



DEALING WITH IFRS 15:
ANY IMPACT ON EARNINGS MANAGEMENT?
FIRST EVIDENCES FROM
ITALIAN LISTED COMPANIES.

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ABSTRACT

A lot of studies show that the adoption of the IFRS reduces the level of earnings management (Rudra & Bhattacharjee, 2011; Cai et al., 2008;) and, consequently, decreases the use of discretionary accruals (Guenther et al., 2010). Nowadays, the major change in the IAS/IFRS' panorama is represented by the adoption of IFRS 15 "Revenue from contracts with customers", mandatory from 1st January 2018. From analysis done by the "Big-Four", rise that this new principle will have a dissimilar impact, in view of the industries which each entity belongs, because the sectors are characterized by the different types of revenues.

Conscious of that, to provide empirical evidence that earnings management is more frequent in some industries and low frequent in others, adopting a statistical analysis, it was observed a sample of Italian listed companies in the period 2001-2017. Specifically, it was chosen companies that belong two sectors: "Telecommunications" and "Utilities". The Jones Model (1991) was applied.

From the statistical analysis come to light that earnings management practices is "commonly adopted" in "Telecommunications" industry which is highly impacted by the introduction of IFRS 15. That said, the lesson learned from this study is that the implementation of the new principle, wrote to discipline the accountancy of revenues, and its consequences, must be carefully analyzed and monitored by the regulators, as well as correctly adopted by managers, as the determined revenues could have an impact on the pre-existing earning management practices.

Keywords: earnings management; discretionary accruals; IFRS 15; Telecommunications; Utilities.

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1. Introduction

Since 1973, there has been a worldwide trend to standardize the accounting rules. Over the last few years, also in Europe, the need to harmonize accounting rules has risen. The objective of the EU is to facilitate the development and efficiency of European financial markets. The application of different accounting standards in each member States has, in fact, determined a low degree of comparability of the financial reporting of European companies, constituting a brake in the development of these markets. The European accounting legislation (i.e., Directives n. IV and VII, respectively on the subject of the annual financial statements and consolidated financial statements), differently applied in each member Countries, was no longer adequate to guarantee this objective.

With this in mind, the European Union (EU) Parliament decided to promote, and progressively to make compulsory, for fiscal years starting after 1 January 2005, the adoption of international accounting standards called IAS/IFRS.

This set of standards is elaborated by the International Accounting Standards Committee (IASC) – first by a group of professional accountants, and then by a board called International Accounting Standards Board (IASB) that is an internal committee of the global organization for accountancy (International Federation of Accountants – IFAC). The European Union decided to focus its attention on this set of principles (IAS/IFRS) as an answer to its previously set ideas, such as (Preface to IFRS:2018):

1. *“develop [...] high quality, understandable and enforceable global accounting standards [...], that require high quality, transparent and comparable information [...] to help participants in the world's capital markets and other users [...]”;*
2. *“promote the use and rigorous application of those standards”;*
3. *“bring about convergence [...]”.*

These are also the reasons why, IAS/IFRS obtained an extraordinary success and they persuaded almost 100 Countries to adopt them (Ball, 2006).

Moreover, many studies showed that adopting IFRSs, firms act optimally and promote financial reporting quality and investor interests (Fields et al., 2001). Other researches, some with empirical evidence, show that adopting the IFRS reduces the level of earnings management (Rudra & Bhattacharjee, 2011; Cai et al., 2008;) because these set of standards limit management's opportunistic discretion (Barth et al., 2008) and, consequently, the adoption of IFRS decrease the use of discretionary accruals (Guenther et al., 2010).

In this scenario, nowadays, the major change in the IAS/IFRS' panorama is represented by the adoption of IFRS 15, titled "*Revenue from contracts with customers*". This standard has to be adopted from 1st January 2018. Considering the topic that is a trait in this IFRS, and with the awareness that revenues are an ideal component to examine as one of the largest earnings component subject to discretion (Stubben, 2010), the focus shifts on understanding what will be the impact of IFRS 15 on earnings management because of a main point to underline: the new standard will impact all IFRS entities adopter but, most likely, the impact will vary according to the different industrial sector of the entities.

This rationale is confirmed by the Big-Four¹ studies that identify the different level of impact considering specific features of the industries, which directly influence the revenues. So that, it was taken into consideration two different industries:

- *Utilities*, with a low level of impact of IFRS 15;
- *Telecommunications*, with a high level of impact of IFRS 15.

We adopt statistical analysis to confirm that these two sectors are both characterized by the category of revenues. To reach the goal, it was observed a sample of Italian listed companies in the period 2001-2017. The Jones Model (1991) was applied this data; this model considers revenue as a factor on which discretionary accruals depend and not as discretionary accruals. In fact, as is confirmed by the evidence provided by Stubben (2010), accruals are an aggregate, so much so that some authors are considering the use of models focusing on one component of earnings, which has the potential to provide more precise estimates of discretionary, as revenues.

This is the reason why it was decided to proceed in two steps to check if earnings management exists in Italy:

1. considering all accruals (revenues and expenses), and if the level of earnings management is always the same, independently of the industries, the first step provides a direct comparative analysis of the discretionary accruals increase in the Italian listed companies in the period 2001-2017. This part of the analysis is presented in this paper;
2. observing the earnings management in light of using IFRS 15, limiting the analysis to only the *revenues* management instead of *accruals* management at the whole.

