 16 sulla leva finanziaria e sulla performance , di <i>Francesca Magli, Alberto Nobolo e Matteo Ogliari</i>	» 448
7. L'efficacia dei modelli predittivi dell'insolvenza aziendale: un'applicazione sul territorio nazionale. La rilevanza dell'informativa di bilancio di tipo qualitativo , di <i>Federica Palazzi, Francesca Sgrò e Massimo Ciambotti</i>	» 472

8. Accounting enforcement in the European Union: Corporate governance, auditors, and the national authority, by <i>Alberto Quagli</i> and <i>Paola Ramassa</i>	pag. 496
9. The impact of financial reporting quality on debt maturity: Evidence from Italy, by <i>Andrea Rey</i> , <i>Roberto Maglio</i> and <i>Valerio Rapone</i>	» 530
10. La valutazione dei DPC con il metodo delle opzioni reali, di <i>Raffaele Trequattrini</i> , <i>Fabio Nappo</i> , <i>Benedetta Cuozzo</i> e <i>Matteo Palmaccio</i>	» 544

CORPORATE SOCIAL RESPONSIBILITY E ACCOUNTABILITY

1. Corporate social responsibility and bank performance, by <i>Alessandra Allini</i> , <i>Luca Ferri</i> , <i>Rosanna Spanò</i> and <i>Annamaria Zampella</i>	» 575
2. Shared value reporting & assurance, by <i>Miriam Corrado</i> and <i>Paola Demartini</i>	» 596
3. Exploring the relationships between CSR, leadership and sustainable entrepreneurship theories: A theoretical framework, by <i>Franco E. Rubino</i> , <i>Antonella Silvestri</i> e <i>Stefania Veltri</i>	» 613
4. Corporate social responsibility and gender diversity, by <i>Franco E. Rubino</i> , <i>Caterina Aura</i> and <i>Francesca Aura</i>	» 628
5. Corporate size, Environmental-Social-Governance (ESG) & financial performance analysis, by <i>Marco Talierto</i> , <i>Christian Favino</i> and <i>Antonio Netti</i>	» 658
6. SDG accounting e informativa non finanziaria: prime evidenze empiriche sul contesto italiano, di <i>Andrea Venturilli</i> , <i>Fabio Caputo</i> e <i>Stefano Adamo</i>	» 701

NON-FINANCIAL DISCLOSURE E INTEGRATED REPORTING

1. La teoria d'impresa sottesa al report "integrato": dialogo tra economisti e aziendalisti, di <i>Maria Gabriella Baldarelli</i> , <i>Antonietta Cosentino</i> , <i>Mara Del Baldo</i> e <i>Angela Magistro</i>	» 727
2. Non-financial information: From voluntary to compulsory compliance. The state of the art in Italian context, by <i>Maria Assunta Baldini</i> , <i>Giovanni Bronzetti</i> and <i>Graziella Sicoli</i>	» 757
3. Paving the path for non-financial information disclosure in accordance with the Italian legislative decree no. 254/2016, by <i>Valter Cantino</i> , <i>Alain Devalle</i> , <i>Simona Fiandrino</i> and <i>Donatella Busso</i>	» 773

4. Business model disclosure in mandatory and voluntary corporate reports: An empirical analysis , by <i>Patrizia Di Tullio, Diego Valentinetti, Matteo La Torre, Lara Tarquinio and Michele A. Rea</i>	pag. 801
5. Integrated Reporting: lo “stato dell’arte” della ricerca e le prospettive per il futuro , di <i>Elena Gori, Alberto Romolini, Silvia Fissi e Marco Contri</i>	» 833
6. Il D.Lgs. 254/2016 sulla informativa non finanziaria: prime evidenze in Italia sul “prima” e sul “dopo” , di <i>Rossella Leopizzi, Stefano Coronella e Simone Pizzi</i>	» 862
7. Integrated reporting and analysts’ earnings forecast error: Empirical evidences , by <i>Francesca Rossignoli, Riccardo Stacchezzini and Alessandro Lai</i>	» 882
8. Integrated reporting and the malleable disclosure of intellectual capital , by <i>Alice Francesca Sproviero, Cristina Florio, Riccardo Stacchezzini and Silvano Corbella</i>	» 901
9. La creazione di valore tramite la connessione dei capitali: il framework del reporting integrato nel calcio professionistico , di <i>Raffaele Trequatrini, Alessandra Lardo, Benedetta Cuzzo and Ester Monica Letterese</i>	» 917

GOVERNANCE, CONTROLLI INTERNI E RISK MANAGEMENT

1. The quality of risk and risk management disclosure in financial reporting: An empirical analysis of Italian large listed firm , by <i>Francesco De Luca, Ho Than Phat Phan, Augusta Consorti and Stefania Migliori</i>	» 945
2. Corporate governance and enterprise risk management: Evidence from SMEs , by <i>Cristina Florio, Gaia Melloni and Francesca Rossignoli</i>	» 967
3. The impact of the stock option plans design on firm value: An empirical analysis of Italian listed companies , by <i>Alessandro Giosi, Silvia Testarmata and Simone Giancarli</i>	» 996
4. Exploring board human capital in the Italian context: The role of financial expertise and education for company performance , by <i>Sara Saggese and Fabrizia Sarto</i>	» 1022
5. L’evoluzione del ruolo del CFO nell’impresa moderna , di <i>Lucrezia Songini, Paola Vola e Gianpiero Garelo</i>	» 1044

