

FIXED ASSETS REVALUATION IN SPAIN: THEORETICAL AND PRACTICAL ISSUES



**UNIVERSITAT
JAUME I**

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Finance and Accounting Degree

Academic year 2013/14

Abstract:

This final degree project focuses on the valuation of non financial fixed assets by Spanish listed firms, which must prepare their individual and consolidated financial statements following different sets of standards: the Spanish PGC for the individual statements and the IASs-IFRSs adopted by the EU for the consolidated accounts. Therefore, these companies have two choices as regards the revaluation of non financial fixed assets. In their individual accounts the Spanish local GAAP only allows the historical cost model, but they could choose to voluntarily adopt the *ad hoc* balance sheet updating regulations that the government issues from time to time, the latest in 2012. In turn, within the consolidated financial statements the companies have the option to choose the revaluation model contemplated in IASs 16 and 40 instead of the traditional historical cost model. The project describes the differences between the two sets of regulations, provides with a detailed review of the last balance sheet updating regulation, included within the Law 16/2007, and analyzes the two revaluation decisions by the companies included within the Ibex 35.

JEL codes: M41, M48.

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Abbreviations

BOE	Boletín Oficial del Estado (Official State Bulletin)
BOICAC	Boletín Oficial del Instituto de Contabilidad y Auditoría de Cuentas (Official Bulletin of the Accounting and Audit Institute)
CNMV	Comisión Nacional del Mercado de Valores (Stock Market National Commission)
EEC	European Economic Community
EU	European Union
IAS	International Accounting Standard
IASB	International Accounting Standard Boards
IASC	International Accounting Standards Committee
ICAC	Instituto de Contabilidad y Auditoría de Cuentas (Accounting and Audit Institute)
IFRS	International Financial Reporting Standards
IP	Investment Property
IRPF	Impuesto sobre la Renta de las Personas Físicas (Personal Income Tax)
IS	Impuesto sobre Sociedades (Corporate Income Tax)
LSC	Ley de Sociedades de Capital
PGC	Plan General Contable (General Accounting Plan)
PGC PYMES	Plan General Contable Pequeñas y Medianas Empresas (General Accounting Plan Small and Medium Enterprises)
PPE	Property, Plant and Equipment
RD	Real Decreto (Royal Decree)

Fixed assets revaluation in Spain: Theoretical and practical issues

1. Introduction

There is long-standing controversy among the accounting community surrounding the choice between fair value and historical cost accounting. Disagreements are clearly reflected by differences in standards worldwide. When it comes to noncurrent assets, some jurisdictions allow fair value accounting while others do not (see Herrmann et al., 2006 for a review). Within this context, the purpose of this final degree project is twofold: 1) Describe the possibilities that Spanish companies have to revalue their non financial fixed assets, particularly PPE and IP; and 2) analyze the revaluation decisions by Spanish companies.

In Spain, financial statements are prepared following basically two sets of standards: by requirement of EU, consolidated financial statements of listed companies must be elaborated under the IAS-IFRS adopted by the UE; the rest, individual accounts of listed companies and both individual and consolidated financial statements of unlisted firms should follow the standards included in the Spanish local GAAP, basically the PGC. Despite being an adaptation of our local GAAP to the IASB model, Spanish PGC does not allow the revaluation model for noncurrent assets, the same as the former PGC of 1990 did. However, many Spanish companies report “revaluation surplus” within shareholders’ equity. This is the result of several *ad-hoc* regulations enacted by the Spanish authorities allowing companies to voluntarily revalue these elements, following very specific and detailed rules. The last one of these *ad-hoc* regulations was enacted by the 16/2012 Act..

The ICAC has made clear that these *ad hoc* revaluations are compatible with our PGC. However, Spanish quoted companies must apply IASB standards adopted by the European Union to prepare their consolidated financial statements, and the *ad-hoc* revaluations do not seem compatible with the international accounting standards revaluation model for PPE and IP (Ortega and Díaz-Moro, 2013). Therefore, Spanish quoted companies have two options (non exclusive): (1) within their consolidated financial statements they can choose to revalue PPE and/or IP under IASB standards; and (2) within their individual financial statements they can choose to revalue their noncurrent assets following the rules established by the 16/2012 Act.

