The hypothesis of avoiding losses and decreases in earnings via extraordinary items

La hipótesis de evitar pérdidas y descensos en resultados vía resultados extraordinarios *

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ABSTRACT This paper analyses the hypothesis of avoiding losses and decreases in earnings through extraordinary items. First, we examine whether there is a discontinuity at zero (i.e., a «kink») in the distribution of profits and increases of profits in two levels: ordinary income and income before tax. Second, we examine the effect of extraordinary items in the financial information. Particularly we test: a) if the recognition and distribution of the extraordinary items in the reported earnings is due an opportunistic practice from the management or b) otherwise, the asymmetric effects of special items for profit and loss firms contribute substantially to a discontinuity at zero in the distribution of earnings (due to the bias induced by the accounting principle of conservatism) (Beaver *et al.*, 2007). The sample used is composed by Spanish listed firms that disclosed financial information during the period 1992-2000.
Earnings distribution shows a discontinuity at zero in earnings before tax distributions and more accused than in the ordinary income. In this context, the empirical evidence achieved in Spain support the hypothesis that the firms systematically use the extraordinary items to improve the operating income and so get a more favourable figure in the earnings before taxes. This results can be used to reflection about the new structure of the income statement propose in the new accounting normative in Spain (PGC, 2007) where the category of extraordinary items is not allowed.

KEYWORDS Decreases in earnings; Earnings management; Extraordinary items; Loss in earnings.

RESUMEN Este trabajo se centra en la hipótesis de evitar pérdidas y descensos en resultado mediante el uso de las partidas extraordinarias. En primer lugar, se comprueba la existencia de una discontinuidad en la representación gráfica de las series de resultados (niveles y cambios) ordinarios y antes de impuestos en una muestra de empresas auditadas españolas. En segundo lugar, se examina el efecto que las partidas extraordinarias provocan en la distribución de los resultados. Concretamente, si su reconocimiento obedece a una conducta oportunista de los administradores para «batir» con éxito los puntos de referencia fijados, o en otro caso, la discontinuidad se debe al efecto asimétrico que tiene el reconocimiento de los ingresos y gastos extraordinarios, motivado por el sesgo conservador del principio de prudencia, que obliga a reconocer gastos y previene el reconocimiento de ingresos (Beaver *et al.*, 2007).
La evidencia empírica obtenida pone de manifiesto una discontinuidad en la representación gráfica de las series de resultados y que se acentúa tras el reconocimiento de las partidas extraordinarias. El análisis de los datos soporta la idea de que los administradores se valen sistemáticamente de las partidas extraordinarias para mejorar sus resultados ordinarios y conseguir unos resultados antes de impuestos más favorables para los administradores. Este artículo puede servir para reflexionar acerca de la nueva estructura que el PGC 2007 establece para la cuenta de pérdidas y ganancias.

Particularmente, sobre la conveniencia o no de mantener una categoría separada de resultados extraordinarios.

PALABRAS CLAVE Descensos en resultados; Gestión del resultado; Investigación empírica; Partidas extraordinarias; Pérdidas en resultados.

1. INTRODUCTION

Empirical evidence obtained since the mid-1990s suggests that administrators are subject to intense pressure to exceed some break-even thresholds that act as critical points in the disclosure of financial information. These are to avoid declaring losses, earnings decreases and negative earnings surprises (see for instance Hayn, 1995; Burgstahler and Dichev, 1997, and Degeorge *et al.,* 1999).

Literature on accounting and other disciplines such as psychology have contributed to the understanding of the administrators' conduct, given that investor behavior indeed does seem to spur incentives to beat these earnings benchmarks. Thus earnings management that aims to avoid losses, earnings decreases and negative surprises has been well documented from the mid-nineties to the present in samples selected under different restrictions and from a wide range of countries.

Same previous researchers have tried to identify that type of accounting variables that might greater odds of being chosen when managers set certain strategies for meeting their objectives. Plummer and Mest (2001) found evidence that management increases earnings through variables that are certainly relevant to the development process of the business such as increases in sales and decreases in operating costs. Roychowdhury (2006) documented that managers price discount to temporarily increase sales, over-produce to report a lower cost of goods sold, and cut down discretionary expenditures to improve earnings to meet earnings thresholds.

This article examines earnings management through a concrete tool-extraordinary items. A review of the literature reveals that the impact of extraordinary earnings on decision-making has been examined from two different viewpoints by the academic community, just like earnings management and market behavior. Within the former, these types of income and expenses have been positioned as an appropriate tool in the hands of administrators in order to meet specific objectives such as smoothing earnings (Barnea *et al.,* 1975&1976; Ronen and Sadan, 1975 a&b; Kinney and Trezevant, 1997, and McVay, 2006 among others), big bath hypothesis (Walsh *et al.,* 1991, and Kinney and Trezevant, 1997, among others), or earnings benchmark (Marquardt and Wiedman, 2004, and Myers *et al.,* 2006, among others), etc.

Frequency histograms are the method most used to demonstrate earnings management around thresholds: reporting small profits, reporting small earnings increases and reporting positive earnings surprises. Burgstahler and Dichev (1997) assume that the unmanipulated distribution of accounting earnings density is continuous and symmetrical around zero points. This assumption underlies the inference that a difference in frequencies above and below zero is due to discretionary behavior by managers.

In this context, Dechow *et al.* (2003); Holland (2004); Durtschi and Easton (2005), and Beaver *et al.* (2007), among others, suggest that the application of histogram frequency methods generates a bias in favor of the earnings management performed by managers

and largely attributed to the objectives of avoiding losses, earnings decreases and negative surprises. Specifically, they found problems related to: *a)* deflation of earnings (level and changes) that could induce an artificial discontinuity (Durtschi and Easton, 2005), *b)* the interval width used to represent the distribution of earnings (Holland, 2004), *c)* the distribution of earnings in the absence of deliberate earnings management (Dechow *et al.,* 2003; Beaver *et al.,* 2007), etc.

Beaver *et al.* (2007: 527) provide an alternative explanation not found in the rest of the studies. These authors argue that the discontinuity observed in the earnings may be due to the asymmetrical effect of two items with features worthy of study: to the tax effect (for the different handling of earnings with a plus or minus sign) and to the special items (for the different recognition of positives and negatives produced by the conservative bias of accruals accounting, which gives priority to the recognition of losses and delays recognition of profits).

With respect to the transitory component of the earnings, Beaver *et al.* (2007: 532) assume that company profits and losses are generated by different processes and therefore that the frequency distribution of earnings combines two underlying distributions rather than a single continuous distribution. They believe that even without earnings management, the earnings distribution may appear discontinuous at zero because of the greater variance of earnings for a given level of assets for an unprofitable than for a profitable company, results in a smaller density in the interval just below zero than would be observed for a profitable company with a lower conditional variance.

It must be mentioned that Jacob and Jorgensen (2007), Kerstein and Rai (2007) and Hann and Lu (2007) respond to Burgstahler and Dichev's (1997) initial study, taking into account the contradictions observed in the latest research on the veracity of these practices Holland (2004), Durtschi and Easton (2005), among others. All come out in favour of earnings management (like Burgstahler and Dichev 1997 and those who followed) for beating thresholds, once the principal methodological problems of the histogram frequencies pointed out in the most recent studies are under control.

The present work examines whether extraordinary items are a tool for avoiding earnings losses and decreases used by managers of Spanish companies. The few researchers in the national context who have focussed their efforts on the study of the extraordinary earnings component justify the preparation of the current article. The treatment of extraordinary items has prompted intense debate among academics, financial professionals and accountants who have constantly demanded a clear regulation (recognition and allocation) for these items due to the problems that they cause in financial information. It can be said that extraordinary items have played an important role in the shaping of financial information and in its auditing and analysis over the past fifty years.

In this paper, we focus on the hypothesis of earnings losses and decreases via extraordinary items in a Spanish context. Firstly we examine if there is a discontinuity around zero earnings (in levels and changes) in the function of the observed earnings density-ordinary and before taxes. In a sensitivity analysis and following the thread of the latest work published in this line of research, we perform several controls in the histogram frequencies such as the use of a scaling mechanism and alternative interval widths.

Secondly, upon representing the earnings density function on a graph, we will see if the discontinuity in the pre-tax result is greater than in the ordinary result. This would notify us that the extraordinary items have some kind of effect on the disclosure of financial information. Two quite different explanations may account for this: *a)* the administrators use the extraordinary earnings recognition resource to consciously and intentionally avoid declaring small losses and small decreases in ordinary earnings for a more favourable footing in pre-tax income; or in another case, *b)* the extraordinary items automatically generate the discontinuity seen in the frequency histograms due to their accounting treatment. So we need to reach back to the thesis of Beaver *et al.* (2007: 532) that is, the possibility that the discontinuity is not the outcome of intentionally managing earnings but that it is rather inherently caused by accounting conservatism in the recognition of these items.

It should be pointed out that the managerial predisposition to altering earnings in these benchmarks has been proven in certain sectors of the Spanish economy. For example, Gill and Illueca (2003) in the electric sector and Gallén and Giner (2005) in a sample of established companies —quoted and unquoted—. None of them explicitly focuses on an analysis of extraordinary items, even if earnings management is shown at various levels of the profit and loss statement. This study goes a step further in that we add, to the already existing evidence, the possibility that the extraordinary items are being used to increase the discontinuity of the earnings, whether it be automatic due to the accounting conservatism in formulating the financial statement or intentional due to management strategy.

Our results indicate that extraordinary items contribute to increasing discontinuity in zero earnings although they do not support the thesis of Beaver *et al.* (2007). In particular, it can be seen that the managers of Spanish companies use extraordinary items to improve their financial image, especially in the case of small losses, which they tend to turn in to small and not-so-small profits through the use of extraordinary items. This evidence does not support the idea that the observed discontinuity is explained, at least for the most part, by the asymmetric effect that accounting conservatism originates in the register of extraordinary items.

Likewise, the outcome defends the position of many studies set within the Anglo-Saxon system, which consider extraordinary and special items to be a management tool in the hands of administrators for achieving certain break-even points (for example, Barnea *et al.,* 1975&1976; Ronen and Sadan, 1975a&b; Kinney and Trezevant, 1997; Schrand and Walther, 2000; Jaggi and Baydoun, 2001; Marquardt and Wiedman, 2004; Myers *et al.*, 2006, and McVay, 2006). An immediate consequence of this is the serious problems that they cause in the interpretation of financial information. It is thus easy to understand why a significant number of researchers are warning the academic community and regulating bodies of the real problems presented by the regular use of this type of entry, often forgotten or relegated to the background.

Several features of extraordinary items that are characteristic and very different from other accounting variables may explain the findings obtained in the current article. Low cost and visibility attributes, certain fiscal advantages, transitory nature and rapid reversion rarely found in other types of accounting variables can be added to the generous regulation they enjoy under PGC 1990. For example, the presence and disappearance of these entries in the financial statements does not call for excessive justifications as they might in the case of operational transactions. Auditing controls are not applied in the same way to

all accounting items. In other words, restrictions on their use are minimal while selecting them can provide significant advantages.