¹ KPMG, Ernst & Young, Deloitte and PricewaterhouseCoopers.

The objective is to provide empirical evidence in specific industries, such as Telecommunications, where the earnings management is more frequent and, therefore, how greater benefit will be obtained from the correct and adequate introduction of the IFRS 15.

The paper is structured as follows. The section 2 reviews academic literature on the impact of IAS/IFRS adoption on earnings management and future possible effects in the different industries. The following section (n.3) it is dedicated to explain the statistical test; in detail, section n.3.1. is dedicated to explain the research design; in the section n.3.2. are explained the model and the variables used; the section n.3.3. is dedicated to the sample; the section n.3.4. contained the regression and some results and in the section n.3.5. are highlight the limitations of the present work. The paper ends reporting main conclusions (section 4).

2. Literature review

The adoption of an accrual-based accounting system has been vastly emphasized². The European Commission itself has defined its adoption as necessary to “*avoid the discretions made possible by the cash-based accounting systems, where payments can be voluntarily anticipated or postponed in order to make them occur in the desired periods*” (European Commission, 2013, Section 3). According to the Commission, therefore, a cash-based system would be more vulnerable in a real management practices perspective since monetary flows system is easier to manage.

The point is widely agreed upon the main literature. Goldman and Brashares (1991) believe that a full-accrual accounting system emphasizes the transparency of financial statements and allows a faithful representation of corporate performance; similarly, Vinnari and Näsi (2008), argue that the adoption of accrued-based systems, such as the IAS/IFRS system, is able to limit the use of creative accounting³. The adoption of IFRS is widely supported by the mainstream literature. Jeanjean and Stolowy (2008), Ewert and Wagenhofer (2005) highlight its superiority over, for example, the General Accepted

² Accrual based accounting is the accounting system on which IFRS are based.

³ The term “creative accounting” refers to the use of the flexibility in accounting principles in order to manipulate the presentation and/or valuation of financial statement items (Jameson, 1988). Consequently, budget editors can show stakeholders whatever they find more convenient, hiding the company's actual performance. Given that such practices rely on the interpretation of accounting principles, it remains very difficult to establish when they are bound to illegality (Amat et al., 1998).

Accounting Principles (GAAP), which are not “rigorous” enough, leaving high degrees of freedom in implementing earnings management policies.

The issue of earnings management is a topic debated in literature since 1980 when, many authors started developing models to highlight the persistence of the phenomenon (Healy, 1985; DeAngelo, 1986; Jones, 1991; Dechow et al., 1995; Dechow & Dichev, 2002; Tutino & Pompili, 2017). Two main earnings management categories can be identified:

- *Accruals* management, related to the possibilities offered by the accounting standards (professional judgments), aiming at “obscuring” or “masking” true economic performance (Dechow & Skinner 2000),
- *Real activities* manipulation, occurring when managers undertake actions that change the timing or structuring of an operation, investment, and/or financing transaction in an effort to influence the output of the accounting system (Gunny, 2010).

In this paper, it is adopted the “accruals management” analysis perspective.

According to some authors, the quality that would place IAS/IFRS above local GAAP is the reduction in costs that investors would have to bear to assess the quality of the information reported in IFRS compliant financial statements. In fact, the greater comparability of the financial statements would make it possible to identify any earnings management actions in a timely manner, reducing the possibility of opportunistic behavior by managers. Michelli and Cimoni (2012) highlight the ability of the IAS/IFRS to fill in local legislative gaps relating to particular events that must be reported in the financial statements. For example, the presence of “gaps” in enforcement mechanisms could weaken, or even nullify, the positive effects of the new standards.

Other authors such as Leuz & Verrecchia (2000), Ashbaugh (2001), Ashbaugh & Pincus (2001), Leuz (2003) pointed that the greater disclosure required in application of IFRS for the financial statements preparation would result in reduction of opportunistic behavior. Therefore, from a theoretical point of view, there are no doubts about the benefits of the IAS / IFRS adoption. Nevertheless, different and conflicted conclusions resulted in many investigations carried out in this specific field.

Barth et al. (2008), observing the quality of “budget numbers” before and after the adoption of IFRS on a sample of 327 companies that opted for voluntary implementation between 1994 and 2003, found a lower earnings management, a greater value relevance and a more timely recognition of losses following the introduction of international

accounting standards, translating into higher quality financial statements than those prepared with local GAAP. Daske et al. (2007), examining the economic consequences of IFRS adoption on a sample of 3.800 first-time adopters in 26 different countries, found a positive correlation between the introduction of IFRS, market liquidity and the market valuation. Differently, Armstrong et al. (2007) analyzed the potential impact on stock market price with the adoption of IFRS. The results showed a positive correlation underlying a positive (negative) market reaction with the increase (decrease) in the probability of IFRS adoption. The combination of these results show that, at least for early adopters, companies could benefit from the adoption of IFRS. Latridis (2010) drew similar conclusions observing a sample of listed companies in the UK: the adoption of IFRS is able to reduce the possibilities of earnings management as it leads to a more timely and value relevant recognition of losses.