IMPRENDITORIALITÀ E FAMILY BUSINESS

1. **Il coinvolgimento della famiglia nel Consiglio di Amministrazione delle imprese familiari. La rilevanza dello stadio generazionale**, di *Francesca Maria Cesaroni, Denisse Chamochumbi Diaz and Annalisa Sentuti* pag. 1067
2. **Corporate Governance e Gender Diversity: impatto sulle performance delle imprese familiari**, di *Elena Cristiano, Franco E. Rubino e Francesca Aura* » 1088
3. **Redesigning costing systems for business model servitization**, by *Riccardo Giannetti and Andrea Dello Sbarba* » 1114
4. **La comunicazione della CSR nel family business: un multi case study nel settore alimentare**, di *Cinzia Vallone e Barbara Iannone* » 1132

PROGRAMMAZIONE E CONTROLLO DI GESTIONE

1. **L'integrazione fra i sistemi di gestione delle performance e dei rischi: il caso lapideo**, di *Claudia Presti, Luciano Marchi e Giulio Greco* » 1159
2. **Internal controls and financial performance in small and medium enterprises: First evidence of correlation in the northeastern Italy context**, by *Paolo Roffia* » 1172

9. THE IMPACT OF FINANCIAL REPORTING QUALITY ON DEBT MATURITY: EVIDENCE FROM ITALY

by *Andrea Rey*^{*}, *Roberto Maglio*^{*} and *Valerio Rapone*^{*}

Abstract

We investigate whether financial reporting quality affects the debt maturity structure of Italian Non-SMEs. To measure the financial reporting quality, we use as proxy the accrual quality computed as the absolute value of residual reflects the accruals that are not related to cash flow realised in the current, following or previous year. We carry out a regression analysis, using financial statement information of firms sampled. Consistent with previous studies, our findings show that financial reporting quality is positively associated with the possibility to access to long term debt and with proportion of long-term debt in total debt. Our results also reveal that larger firms, with more tangible assets and more leveraged use more long-term debt.

Keywords: Debt Maturity; Accruals quality; Information asymmetry; Financial Reporting Quality; Italy; Accounting Quality

9.1. Introduction

In this paper, we investigate whether financial reporting quality affects the debt maturity structure of Italian Non-SMEs. Our paper is motivated by several theoretical studies that have emphasized the importance of financial reporting quality in determining cost of capital and debt (Francis *et al.*, 2005), investment efficiency (Biddle *et al.*, 2009) (Chen *et al.*, 2011) and audit committee quality (Rainsbury *et al.*, 2009). First empirical evidence on

^{*} Department of Economics, Management and Institutions, University of Napoli Federico II.

the relationship between financial reporting quality and debt maturity structure in Spain (García-Teruel *et al.*, 2010) and in Belgium (De Meyere *et al.*, 2018) have been also provided.

In a context of information asymmetry, the financial reporting quality can be considered as a mean to reduce moral hazard and adverse selection problems, facilitating the access for the firms to long-term debt. Healy and Wahlen (1999) have argued that higher (lower) financial reporting quality decreases (increases) information asymmetry because financial reporting quality and disclosure can reduce adverse selection and moral hazard issues. Furthermore, Leuz and Verrecchia (2005) found that higher information quality increases expected cash flows. Thus, poor financial reporting quality can be use as indicator for lenders so they execute more short-term debt on their loans.

Therefore, our work aims to examine the relation between financial reporting quality and debt maturity in Italy, testing if accounting quality affects the debt maturity structure, allowing firms with higher financial reporting quality to access longer debt terms. As best of our knowledge, this work is the first to examine the relation between financial reporting quality and debt maturity in Italy. In the literature, Italy has been considered as a civil law country characterized by inefficient and weak investor protection, a high concentration of ownership and a less developed capital market (La Porta *et al.*, 1998) (Bianchi *et al.*, 2011). In addition, Hung (2000, p. 408) has showed that Italy has, second only to Germany, the lowest degree to which the accounting system moves away from a cash method measure of performance and it indicates a lower use of accrual accounting. So, we assume that there is a relationship that supports the informative role of accruals. We focus on accruals quality because earning will be more illustrative of cash flows if accruals are of good quality. It means that poor accruals quality will make it more difficult for lenders to evaluate future cash flows (García-Teruel *et al.*, 2010).

In order to do test our hypothesis, we use a dataset counting 6,221 observations from 967 Italian Non-SMEs from 2007-2017. Using probit, logit and tobit regression analyses, we study the impact of financial reporting quality on debt maturity structure. As proxy of financial reporting quality, we use the accrual quality. The accrual quality metric (AQ_M) we employ is based on Dechow and Dichev's (2002) model which posit a relation between current period no-cash working capital and operating cash flows in the prior, current and future periods. As proxy of debt maturity structure, we use the ratio of long-term debt (exceeding one year) to total debt.