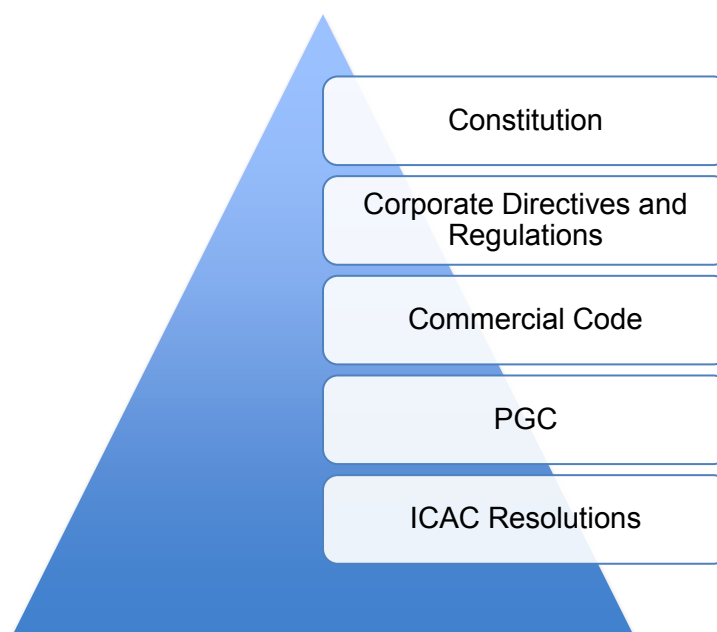
The project is structured as follows. The next section briefly describes the accounting regulatory framework in Spain. Section three is devoted to describe the accounting standards for PPE and IP that Spanish companies might apply, paying special attention to the differences between the historical cost model and the revaluation model. Sections four, five and six are dedicated to the *ad hoc* balance sheet updating regulations that Spanish governments issue every now and then. The main regulations issued since the 60s are described first, a practical example of the last regulation enacted is provided next, and the compatibility of these regulations with the PGC and the international accounting standards is discussed last. In section seven the decision to revalue is analyzed: first, the main questions of interest in this research area are exposed from a non exhaustive literature review on the topic; and second, a descriptive analysis of the revaluation decision by companies included in the Ibex 35 is presented. The last section provides the main conclusions of the project.

2. The accounting regulation in Spain

To understand the options that Spanish companies have in relation to the valuation of non-current assets, it is first necessary to be clear of which regulations should be applied in the preparation of its financial statements. In this section we will briefly review the accounting regulatory framework in Spain.

Spanish law is organized on a hierarchical set of rules. Accounting is no exception into this hierarchical ordering. In terms of what might be called "accounting law", included within the Commercial Law, the hierarchy of fundamental rules of application in our country appear summarized in Figure 1.