Following the same path of the literature, it was attempted to find any evidences on the potential different impact of IAS/IFRS observing different industries. The rationale for the investigation emerges following the mandatory adoption, starting from 1 January 2018, of a specific accounting standard related to the revenue components valuation: IFRS 15 (“*Revenue from contracts with customers*”). The main content of IFRS 15 is summarized in Appendix.

The impact of the adoption of this new IFRS may have a significant effect on the financial statements of many entities as the amount of revenues and contract costs and/or the timing of their recognition may differ significantly from current practice⁴. The application of the new standard will have effects on all IFRS adopter entities and on the most significant item of their financial statements, i.e. revenues.

To understand if the impact of this new principles will be the same on all industrial or not, it have been used the specific sectors guide lines, available on the web sites of the Big-Four (KPMG, Ernst & Young, Deloitte and PricewaterhouseCoopers).

In the table n.1 it is summarize what has been analyzed.

As shown in the table above, the opinions provided by the “Big-Four” are consistent among them, with the exception of specific industries as “Software” and “Energy”. In particular, it can be observed that the Telecommunications sector is the most affected, while an average impact is expected for all the other sectors.

⁴[http://www.ey.com/Publication/vwLUAssets/IFRS_Developments,_Issue_126:_Are_you_ready_to_quantify_the_effect_of_adopting_IFRS_15/\\$File/Devel126-Revrec-disclosure-survey-May2017.pdf](http://www.ey.com/Publication/vwLUAssets/IFRS_Developments,_Issue_126:_Are_you_ready_to_quantify_the_effect_of_adopting_IFRS_15/$File/Devel126-Revrec-disclosure-survey-May2017.pdf)

Referring to the North American Industry Classification System⁵ (NAICS), Energy sector it can be considered as a subsector of a Utilities sector. In fact, Utilities sector is made up of companies operating in the following areas: (i) electric bulk power transmission and control; (ii) fossil fuel electric power generation; (iii) natural gas distribution; (iv) other electric power generation.

Table 1 - IFRS 15 and Impact on Financial Statement Quality: The “Big-Four” Expectations

Sector	KPMG^a	Ernst & Young^b	Deloitte^c	PWC^d
<i>Insurance</i>	Medium	Medium/Low	N/A	N/A
<i>Building and construction</i>	Medium	Medium/High	Medium	Medium
<i>Retail and consumer goods</i>	Medium	Medium	Medium	Medium
<i>Licensors*</i>	Medium/high	N/A	Medium	Medium
<i>Real estate</i>	Medium	N/A	Medium	Medium
			Medium	
<i>Technology</i>	Medium	N/A	/Low	High
<i>Telecommunication</i>	High	High	High	High
<i>Energy (mining, oil and gas)</i>	Medium	Medium	Low	Low
<i>Transport</i>	Medium	N/A	N/A	Low

a) KPMG (2016, May), “Revenue - Issues in depth”, available at www.kpmg.com.

b) Ernst & Young (2016, April), “Revenue from contracts with customers, A summary of IFRS 15 and its effects”, available at www.ey.com.

c) In this case the papers of each sector were analyzed and the relative judgment was taken from the analysis of each. The key element to arrive at the aforesaid judgment was the level of risk of error associated with the steps of the IFRS 15 model.

d) PriceWaterhouseCoopers (2014, June), “IFRS 15: implementation challenges”, available at from www.pwc.com.

* media, life science, franchisors

⁵ The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data. This classification it was used in the present work to identify the different industries to which the Italian listed companies belong.

In this regard, several studies have been conducted on the “Insurance” and “Banking” industries (Firoz et al., 2011; Agostino et al., 2011; Post et al., 2007; Helfenstein et al., 2004; Bischof, 2009); other studies analyzed the companies in the “Manufacturing” industry (Colwyn et al., 2005). Actually, there are a few research focused on the impact on earnings management consequent the adoption of IAS/IFRS in “Telecommunications” and “Utilities” industries.

3. Statistical Test

3.1. Research Design

As previously stated, this paper proposes a comparative analysis aimed at highlighting the amount of discretionary accruals present in two different industries with a different degree of sensitivity to the application of IFRS 15: “Telecommunications” and “Utilities”.

The objective of the analysis is ultimately to understand whether the application of IAS/IFRS can increase the quality of accounting information and/ decrease the possibility of implementing earning management policies. In this perspective, Agency Theory approach have to considered (Jensen & Meckling, 1976) in accordance with the shareholders need to delegate the management in consideration of specific skills and knowledge (Zanobio, 2012), this meaning that the agency theory makes a number of predictions regarding the behavior of managers (Iatridis, 2010).

The need for such an analysis arose in the light of the numerous changes made over the last few years by the international standard setters with the aim of improving the set of accounting standards in place. The continuous process of updating the international accounting standards has led to the introduction of IFRS 15 – *Revenue from contracts with customers*, applicable from 1 January 2018. The new accounting principle provides the rules for the recognition of different categories of revenues, considering the ones provided by the old IAS 18, regarding the amount of revenues, contract costs and the timing of their recognition.