We are currently in a situation of regulatory changes in which extraordinary items have not gone unnoticed. Approval of the new general accounting plan in 2007 (henceforth PGC, 2007), whose objective is to adapt us to the regulations prevailing in the very influential countries in our context and especially to the IASB regulations, means the disappearance of the extraordinary section, which does not appear as such but figures in other sections of the income statement. The evidence obtained in this study may help to understand the position taken by the regulating bodies.

The article is structured as follows. The second section explains the differences in the recognition of extraordinary items in our country as well as in others that are references on the topic of accounting regulations. Furthermore, the evidence that these entries have provided in studies that analyze the hypothesis of earnings losses and decreases is reviewed and the main advantages of using these entries as opposed to others is discussed. The third section puts forward the hypotheses to be contrasted and describes the sample used. The fourth section analyses the results obtained in the empirical research and ends with the conclusions.

2. EXTRAORDINARY ITEMS: CONCEPTUAL DELIMITATION AND EMPIRICAL EVIDENCE OF THEIR USE AS AN EARNINGS MANAGEMENT TOOL

2.1. CONCEPTUAL DELIMITATION

The PGC 1990 pointed out two conditions for expenditure (losses) and income (profit) entries to be able to form part of the extraordinary earnings component: a) transactions different from ordinary and typical activities and b) that are not reasonably expected to occur with frequency. The generosity of accounting regulation in recognizing extraordinary items made their transit through the company profit and loss statement simple. This is not the case in other countries that are a reference in accounting regulation, such as the United Kingdom, the United States, Canada, New Zealand and Australia. Here the problem that this type of income and expenditure were causing on company practices was perceived some time ago and strict policies were implemented to place severe limits on their presence in the financial information.

The principal regulations that changed the recognition of extraordinary items in income statements in the 1990s are FRS 3 (1992, rev. in 1999) in the United Kingdom; NIC8 rev. (1993) by the IASB; FRS 7 (1994) in New Zealand and Section 3.480 rev. (1989) in Canada. The regulating bodies referenced have tried to clarify the structure of the profit and loss statement by paying special attention to the delimitation of the entries that make up the extraordinary section. The line of action taken has consisted in raising the conditions for the recognition of these types of income and expenditures.

For example, since 1973 in the United States, APB 30 (paragraph 26) points out that extraordinary items, in addition to being neither usual nor typical, must be «highly anormal». It argues that if there are questions as to classification, for example stemming from non-compliance of the necessary conditions, it is most appropriate and coherent to integrate the

ordinary activities section. This is also required in the United Kingdom's FRS3. Likewise, New Zealand's FRS 7 and Canada's Section 3480 can be defended as the most restrictive regulations of the nineties. From these it can be seen that in order for these events to occur, besides requiring some basic features, they must either escape administrators' control or the decisions made by them. Under these regulations it is practically impossible to register income and expenditure with the label of extraordinary.

Note that practically the majority of transactions that swelled the extraordinary section under our PGC 1990 are classified as ordinary under the regulations of countries that can be taken as references in accounting regulation. It is convenient to realize how long it has been since the USA regulations were passed (over 30 years ago) and the publication of the European accounting plans in France, Portugal and Spain, which date to the end of the eighties and the beginning of the nineties.

Moreover, the conceptual restriction in these countries of the extraordinaries was accompanied by the introduction of similar notions consisting of special items, exceptional items and abnormal or unusual items, even though each of them can have different features. In general, these types of events do not comply with the two minimum conditions demanded by accounting regulations to be registered as extraordinary items, yet they have the attribute of non-recurrence and must be mentioned due to their incidence or nature, either in a separate section or within some category planned for earnings, depending on the particular regulation. This requirement is applied, for instance, in the United States, the United Kingdom, Australia, New Zealand and Canada. This way there is a clear difference established among the features demanded for the recognition and location of extraordinary and special, exceptional or atypical items.

Studies in Anglo-Saxon countries reveal that the conceptual restriction of the extraordinary section has significantly boosted (in magnitude and frequency) the sections classified as exceptional [Black *et al.* (2000: 399) and Athanasakou *et al.* (2007: 395), among others]. There is nothing explicitly stated in the PGC 1990 about special, exceptional or atypical earnings, although one would expect to find most of these transactions within the extraordinary earnings section.

As has happened in countries with advanced regulations, the approval of PGC 2007 in Spain has produced significant changes that affect extraordinary events. The traditional division of company earnings in to an ordinary and another extraordinary part has disappeared from the profit and loss statement. Consequently, extraordinary items are now classified according to their origin, among discontinuity earnings (if applicable) or among continuous earnings, in the section of operating income that lists impairment (and its reversion) together with sales results on disposal of property, plant and equipment and residual results (other results) that collects exceptional expenditures and income (fines, sanctions, etc.). Changes to accounting policies and errors from previous financial years are collected as variations in shareholders' equity.

In summary, it can be said that the treatment of extraordinary items has formed part of intense debates within the academic community. On the one hand, the lack of precision in accounting standards in defining extraordinary earnings has provided broad managerial powers in classifying certain transactions made at the company. On the other hand, auditors, analysts and investors have expressed the uncertainty and difficulty in interpretation to which they are subjected every time they come across these items.

1.2. Empirical evidence of the use of extraordinary items as an earnings management tool

Since the publication of the Burgstahler and Dichev study (1997), the managerial inclination to avoid declaring losses, earnings decreases and negative surprises in earnings (or reaching analysts' projections) has been proven in a wide range of countries. The theoretical framework that explains this type of behavior comes from the Transaction Costs Theory, whose original version is found in Coase (1937), and the Prospect Theory that was formulated by Kahnemnan and Tversky (1979) [1].

Extraordinary and special items have formed part of various studies in earnings management and specifically in the verification of the hypothesis of avoiding earnings losses and decreases. For example, in the United States McVay (2006) classified the different components of the financial statements into two large blocks, those related to core activities and those related to non-core activities. This author proved that special items are an effective tool for achieving earnings or loss transfers from one earnings level to another for the purpose of maximizing operating earnings. Lin *et al.* (2006: 5) also defended this earnings alteration formula against variables that imply real decisions (Roychowdhury, 2006) or the use of discretionary accruals (extensively documented since the nineties).

In the United Kingdom, in the period previous to the publication of FRS 3, Peasnell *et al.* (2000); Athanasakou *et al.* (2007), and Gore *et al.* (2007) demonstrated that companies used extraordinary items for beating benchmarking. However after the approval of FRS3 earnings management strategies adopted by those companies were changed. Gore *et al.* (2007: 141) document that exact achievement of forecast is associated with relatively low average extraordinary items. It appears since FRS 3 publication discretionary working capital accruals are prime among methods used by firms to achieve earnings target. Athanasakou *et al.* (2007: 388) find an increase in classificatory income smoothing through special and transitory items. It seems that the increment is due mainly to deviations of net income from expected earnings [2].

In the United States Dechow *et al.* (2000), Marquardt and Wiedman (2004) and Myers *et al.* (2006), support the hypothesis of avoiding earnings decreases; the last two authors set only this objective in their study while the first author planned on proving the three benchmarks. Das and Shroff (2002) also use different methods to document a reversion of the earnings tendency in the last quarter and it seems that adjustments for income and special items are not impartial in this process. On the other hand, Richardson *et al.* (1999) and Schrand and Walther (2000), support the hypothesis of negative earnings surprises and analysts' expectations through non-recurring events.

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(1)   The literature points to the work of Watts and Zimmerman (1978) as triggering the line of research oriented toward earnings management. The postulates they developed support the positive accounting theory as opposed to the previous regulatory focus by attempting to explain the causes that motivate the development of such a practice through the empirical analysis of the reality. Three motivations can be classified that encourage managers to take up earnings management practices: motivations related to contractual costs, political and governmental motivations and motivations related to the company's market value (Watts and Zimmerman, 1978, and Healy and Wahlen, 1999). The Nature of the Firm and the Theory of Regulation, which can be considered antecedents to the positive accounting theory, help explain administrators' reasons for manipulating declared financial information. The Agency Theory also provides a consistent theoretical framework by taking into account the information asymmetries and the different objectives pursued by the principal and the agent to maximize wealth.

(2)   Note that the regulations for that country are characterized by their severity in recognizing extraordinary items.

The Schrand and Walther study (2000: 174) examines the probability that management influences the figure or level of reference taken for the announcement of earnings, not so much with the purpose of altering the earnings but rather to influence investor perception when evaluating a company's performance. They specifically focus on the decision to separately present non-recurring items, preferably as components of the previous year (Q1) in which they will form part of the earnings reached. The conclusions support the item hypotheses, since managers apparently prefer to separate earnings from sales of fixed assets from losses in the earnings report so as to avoid negative surprises.

In short, a review of the literature shows that extraordinary items are selected by administrators as a management tool to overcome losses, earnings decreases and negative surprises, even though some studies do not manage to prove all of the item hypotheses. We may ask; What is happening in our country? We attempt to answer this question in this study. We take a step forward in the research on opportunistic earnings management in a Spanish setting and we analyze the use of a specific component, the «extraordinaries», as they have been paid little attention. Before centering on this objective we will expound on some virtues that these items present that make them an earnings management tool.

2.3. ADVANTAGES OF EXTRAORDINARY ITEMS THAT MAKE THEM AN EARNINGS MANAGEMENT TOOL

Besides the generous regulation that extraordinary items enjoy in our country, some features can be pointed out that set them in administrators' sights. We will especially highlight their low cost, rapid reversion, transitory nature and incidence in the corporation tax.

a) *Low cost*

The ambiguity and conceptual scope granted to extraordinary items in their recognition and imputation means that it is relatively simple and neither costly nor visible to use them for purposes of earnings management, as opposed to other entries subject to a more exhaustive regulatory control; that is, as opposed to other types of strategies associated with much higher, present or future, costs and sacrifices.

In this respect, it is thought that a rational way for a manager to proceed, especially if they have felt the need to fudge certain financial information to achieve their purposes, will lead them to conceal these practices insofar as possible in order to avoid undesired consequences to their personal and professional reputation and prestige. Moreover, the company can be tainted in various ways-loss of market value, public image, etc.

Marquardt and Wiedman (2004) show that the discovery of earnings alterations can have very negative consequences on a company such as through shareholder litigations, reductions in the company's market value, restatement of earnings, reinforcement of accounting regulations, etc. Hence, an earnings management strategy carried through with recurring items and that especially recognizes income makes their detection easier, in contrast to less visible items such as non-recurring ones.