Figure 1. Accounting regulation hierarchy in Spain



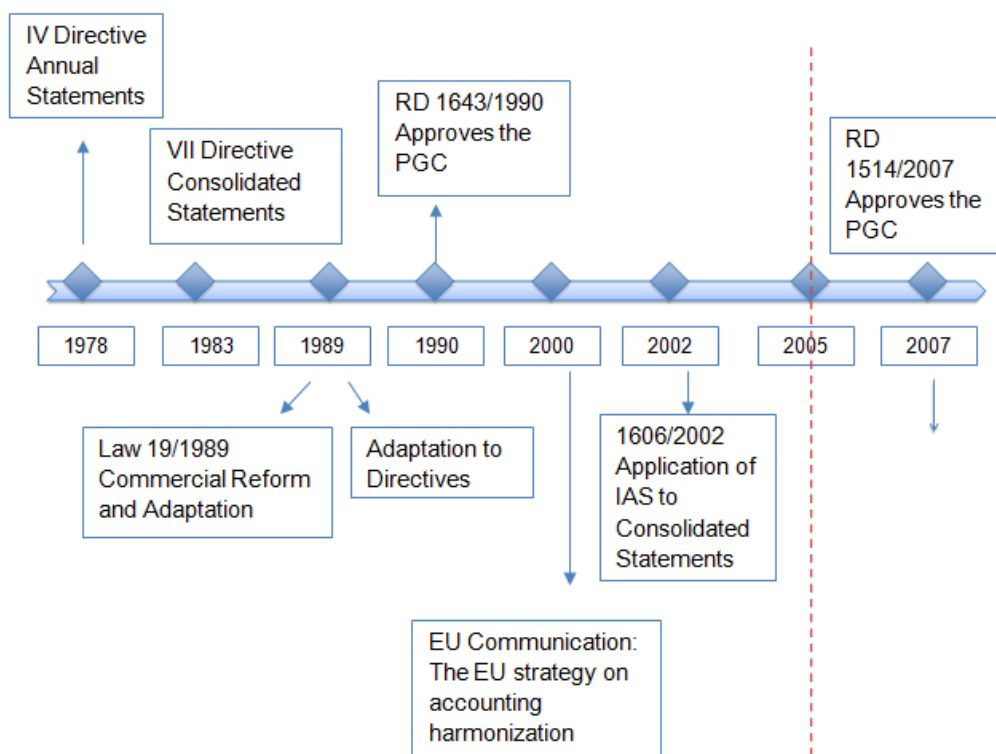
Source: own elaboration.

In the first level of that hierarchy we find the Constitution, which is established as the ultimate guarantor of the principle of legality, the hierarchy of norms and legal security. At a lower level, as a result of Spain's membership of the EU, our country is obliged to transpose Community legislation in relation to accounting, which is contained in the Corporate Directives¹ and Regulations that from 2002 the EU has

¹ The most important are the Directives 78/660/EEC and 83/379/EEC, known as the Fourth and Seventh Directives respectively. In Spain, to adapt local legislation with EU directives, a

issued to adopt IASB² standards. It is precisely our country's membership of the EU what has marked the continuous process of reforms, which our accounting standards have undergone over the past 40 years, the chronology of which can be summarized in Figure 2.

Figure 2. Accounting harmonization process in Spain



Source: Fernández Rodríguez, et al. (2010).

Directives were the first EU attempt to harmonize accounting standards at European level, but a complete and thorough standardization of accounting in Europe was not intended. In fact, they contained very general criteria and conferred a high degree of flexibility. As a result of the adaptation to the European Directives of the legal systems of the member countries, accounting regulation in Europe took a substantial qualitative jump, because many countries started from very poor levels of accounting

profound reform of our market regulation took place with the enactment of Law 89/1989. This law gave rise to the modification of the Commercial Code, the Companies Act and the promulgation of the PGC 1990 (RD 1564/1989), later replaced by the PGC currently in force and approved in 2007.

² The IASB, IASC before, is a private organization established in 1973 by associations of accounting professionals from different countries. The rules issued by this organization (IAS, now called IFRS), are currently used in many countries around the world, mainly in the capital markets. The IASB has had a very significant influence on the process of preparing accounting standards in many countries.

development. However, the degree of harmonization achieved by the Directives was rather low. In Spain, the main result of adapting local regulations to EU Directives was the promulgation of the 1990 PGC.