The application of the new standard will have significant effects on all entities financial statement adopting IFRS, not only limited to the revenues items. That said, the following analysis, based on the earning managements model proposed by Jones (1991), is aimed at identifying the status of Italian listed companies, until 2017.

The Jones Model (1991) has been adopted in order to identify the amount of total accruals, distinguishing between discretionary and non-discretionary accruals, using the

non-discretionary part as a proxy for measuring the presence and extent of earning management practices. The manipulation of the balance sheet data can be carried out through different methods, including the use of discretionary accruals, changes in accounting treatments and changes to the capital structure: the present analysis focuses exclusively on the use of accruals.

It should also be emphasized that the Jones Model (1991) does not consider revenues as an element that is subject to discretionary accrual, but rather as a control variable explaining the variation of discretionary accrual linked to the varying conditions in which firms operate. In light of this, considering the exclusion of the analysis of revenue manipulations that is assumed to be present and significant, the model is aimed at investigating the *presence* and *persistence* of earning management practices, not directly carried out on the revenue component in the industry observed. The objective is to analyze the context of application of the new IFRS 15, considering that revenues, albeit not considered as subject to manipulation are subject to the new principle, and they play a fundamental role with regard to earning management practices, as a proxy for the measurement of the conditions of the companies.

The analysis, simultaneously with the analysis of the “Big-Four”, compares the Telecommunication and Utilities industries, respectively identified as high sensitive and medium/low sensitive industry to the introduction of the new IFRS 15.

Establishing the introduction of IFRS 15 and the potential impact on earning management opportunities can provide indications to a large number of stakeholders (such as shareholders, policy makers, auditors, etc.) providing them indications on manipulation in financial statement for specific industries.

3.2. Model and Variables

In order to identify a proxy for taking into account earning management, the discretionary share of total accruals was used.

In agreement with Jones (1991), the amount of total accruals has been calculated as the variation in Non-Cash Working Capital before the Income Tax Payable minus Total Depreciation Expense.

The Change in Non-Cash Working Capital Before Income Tax Payable was calculated as the Change in Current Assets, Net of Cash and Short-Terms Investments minus the Change in Current Liabilities Net of the Current Share of Long-Term Loans and Payable Income Taxes.

The total accruals formula is reported below:

$$TA_t = [\Delta Current Assets_t - \Delta Cash_t] - [\Delta Current Liabilities_t - \Delta Current Maturities of Long Term Debt_t - \Delta Income Taxes Payable_t] - Depreciation and Amortization Expense_t (1)$$

According to Jones (1991) and De Angelo (1986), total accruals and relative year by year variations can be broken down as below:

$$\Delta TA_t = (TA_t - TA_{t-k}) = (DA_t - DA_{t-k}) - (NDA_t - NDA_{t-k}) (2)$$

where:

- TA_t = Total Accrual at the time "t"
- TA_{t-k} = Total Accrual at the time "t-k"
- DA_t = Discretionary Accrual at the time "t"
- DA_{t-k} = Discretionary Accrual at the time "t-k"
- NDA_t = Non Discretionary Accrual at the time "t"
- NDA_{t-k} = Non Discretionary Accrual at the time "t-k"

The previous subdivision of total accruals, in agreement with DeAngelo (1986), is based on the assumption that the variation of non-discretionary accrual is almost non-existent; therefore, the difference in total accruals is exclusively due to changes in discretionary accruals levels.

The Jones model (1991), therefore, is based on the assumption that at the period "t" there is no earning management and, therefore, the difference in total accruals between the period "t" and the period "t-k" is necessarily due to the existence of non-discretionary accruals, this showing a potential presence of earnings manipulation.

In order to verify the relationship between the economic conditions of the companies and the level of accruals, Jones (1991) introduces the following equation:

$$TA_{i,t}/A_{i,t-1} = \alpha[1/A_{i,t-1}] + \beta_{1i}[\Delta REV_{i,t}/A_{i,t-1}] + \beta_{2i}[PPE_{i,t}/A_{i,t-1}] + \varepsilon_{i,t} (3)$$

where:

- $TA_{i,t}$ = Total Accrual at the time "t" for company "i"
- $A_{i,t-1}$ = Total Asset at the time "t-1" for company "i"
- $\Delta REV_{i,t}$ = Revenues at the time "t" minus revenues at the time "t-1" for company "i"
- $PPE_{i,t}$ = Gross Property, Plant and Equipment at the time "t" per for company "i"
- $\varepsilon_{i,t}$ = Error term in year "t" for firm "i"

The inserted dependent variables have the following meaning:

- The PPE are included in order to monitor the non-accrual quota deriving from the recognition of discretionary write-downs; furthermore, the Depreciation has been included in the calculation of the total accruals;
- Revenues were mainly included as indicator of the economic conditions of the companies. Furthermore, as for PPE, the manipulation of Revenues is linked to the Change in non-Cash Working Capital used to calculate total accruals.

The error term obtained by the regression of equation (3) can be explained as follows:

$$\varepsilon_{i,p} = TA_{i,p}/A_{i,p-1} - (\alpha[1/A_{i,p-1}] + \beta_{1i}[\Delta REV_{i,p}/A_{i,p-1}] + \beta_{2i}[PPE_{i,p}/A_{i,p-1}])$$

(4)

The equation (4) expresses the level of discretionary accrual for each year “p” and was used to determine their amount in the companies in the observed industry.