Furthermore, Marquardt and Wiedman (2004) warn of the importance of disclosing quality earnings. These authors remind that a sizable part of the doctrine and of the professionals would rather exclude non-recurring items from the ratios and the quality

adjustments. This does not occur with recurring items, since they can cause a significant decrease in the various earnings quality measures, which increases the cost of their use. These arguments support the idea that there exist certain items, particularly non-recurring ones, that considerably diminish the potential cost of undertaking and maintaining an earnings management strategy, whether it be discovered by the financial information guardians or not.

b)   *For its rapid reversion*

Since the seventies, professor Beidleman (1973: 658) has shown that when it comes to choosing a certain variable for the purpose of achieving some management strategy and that once it has been used, a significant restriction arises that must not commit the company in the future; i.e. anything done in the current period should be able to be undone in the next or the following. This condition is present in the principal research on the smoothing of profits when choosing a set of variables that were apparently manipulated.

More modern methods such as classifying earnings in to cash flows and accruals make some authors come out in favour of the latter. They emphasize the rapid reversion, particularly of those that belong to working capital. To these we add the special items that may or may not affect accruals. Chan *et al.* (2006) prove the close association between accruals and special items. The manager consequently has the opportunity to cause the reversion of the former through negative special items in the following periods, which turns up less in audits. McVay (2006) also links the rapid reversion of special items in subsequent periods to the use of administrators' earnings management strategies.

c)   *Transitory nature*

In research oriented toward the study of capital market behavior, earnings components are usually classified as permanent or transitory in accordance with their capacity for predicting or projecting future company performance. Extraordinary events are described as transitory components, distinguished by their non-recurrence and that they do not endure over the life of the company. But this is not why they have become unimportant in this line of work.

Evidence from empirical studies shows that not all earnings components present similar informative content to the market value of a company. In particular, it can be detected that the permanent component has more useful for investors to assess firm value as well as predicative content while the transitory (among them the extraordinaries) are relegated to the background. It is worth considering that if these events are capable of influencing the core values of the enterprise, even if their effects are minimal, administrators have quite an attractive weapon at hand with the added advantage that it will not be necessary to justify their omission in subsequent periods.

d)   *Effect of the corporation tax*

The corporation tax does not apply in equal measure to ordinary as to extraordinary earnings. Extraordinary and ordinary losses can be deducted from the taxable base while some extraordinary profits, for example, from sales of certain fixed assets followed by reinvestment in similar goods, enjoy tax breaks (exemption, tax deferment or tax credits,

in accordance with the successive changes made to corporate tax regulations in Spain) and therefore involve incentives that administrators should appreciate when carrying out strategies related to changes in earnings. That is, it gives rise to a lower tax rate, except in the case of deferment, which will cause a tax deferred liability.

Although an analysis of profit tax lies outside the scope of this study, it is thought that this factor spurs first-rate management incentives that prompt their own development, as well as choosing from a wide range of discretional decisions that adequately report the desired earnings figure before and after taxes. Moreover, in the period analyzed in this work, Spanish regulations did not demand an ordinary/extraordinary breakdown of the tax rate, as is the case in other countries (see NIC 12).

In light of the features provided by the use of extraordinary items we cowider that, administrators have a powerful tool at hand since restrictions on its use are minimal and its use provides substantial advantages. So from a conceptual point of view, at least, the features they are provided with are indeed interesting when administrators have to choose certain accounting policies.

3.   DESIGN OF THE EMPIRICAL RESEARCH

3.1.   THE HYPOTHESIS

The design of the empirical research consists of two parts. Firstly, a discontinuity around zero earnings (in levels and changes) is checked in the earnings density function (ordinary and pre-tax). We used a sample of Spanish companies audited during the period 1992-2001. Afterward, we applied a sensitivity analysis to verify that there is no bias in the histogram frequencies, as was warned of in the latest studies published.

Secondly, once a discontinuity is detected, we observed whether extraordinary earnings are used opportunistically by causing a «jump» in the earnings distribution function. And the other case whether this jump is brought about, at least in part, by the conservative bias imposed by the conservatism concept in the recognition of extraordinary items and is not the product of an intentional management strategy. Following the arguments of Beaver *et al.* (2007: 527), the discontinuity may be due to the properties of the different components, that is, a greater frequency of transients in companies with losses as opposed to a lesser frequency of them in profitable companies.

Beaver *et al.* (2007: 531-532) create an earnings model that takes into consideration the conservative bias in financial information and prove that the discontinuity observed is explained, at least for the most part, by the asymmetric effect produced by two specific items: the corporation tax (for the different amount due under losses and profits) and to the special items (for the different recognition of positives and negatives imposed by conservative accounting, which anticipates the recognition of losses and delays the recognition of profits).

In summary, if extraordinary items are contributing to the observed discontinuity, one would expect the pre-tax earnings discontinuity to be greater than for ordinary earnings, without detriment to also being detected in this segment of the profit and loss statement. The second question, which makes sense in the event of confirming that the former has indeed been accomplished, is to verify whether that greater pre-tax earnings discontinuity,

spurred by extraordinary items, derives from the opportunistic actions of administrators. Thus two hypotheses are contrasted:

> H_{01}:   *Extraordinary items cause a jump around zero in the pre-tax earnings distribution as opposed to the ordinary ones, due to their opportunistic recognition by administrators.*
>
> H_{02}:   *Extraordinary items cause a jump around zero in the distribution of changes in pre-tax earnings as opposed to the change in ordinary earnings, due to their opportunistic recognition by administrators.*

A sample of audited Spanish companies enables us to study the absolute levels of profit and changes in ordinary earnings and in pre-tax earnings in order to find out whether the differences between them, caused exclusively by the use of extraordinary items, are the result of a «design» in the form of an arrangement or manipulation so that the companies reach the desired earnings levels, or whether they are a logical and unconscious outcome of the conservatism in the accounting regulations that apply to these items and are prone to recognizing losses but not gains, as affirmed by Beaver *et al.* (2007).

3.2.   EMPIRICAL CONTRAST

We begin the empirical research by checicing if there is a discontinuity at zero in the distribution of profits and changes in profit. Once the graphical discontinuity in the earnings has been confirmed for the sample of audited companies, a set of controls are applied to the frequency histograms. Specifically, the effect of the interval width (Holland, 2004) and the effect of the earnings deflation (Durtschi and Easton, 2005) are examined.

After that, a matrix and multivariate analysis are designed to resolve the premises put forward in the previous section. The matrix analysis consists of dividing the sample observations in to four areas in accordance with the sign given by the companies in pre-tax and ordinary earnings (Hypothesis H_{01}). The frequency histograms are the starting point for identifying critical areas of small losses (first interval immediately to the left of zero) and small profits (first interval immediately to the right of zero) as well as areas of loss (second and following intervals to the left of zero) and profits (second and following intervals to the right of zero).

The transition matrix between ordinary and pre-tax earnings show the real movements of values between the identificated areas: small losses and small profits as well as positions further from zero that have been designated losses and profits. The same line of thought is applied to the earnings decrease hypothesis.

The foundation of the multivariate analysis lies in the estimate of a linear regression through minimum ordinary squares. Resolving the regression allows for, besides confirming the previous earnings, determining the effect that the independent variable(s) has, in our case made up of the ordinary earnings and classified in to the four areas identified, on the variable to be applied, which is pre-tax earnings.

$$NIT_t = \alpha_0 + \alpha_1 D1 \cdot OI_t + \alpha_2 D2 \cdot OI_t + \alpha_3 D3 \cdot OI_t + \alpha_4 D4 \cdot OI_t + e_t$$

where,

- NIT is pre-tax earnings; OI is ordinary income.
- $D1$ is a dichotomous variable that takes the value of 1 if the company is plotted in the definitive loss area and 0 in other cases; $D2$ is a variable that takes the value of 1 if the

company is plotted in the first interval immediately to the left of zero (area of small losses) and 0 in other cases; $D3$ is a dichotomous variable that takes the value of 1 if the company is plotted in the first interval immediately to the right of zero (area of small profits) and 0 in other cases; and $D4$ is a variable that takes the value of 1 if the company is plotted in the area of profits and 0 in other cases [$D1$ (losses) and $D4$ (profits) are dichotomous variables that are plotted just to the left and right of $D2$ (small losses) and $D3$ (small profits), respectively].

In accordance with the hypotheses put forward, the coefficients associated with the profit and loss areas are not expected to be substantially different. If the coefficients associated with the loss areas are greater than those associated with the profit areas, it indicates that extraordinary items are more frequently recognized in those areas and would automatically generate a jump in the pre-tax earnings distribution in contrast to the ordinary one. If the multiplier associated with the profit areas is approximate to the unit it would prove that extraordinary items have no significant effect on profitable companies [see Beaver *et al.* (2007: 536)].

An identical procedure is used to prove the second hypothesis, H_{02} and the results are expected to point in the same direction since the changes are considered a special case of levels. The transitional matrix is subdivided in to four areas using changes in earnings instead of earnings levels so that the minimum square regression takes the following form:

$$\Delta NIT_t = \alpha_0 + \alpha_1 D1 \cdot \Delta OI_t + \alpha_2 D2 \cdot \Delta OI_t + \alpha_3 D3 \cdot \Delta OI_t + \alpha_4 D4 \cdot \Delta OI_t + e_t$$

where,

- ΔNIT represents the change (increase or decrease) in the pre-tax result in a year with respect to the previous; ΔOI represents the change (increase or decrease) in ordinary income in a certain financial year with respect to the previous;
- The dichotomous variables $D1$, $D2$, $D3$ and $D4$ are defined as in the previous regression but using earnings changes instead of levels.

Therefore, different methods are employed in this study that enable us to detect the effect caused by the recognition of extraordinary items in financial statements. In particular, frequency histograms are proposed for earnings before and after extraordinary items (with the appropriate controls), a matrix analysis (that records the movements of the observations in the various earnings levels, especially in the critical intervals of small losses and small profits, although in more distant intervals as well) and a multivariate analysis (that enables observation of the effect of extraordinary items on the identified areas and backs up the previous results). In the following subsection a descriptive analysis of the sample used is carried out and then presents the results obtained in the empirical analysis.

3.3. SAMPLE AND DESCRIPTIVE STATISTICS

The sample that is object of this study is made up of a set of companies that registered their accounting statements in the CNMV (Comisión Nacional del Mercado de Valores) for the period 1992-2001 and therefore apply the PGC 1990 regulations and other accounting standars of the time. As is the case in most empirical studies with similar objectives, companies

belonging to the financial and insurance sector were omitted, as well as some companies whose financial information presented some defect or inconsistency, so the sample came to 1,620 observations.

The number of observations presenting earnings losses and decreases is shown in Table 1, given the incidence that these segments have in our study. The statistical analysis shows that about 13% of the observations present net pre-tax earnings losses, with the percentage increasing to 16.9% for ordinary income. On the other hand, 37.4% of companies present net earnings decreases, with this percentage rising to 40% for ordinary earnings. This evidence *a priori* indicates a greater tendency to avoid declaring losses than to avoid declaring decreases.