Our findings suggest that there is positive association between Italian Non-SMEs' financial reporting quality and their debt maturity structure. This result allows us to state that, in a bank oriented financial system like Italian

system, it is important having a higher accounting information quality in order to reduce the asymmetric information between the firm and the lender. Our results also reveal that larger firms, with more tangible assets and more leveraged use more long-term debt.

This work contributes to the debate on the importance of financial reporting quality in decreasing information asymmetries and, in generally, in debt contracting of Italian Non-SMEs. This study adds to literature (De Meyere *et al.*, 2018) (García-Teruel *et al.*, 2010) on the relationship between accounting quality and debt maturity structure. This paper can be useful for researchers and also for managers, creditors and policy makers when they have to set programmes aimed to make easier the access to external financing.

We have structured the paper as follows: in Section 2, we present the related literature review. Section 3 addresses the research design, the hypothesis and the variables. In Section 4, we describe the sampling. In Section 5, we present our results and following implications. Finally, in Section 6 we describe our conclusions.

9.2. Literature review

When a financial institution has to finance the firms, it takes the risk of non-payment by firms that have been financed. To protect itself from this risk, the financial institution can take information by financial statement to predict the future cash flows of the firms before to provide them the credits (Garcia-Teruel *et al.*, 2014b) because the cash flow of the firm represents its capability to repay a debt (De Meyere *et al.*, 2018). The biggest obstacle that the financial institutions can face is the information asymmetry, consisting in an unequal distribution of information between creditors and debtors. In this way, a firm could adopt opportunistic behaviours (moral hazard) aimed to withhold information to the providers of credit, hiding its risk of non-payment.

In the literature, it has been argued that higher (lower) FRQ decreases (increases) information asymmetry because financial reporting quality and disclosure can reduce adverse selection and moral hazard issues (Healy & Wahlen, 1999).

Related to this issue, Easley and O'Hara (2004), have shown in their model that the amount and the precision of information disclosed to financial institution can affect a firm's cost of capital. They underlined that firms could lower their cost of capital either by reducing the extent of private information or by increasing its dispersion across traders.

Leuz and Verrecchia (2005), analysing the relation between information quality and firms' cost of capital, found that higher information quality increases expected cash flows, which in turn reduces the firm's cost of capital.

Biddle *et al.* (2009) suggested that information asymmetries between firms and suppliers of capital can reduce capital investment efficiency by giving rise to frictions such as moral hazard and adverse selection that can each lead to produce over- and under-investment. They also stated that FRQ can reduce these information asymmetries and can be associated with investment efficiency. So, improving financial disclosure can alleviate both under- and over-investments problems.

Focusing on emerging markets and on private firms, Chen *et al.* (2011) argued that FRQ is positively associated with investment efficiency. They also found that the relation between FRQ and investment efficiency is increasing in bank financing and decreasing in incentives to minimize earnings for tax purposes.

So, most of these studies employ FRQ as measure for information asymmetry and show that creditors value FRQ. In line with these studies, it is possible to state that financial institutions may sometimes oppose (or reduce) to loan requests demanded by those firms with lower FRQ.

Contextually, in the literature it has been showed that it is possible to use the earning quality measures as operationalisations of FRQ (De Meyere *et al.*, 2018) (Van Caneghem & Van Campenhout, 2012) (García-Teruel *et al.*, 2014b). Francis *et al.* (2005), using the accrual quality as proxy for the information risk associated with earning, have found that poorer accrual quality is associated with larger costs of debt and equity.

Focusing on the impact of borrower accounting quality on debt contracting, Bharath *et al.* (2008) found that accounting quality affects the choice of the market, with poorer accounting quality borrowers preferring private debt, i.e. bank loans, because these firms face higher adverse selection costs in the public debt markets.

Moreover, recent empirical studies have confirmed this assumption. Van Caneghem and Van Campenhout (2012), focusing on Belgian SMEs, showed that both information quantity and quality are positively related to SMEs leverage and that these firms reduce the cost of external financing by providing more information and/or higher quality of information.

Furthermore, García-Teruel *et al.* (2014b) argued that higher precision of earnings reduces information asymmetries with banks and facilitates the access of firms to bank loans, showing a positive association between bank debt and accruals quality. García-Teruel *et al.* (2014a) also found that higher accrual quality guarantees to an easier access to credit from suppliers.

Finally, De Meyere *et al.* (2018), analysing Belgian market, stated that information asymmetry impacts on the maturity structure of the debt, showing that earning quality is positively associated with the proportion of long-term debt in total debt and with the probability of having long-term debt.

However, as best of our knowledge, no empirical evidence are provided by the Italian market. So, our research aims to examine the effect of financial reporting quality on the debt maturity structure of Italian Non-SMEs. We expect that information asymmetry will influence creditors in their choices to lending long-term debt because of two main reasons (De Meyere *et al.*, 2018). First, higher information asymmetry limits the estimating of future cash flows more as the time horizon of forecasting becomes longer. Second, Italy has a bank-based financial system with low developed capital market (Hardie & Howarth, 2013): an Italian firm can face difficulties in reach debt capital outside bank contest.