Once the amount of discretionary accruals for the selected samples was determined, it was proceeded a comparing the two selected industries.

The table n.2 shows all the variables observed for each company.

The initial sample consists of 88 Italian listed companies, operating in 17 different sectors, observed during the 2001-2017 period. The sectors chosen for the analysis come from the analysis carried out by the “Big-Four” primary auditing companies widely recognized as Ernst & Young, PriceWaterhouseCoopers, KMPG and Deloitte&Touche. They conducted specific analysis focused on industries mostly affected by the new IFRS in term of measurement, recognition and disclosure of revenue rules.

Table 2 – The Set of Variables

Labels	Meaning
$\Delta CASH_t$	Change in cash and cash equivalents between year t and year t-1
ΔCA_t	Change in current asset between year t and year t-1
ΔCL_t	Change in current liabilities between year t and year t-1
ΔDCL_t	Change in current portion of long term debt between year t and year t-1
ΔTAX_t	Changes in Tax Payable between year t and year t-1
DEP _t	Depreciation for year t
ΔREV_t	Changes in Revenues between year t and year t-1
PPE _t	Property, Plant and Equipment for year t
TA _t	Total asset for year t

3.3. Sample

Using this analysis as a template for selecting the industries, it is identified the “Telecommunications” industry that is expected to have high impact by the introduction of IFRS 15⁶, and the “Utilities” industry that is expected to have low impact⁷.

As reported by “Big-Four” analysis, the “Telecommunication” industry presents the following areas that make it highly impacted by the advent of IFRS 15:

- (i) contract modifications;
- (ii) accounting for handsets and other separate performance obligations;
- (iii) significant financing components;
- (iv) allocation of revenue on a relative standalone selling price basis;
- (v) revenue recognition on a portfolio basis; and
- (vi) costs incurred to obtain a contract.

Referring to the “Utilities” industry (power, oil & gas and etc.), the “Big-Four” identify the following focus areas:

- (i) contract evaluations to determine if in scope of IFRS 15, leases, financial instruments or another standard;
- (ii) production sharing contracts and concession arrangements;
- (iii) fixed and provisionally priced arrangements;
- (iv) contracts for the delivery of commodities over multiple periods;
- (v) take-or-pay, minimum capacity or long term supply contracts.

Following the choice of the two observed industries, the final sample is made up of 23 listed companies, distributed as follows:

- 13 operating in telecommunication industry,
- 10 operating in utilities industry.

Considering the availability of the information for the considered period, the total observations are 303 firm-year.

⁶ The sector is made up of companies operating in the following areas: (i) motion picture and video production; (ii) newspaper publishers; (iii) software publishers; (iv) television broadcasting; (v) wired telecommunications carriers

⁷ The sector is made up of companies operating in the following areas (i) electric bulk power transmission and control; (ii) fossil fuel electric power generation; (iii) natural gas distribution; (iv) other electric power generation.

3.4. Regression and results

We performed, with the support of R software, statistical tests to investigate the existence of a significant difference between the extent of the discretionary accruals between the companies in the “Telecommunications” industry comparing with those operating in “Utilities” industry.

First of all, it was done the regression (OLS) of the equation 4, introducing an intercept for statistical purpose, and it was utilized the results to estimate the discretionary portion of the accruals. Appendix 1 reports some descriptive statics made to represent the extent and the distribution of the total and discretionary accruals in the two industries among the considered period.

Then, as said before, it was tested the difference existing between the two sub-samples. For doing so, it was done the “Welch's t-test”, or unequal variances t-test, that is a two-sample location test which is used to test the hypothesis that two populations have equal means. In order to carry out these statistics, it was compared the squared averages of the identified discretionary accruals. The use of the accruals squared allows us to compare while taking into account their magnitude regardless of their positive or negative sign. The table n.3 synthesizes the results of the analysis.

Test	Industries	
	Telecommunications	Utilities
Mean	0.013875809	0.004870635
T		3.2533
DF		216.13
P-value		0.001324

As can be seen from the reported results, the difference between the averages of the two industry is very significant (p-value <0.05) in the Telecommunication industry since the discretionary accruals show a higher average impact comparing with the value reported for Utilities sector.

Given these results, it is possible to affirm that the Telecommunication industry is more affected by earning management behavior than the Utilities industry. This must be read together with the analysis made by the Big-four in order to better analyze and understand which could be the impact related to the application of the IFRS15. In the conclusion section of this paper, a detailed analysis of the found results also in the perspective of

the stakeholders and the policy makers, subjects directly impacted to the earning management practices, is provided.

3.5. Limitations

At present the research has some limitations.

A first limitation is related to the small numbers of industries observed, actually two; the analysis could be extended to a greater number of industries and companies in order to provide more complete overview about the presence and the persistence of earning management policies in Italian companies.

A second limitation is related to the consideration of the revenues as non-discretionary component. In the specific topic, a part of the literature just went over this limit (Dechow, 1995); other authors adopted a different approach, building models in which revenues are definitively considered but not all accruals are considered (Stubben, 2010).

In the next steps of the analysis, the results deriving from application of these models in the analyzed sectors will be presented.