Regulations on accounting issued by the EU from 2002 onwards are the result of the reduced level of harmonization achieved through Directives. The EU was intended to improve the comparability of the financial information provided by European companies, and faced with the inability to achieve this through the issue of Directives. Yet in the 90s the EU decided to rethink its strategy and leave the accounting standards in the hands of IASC³. As a result of this new strategy, since 2002, and after an analysis and evaluation process (endorsement process), the EU adopts the standards of the international standard setter through the issue of Regulations, which, unlike the Directives, are applicable directly in all member countries. The first of these Regulations was Regulation 1606/2002, on July 19, 2002. In this first Regulation, in which the UE adopted all the IAS⁴ in force at that time, it was established the obligation to prepare the consolidated financial statements of groups of companies with securities listed on a regulated market of any member country in accordance with international standards adopted by the EU. This requirement became effective for fiscal years beginning in or after January 1, 2005 (Article 4).

Regulation 1606/2002 left at the option of each member state to decide whether the rest of the annual accounts (those of unlisted companies and individual listed accounts) should, or could, be also formulated based on international standards or not. In the case of Spain, the choice was not to extend the requirement to any of the other three types of accounts. Instead of adopting IASB standards, the Spanish regulator decided to undertake a new reform of the Spanish accounting standards in order to adapt them to the IASB model, but without yielding to this organism the regulatory authority.

In short, currently IASB standards are compulsory in Spain for the preparation of the consolidated financial statements of company groups with listed securities, provided that they are adopted (through promulgation of Regulations) by the EU. The rest of the financial statements are subjected to local regulations, although the non-

³ The EU declared its intentions for the first time in the Communication of the European Commission's November 1995 "Accounting Harmonization: a new strategy for dealing with international harmonization."

⁴ Except part of IAS 39 about financial instruments.

listed groups have the option of applying the IASB model in their consolidated information, even if this means inability to return to the Spanish accounting model.

Within the accounting (local) Spanish model, in the next levels of the hierarchical pyramid there is a series of rules that have either been modified following the accounting harmonization process of Spanish legislation to the IASB model, or are a direct result of it. Particularly:

- Commercial Code, modified by Law 16/2007 of reform and adaptation of commercial accounting law for international harmonization based on the regulations of the EU.
- The PGC is found in a lower level. The PGC is the fundamental accounting standard. The current PGC was approved by Royal Decree 1514/2007 (Official State Bulletin number 278 of November 20, 2007)⁵. This standard applies to fiscal years beginning from January 1, 2008, to all Spanish companies, without prejudice to those companies that can implement the PGC PYMES.
- Finally, the Resolutions of the ICAC are found, which develop the standards included in the PGC and are also compulsory.

For financial and insurance entities, mandatory accounting standards are also issued by institutions such as the Bank of Spain, the CNMV and the Directorate General of Insurance.

3. Accounting treatment of fixed assets: differences between PGC and IASB standards

This project focuses on an accounting issue in which there are significant differences between the treatment of PGC and IASB model: the valuation of fixed non-financial assets, particularly PPE and IP⁶. In this section the differences between the Spanish accounting model and the IASB as regards this aspect are briefly described.

Tangible Assets are composed of "...assets, closely linked to their production capacity available to an entity for use in the production or supply of goods and services, for rental to others or for administrative purposes, and of which there are

⁵ Subsequently modified in some of its parts with the approval of the RD 1159/2010 laying down rules for drawing up the consolidated financial statements. The PGC in force since 2010 can be found in <http://www.icac.meh.es/>.

⁶ Intangible assets have basically the same treatment as property, plant and equipment.

expectations of use for over a year" and the investment properties are "property not used in the production process or supply of goods that have or may have their own source of yield and aims to earn rentals or for capital appreciation or both" (PGC, Glossary of accounting terms).

Valuation standards of the PGC

The second part of the PGC collects the accounting and valuation policies that develop accounting principles and other provisions contained in the Conceptual Framework. The 2nd rule dictates the criteria and rules applicable to PPE, and the 4th refers to IP. The ICAC resolution of March 1, 2013 laying down rules of recording and valuation of PPE and IP develops these rules.