TABLE 1

LOSS AND DECREASE ANALYSIS IN SAMPLE RESULTS

	DI	%	NIT	%	NI	%
Losses	274	0.169	223	0.138	221	0.136
Profits	1.346	0.831	1397	0.862	1399	0.864
Decreases	583	0.400	562	0.385	545	0.374
Increases	875	0.600	896	0.615	982	0.674

Total sample: 1,620 observations. OI: Ordinary income, NIT: Pre-tax earnings and NI: Net income.

In Table 2 the sample has been segmented according to whether the company reported pre-tax earnings profits or losses, with the aim of analyzing the existence of significant differences between both subgroups that are caused by recognizing extraordinary items. It can be seen in this table that when a company declares losses, extraordinary items are negative in mean and median, with the opposite occurring when the company declares profits [3].

TABLE 2

DESCRIPTIVE ANALYSIS OF THE SAMPLE WITH PRE-TAX PROFITS AND LOSSES

	NEGATIVE NIT					POSITIVE NIT				
	mean	median	Std. Dev.	% ≠ 0	% > 0	mean	median	Std. Dev.	% ≠ 0	% > 0
NIT	-0.1006	-0.0515	0.1793	100%	0%	0.0756	0.0530	**0.0963**	99%	99%
EI	-0.0484	-0.0041	0.1318	95%	35%	0.0113	0.0004	0.1889	96%	56%
OI	-0.0460	-0.0269	0.0654	100%	17%	0.0698	0.0495	**0.0965**	100%	93%

NIT: Pre-tax earnings, EI: extraordinary items and OI: ordinary income. All variables are scaled by total assets.

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(3)   It should be explained that in this area, Beaver *et al.* (2007: 540) find that the mean and the median are practically zero, so their use is less frequent. Moreover, the percentage of extraordinary items with a value other than zero in the first area rises to 50%, and 74% of them are negative, while in the second area they are only 31%, and 64% of them are negative. In addition, the mean and deviation of pre-tax earnings for companies with losses is quite different, while this is not the case for profitable companies. These authors consider this evidence to be a first approach to the asymmetric effect presented by recognizing extraordinary items. This produces a non-continuous distribution of pre-tax which is then transferred to net earnings.

Continuing with the data analysis, it can be seen that the disclose of information through extraordinary items is just as similar, symmetrical and coherent for the subsample of companies with losses as for the companies with profits, reaching percentages of over 95%. Although the most general tendency is to recognize positive extraordinary earnings, neither are there substantial differences if the average sign is considered in the two sides of the results. This means that there exists a very high probability of finding extraordinary earnings in companies with positive ordinary results, and a high probability of finding extraordinary losses in companies with negative ordinary results.

However, the use of extraordinary items as a way to level results may have to do not only with the absolute values of the results but also with the changes to them from one year to another. Table 3 has been created in order to see this possible effect and contains the same components as Table 2 but the variables are increases or decreases. The values obtained for changes to earnings are similar to the case of absolute earnings levels.

TABLE 3

DESCRIPTIVE ANALYSIS OF THE SAMPLE WITH DECREASES AND INCREASES IN PRE-TAX RESULTS

	∇*NIT*					Δ*NIT*				
	mean	*median*	*Std. Dev.*	*% ≠ 0*	*% > 0*	*mean*	*median*	*Std. Dev.*	*% ≠ 0*	*% > 0*
ΔNIT	-0.1337	-0.0953	0.1199	1.0000	0%	0.0284	0.0068	**0.0938**	100%	68%
EI	-0.0484	-0.0034	0.1064	0.9320	33%	0.0048	0.0003	0.0572	96%	55%
ΔOI	-0.0572	-0.0499	0.0739	1.0000	17%	0.0176	0.0070	**0.0668**	100%	65%

NIT: change in pre-tax earnings in one year with respect to the previous; EI: extraordinary items and OI: change in ordinary earning in one year to respect to the previous. All variables are scaled by total assets.

The evidence uncovered in the sample of Spanish companies is quite different from what happens in samples of Anglo-Saxon origin. A significant proportion of the studies that attempt to find earnings management practices via extraordinary items, whether as principal hypothesis or secondary, report that they appear no more than 10% in financial statements (for example, Myers *et al.,* 2006) while in the sample dealt with in this work, the extraordinary items show up with a more than 95% frequency in the entire period of the study.

4. RESULTS OF THE EMPIRICAL RESEARCH

4.1. FREQUENCY HISTOGRAMS

The empirical part of this work begins with the frequency histogram approach to see if there exists a discontinuity in zero earnings and zero changes in earnings. The effect that the width of the intervals and the scaling to earning may be having on plotting the profit series on to graphs is examined.

The level distributions for pre-tax and ordinary earnings divided by total assets at the beginning of the period appear in Graphs 1. The width of the intervals takes a value of 0.02 [(4)]. The figures show an asymmetric distribution with an irregularity at zero earnings. The

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(4)   In accordance with Burgstahler and Dichev's (1997) the interval widths is the difference between the real and expected number of observations in an interval, standardized by the typical deviation of difference.

standardized difference [5] in the interval immediately to the right of zero is 1.28 ($p > 0.05$) in the first graph (OI/AT_{t-1}) and 3.82 ($p = 0.00$) in the second graph (NIT/AT_{t-1}) [6].

<div align="center">

GRAPHS 1
EMPIRICAL DISTRIBUTION OF ORDINARY EARNINGS LEVELS (OI/AT_{t-1})
AND EARNINGS BEFORE TAXES (NIT/AT_{t-1})

</div>

OI/AT_{t-1} NIT/AT_{t-1}
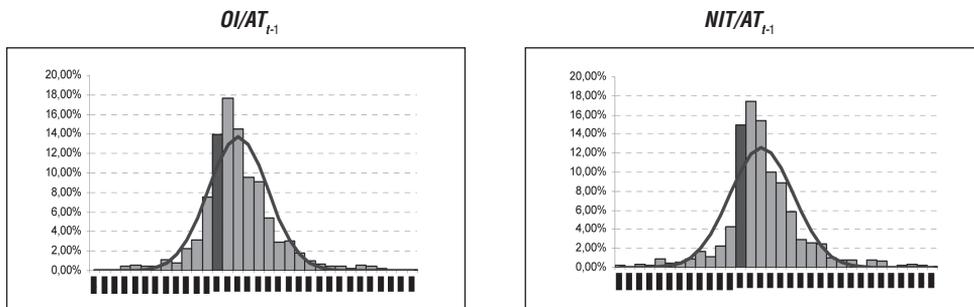
The histograms have been created with data pooled from 1,458 observations. First-year observations have been lost because earnings are scaled by assets at the beginning of the year. The continuous line represents the distribution obtained on the assumption of normality, given the population average and the typical deviation of a sample that concentrates 90% of the values around this measure, thus avoiding the effect that extreme values would have on the dispersal. All of the histograms present asymmetry and positive kurtosis. Tails are truncated.

Graphs 2 represent the density function of the earnings changes. They have been calculated following the same standards as for earnings levels. The interval width is 0.01. In the left histogram ($\Delta OI/AT_{t-1}$) the standard difference is 4.6 ($p = 0.00$) and in the right histogram ($\Delta NIT/AT_{t-1}$) is 8.5 ($p = 0.00$).

<div align="center">

GRAPHS 2
EMPIRICAL DISTRIBUTION OF ORDINARY EARNINGS CHANGES ($\Delta OI/A_{t-1}$)
AND EARNINGS BEFORE TAXES ($\Delta NIT/A_{t-1}$)

</div>

$\Delta OI/AT_{t-1}$ $\Delta NIT/AT_{t-1}$
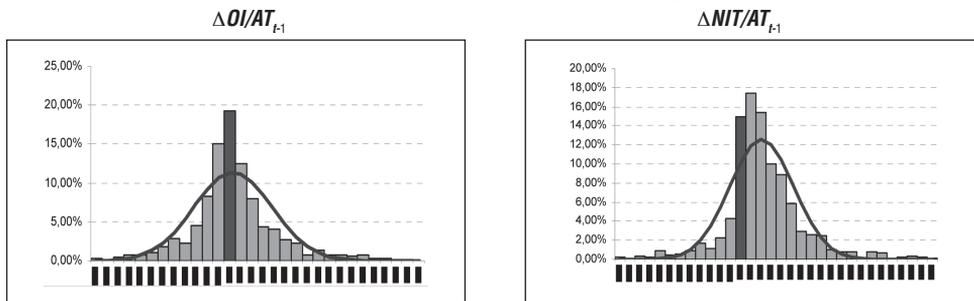
The histograms have been created with data pooled from 1,458 observations. The continuous line represents the distribution obtained on the assumption of normality, given the population average and the typical deviation of a sample that concentrates 90% of the values around this measure, thus avoiding the effect that extreme values would have on dispersal. All of the histograms present asymmetry and positive kurtosis. Tails are truncated.

It can be observed that the distribution of earnings changes is somewhat different from the one obtained for levels. The origin data points up that about 38% of companies declare ear-

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(5)   The standardized difference has been calculated following Burgstahler and Dichev's (1997) instructions. They proposed that the variance of the difference between the observed and expected number of observations for interval i is: [n_i - (n_{i-1} + n_{i+1}) / 2] [Np_i $(1 - p_i)$ + $(1/4)N(p_{i-1} + p_{i+1})]^{1/2}$. Beaver *et al.* (2007: 540, note 12) point out that there is an error in the previous formula, specifically in the variance which should be as follows: Np_i $(1 - p_i)$ + $(1/4)N(p_{i-1} + p_{i+1})$ **$(2 - p_i - 1 - p_{i+1})$**. The insertion of this correction appreciably lowers (in decimals) the value of the standardized difference proposed by Burgstahler and Dichev (1997) and does not alter the obtained results.

(6)   Although the distribution of the net result is not shown, it also presents an asymmetric distribution in the zero-profits point. The *statistical t* turns out significant in all sensitivity analyses.

nings decreases (Table 1). This way the earnings change distribution presents a smoother shape at zero changes, even though it continues to show discontinuity at that point. A high percentage of observations is also detected in the interval immediately to the left of zero as opposed to the one situated in the interval immediately to the right of zero.

It might preliminarily be pointed to that the extraordinary items cause a discontinuity at zero earnings. However, the previous affirmation has to be corroborated with the matrix and multivariate analysis in the next section and the histograms must also pass the appropriate controls. The results obtained coincide with those of Gallén and Giner (2005) for a sample of Spanish companies. They observe that the pre-tax (and net) earnings discontinuity is more pronounced than the one for ordinary earnings. Beaver *et al.* (2007: 546) also find that the discontinuity increases on subsequent levels of earnings (net earnings against ordinary earnings).

With regard to the control of the histograms, Holland (2004: 4) warns that the width of the intervals is a critical point in the earnings distribution and recommends the use of different alternatives to contrast the results. Degeorge *et al.* (1999) suggest calculating the width of the intervals through the following formula: $2(q3-q1)/N^{-1/3}$ where $q3$ is the third quartile, $q1$ is the first quartile; N is the number of observations.