Nevertheless, in the literature it has been stated that higher FRQ can reduce the asymmetry information, suggesting an easier access for the firms to long-term debt. So, according to the literature reviewed, we have developed the following hypothesis:

H1: There is a positive association between the FRQ of Italian non-SMEs and their debt maturity structure.

9.3. Research design

To investigate the hypothesis developed, we carried out a regression approach to estimate the impact of the independent variables *ACCQUALITY_MEASURE* (AQ_M) on the dependent variable *DEBTMATURITY*. Following De Meyere *et al.* (2018), the independent variables have been lagged one period in the model to reduce potential endogeneity problems. To test H1, regression equation is estimated as follow:

$$DEBTMATURITY_{i,t} = \alpha_0 + \alpha_1 * AQ_M_{i,t-1} + \alpha_2 * LSize_{i,t-1} + \alpha_3 * LAge_{i,t-1} + \alpha_4 * Asset\ tangibility_{i,t-1} + \alpha_5 * Profitability_{i,t-1} + \alpha_6 * EMDistress_{i,t-1} + \alpha_7 * EMGrey_{i,t-1} + \alpha_8 * Debt_{i,t-1} + \alpha_9 * Growth\ prospects_{i,t-1} + \epsilon_{i,t}$$

In line with hypothesis development, we expect a negative coefficient for the independent variable AQ_M because firms with higher value of AQ_M (and poorer financial reporting quality) have lower debt maturity than firms with higher financial reporting quality. Following De Meyere *et al.* (2018, p.

8), we have carried out a Probit model, a Logit model and Tobit model to estimate the impact of the independent variables AQ_M on the variable “DEBTMATURITY”. We have assigned a dummy value to the dependent variable “DEBTMATURITY” in the Probit and in the Logit model (=1, if some of the debt is long term and 0 otherwise). Then, we have modelled the proportion of long-term debt in total debt by means of a Tobit model.

Following Garcia-Teruel *et al.* (2010, p. 195) the dependent variable DEBTMATURITY is defined as the ratio of long-term debt (exceeding one year) to total debt.

Then, we used AQ_M as proxy of FRQ. In order to measure it, we followed the model proposed by Dechow and Dichev (2002) that highlighted that accrual shift or adjust the recognition of cash flow over time, so that the adjusted numbers (earnings), better measure firm performance. Dechow and Dichev (2002) have derived an empirical measure of accrual quality regressing current working capital accruals (WCAt) on past, present and future cash flows from operations, all deflated by average total asset of year t. WCAt represents the non-cash working capital.

$$\Delta WCA_{i,t} = g_0 + g_1 * CFO_{i,t-1} + g_2 * CFO_{i,t} + g_3 * CFO_{i,t+1} + \varepsilon_{i,t}$$

Where: ΔWCA_t is the change in working capital accruals from year t-1 to year t¹;

CFO_t = cash flows from operations in year t

CFO_{t-1} = cash flows from operations in year t-1

CFO_{t+1} = cash flows from operations in year t+1;

In the model presented by Dechow and Dichev (2002, p. 40), the residual reflects the accruals that are not related to cash flow realised in the current, following or previous year. Following García-Teruel *et al.* (2010, p. 196), we assume that the absolute value of the residual for each firm-year observation is an inverse measure of accruals quality so that to higher residual value corresponds a lower accrual quality value $AQ_Mi,t = |\varepsilon_{i,t}|$

As a proxy for size (LSize), we used the natural logarithm of total assets (Sogorb-Mira, 2005). We expect a positive effect of “LSize” because larger firms with may have less complications in accessing to long-term debt financing (Heyman *et al.*, 2008). “LAge” is measured as the natural logarithm of age in years (Davila *et al.*, 2003) (Agiomirgianakis *et al.*, 2006) (Van Caneghem & Van Campenhout, 2012). Then, “Asset tangibility” is measured as net property, plant and equipment to total assets and is included to control

¹ Where $\Delta WCA_t = \Delta \text{CurrentAsset} - \Delta(\text{Cash} + \text{CashEquivalent}) - \Delta \text{currentLiabilities} + \Delta \text{Short-term bank debt}$ (García-Teruel, Martínez-Solano, Sánchez-Ballesta, & Pedro, 2010)

for the potential to provide collateral (Sogorb-Mira, 2005), (Van Caneghem & Van Campenhout, 2012) (García-Teruel *et al.*, 2014b). “Profitability” is measured as operating income divided by total assets. Following Avallone and Quagli (2015), we expect that more profitable firms have better estimates on the market, reflecting positive estimation of future cash flows. Leuz and Verrecchia (2005) found that higher information quality increases expected cash flows, so we expect a positive impact by variable “Profitability” on debt maturity. To control the effect of credit quality, we use the default risk measured by EM-score² (Altman *et al.*, 1998). García-Teruel *et al.* (2010) have argued that it is useful adding as proxy a default risk score to measure the financial situation of firms. In particular, two indicator variables are defined to classify the firms in the sample into three categories depending on their riskiness (De Meyere *et al.*, 2018): the healthy firms with a EM-score above 3.75 (i.e. the base case), the firms with a medium risk profile as determined by a EM-score in between 1.74 and 3.75 (indicated by Grey), and the weakest firms having an EM-score of below 1.74 (indicated by Distress). “Growth prospects” is computed as the ratio between intangibles assets to total assets (Sogorb-Mira, 2005) (Van Caneghem & Van Campenhout, 2012). Finally, in line with Diamond’s studies (1991), we have introduced the control variable “Debt” that is measured as the average total debt to average total assets because firms with high level of debt is likely to desire longer maturity debt. So, we expect a positive relationship between “Debt” and “DEBTMATURITY”.