Regarding PPE, the PGC provides these items are initially valued at cost, either the acquisition cost or the production cost. The acquisition cost shall include the amount invoiced by the seller after deducting any discount or reduction in price, plus all additional costs directly related which occur until the assets are in operating conditions. On the other hand, the production cost of PPE, manufactured or built by the company itself, is obtained by adding, to the acquisition price of raw materials and other consumable materials, the other costs directly attributable to those assets and the part, reasonably related, of the costs indirectly related to the goods in question. Those costs should correspond to the period of manufacture or construction and should be necessary to put the asset in operating conditions. The 1st rule of the ICAC resolution, above mentioned, develops the criteria established in the PGC for the concepts that should be part of the acquisition price or production cost of PPE.

After its initial recognition, PPE will be valued at its acquisition price or production cost less accumulated amortization and, if it is appropriate, the cumulative amount of the valuation adjustments related to recognized impairment. The 2nd norm of ICAC resolution establishes the criteria to be followed in the subsequent valuation, in particular, to account actions on tangible assets and amortization, leaving for future resolution the accounting treatment of impairment losses.

As per IP, the 4th valuation rule of PGC only contains two lines: "The criteria contained in the previous rules relating to PPE, will be applied to IP". The 4th ICAC resolution develops a little more the rules concerning this group of assets that, despite being subjected to the same criteria of registration and valuation than PPE, have

particularities in their presentation in the balance sheet and rules to follow in case of change of classification which will involve an IP reclassified to PPE or stock, and vice-versa; change that will be defined by the function that those assets have in the business activity.

In sum, the PGC only provides one valuation model for PPE and IP: the one known as the historical cost model, which entails an asymmetric treatment of gains and losses in asset values. These assets will always be valued in the balance sheet at the lower between the cost (depreciated) and the recoverable value. The increases in value cannot be recognized.

The IASB's standards: The revaluation model

The IASB standard related to tangible assets is IAS 16 (PPE). In turn, IP is regulated in IAS 40 (Investment Properties).⁷

As has been described in the previous section, the PGC only accepts the valuation of those items using the cost model. The IASB, however, allows subsequent measurement according to both the cost model and the revaluation model, leaving it up to companies the choice to prepare its consolidated financial statements based on one model or the other.

We already know the subsequent valuation of assets according to the cost model: it is equivalent to its initial value less depreciation and impairments⁸. The cost model described in the Spanish PGC is exactly the same as that established by the IASB standards.

The IASB revaluation model is described in paragraphs 31 to 42 of IAS 16 for PPE and paragraphs 33 to 52 of IAS 40 for IP.

In sum, a company that decides to apply the revaluation model to all, or part, of its PPE, will value them at the balance sheet date at their fair value less, if it is appropriate, accumulated amortization and existing impairment. When the book value of an asset increases as a consequence of a revaluation, this increase shall be credited to an account of revaluation surplus included in equity. However, when as a

⁷ Intangible assets are regulated in IAS 38.

⁸ IAS 36 regulates impairments.

result of the revaluation the book value of the asset decreases, this reduction will be directly recognized in the profit and loss account⁹.

The revaluation model in IAS 16 is a model that is sometimes called "incomplete", given that the international regulator does not require revaluations to be made each year, but they must be made with sufficient frequency in order that the book value of the asset does not differ materially from its fair value. In contrast, in the case of IP, the revaluation model is a "full" model. If a company applies the revaluation model for its IPs, they will always appear in the Balance sheet at their fair value. Moreover, another difference with the model for PPE is that changes in fair value are all carried to the Income Statement, both increases and reductions. It is, therefore, a valuation model similar to that of financial assets held for trading.

It is clear that the international regulator understands that the revaluation model is more appropriate for IP than for PPE. In fact, the IAS 40 establishes that, if a company decides to choose the cost model to value its IP, it cannot choose the revaluation model for PPE either (IAS 40, paragraph 56).

In practice, the determination of fair value is probably the most important, expensive and complex aspect of implementation of the revaluation model. IFRS 13¹⁰ defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in a regular transaction between market participants at the measurement date". The IASB establishes the reference to an active market as the best way to determine the fair value, but it does not always exist, even more in the case of PPE and IP, which requires the application of other different estimation methods based on less objective data.