Durtschi and Easton (2005) believe that the deflation used to scale earnings may induce a discontinuity in earnings. These authors argue that companies that declare small losses (losses) are valued differently in the market than companies that declare small profits (profits) and automatically cause a discontinuity in the earnings histogram. In particular, the companies situated to the left of zero earnings have a different deflation (a lesser market, asset or sales value) than the companies situated to the right of zero (that show a higher market, asset or sales value) providing a peak of the distribution. Even if the earnings showed a smooth distribution around zero, the scaling mechanism would modify the earnings and earnings changes histogram so that zero.

In this paper, we used different interval widths to calculate the frequency histograms. Specifically, we used the next interval widths: 0.01, 0.02, and the formula proposed by Degeorge *et al.* (1999), as it is one of the most used in this type of research. We used different deflation of earnings —assets and sales— that are measured at the beginning and the end of the year. Also, we representol ordinary and pre-tax earnings without scaling. The combination of measures employed to contrast the previous evidence generate similar results. The resulting graphs show an asymmetric distribution with an irregularity at zero earnings and which is highlighted in the pre-tax result contrasted to the ordinary [7]. This suggests that extraordinary items influence in the distribution of earnings.

4.2.   Matrix analysis of the hypothesis for avoiding earnings losses and decreases

Extraordinary items can be used to improve (or alternatively to worsen) the ordinary earnings figure so as to reach desired earnings levels in accordance with the reference or goal set. In order to analysis the role of extraordinary items, Table 4 presents a cross-tabulation of frequencies for ordinary income and pre-tax income, partitioning observations from

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(7)   The results are available to interested readers. It should be mentioned that the shape of the results density function is subject to slight variations depending of the deflation used. Future studies must take this aspect in to account.

each earnings measure into four areas of their respective distributions: losses, small losses, small profit and profits. Thereby cases in which extraordinary items were used to change the area will be patently clear. Beaver *et al.* (2007: 526) point out that this component is not capable of making the observations plotted in the small loss area cross over to the small profits area, as would be expected from earnings management activities that explained the observed discontinuity.

Identification of the small profits and small loss areas has been carried out in accordance with the histograms proposed in the previous section. The interval widths took a value of 0.02 around zero. The transitional matrix will be created in accordance with this value. Thus, an observation will be classified in to the area related to losses (less than -0.02), small losses (-0.02 and 0), small profits (0 and 0.02) and profits (higher than 0.02).

On the left side of Table 4, the percentages that appear under each observation are calculated based on the total population. The interpretation would be as follows. If the small loss columns are examined in ordinary income (OI), they affect 118 companies, with only 45 of them presenting pre-tax earnings (NIT) in the same area, while 18 present losses, 33 small profits and 22 profits [8].

In order to better compare the results that are being studied, the columns corresponding to the intermediate areas (small losses and small gains) and that serve as a first approach for studying the subject at hand have been set apart in the right side of Table 4. The percentages that appear below each observation have been recalculated, taking the total observations of each area as a base.

<div align="center">

TABLE 4

COMPARISON OF ORDINARY EARNINGS LEVELS *(OI/AT)* AND BEFORE TAXES *(NIT/AT)*

</div>

		OI/AT						OI/AT	
		loss	smloss	smprof	profit	Total		smloss	smprof
NIT/AT	loss	127	**18**	14	12	171	loss	**18**	**14**
		7.89%	**1.12%**	0.87%	0.75%	10.62%		**15.25%**	**6.14%**
	smloss	14	**45**	6	9	74	smloss	45	6
		0.87%	**2.80%**	0.37%	0.56%	4.60%		38.14%	2.63%
	smprof	9	**33**	140	54	236	smprof	**33**	140
		0.56%	**2.05%**	8.70%	3.35%	14.66%		**27.97%**	61.40%
	profit	21	**22**	**68**	1018	1,129	profit	22	68
		1.30%	**1.37%**	**4.22%**	63.23%	70.12		**18.64%**	29.82%
	Total	171	**118**	**228**	1,093	1,610	Total	118	228
		10.62%	**7.33%**	**14.16%**	67.89%	100%		100%	100%

where, *loss:* second and following intervals to the left of zero (loss area); *smloss:* first interval immediately to the left of zero (small losses); *smprof:* interval immediately to the right of zero (small profits); *profit:* second and following intervals to the right of zero (profit area): *NIT:* Pre-tax earnings (after extraordinary items). *OI:* ordinary income (before extraordinary items).

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(8)   Following the reasoning of Burgstahler and Dichev (1997) and Beaver *et al.* (2007) for resolving the matrix and multivariate analysis, the observations whose pre-tax results have a zero value have been excluded. This way, to confirm the hypothesis of absolute earnings levels, the total sample consists of 1,610 observations and for the hypothesis of earnings changes the sample is 1,453 observations.

The matrix analysis reflects that of 118 observations in the ordinary earnings small losses area, 38.14% (45 observations) hold their position within the pre-tax earnings small losses area. The percentage of observations that cross over to the pre-tax earnings loss area falls to 15.25%, while surprisingly, 33 observations (27.97%) are obtained that move toward the area of small profit, and 22 observations (18.64%) that reach the profit level. And in the ordinary small profit area as well, 8.77% of the observations retreat from the area (6.14% + 2.63%), while 61.4% holds their position and 29.82% heads toward a more favourable earnings segment.

The proposed null hypothesis cannot be rejected on the evidence obtained; i.e.: an analysis of the data favours the use of extraordinary items in order to improve situations that are not very favourable to ordinary earnings and more specifically to avoid declaring small losses by improving, to a greater or a lesser degree, the pre-tax income. In a sensitivity analysis to confirm that the evidence heads in the same direction, the matrixes have been resolved by using different interval widths and deflator of earnings and even using earnings without deflating [9].

The movements found by Beaver *et al.* (2007: 542-544) in a U.S. sample are substantially different. That is earnings level distribution shows a discontinuity around zero earnings caused by the asymmetric effect in the recognition of extraordinary gains and losses motivated by the accounting conservatism. Although Gore's *et al.* (2007) work do not present exactly the same profile, it backs the results of these authors in the case of the United Kingdom in that they find no effective movements of extraordinary (before FRS 3) nor special (after FRS 3) items in order to improve earnings levels.

It should be remembered that comparative analyses at an international scope point out substantial differences in earnings management practices, depending primarily on the market in which the company operates. Empirical studies generally point to continental countries as more manipulative than those of Anglo-Saxon origin (Leuz *et al.,* 2003). The most extreme case is found in Kinnunen and Koskela (2003: 42), who describe Spain as «Miss World» in cosmetic earnings management.

Table 5 shows the earnings change study (hypothesis H_{02}), with intervals of 0.01. In the right part of Table 5 it can be seen that 46.36% of companies that report small negative changes in ordinary income stay in the same area at the next earnings level. Likewise, there seems to be a transfer of small negative changes in ordinary earnings toward small positive changes in pre-tax earnings of about 11%. This also occurs in the critical area of small positive changes, where 54% of the observations remain in the same position after recognizing extraordinary items and 23.53% manages to improve positions.

Again, the Hypothesis H_{02} cannot be rejected. An analysis of the data indicates that administrators help themselves to extraordinary items in order to direct small negative changes in ordinary earnings toward more attractive earnings ranks in subsequent levels. The idea that the distribution of earnings changes can be attributed primarily to the asymmetric effect caused by the accounting conservatism in recognizing extraordinary items is not su-

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(9)   Furthermore, to compare the robustness of the obtained results, an analysis that divides the sample in to sectors has been proposed: Sector 1 «Construction and real estate», Sector 2 «Manufacturers» and Sector 3 «Regulated». The obtained results for the total sample stay at the sectorial level and there are no significant differences between them.

pported in the Spanish context. Matrixes combining different interval widths and different deflation of earnings have been carried out in a sensitivity analysis.

On the other hand, movements of small positive changes in ordinary earnings toward more far-reaching changes in pre-tax earnings are not so evident. This indicates *a priori* that the aim of avoiding losses may carry more weight than the raising of small negative changes toward higher levels [see Degeorge *et al.* (1999: 30) and Coppens and Peek (2005: 14), among others].

<div align="center">

TABLE 5

COMPARISON OF ORDINARY EARNINGS LEVELS $(\Delta OI/A_t)$ AND BEFORE TAXES $(\Delta NIT/A_t)$

</div>

			Δ*OI/AT*								Δ*OI/AT*	
		loss	smloss	smprof	profit	Total				loss	smloss	smprof
Δ*NIT/AT*	loss	325	**64**	24	37	450		Δ*NIT/AT*	loss		64	64
		22.37%	**4.40%**	1.65%	2.55%	30.97%					24.52%	9.41%
	smloss	41	**121**	32	25	219			smloss		121	24
		2.82%	**8.33%**	2.20%	1.72%	15.07%					46.36%	9.41%
	smprof	30	**47**	139	70	286			smprof		**47**	32
		2.06%	**3.23%**	9.57%	4.82%	19.68%					**18.01%**	12.55%
	profit	39	**29**	**60**	370	498			profit		**29**	139
		2.68%	**2.00%**	**4.13%**	25.46%	34.27					**11.11%**	54.51%
	Total	435	**261**	**255**	502	1,453			Total		261	60
		29.94%	**17.96%**	**17.55%**	34.55%	100%					100%	23.53%

where, *loss:* second and following intervals to the left of zero (earnings decrease area); *smloss:* first interval immediately to the left of zero (small earnings losses); *smprof:* interval immediately to the right of zero (small earnings increases); *profit:* second and following intervals to the right of zero (earnings increase area): NIT: change in pre-tax earnings (after extraordinary items). *OI:* change in ordinary income (before extraordinary items).

4.3.   MULTIVARIATE ANALYSIS OF THE HYPOTHESIS FOR AVOIDING EARNINGS LOSSES AND DECREASES

In Table 6, we present regression results and we can see additional evidence on the role of extraordinary items in explaining the relation between pre-tax income and ordinary income.

The models exceed the levels of individual and global meaningfulness that are statistically required. The coefficients, all positive, associated with the loss areas (α_1) and small losses (α_2) are similar to the coefficients associated with the small profit areas (α_3) and profits (α_4). This evidence suggests that the extraordinary item effect is quite similar in both types of companies (profitable and unprofitable) and that its recognition is therefore not biased by applying the accounting conservatism. The annex shows consistency of the independent variable signs for most of the years under consideration in this study (Table A) [10].