4. Conclusions

High quality accounting standards was introduced by IASB and FASB in order to improve worldwide quality of financial reporting. There are evidences that permit to affirm that this accounting standards are able to reduce the level of earnings management (Rudra & Bhattacharjee, 2011; Cai et al., 2008) and, consequently, decreases the use of discretionary accruals (Guenther et al., 2010).

Given this scenario, the present study, starting from the introduction of IFRS 15 “Revenue from contracts with customers”, looked for evidence of earnings management in a sample of Italian public firms. The “Big-Four” audit firms have analyzed the possible effects of the introduction of IFRS 15 identifying different impacts for different industries. Specifically, these studies have identified the Telecommunications industry, with a high level of impact of IFRS 15 and the Utilities industry, with a low level of impact of IFRS 15.

Given these results, this study, based on the earnings management model proposed by Jones (1991), is done with the aim of identify the *status* of Italian companies in terms of earnings management, before the introduction of IFRS 15. For doing so, the study takes in consideration the industries before mentioned, so two sample characterized by different impacts of IFRS 15. The Jones model (1991) have the goal of identify the

amount of total accruals, distinguishing between discretionary and non-discretionary accruals, using the non-discretionary part as a proxy for measuring the presence and extent of earnings management practices. Obtained the results on the amount of discretionary accruals, the analysis carries on making a comparison between the two industries.

It must be mentioned that the Jones model (1991), used as the basis to calculate Total Accruals and discretionary accruals, does *not* consider the discretionary component of revenues, which are instead used as a proxy to define the economic conditions of sample companies. From the existing literature on the topic it is however possible to assume that revenues are a component widely affected by earnings management policies, since they are often the basis for determining the annual bonuses.

Therefore, even if the discretionary component of revenues is not considered, the results show that the Telecommunications industry, considered ones that will more impacted from the introduction of IFRS 15, is more impacted by earnings management practices than the Utilities industry. This is also confirmed by the few papers found in the literature. About the Telecommunications industry, some scholars assert that is worth studying because there exists a degree of earnings management variation across industries (Lee et al., 2008); at the same time, “Utilities” industry has a strictly regulated about accounting data (Healy & Wahlem, 1999) and this could be considered one of the reason why the earnings management is less evident compared if it is compared with others sectors.

This result must be analyzed simultaneously with the results carried out by the “Big-Four” reports on the impact of IFRS 15 in order to draw appropriate conclusions for the stakeholders, especially considering the policy makers perspective.

That said, the implementation of the principle, and its consequences, must be carefully analyzed and monitored by the regulators, as the determined revenues could have an impact on the pre-existing earnings management practices. In fact, as anticipated above, even if in this first step of the project the revenues are not considered as an object of manipulation, they are one of the factors that can affect the level and extent of the discretionary accruals.

The scientific contribution of the present research also concerns the predictions on the behavior of managers that can be foreseen considering the agency theory (Iatridis, 2010); therefore, knowing *ex-ante*, which are the industries in which earnings management has

a high impact, is also possible to foresee the hypothetical moves of the managers in the implementation of IFRS 15.

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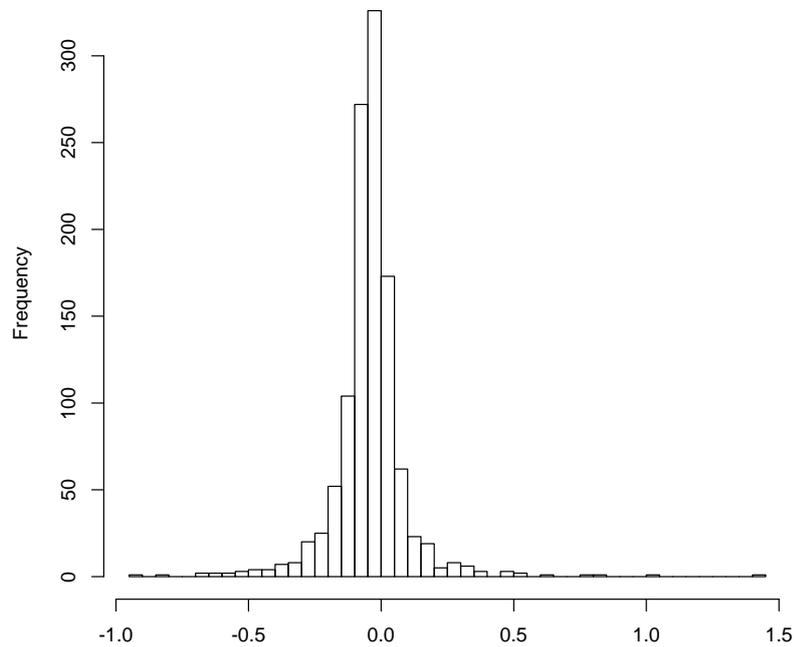
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APPENDIX 1

This appendix is provided with the aim of furnish some details on the extent of the Total Accruals and the Discretionary Accruals in the Telecommunication and Utilities industries and on their distribution in the considered period (2001-2017). So, the following histograms report the frequency of the accruals while the boxplots report the minimum, maximum and mean value of the accruals for each year.