9.4. Sample

In our research, we used data from AIDA database, collecting non-consolidated financial statements data over the 2008-2016 period. We have included financial statements from Italian firms with limited liability (S.P.A.; S.R.L.; S.A.P.A) and we have dropped financial statements from public firms and firms operating in the government, financial and utility industries. The result is an initial database consisting of 804.434 firms.

In addition, we have included in the sample only those firms that in 2016 were Non-SME. According to EU recommendation 2003/361 (European Commission, 2003), a firm is considered non-SME when (a) employs more

² “The resulting model, which is the foundation for our EMS model approach, is of the form: EM score = 6.56(Xd + 3.26(X2) + 6.72(X3) + 1.05(X4) + 3.25. where X1 = working capital/total assets, X2 = retained earnings/total assets, X3 = operating income/total assets, X4 = book value equity/total liabilities.” (Altman *et al.*, 1998, p. 393)

than 250 persons, (b) has an annual turnover exceeding EUR 50 million or (c) an annual balance sheet total exceeding EUR 43 million. Then, firm-years observations without debt on balance sheet have been excluded from the dataset because the dependent variable for these observations cannot be computed. Firm-years that entail missing values for the control variables have been also discarded. The final sample counts 967 firms.

The computation of AQ_M has required non-missing data over multiple years on working capital accrual and cash flow from operations. As the data for this research are limited to 9 years (2008-2016), a company- and year-specific AQ_M number can only be computed for the 2009-2015 period. This selection step implies a further drop in sample size to 6.221 firm-year observations.

9.5. Empirical Results

9.5.1. Descriptive statistics

Table 1 shows the descriptive statistics of variables. DEBTMATURITY has a mean value of 17,4% that demonstrates that Italian Non-SMEs included in the sample have an average of 17,4% of debts that expire in more than one year. In general, the results presented in this study are higher than De Meyere *et al.* (2018) have found in Belgium market (13,0%) but lower than those reported by García-Teruel *et al.* (2010) for Spanish listed firms (29,1%).

Table 1 also presents the distribution of the independent variable, i.e. the AQ_M. The table reveals a mean (median) of 0,157 (0,067). Comparing our AQ_M values with the those one reported in previous studies (Francis *et al.*, 2005) (De Meyere *et al.*, 2018) (García-Teruel *et al.*, 2010), we can highlight an interesting observation about the AQ of Italian Non-SMEs studied. The quality of financial reporting of the sampled Italian Non-SMEs is lower than that of the US public firms reported by Francis *et al.* (2005). In effect, the mean and median AQ_M values found in this study (0.157 and 0.067, respectively) are higher than those revealed by Francis *et al.* (2005) on a set of US-listed firms during the period 1970-2001 (0.044 and 0.031, respectively). Since higher AQ_M values indicate a lower financial reporting quality, the financial reporting quality of Italian Non-SMEs is inclined to be lower than that of US-listed firms. This is in line with the studies of Leuz *et al.* (2003) that stated that earnings quality tends to be better in Anglo-Saxon countries. At the same time, the results of this study reveal that the AQ_M mean and median values of Italian Non-SMEs (0.157 and 0.067, respectively) appear also to be higher than those of Spanish SMEs reported by

García-Teruel *et al.* (2014b) (0.028 and 0.024, respectively) and then those of Belgian privately held firms reported by De Meyere *et al.* (2018) (0.052 and 0.042, respectively). Therefore, circumscribing the results to this sample, we can state that the quality of financial reporting of Italian Non-SMEs is low. In addition, in line with these evidences, the correlation matrix provided in Table 2 exposes a negative correlation coefficient between AQ_M and debt maturity equal to 0.056 ($p < .01$).

Table 1 – Descriptive statistics

	Mean	Median	Max	Min	STDEV
AQ_M	0,157	0,067	108,351	0,000	2,009
DEBTMATURITY	0,173	0,119	0,964	0,000	0,188
LSize	11,848	11,700	17,000	1,338	1,158
LAge	3,142	3,295	5,010	0,000	0,781
AssetTangibility	0,209	0,166	0,928	0,000	0,181
Profitability	0,047	0,038	0,854	-2,088	0,082
EMGrey	0,166	0,000	1,000	0,000	0,372
EMDistress	0,030	0,000	1,000	0,000	0,170
Growth Prospects	0,064	0,016	0,883	0,000	0,121
Debt	0,587	0,610	3,677	0,000	0,206

Notes: N = 6,221; AQ_M – see Section 3 for exact definition; Debt maturity = long-term debt (exceeding one year)/ total debt; LSize = ln (total assets); LAge = ln (age in years); Asset tangibility = net property, plant and equipment/total assets; Profitability = operating income/total assets; EMGrey = dummy variable taking 1 if $1.74 < EM\text{-score} < 3.75$ and 0 otherwise; EMDistress = dummy variable taking 1 if $EM\text{-score} < 1.74$ and 0 otherwise; Growth prospects = intangible assets/total assets; Debt = average total debt/average total assets.