4. The Spanish balance sheet updating regulations

As has been previously explained, the PGC does not allow or the revaluation of non financial fixed assets. Only Spanish listed companies can use the revaluation model for those assets to prepare its consolidated financial statements, as these must be prepared using IASB standards. However, many Spanish companies, both listed and unlisted, report a "Revaluation surplus" within their equity. The question arising

⁹ Unless it is a reversal of a previous increase in value, in which case it should reduce the revaluation surplus previously recognized for the same asset.

¹⁰ Effective from January 1, 2013 onwards.

being what is the origin this surplus. The answer is found in the *ad hoc* tax regulations of updating and regularizing balances that with diverse periodicity have been enacted in Spain since the 60s, which companies have been able to adopt voluntarily.

There have been ten of those updating regulations issued by the different Spanish governments in the last 43 years. Table 1 shows the main features of each one.

Ortega and Díaz Moro (2013) emphasize that, despite the differences between the Spanish updating rules, in the origin of them, concepts of economic reality, the principle of economic capacity and inflationary effect always underlie.

It is important to be aware that, with the application of these updating laws, companies do not value their fixed assets at market value, but rather it means a new valuation at cost, although corrected, obtained from the application to the balance sheet elements the correction coefficients corresponding to its nature and age perfectly defined in the norm, without ever allow the application of professional judgment. The aim is to offset the effect of inflation on certain elements over time. The application of value correction formulas provided in the rules generates a new value for each element, equivalent to its acquisition price, so it must have this consideration. Accordingly, when a company decides to voluntarily adopt the revaluation laws enacted in Spain, it maintains the application of the acquisition price, without changing the accounting policy, and consequently, the principle of uniformity is not affected by the decision or not of the application of the revaluation laws. However, the company has the obligation to include in the memory, stipulated information about these facts, as is provided in the PGC and in the updating law itself. The quantitative effect of the update will have commercial and accounting consequences, as well as the fiscal effect because the future results will be modified as a consequence of higher amortizations, consumption or costs, as particular assets are valued with a valuation close to the current value, as stated in Consulta nº5 of ICAC.

Table 1. Fundamental characteristics of the Updating Balances rules issued in Spain

Regulation	Who?	Which assets?	Fiscally amortized?	Tax	Additional issues
Law 76/1961 ¹¹	Spanish and foreign companies	Assets located in Spanish territory	Yes	1.5%	It allows enter in accounting assets that do not appear on it. 3% tax
Decree 1985/1964 ¹²	As above	Fixed assets with realizable value	No	0.15%	As above 1.5% tax
Executive Order 12/1973 ¹³	Companies that apply PGC	As above	Yes	0.15%	It does not allow regularization
Law 50/1977 ¹⁴	Taxpayers of the corporation tax.	It allows enter real assets, hidden cost of assets and eliminate fictitious liabilities	Yes	No	Voluntary adjustment of fiscal situation
Law 1/1979 ¹⁵	As above	Tangible fixed assets		No	
Law 42/1979 ¹⁶	As above	Tangible fixed assets located in Spanish territory or abroad	Yes		
Law 74/1980 ¹⁷	As above	Fixed assets located in Spanish territory or abroad	No	0.15%	
Law 9/1983 ¹⁸	As above	As above		0.15%	
RDL 7/1996 ¹⁹	Taxpayers of the corporation tax	As above	No	3%	Reducing coefficient for external financing
Law 16/2012 ²⁰	As above	PPE and IP	No	5%	

¹¹ December 23, about regularization of balance sheets.

¹² July 2, approving the Restated Text of the law about regularization balances.

¹³ November 30 on conjectural measures of economic Policy.

¹⁴ November 14, on urgent measures of a fiscal reform.

¹⁵ July 19; on State Budgets.

¹⁶ December 29; (Royal Decree 861/1980 April 11).