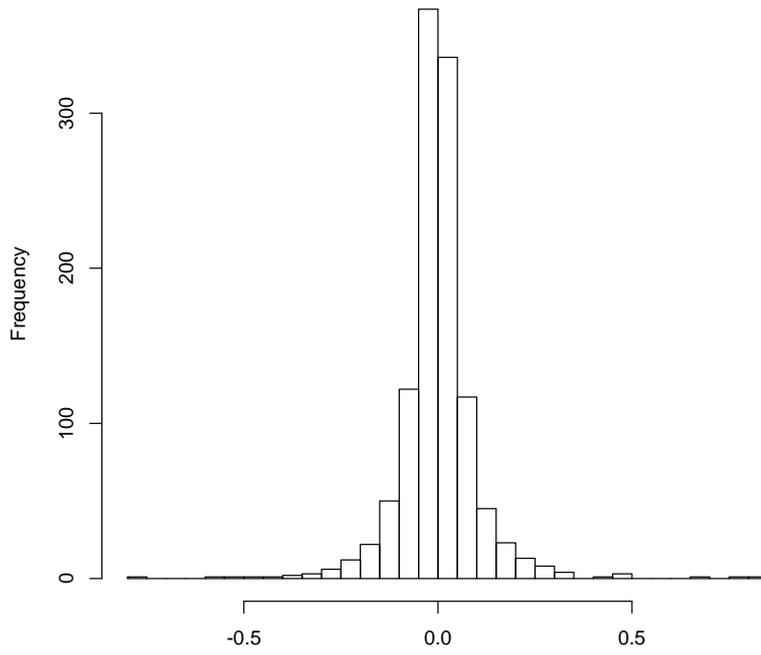
The following graphic shows the frequency of the Total Accrual for the full sample among the period 2001-2017.

Graphic 1 – Frequency of Total Accruals

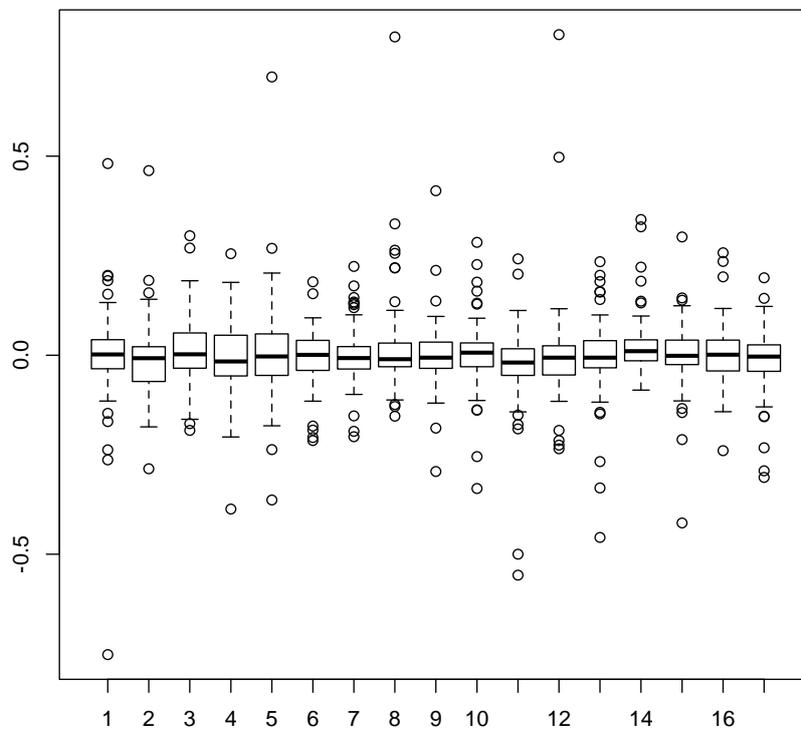


The following graphics instead shows the frequency of the Discretionary Accruals for the same sample and period and their distribution for each year.