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(10)   It should be mentioned that just like Beaver *et al.* (2007: 545), the interval previous and posterior to zero has been widened in order to estimate the retreat in the small losses and small profits areas. These authors use 6 intervals of 0.005. As

$$NIT_t = \alpha_0 + \alpha_1 D1 \cdot OI_t + \alpha_2 D2 \cdot OI_t + \alpha_3 D3 \cdot OI_t + \alpha_4 D4 \cdot OI_t + e_t$$

	Mean coefficient	p	Median coefficient	p
C	0.0051		0.0056	
OI · D1	0.1008	***	0.9581	***
OI · D2	0.8264		0.8632	*
OI · D3	0.8846	***	0.8947	***
OI · D4	0.9275	***	0.9485	***
Adj. R²	**89.4%**	***	**90.1%**	***

WALD TEST				
	Mean F-statistic	p	Median F-statistic	p
$\alpha_2 = \alpha_3$	0,512		0,084	
$\alpha_1 = \alpha_4$	1,172		0.568	

Wald's statistical test (right table) is not significant and thus confirms that extraordinary items appear in the four areas identified and contribute similarly to explaining the pre-tax result (Table B in the annex contains a year-by-year analysis). The statistical meaning of the coefficients would point out significant differences in the disclosure of extraordinary items between the areas of losses (small losses) and profits (small profits).

In short, the results obtained in this section corroborate the cross-tabulation frequencies carried out in the previous section and are consistent with the idea of managers consciously manipulating the recognition of extraordinary items so as to improve the image of their financial situation, especially if their operating costs generate small losses so that the pre-tax earnings are positive. The idea that the recognition of these items, in the sample dealt with in this work, is biased through accounting conservatism cannot be defended in light of the evidence found. Even though the period of study does not coincide with the one presented here, the same cannot be said for the recognition of corporation tax expenses (see Parte *et al.,* 2007).

Finally, Table 7 shows the multivariate analysis for earnings changes and Wald's test. It has been created under the same standards as in the case of levels (Tables C and D in the annex contain the year-by-year study).

$$\Delta NIT_t = \alpha_0 + \alpha_1 D1 \cdot \Delta OI_t + \alpha_2 D2 \cdot \Delta OI_t + \alpha_3 D3 \cdot \Delta OI_t + \alpha_4 D4 \cdot \Delta OI_t + e_t$$

	Mean coefficient	p	Median coefficient	p
C	-0.0046		-0.0046	
ΔOI · D1	0.9382	**	1.0559	***
ΔOI · D2	0.8388	**	0.7950	***
ΔOI · D3	1.0214	***	0.9896	***
ΔOI · D4	0.9649	**	0.9710	***
ΔAdj. R²	**72.8%**	***	**81.1%**	***

WALD TEST				
	Mean F-statistic	p	Median F-statistic	p
$\alpha_2 = \alpha_3$	2,769		1,286	
$\alpha_1 = \alpha_4$	8,640		2,371	

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in our case the origin interval was greater than this and 3 previous and posterior intervals from zero profits were considered. A sensitivity analysis with different intervals has also been carried out.

The analysis performed for earnings changes confirms the one obtained for levels. In the Spanish sample, the extraordinary items were not observed to significantly influence the segment of enterprises that report negative earnings decreases. The item hypothesis that links extraordinary items to earnings management tools in order to achieve more or less significant earnings transfers from one year to another can therefore not be rejected.

The hypothesis of avoiding earnings decreases via special items is satisfactorily proven in Dechow *et al.* (2000), Marquardt and Wiedman (2004) and Myers *et al.* (2006) in U.S. context, while Gore's *et al.* (2007) in the United Kingdom only seconds the use of these items to achieve null prediction errors. It should be mentioned that this evidence is certainly remarkable given the strict regulations imposed in Anglo-Saxon countries on the recognition and location of special items, and even more so if the efforts made by the regulating bodies in these countries to definitively eliminate them from the financial statements, or at least severely limit them, is kept in mind.

5. CONCLUSIONS

Since the mid-nineties empirical research has clearly shown that managers are concerned with reaching different goals in the form of earnings benchmark. The objectives that have traditionally served as a basis for this hypothesis include refraining from declaring losses, earnings decreases and negative earnings surprises.

This study has focussed on the hypothesis of avoiding earnings losses and decreases through extraordinary items. The empirical research consists of two parts. Firstly, frequency histograms have been employed with the aim of detecting the existence of a graphical discontinuity at zero earnings and zero changes to earnings. A series of controls have been applied to frequency histograms in a sensitivity analysis by following the arguments in previous researches (Holland, 2004, and Durtschi and Easton, 2005 among others).

Secondly, the observed discontinuity has been examined to determine if it is caused by the opportunistic use of extraordinary items in order to achieve certain effects on the disclosed earnings, such as avoiding losses and decreases in ordinary earnings. Or in another case, earnings distribution is altered by the asymmetric recognition of extraordinary income and expenditure, derived from the conservative bias imposed by the accounting conservatism in the elaboration of financial information, without managers policy directly participating in this process (Beaver *et al.,* 2007).

The results found in the sample of audited Spanish companies reveal a discontinuity when pre-tax ordinary earnings (in levels and changes) around zero earnings are plotted on graphs. The discontinuity is emphasized upon recognizing extraordinary items and supports the idea that extraordinary items are relevant in the creation of the earnings. The matrix and multivariante analysis put forward to prove the second question reveals that in Spain, during a lengthy period of time (1992-2001), extraordinary items played an important role in the transfer of earnings from one level to another in the profit and loss statement.

Therefore, the null hypothesis cannot be rejected that proposes that extraordinary items cause a jump around zero in pre-tax earnings distribution as opposed to ordinary ones, due to their opportunistic recognition by managers. In other case, managers use the extraordinary item recognition in order to improve unfavourable situations in precedent ear-

nings and ordinary earnings and move toward more advantageous positions in subsequent income (pre-tax earnings). The empiraldoes not support the idea that the discontinuity around zero earnings is a consequence of the asymmetric effect caused by the accounting conservatism in recognizing extraordinary losses and gains.

The previous arguments are also valid for the hypothesis of earnings changes. Extraordinary items cause a jump around zero in the distribution of changes in pre-tax earnings compared to changes in ordinary earnings, due to their opportunistic use by managers. According to our interpretation these items are seem to be significant for directing small negative changes in ordinary earnings toward more attractive earnings ranks in subsequent levels. The origin data reveals that about 38% of the companies present earnings decreases, and the movements of small positive changes in ordinary earnings toward more far-reaching changes in pre-tax income are not so evident. This may indicate that the aim of avoiding losses may carry more weight than raising small negative changes toward higher levels.

This research backs the position of many previous studies set within the Anglo-Saxon system that defend the idea that extraordinary and special items are a management tool in the hands of administrators to avoid declaring earnings losses or decreases (Peasnell *et al.* [2000] for the period prior to FRS3, Jaggi and Baydoun [2001], Marquardt and Wiedman [2004] and Myers *et al.* [2006] are some of them). Despite the regulating bodies of these countries imposing severe restrictions in recent decades on the recognition of this item, empirical studies maintain that its presence in the financial statements continues to cause problems in the interpretation of financial information and stockholders´ decisions.

The study sample in this work is subject to the application of PGC 1990 and other current accounting disposals. The requirements imposed by PGC 1990 for the recognition of extraordinary items were quite imprecise and vague and simplified item transit through the profit and loss statement. Apart from the vague regulations, these items provide other advantages that set them in the sights of managers. Highlighted among them are their low cost and visibility, transitory nature, reversion capability and taxation. Research forums reveal that managers are not indifferent when it comes to selecting accounting variables for carrying out efficient earnings management but that there exists an entire hierarchy. These arguments, in the analyzed period, make extraordinary items an attractive tool for managers preferred decisions.

The PGC 2007 has eliminated the extraordinary earnings section from the profit and loss statement and follows the standardizing trend of very influential countries in our context, such as the USA, United Kingdom, Canada, New Zealand, Australia and the regulations issued by IASB. This does not mean, however, that the items are now going to disappear from company practice. Insofar as 'non-recurring' events continue to occur and show their effects on financial statements, managers will count on a certain leeway to manage accounting earnings. In short, the name of these items may change, but this will not hinder their existence nor the important role they play in financial information.

Future research can analyze the effect that the absence of the extraordinary earnings section has on the financial information issued by Spanish companies. Another open question that is drawing a good part of the investigative efforts in this line of research is the improvement of techniques for detecting earnings management. The sensitivity analysis carried out in this work reveals that the scaling of earnings causes variations in the ear-

nings distribution. Subsequent studies can focus on the analysis of this topic, which is on the way to being solved.

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ANNEXES

RESULTS OBTAINED FROM THE MULTIVARIATE ANALYSIS

TABLE A

ANNUAL ANALYSIS OF LINEAR ESTIMATE RESULTS FOR EARNINGS LEVELS

	1993 (158 obs)	p	1994 (159 obs)	p	1995 (155 obs)	p	1996 (156 obs)	p	1997 (157 obs)	p	1998 (156 obs)	p	1999 (157 obs)	p	2000 (156 obs)	p	2001 (157 obs)	p	mean	p	median	p
C	-0.0061		0.0056		0.0061		0.0113	*	0.0063		0.0028		-0.0031		0.0053		0.0185	***	0.0052		0.0056	
O1 · D1	0.9097	***	0.9581	***	1.0931	***	1.1885	***	0.9450	***	0.8242	***	1.0767	***	0.8924	***	1.1885	***	1.0085	***	0.9581	***
O1 · D2	0.8460	*	1.2203	***	0.8632	***	0.5129		0.8089	***	1.0600		0.1361		0.9253	***	1.0648	*	0.8264		0.8632	*
O1 · D3	1.0074	***	0.8598	***	0.9002	***	0.6421	***	0.8499	***	1.1076	***	1.2062	***	0.8947	***	0.4944	***	0.8847	***	0.8947	***
O1 · D4	1.0232	***	0.9051	***	0.9303	***	0.9115	***	0.9507	***	0.9664	***	1.0086	***	0.9485	***	0.7037	***	0.9275	***	0.9485	***
Adj. R²	0.8289	***	0.9095	***	0.9041	***	0.8560	***	0.8917	***	0.9009	***	0.9397	***	0.8880	***	0.9259	***	0.8939	***	0.9009	***
F-stat	191.117		398.019		363.942		231.386		321.949		353.447		608.703		308.090		488.566		362.802		353.447	

TABLE B

WALD TEST, YEAR-BY-YEAR

F-statistic for the hypotheses $\alpha_2 = \alpha_3$ and $\alpha_1 = \alpha_4$, respectively.