¹⁷ December 19, on 1981 State Budgets.

¹⁸ July 13, on 1983 State Budgets.

¹⁹ June 7; (Royal Decree 2607/1996, December 20).

²⁰ 27 December, approving various tax policy measures aimed to consolidate public finances and boost economic activity.

Updating balance sheet rules have allowed both to update and to revalue balance sheets of entities with tax residence in Spain. Regularization norms allow “to include in accounting, when not included but should have been, the assets and rights representative of real assets, both fixed and current, and third party obligations; to incorporate in accounting the part of the cost of real assets, hidden at the moment of acquisition; and, to eliminate the asset accounts that, although they have no real content, appear in accounting because of accounting irregularities, such as notional liability accounts that correspond to nonexistent debts” (Law 50/1977); and the actualization norms have as main objective updating the value of fixed assets in order to reduce the inflation effects. The regularization of the fiscal situation was regulated by norms issued in 1961, 1964 and 1977, while the rest only allow updating the elements already included in the balance sheets.

As to the updating tax rate, it has differed among the different rules, from the 0.15% minimum of the 1973 norm to the 5% maximum of the last rule of 2012.

With respect to taxable entities susceptible to benefit from such laws, they have been increasingly profiled. In the first norm only “Spanish and foreign companies” were specified, while in the last norm issued it is established as taxable subjects: “companies that apply the PGC and keep accounts in accordance with the Commercial Code.”

A common feature of all these rules is the voluntary nature of their application. Each company has, therefore, to make its direct cost-benefit analysis to make the decision to adopt the actualization, which has both costs and benefits.

Among the advantages of adopting the actualization, Sanz Santolaria (1996) mentions the following:

- a) It allows presenting the balance sheet with current values, so it is closer to the objective of a real view. Some situations such as inflation or concealment of elements generate a lack of representativeness of accounting numbers. Implementing the regularization of balance sheets attempts to mitigate the effect of these problems on the financial statements.
- b) It generates more self-financing since it allows the deductible tax expense to increase because of the increase of amortizations, which are calculated

according to actualized values. Consequently, the company gets a higher payback in real terms. This point is arguable: it must be taken into consideration that for this deductibility to be really effective, the company must have enough taxable profits; and this advantage is not applicable to land because they are not amortizable.

- c) It facilitates the access to external financing for companies in terms that it increases the guarantee against third parties, which is equity and is increased as a consequence of the actualization through the surplus account that should be created, as will be detailed in the following section of the project.
- d) In the case of a large number of companies adopting the revaluation law, the comparability of accounting figures would improve. Again, this point is arguable: if some companies adopt it but others do not, the comparability of accounting information is clearly damaged.
- e) The theoretical value of the shares increases as a result of the increase in equity reserves of the company.

Apart from these advantages mentioned by Sanz Santolaria, another advantage for companies to currently consider adopting the revaluation norms is that enterprises which are in the situations referred to in Articles 363 and 327 of the LSC, that is, companies whose equity comprises half of the capital stock or, in case of public limited companies, two-thirds, the actualization of the balance sheet could help to solve this situation as a consequence of the increase of equity. However, it should be noted that if a company has such considerable losses to have led to this situation, it is hardly credible that it can address both the costs of analysis of the decision to upgrade or not its balance sheet, and in the event that the decision was positive, the updating tax.

On the other hand, the disadvantages that Sanz Santolaria comments are the following:

- a) The actualization implies to assume a fixed tax cost on the credit balance of the account "Revaluation Surplus". The company should have enough liquidity to afford this payment.
- b) The tax is not considered as a deductible item for the IS.