Graphic 2 – Frequency of Discretionary Accruals

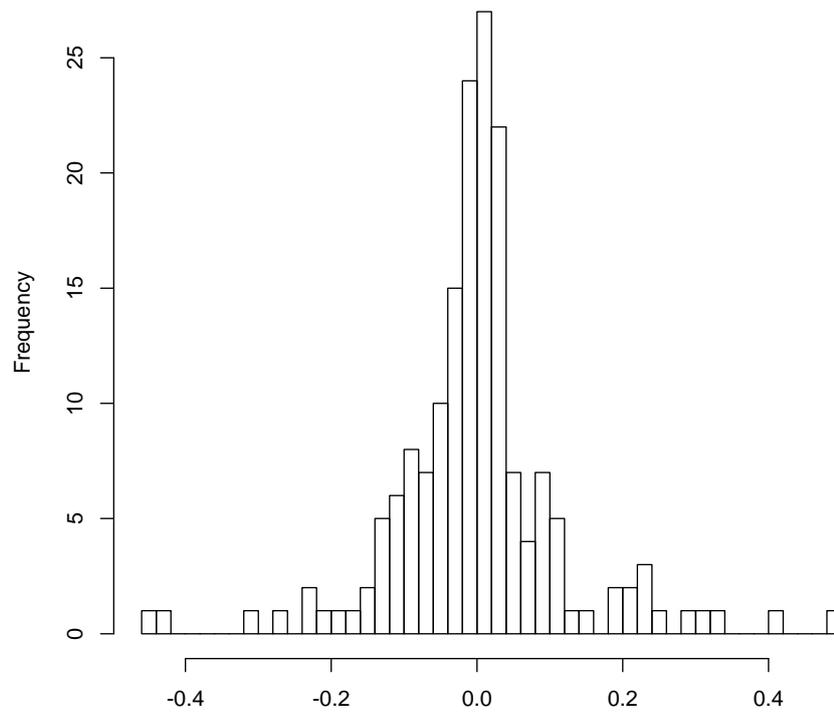


Graphic 3 – Distribution of Discretionary Accruals

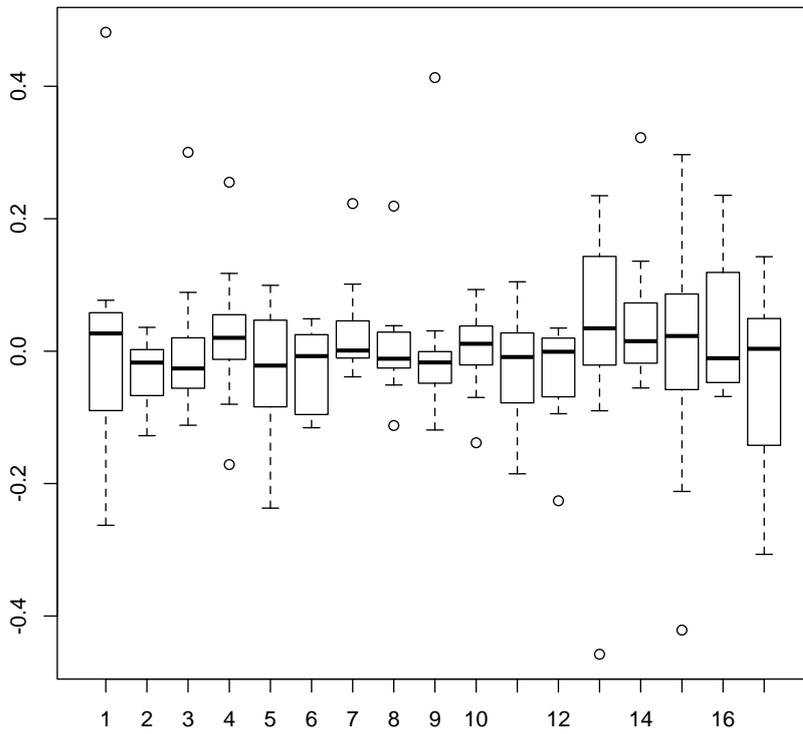


With specific reference to the two different industries Graphics 4 and 5 show the frequency and distribution of Discretionary Accruals for Telecommunication industry and Graphics 6 and 7 show the frequency and distribution of Discretionary Accruals for Utilities industry.

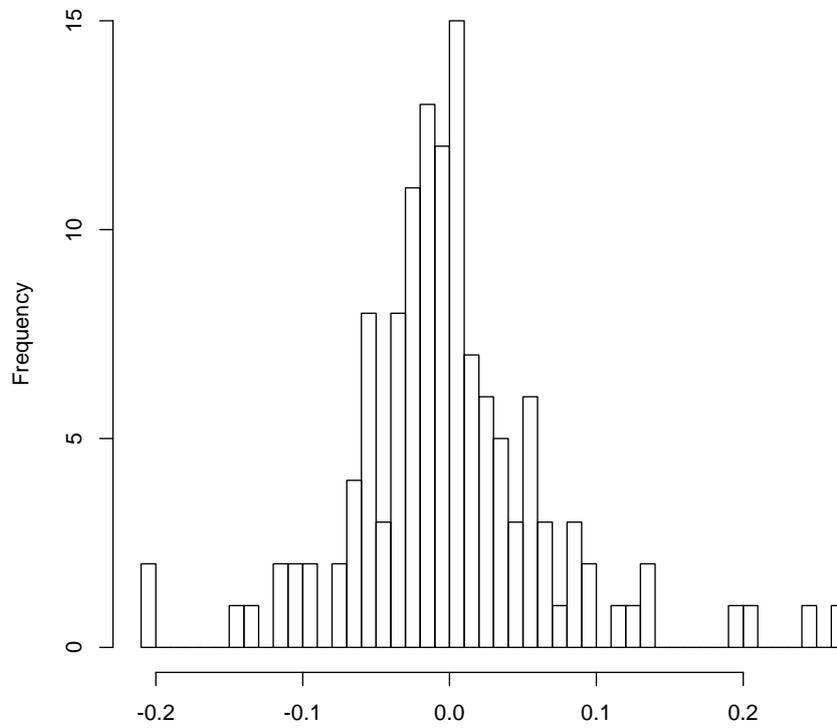
Graphic 4 – Frequency Discretionary Accruals – Telecommunication



Graphic 5 – Distribution of Discretionary Accruals – Telecommunication



Graphic 6 – Frequency of Discretionary Accruals – Utilities



Graphic 7 – Distribution of Discretionary Accruals - Utilities