Table 2 – Correlation matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)DEBTMATURITY	1.000									
(2)AQ_M	-0.056***	1.000								
(3)LSize	0.122***	-0.152***	1.000							
(4)LAge	0.020	-0.067***	0.148***	1.000						
(5)AssetTangibility	0.140***	-0.034***	0.116***	0.098***	1.000					
(6)Profitability	-0.113***	-0.052***	0.018	0.062***	-0.094***	1.000				
(7)EMGrey	0.051***	-0.007	0.071***	-0.031**	0.153***	-0.187***	1.000			
(8)EMDistress	-0.031**	0.053***	0.017	-0.125***	0.098***	-0.230***	-0.078	1.000		
(9)Growth Prospects	0.070***	0.049***	0.076***	-0.336***	-0.198***	-0.035***	0.054***	0.137***	1.000	
(10)Debt	0.192***	0.070***	-0.077***	-0.139***	-0.138***	-0.212***	0.342***	0.229***	0.069***	1.000

Notes: N = 6,221; AQ_M – see Section 3 for exact definition; In the probit model and in the logit model, DEBTMATURITY = 1, if some of the debt is long term, otherwise = 0 ; In the tobit model, DEBTMATURITY = long-term debt (exceeding one year)/ total debt; LSize = ln (total assets); LAge = ln (age in years); AssetTangibility = net property, plant and equipment/total assets; Profitability = operating income/total assets; EMGrey = dummy variable taking 1 if $1.74 < EM\text{-score} < 3.75$ and 0 otherwise; EMDistress = dummy variable taking 1 if $EM\text{-score} < 1.74$ and 0 otherwise; Growth prospects = intangible assets/total assets; Debt = average total debt/average total assets. P-values (p) are reported between brackets ***, **, * denote significance at the 1%, 5% and 10% level, respectively.

9.5.2. Regression analysis results

Table 3 reveals the results of the regression equation, using probit model, logit model and tobit model. Therefore, we estimate the regression equation using the dummy variable representing whether a firm has debt exceeding the year (in the probit model and in the logit model) and the ratio of debt exceeding the year to total debt as the dependent variable using tobit model.

Table 3 shows the results of reckoning regression equation.

Table 3 – Regression results: Accrual quality, Debt Maturity and Italian Non-SMEs

DEBTMATURITY	Probit		Logit		Tobit	
	<i>a</i>	(<i>p</i>)	<i>a</i>	(<i>p</i>)	<i>a</i>	(<i>p</i>)
AQ_M	-.340***	(0.000)	-.654***	(0.000)	-.022*	(0.059)
LSize	.169***	(0.000)	.315***	(0.000)	.034***	(0.000)
LAge	.068**	(0.015)	.110**	(0.033)	-.004	(0.189)
AssetTangibility	2.149***	(0.000)	.389***	(0.000)	.511***	(0.000)
Profitability	-1.615***	(0.000)	-3.155***	(0.000)	-.267***	(0.000)
EMGrey	-.587***	(0.000)	-1.053***	(0.000)	-.126***	(0.000)
EMDistress	-1.602***	(0.000)	-2.697***	(0.000)	-.335***	(0.000)
Debt	2.193***	(0.000)	4.022***	(0.000)	.324***	(0.000)
Growth Prospects	2.074***	(0.000)	3.700***	(0.000)	.626***	(0.000)
_cons	-2.731***	(0.000)	-5.111***	(0.000)	-.535***	(0.000)
<i>N.Observations</i>	6,221		6,221		6,221	
<i>R</i> ²	0.1391		0.1412		2.5436	

Notes: N = 6,221; AQ_M – see Section 3 for exact definition; In the probit model and in the logit model, DEBTMATURITY = 1, if some of the debt is long term, otherwise = 0 ; In the tobit model, DEBTMATURITY = long-term debt (exceeding one year)/ total debt; LSize = ln (total assets); LAge = ln (age in years); AssetTangibility = net property, plant and equipment/total assets; Profitability = operating income/total assets; EMGrey = dummy variable taking 1 if 1.74 < EM-score < 3.75 and 0 otherwise; EMDistress = dummy variable taking 1 if EM-score < 1.74 and 0 otherwise; Growth prospects = intangible assets/total assets; Debt = average total debt/average total assets. P-values (*p*) are reported between brackets ***, **, * denote significance at the 1%, 5% and 10% level, respectively.

We find that the parameter for the AQ_M variable is significant in all three models employed in this work. Particularly, in the probit and logit model AQ_M is significant at 1% level and in the tobit model it is significant at 10% level. These support the idea that AQ_M can be used as a proxy of financial reporting quality and it is able to explain the variation in the debt maturity structure of firms tested.