	1993	p	1994	p	1995	p	1996	p	1997	p	1998	p	1999	p	2000	p	2001	p
F-statistic	0.0729		1.1008		0.0181		0.0840		0.0123		0.0038		2.3908		0.1673		0.7604	
F-statistic	0.5678		0.2684		3.3055	*	1.8796		0.0031		0.9324		0.3570		0.3507		2.8836	*

TABLE C

ANNUAL ANALYSIS OF LINEAR ESTIMATE RESULTS FOR EARNINGS CHANGES

	1993 (154 obs)	p	1994 (156 obs)	p	1995 (154 obs)	p	1996 (162 obs)	p	1997 (158 obs)	p	1998 (156 obs)	p	1999 (157 obs)	p	2000 (157 obs)	p	2001 (159 obs)	p	mean	p	median	p
C	-0.0167	***	0.0025		0.0022		-0.0003		-0.0060		0.0075	*	-0.0049		-0.0046	**	-0.0208	***	-0.0046		-0.0046	
ΔRO · D1	0.1116	*	1.0571	***	1.0569	***	1.4379	***	1.0559	***	1.1516	***	0.8522	***	0.7700	*	0.9507	***	0.9382	**	1.0559	***
ΔRO · D2	0.6089	*	0.9943	***	0.7924	***	0.7060	**	0.7950	***	1.0282	***	0.8420	***	1.0501	***	0.7328	*	0.8388	**	0.7950	**
ΔRO · D3	1.3989	***	0.9942	***	0.7652	***	0.7638	**	0.9896	***	0.5203	***	1.2917	***	0.7803	***	1.6884	***	1.0214	***	0.9896	***
ΔRO · D4	1.1192	***	1.0191	***	0.9710	***	0.4245		1.7750	***	0.6948	***	0.9976	***	0.9653	***	0.7179	***	0.9649	**	0.9710	***
Adj. R²	0.4037	***	0.8109	***	0.8315	***	0.6266	***	0.8108	***	0.6713	***	0.8133	***	0.8406	***	0.7417	***	0.7278	***	0.8108	***
F-stat	26.892		167.147		189.744		68.544		169.217		80.145		170.894		206.637		114.430		132.628		167.147	

TABLE D
WALD TEST, YEAR-BY-YEAR

F-statistic for the hypotheses $\alpha_2 = \alpha_3$ and $\alpha_1 = \alpha_4$, respectively.

	1993	p	1994	p	1995	p	1996	p	1997	p	1998	p	1999	p	2000	p	2001	p	mean	p	median	p
F-statistic	3.4797		0.0000		0.0139		0.0085		0.1761		1.9473		1.2858		1.5764		16.4340	***	2.7691		1.28558	
F-statistic	28.1516		0.3182		0.6521		3.6463	*	2.3707		10.3928	***	0.4593		0.8457		30.9206	***	8.6397		2.3707	

Discussion

on

The hypothesis of avoiding losses and decreases of earnings via extraordinary items

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1. INTRODUCTION: EARNINGS MANAGEMENT AND EARNINGS BENCHMARKS

Parte (2008) aims to test the hypothesis of the use of extraordinary items as an earnings management mechanism to beat or meet certain earnings thresholds, particularly profits and earnings increases. Focused in the Spanish context, the results from the empirical analysis are a significant contribution for the earnings quality and earnings management Spanish empirical literature, where this paper can be inserted.

As authors such as García Osma *et al.* (2005) or Healy and Wahlen (1999) document, the earnings management literature can be classified in two basic lines of research: *a)* the one based on the methodological mechanisms to identify earnings management practices and, *b)* the one based on the analysis of the different motivations that enhance managers to engage in earnings management practices. This paper can be inserted in the first line of research, as it focuses on the use of a specific accounting classificatory mechanism that allows managers to move the final earnings figure towards the desired benchmark. However, before analysing the earnings management mechanisms it is important to understand the main drivers of this manager behaviour. The positive accounting theory (Watts and Zimmerman, 1979 and 1986) pointed at political and contractual motivations as the main explanatory factors of opportunistic management behaviour, based on the importance of the earnings figure in the outcome of the contractual and political relationships between the manager, the firm and the stakeholders. However, while political and contractual were the most documented motivations until the beginning of the nineties, at the end of the cited decade a wide number of press and academic articles pointed an apparently determinant factor to understand the increasing pervasive behaviour of managers: the significant link between the value of the firm and the compliance of the reported earnings figure with certain thresholds: *a)* reporting profits, that is avoiding losses; *b)* earnings increases, that is sustain recent performance and finally, *c)* meeting the analysts' expectations, that is reporting positive earnings surprises.

As Parte (2008) points out, Hayn (1995) followed by Burgstahler and Divev (1997) and Degeorge *et al.* (1999) documented the significant number of firms reporting small profits, small earnings increases and small positive earnings surprises, making use of a very simple methodological approach: plotting the frequency distribution of the earnings figure. In spite of the documented caveats and limitations of this methodology

(Dechow *et al.,* 2003; Holland, 2004; Durtchi and Easton, 2005 and Beaver *et al.,* 2007), these papers pointed out the importance of these earnings thresholds, leading other academics to dig into the potential explanation for this prominent management behaviour. Empirical results in several articles such as Skinner and Sloan (2002), Kasznik and McNichols (2002), Bartov *et al.* (2002), Lopez and Rees (2002) or Barth *et al.* (1999) and more recently, Rees (2005), reveal how individual investors focus too much on simple reference points based on the earnings figure when taking their investment decisions, leading managers to engage in earnings management practices to avoid disappointing capital markets when they are not able to make the earnings number. As Skinner and Sloan (2002) argue, anecdotal evidence suggested that companies were suffering large stock prices declines when failing to meet the market expectations. For instance, «on December 9, 1997, Oracle experienced a 29% drop in stock price response to the announcement of earnings of $0.19 versos consensus expectations of $0.23» (Skinner and Sloan, 2002). This odd market behaviour was forcing managers not only in the US but also in many other institutional settings to engage in earnings management practices to meet the expected earnings number.

As Burgstahler and Dichev (1997) explain, transaction and information costs (Conlisk, 1996) lead investors to base their economic decisions on certain heuristics or simple reference points such as zero level or earnings changes as well as on zero earnings surprises. Additionally, the likelihood of firms to report earnings based on certain thresholds and the investors' reaction to this corporate behaviour is also consistent with Prospect theory (Tversky and Kahneman, 1979). As Burgstahler and Dichev (1997) explain Prospect theory postulates that *a)* investors react and value gains and losses based on a reference point and *b)* investors value functions are steepest around this reference point, that is, value functions are S-shaped, concave in gains and convex in losses, leading to strong investors reactions around the reference point. Prospect theory and information costs theory postulates, are consistent with the observed and widely documented earnings benchmark corporate behaviour.

Although most of the empirical evidence on earnings benchmarks has mainly focused on the United States, this corporate behaviour has been observed in many other institutional settings. In Spain, Gallén and Giner (2005) are the first authors to use the frequency distribution approach to document the higher than expected frequency of Spanish listed firms to report profits and earnings increases, suggesting pervasive earnings management practices. One of the most interesting findings of Gallén and Giner (2005) are the observed differences in the frequency distribution of the two alternative earnings figures: net earnings *vs.* earnings before tax and extraordinary items. Comparing the frequency distribution of both earnings figures, they observe a more significant jump in the net earnings distribution, suggesting the potential use of the extraordinary items category on the profit and loss account as a mechanism to manage the final net earnings figure, moving towards the right side of the distribution, that is, avoid reporting losses or earnings decreases. Gallén and Giner (2005) findings are the starting point of the Parte (2008) article, that corroborates for a sample of listed firms for the period 1992-2001 that: *a)* the use of extraordinary items as a simple mechanism to manage earnings, and *b)* conversely to Beaver *et al.* (2007) findings for the US context, the kink in the reported earnings distribution of Spanish firms in not artificially created by the asymmetry recognition of extraordinary gains and losses for profit *vs.* loss firms, due to accounting conservatism.

2. ALTERNATIVES TO AFFECT EARNINGS QUALITY: SPECIAL ITEMS

The frequency distribution approach is a simple methodology that does not corroborate, but simply suggests the potential use of earnings management practices in order to meet or beat the three documented earnings benchmarks. However, together with the methodological approaches that identify potential earnings management practices and understanding the main drivers of this corporate behaviour, a significant number of articles focus on the specific mechanisms that managers may use to manage the earnings figure. Based on Schipper (1989) classification, García Osma *et al.* (2005) refer to two broad alternatives to manage the earnings figure: *a)* purely accounting mechanisms based on accrual accounting, accounting policy changes or classificatory categories on the profit and loss account and *b)* real investment decisions that affect cash flows, therefore the earnings figure (ie., Changes in R&D and advertising expenditures, the time for asset sales (García and Young, 2008; Bushee, 1998; Bange and Debondt, 1998; Black *et al.,* 1998)). Most of the earnings management literature has focused on accrual accounting mechanisms, developing alternative mechanisms to quantify the level of abnormal or discretionary accruals (Jones, 1991; McNichols, 2000). In spite of the caveats of accrual accounting as an earnings management mechanism, empirical evidence place accruals as the most widespread practice to manage earnings. Low cost and low visibility are the reasons to understand its prominent use. The use of the extraordinary items category as an earnings management mechanism lies in certain circumstances between the two previous classifications as it is an accounting classificatory mechanism that may be also significantly affected by certain real cash flow decisions such as for instance, the time of asset sales or the time incurring into a restructuring process. However, as previously suggested the selection of the different alternatives to manage earnings depends on the potential current and future costs and the visibility of the mechanism (García Osma, *et al.,* 2005).

As McVay (2006) explain, the use of the extraordinary or the special items category is one of the least costly mechanism to manage earnings as there are not later reversals that affect future earnings, as it happens with discretionary accruals or real investment decisions. However, the potential use of the extraordinary or the special items category as a *classification mechanism* (McVay, 2006) to manage earnings must be understood in each different accounting regulation and institutional setting. As McVay (2006) clarify, the objective of the special items *classification shifting* mechanism in the US is the misclassification of items in the profit and loss account that is, shifting revenues up or expenses down in the profit and loss account so that the «good» results are moved upwards. Even though the final net income figure is unaltered, *classification shifting* in the profit and loss account allows to report «good» core earnings. However, as McVay (2006) assert «to the extent that financial statement users focus solely on GAAP earnings, classification shifting would be pointless».

Evidence in Bradshaw and Sloan (2002) for the US reveals that from the beginning of the nineties, the GAAP earnings figure has lost value relevance compared to *Street* earnings [1] that represent a more permanent earnings figure. Additionlly, these authors document that along the nineties, the Earnings Response Coefficient (ERC) of the *Street* earnings

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(1)   Bradshaw and Sloan (2002) define the *Street* earnings figure as the earnings number reported by the analyst tracking services that usually excludes a variety of expenses required under GAAP, as for instance, special or non-cash items.

figure has increased dramatically and doubled the ERC for the GAAP earnings figure. In addition to these findings, Bradshaw and Sloan (2002) report a simultaneous increasing gap between the Street *vs.* GAAP earnings figure, explained by and increasing tendency of US firms to report special items, suggesting the growing importance of these items as a mechanism to manage an *Street* earnings figure that seems to have an greater relevance in capital markets along the nineties.