Further, we expected a negative coefficient for the independent variable AQ_M because firms with higher value of AQ_M (and poorer financial reporting quality) have lower likelihood of having long term debt (i.e. probit model and logit model) as well as the relative importance of long-term debt

in total debt (i.e. tobit model) than firms with higher financial reporting quality. Our findings are consistent with it has been hypothesized. In fact, the parameter regarding the variable AQ_M is negatively associated to DEBTMATURITY both in the probit model (-.340***), in the logit model (-.654***) and in the tobit model (-.022*). Therefore, Italian Non-SMEs with higher financial reporting quality (so higher accruals quality and lower AQ_M values) have more possibility to obtain higher proportion of long term debt in total debt than those firms with lower accrual quality. This is coherent with literature (Healy & Wahlen, 1999) (Francis *et al.*, 2005) (De Meyere *et al.*, 2018) (García-Teruel *et al.*, 2010) that have argued that accounting quality reduces information asymmetry between the firms and financial institutions because financial reporting quality and disclosure can reduce adverse selection and moral hazard issues. Therefore, these results suggest that Italian Non-SMEs with higher value of AQ_M have lower debt maturity than those with higher information quality.

Focusing on the control variables that affects the dependent variable DEBTMATURITY, we find that variable LSize is positively associated to the dependent variable ($p < .001$). These findings reveal that larger firms use more long-term debt. This is consistent with previous studies of Guedes and Opler (1996) that highlighted that larger firms sampled are less likely to default, stating that “ [...] firms with high liquidity risk issue long-term debt to avoid the risk of inefficient liquidation” (Guedes & Opler, 1996, p. 1828). These results are also in line with Hemyan *et al.* (2008) findings that have revealed that larger firms have less complications in accessing to long-term debt financing.

In addition, Table 3 shows that in all models there is a positive and significant ($p < .001$) association between variable AssetTangibility and DEBTMATURITY, indicating that Italian Non-SMEs with more tangible assets usually have a higher debt maturity. This result is in line with evidence provided by De Meyere *et al.* (2018) that have argued that “this may point towards maturity matching, i.e. matching the time it takes to settle liabilities to asset liquidity” (De Meyere *et al.*, 2018, p. 15).

Regarding the variable Debt, the parameter is positive and significant at 1% level in all the models adopted. This result is in line with previous studies (García-Teruel *et al.*, 2010) (De Meyere *et al.*, 2018) and it reveals that firms that use the leverage choose long-term financing to short-term debt to reduce their financial exposure. This empirical evidence is also consistent with Diamond's studies (1991) that argued that firms with high level of debt is likely to desire longer maturity debt.

9.6. Discussion and Conclusions

Using a dataset of 967 firms and 6,221 observations over the 2007-2017 period, we have examined the association between the financial reporting quality of Italian Non-SMEs and their debt maturity structure. Using accruals quality as proxy of financial reporting quality, we find that firms with higher financial reporting quality have more likelihood of having long-term debt and the proportion of long-term debt in total debt increase with financial reporting quality. Therefore, our empirical evidences highlight that firms with higher accrual quality can obtain longer maturity of their debt than those firms with lower accrual quality. Our findings are consistent with previous studies, confirming that accounting quality reduces information asymmetry and adverse selection problems. As a consequence, lenders are more inclined to contract long term debt if the asymmetry information between them and firms is lower.

In this way, this paper adds to literature in different ways. First, this work contributes to the literature on Italy financial system and on Non-SMEs by providing evidence in support of a positive association between the firms sampled and their debt maturity. Second, this work contributes to the accounting quality, financial reporting quality and accrual quality, showing and highlighting the relevance of these means in debt contracting. Third, this study is, to best of our knowledge, the first that show the effect of financial reporting quality on debt maturity in Italy.

In addition, our results also reveal that larger firms, with more tangible assets and more leveraged use more long-term debt.

References

- Agiomirgianakis, G., Voulgaris, F., & Papadogonas, T. (2006). Financial factors affecting profitability and employment growth: the case of Greek manufacturing. *International Journal of Financial Services Management*, 1(2-3), 232-242.
- Altman, E. I., John, H., & Peck, M. (1998). Emerging market corporate bonds – A scoring system. *Emerging Market Capital Flows*, 391-400.
- Avallone, F., & Quagli, A. (2015). Insight into the variables used to manage the goodwill impairment test under IAS 36. *Advances in Accounting*, 31(1), 107-114.
- Bharath, S. T., Sunder, J., & Sunder, S. V. (2008). Accounting quality and debt contracting. *The Accounting Review*, 83(1), 1-28.
- Bianchi, M., Ciavarella, A., Novembre, V., & Signoretti, R. (2011). Comply or explain: Investor protection through the Italian corporate governance code. *Journal of Applied Corporate Finance*, 23(1), 107-121.

- Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, 48(2-3), 112-131.
- Chen, F., Hope, O. L., & Wang, X. (2011). Financial reporting quality and investment efficiency of private firms in emerging markets. *The Accounting Review*, 86(4), 1255-1288.
- Davila, A., Foster, G., & Gupta, M. (2003). Venture capital financing and the growth of startup firms. *Journal of Business Venturing*, 18(6), 689-708.
- De Meyere, M., Vander Bauwhede, H., & Van Cauwenberge, P. (2018). The impact of financial reporting quality on the debt maturity structure of privately-held firms. *Accounting and Business Research*.
- Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77(s-1), 35-59.
- Diamond, D. W. (1991). Monitoring and reputation: The choice between bank loans and directly placed debt. *Journal of Political Economy*, 99(4), 689-721.
- Easley, D., & O'Hara, M. (2004). Information and the cost of capital. *The Journal of Finance*, 59(4), 1553-1583.
- European Commission. (2003). EU Recommendation 2003/361.
- Francis, J., LaFond, R., Olsson, P., & Schipper, K. (2005). The market pricing of accruals quality. *Journal of Accounting and Economics*, 39(2), 295-327.
- García-Teruel, P. J., Martínez-Solano, P., Sánchez-Ballesta, & Pedro, J. (2010). Accruals quality and debt maturity structure. *Abacus*, 46(2), 188-210.
- García-Teruel, P. J., Martínez-Solano, P., Sánchez-Ballesta, & Pedro, J. (2014a). Supplier financing and earnings quality. *Journal of Business Finance and Accounting*, 41(9-10), 1193-1211.
- García-Teruel, P. J., Martínez-Solano, P., Sánchez-Ballesta, & Pedro, J. (2014b). The role of accruals quality in the access to bank debt. *Journal of Banking & Finance*, 38, 186-193.
- Guedes, J., & Opler, T. (1996). The determinants of the maturity of corporate debt issues. *The Journal of Finance*, 51(5), 1809-1833.
- Hardie, I., & Howarth, D. (2013). *Market-Based Banking and the International Financial Crisis*. Oxford University Press.
- Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4), 365-383.
- Heyman, D., Deoof, M., & Ooghe, H. (2008). The financial structure of private held Belgian firms. *Small Business Economics*, 30(3), 301-313.
- Hung, M. (2000). Accounting standards and value relevance of financial statements: An international analysis. *Journal of Accounting and Economics*, 30(3), 401-420.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and Finance. *Journal of Political Economy*, 106(6), 1113-1155.
- Leuz, C., & Verrecchia, R. (2005). *Firms' capital allocation choices, information quality, and the cost of capital*. Working Paper.

- Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: an international comparison. *Journal of Financial Economics*, 69(3), 505-527.
- Rainsbury, E. A., Bradbury, M., & Cahan, S. F. (2009). The impact of audit committee quality on financial reporting quality and audit fees. *Journal of Contemporary Accounting & Economics*, 5(1), 20-33.
- Sogorb-Mira, F. (2005). How SME uniqueness affects capital structure: Evidence from a 1994-1998 Spanish data panel. *Small Business Economics*, 25(5), 447-457.
- Van Caneghem, T., & Van Campenhout, G. (2012). Quantity and quality of information and SME financial structure. *Small Business Economics*, 39(2), 341-358.

Il tema della comunicazione esterna agli *stakeholders* è da sempre, per l'azionalista, un'area di studio di estrema attualità, nel cui ambito, l'attenzione degli studiosi e dei *practitioners* si è indirizzata alla comunicazione *econo-mico-finanziaria*, dove il bilancio di esercizio riveste un ruolo centrale quale strumento informativo di sintesi della dinamica gestionale. In tempi più recenti i confini della comunicazione esterna si sono ampliati nelle forme e nei contenuti, attribuendo un rinnovato interesse a tematiche in passato relegate a ruoli "di contorno": l'importanza della comunicazione in materia di sostenibilità ambientale e di salvaguardia delle risorse naturali, di tutela dell'occupazione e sicurezza dei lavoratori, di sviluppo socio-culturale del territorio, e così via. Sono poi oggetto di rinnovato interesse anche tutte le tematiche di bilancio più tradizionali, sia in ragione della entrata in vigore di nuovi standard contabili di riferimento, sia in ragione dell'attenzione oggi indirizzata alle cd. "*non GAAP measurement*".

Nel quadro delineato si è collocato il Convegno Sidrea 2018 dedicato al tema "*Nuove frontiere del reporting aziendale. La comunicazione agli stakeholders tra vincoli normativi e attese informative*". La presente pubblicazione accoglie una parte rilevante dei contributi presentati e discussi nel corso delle sessioni parallele del Convegno.

Silvano Corbella è dal 2011 professore ordinario di Economia Aziendale presso il Dipartimento di Economia Aziendale dell'Università degli Studi di Verona dove è oggi titolare degli insegnamenti di Ragioneria Generale e Applicata e di Valutazioni d'Azienda. È autore di pubblicazioni nazionali e internazionali in tema di financial accounting e di corporate governance.

Luciano Marchi è professore ordinario di Pianificazione e Controllo Gestionale presso il Dipartimento di Economia e Management dell'Università di Pisa. È direttore scientifico della rivista *Management Control* e di una collana referata di monografie su strategia, management e controllo. È attualmente presidente della Società Italiana dei Docenti di Ragioneria ed Economia Aziendale. La sua attività di ricerca è incentrata sulle tematiche relative alla revisione, al controllo di gestione e all'integrazione dei sistemi informativo-contabili.

Francesca Rossignoli è dal 2012 ricercatore di Economia Aziendale presso il Dipartimento di Economia Aziendale dell'Università degli Studi di Verona. È autrice di pubblicazioni nazionali e internazionali in tema di financial accounting, corporate governance e management delle PMI.