Under the Spanish 1990 GAAP in force until the adoption of IAS/IFRS, extraordinary items could be considered similar to the special or exceptional item category in other accounting regulations[2]. For instance, gains and losses from asset sales are considered as extraordinary under the 1990 Spanish GAAP while in the UK are classified as exceptional (special) items. However, results from Gallén and Giner (2005) and the evidence reported in Parte (2008) reveals differences in the potential use of special or extraordinary items as an earnings management mechanism. While evidence reported in McVay (2006) and Bradshaw and Sloan (2002) suggest the use of special items as a classification shifting mechanism to manage the Street earnings figure and meet the earnings target based on the relevant figure for capital markets, others as Myers *et al.* (2006) or Gore *et al.* (2007) observe the use of special items to manage the final reported net earnings figure. Evidence for Spain (Parte, 2008; Gallén and Giner, 2005) suggests the use of extraordinary items as a mechanism to meet the final expected net earnings figure. Classification shifting does not seem to be a very plausible alternative since *a)* Spanish capital markets do not seem to place so much importance on alternative «street» earnings figures compared to the reported net earnings figure, and *b)* the 1990 Spanish GAAP typifies a very specific structure of the Profit and Loss account where companies have very little flexibility to move gains and losses along the existing categories. Conversely to empirical evidence in the US (Bradshaw and Sloan, 2002), non reported summary statistics from Ordinary Least Squares price-earnings annual regressions[3] for a sample a 106 Spanish listed firms for the period 1990-2002, reveals a price-earnings multiple of the net earnings per share figure higher that the ones obtained for alternative earnings figures such as EBITDA per share or and adjusted Datastream earnings figure[4]. In addition, Giner and Reverte (1999) empirical results show that extraordinary results as classified in the profit and loss account under the 1990 Spanish GAAP are not value relevant, except for firms with a high degree of transient earnings. As the authors state «the general lack of significance of extraordinary earnings suggest that the separate disclosure of this item does not have a clear incremental information content» which directly suggests and points at extraordinary items as a low visibility mechanism to manage the final net earnings figure.

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(2)   In the UK FRS3 (1993) describe exceptional (special) items as «material items which derive from events or transactions that fall within the ordinary activities of the reporting entity and which individually or, if of a similar type, in aggregate, need to be disclosed by virtue of the size or incidence if the financial statements are to give a true and fair view», some of the items classified as exceptional are: *a)* profit and losses on the sale or termination of an operation; *b)* reorganisation or restructuring costs, or *c)* profit or losses from the disposal of assets. Under the FRS 3 (1993) the extraordinary items are «material items possessing a high degree of abnormality», outside the ordinary activities of the firm.

(3)   The model used in the regression analysis takes the following form: $P_{it} = \alpha_o + \beta_1 EPS_{it} + \beta_2 BVEps_{it} + \varepsilon_{it}$ where P = *price per share*, EPS is the earnings per share figure (net earnings, adjusted earnings or EBITDA) and BVEps is the Book Value of Equity per share.

(4)   This Datastream earnings figure is *the net profit after tax, minority interests and preference dividends excluding pre tax extraordinary items, non-operating provisions, exchange gains/losses and any other item not relating to the normal trading activities of the company.*

3. THE FREQUENCY DISTRIBUTION APPROACH

Beaver *et al.* (2007) gives a complete different perspective to the use of the extraordinary or the special items category. In fact, the aim the article is not to identify earnings management but to analyse the potential deficiencies of the frequency distribution methodology based on the asymmetric effect of special items for profit vs. loss firms [5].

As previously stated, at the end of the nineties, many authors (Hayn, 1995; Burgstahler and Dichev, 1997 and Degeorge *et al.,* 1999 in the US; Gore *et al.,* 2007 in the UK and Daske *et al.,* 2003 in several European countries) highlighted the unexpected number of firms reporting earnings right above the zero earnings level, the zero earnings change and the zero earnings surprise. However, the simplicity of the methodology and the significant implications of the obtained results, led several authors to study in depth possible methodological deficiencies that could affect the implications of the empirical results. Holland (2004), Durtchi and Easton (2005), Dechow *et al.* (2003) and Beaver *et al.* (2007) make up the main literature based on studying the potential deficiencies of the frequency distribution methodology as a mechanism to identify potential earnings management practices.

As Parte (2008) explain, these authors argue that the frequency distribution approach «generates a bias in favour of earnings management» and therefore, «cannot be used as ipso facto evidence of earnings management» (Durtchi and Easton, 2005). However, each of theses articles focus on different caveats of the methodology. Dechow *et al.* (2003) centre their analysis in corroborating whether the kink is driven by earnings management practices. However, the empirical results do not find a significantly higher level of discretionary accruals for the group of firms right above the kink in the earnings distribution, that is, firms reporting small profits, compared to firms reporting small losses. Dechow *et al.* (2003) results suggest that earnings management practices cannot explain the documented kink in the earnings distribution. Therefore, the authors document as alternative explanations the effect of the scaling factor or a potential sample selection bias. Dechow *et al.* (2003) alternatives are studied by Durtchi and Easton (2005) in more detail. These authors document the distortion effect that creates the scaling factor or the database sample selection bias as well as certain characteristics for profit *vs.* loss firms that affects observations to the right and left of zero in the earnings, earnings changes and earnings surprises distribution (Durtchi and Easton, 2005). Holland (2004) focuses on additional technical matters such as the adverse effects of the chosen interval widths, particularly for small samples. Finally, Beaver *et al.* (2007) recall on one of the alternative explanations for the kink suggested in Dechow *et al.* (2003): the effect of accounting conservatism, «encouraging immediate loss recognition and delaying gains recognition».

Beaver *et al.* (2007) focus on the potential effects of certain accounting components' asymmetries that may create differences in the earnings distribution for profit *vs.* loss firms, enhancing artificially the discontinuity in the earnings distribution. Beaver *et al.* (2007) refer to two specific earnings components: special items and income taxes. As Beaver *et al.* (2007) explain, tax rates are expected to be higher for profit firms, moving net profit observations to the intervals just above zero. Similarly, the magnitude of negative special items is

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(5)   Together with the asymmetric effect of special items, Beaver *et al.* (2007) also look at the asymmetric effect of income taxes for profit vs. loss firms.

expected to be greater for loss firms, shifting loss firms' observations to the left hand side of the distribution. Both effects are expected to increase the number of observations in the small profits (small earnings increases) interval and decrease the number of observations in the small losses (small earnings decreases) interval, increasing the documented kink of the earnings distribution.

In spite of the documented deficiencies, recent literature (Jacob and Jorgensen, 2007; Kerstein and Rai, 2007) has once again revealed that frequency distribution approach is a very simple, robust and useful tool to identify the prevalent importance of earnings benchmarks along the years, alerting investors about the potential adverse effects of placing too much emphasis on this simple reference points to take the investment decisions. As Jacob and Jorgensen (2007) assert the documented deficiencies of the frequency distribution methodology «might contribute to the observed discontinuities» but «they are not primarily responsible» for them.

4.   DISCUSSION OF THE MAIN RESULTS AND CONCLUSIONS

Earnings management or methodological deficiencies of the frequency distribution approach? This question is what Parte (2008) aims to answer for the Spanish context. Parte (2008) empirical analysis can be divided in two sections. The first section corroborates Gallén and Giner (2005) results and confirms the potential use of extraordinary items as a mechanism to manage the net earnings figure. Following Holland (2004) or Durtchi and Easton (2005) recommendations, Parte (2008) uses several interval widths and scaling factors in order to test for the robustness of the inferences from the frequency distribution. The results confirm the previously documented differences (Gallen and Giner, 2005) between the earnings before tax *vs.* earnings before tax and extraordinary items distribution. The kink is more prominent for the earnings before tax frequency distribution, suggesting two possible alternatives: *a)* extraordinary items are used as an earnings management mechanism to report small profits, or *b)* as Beaver *et al.* (2007) explain, negative extraordinary items may shift loss observations towards the left hand side of the earnings distribution, contributing to observe a lower frequency of observations in the small loss region, and therefore, exacerbating the documented discontinuity at zero. The initially reported descriptive evidence (Parte, 2008, Table 2) does not allow to discern between these two alternatives. Nearly 100%[6] of the loss and profit Spanish firms report extraordinary items, revealing its nearly permanent presence in the profit and loss accounting and suggesting its potential use in order to manage the net earnings figure. However, consistent with Beaver *et al.* (2007) arguments, loss firms tend to report negative extraordinary results compared to profit firms, which are more likely to report positive extraordinary results, leading to potential observation shifting in the final net earnings distribution.

Following Beaver *et al.* (2007) methodological approach, Parte (2008)'s cross-tabulation of the observations across different subsamples (loss, small losses, small profits and profits) for both the earnings before tax vs. earnings before tax and extraordinary items figures (Parte, 2008, Table 5) confirms that a significant proportion of firms reporting small losses before tax and extraordinary items (46,61%), use this profit and loss category to finally report profits. On the other hand, only 15,25% of firms reporting small losses before tax and ex-

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(6)   95% for loss firms and 96% for profit firms (Parte, 2008, Table 2).

traordinary items move towards the loss region when considering the effect of extraordinary items. These results differ from the ones reported in Beaver *et al.* (2007) [7] suggesting that the documented asymmetry of special items is the US context cannot be extended to other institutional settings where the capital markets reaction to extraordinary items (Giner and Reverte, 1999) and the accounting regulation may affect differently to the potential uses of extraordinary items as an earnings management mechanism. Results from the regression analysis confirm the descriptive evidence and, as Parte (2008) explains, the absence of an asymmetric recognition of extraordinary items for profit *vs.* loss firms that could explain and artificially create the observed discontinuity in the earnings distribution.

Results for the earnings change distribution are also consistent with the use of extraordinary items as an earnings management mechanism to report small earnings increases. However, descriptive evidence is also consistent with the big-bath hypothesis (Healy, 1985; Degeorge *et al.,* 1999). Parte (2008, Table 6) shows that 25% of small of firms suffering a small decrease in the earnings before tax and extraordinary items figure, report a greater decrease in earnings before taxes. This big-bath behaviour using extraordinary items to report higher decreases in the final net earnings figure is consistent with an objective to reduce the next year earnings benchmark and (b) record additional negative extraordinary items to avoid reporting bad news in future periods.

Parte (2008) gives a significant step further in the earnings management literature for the Spanish context. Her results not only highlight the use of the extraordinary profit and loss category as a potential earnings management mechanism but also the importance of understanding the characteristics of the institutional setting where the earnings management practices take place. As previously asserted, while special items are presumed to be used as an earnings management classification shifting mechanism in countries such as the US (McVay, 2006), evidence for Spanish listed firms reveals the importance of managing the final GAAP earnings figure and the potential use of extraordinary items as a low cost and low visibility mechanism to manage to report profits and earnings increases.

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(7)   Beaver *et al.* (2007) reports 33 % of small loss firms moving into the loss subsample for the pre-tax earnings while only 14% of the small loss firms move into the small profit or profit subsample for the pre-tax earnings figure.

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