- c) It involves additional costs because the company will incur costs in evaluating the decision to revalue its balance sheet.
- d) The voluntary nature of this update and the irregular frequency of such a type of norms exacerbate the problems of comparing accounting information in cross section and time.
- e) The revaluation does not suppose an real additional strength to the company that updates. The company continues having the same assets but valued at a higher value.
- f) The increase of the assets can cause, for some companies, to exceed the limits established by law for the compulsory audit and present normal accounting models instead of abbreviated, which in turn would increase the costs of preparing financial information. This point is also debatable: it could be the case that a company in particular does not want to exceed those limits, but, for users of accounting information in general it is positive that companies are required to be audited, presenting in that way better quality annual accounts, so they will be more reliable to making decisions.
- g) To transfer the balance of the revaluation account to free reserves (making possible the distribution of dividends against these reserves), the company must wait for 10 years, even though the effects of the monetary surplus have already been accounted for in full or in part.

In general, the implementation of the revaluation will be attractive to companies, as long as the cost-benefit analysis involved has a positive result, both in quantitative and qualitative terms.

Hervás (2005) analyzed the reasons why companies decided to perform the update enacted in the law 7/1996. He analyzed a sample of 613 real estates whose information was available in the SABE database, 108 of which took the decision to update and the rest did not. Based on the previous literature, the author analyzed the following factors as determinants of the decision to adopt the revaluation:

- a) The potential of fiscal savings through increased fiscal deductible depreciation in subsequent years. The difficulty of quantifying this variable is highlighted.
- b) The contracting costs: measured by the company's leverage. Hervás argues that the higher the level of debt, the more possibility of default on debt agreements and, as a consequence, the higher the probability of updating, in order to reduce the leverage, which is calculated as the ratio of debt over total assets.
- c) Liquidity: the problem of underinvestment. Revaluation of assets allows an improvement in the cost of financing and, ultimately, net future cash flows. Cotter (1999), and Lyn and Peasnell (2000), among others, provide empirical evidence on the existence of an inverse relation between liquidity and the choice of updating.
- d) Political costs: proxied by firm size. Given that, as a general rule, size is associated with the political visibility of a company, the positive accounting theory argues that the bigger the firm is the more likely it tends to take measures to reduce income (Watts y Zimmerman, 1986). Larger companies are more likely to reevaluate, showing more conservative profitability information with the aim of reducing government pressure (Choi et al., 2009).
- e) Signal Theory: growth opportunities. The relatively more profitable companies will be those that can afford future profitability declines derived from the update and, conversely, relatively less profitable companies should not, a priori, impair its profitability ratio by adopting the rule.
- f) Sector. Within the estates, the author differentiates between primary, secondary and tertiary sectors. The primary and secondary sectors, due to their higher component of fixed assets, are more expected to take the decision to update.

The results of the empirical analysis carried on by Hervás confirmed his hypotheses of the relation of leverage, liquidity and the potentiality of fiscal savings

with the updating decision. However, he does not found that size and profitability were significantly related with the decision to update the balance sheet.

5. The updating balance sheet regulation included in the Law 16/2012

Given that the last revaluation norms that have been enacted are those included in the Law 16/2012, of December 27 (BOE December 28, 2012), this section is devoted to discuss them. A practical example of the application of these norms is also developed.

Within the preamble of the Law 16/2012 the objectives of the balance sheet revaluation norms are mentioned: the positive effects that it can generate in the business environment because it favors both internal funding and improves the access to capital markets.

According to Article 9.1 those eligible for the revaluation of Balances are corporate income tax payers, who when undertaking an economic activity may be affected by the effects of currency depreciation. The Article 9.2 specifies elements that might be actualized, and those are: PPE and IP located both in Spain and abroad, as well as some assets acquired under financial leasing.

Companies should update the susceptible elements, mentioned above, that appear in the first balance closed after the entry into force of the Act (December 28, 2012). Therefore, generally, companies will perform the update of the fixed assets of closed balances at December 31, 2012, even though it does not necessarily need to coincide with this date. The updates have a time limit, between the closing date of the first balance ended after the entry into force of the law, and the day that the term to approve the balance ends.

The norm prohibits the application to those operations that incorporate assets and liabilities, which are not registered in the accounts; eliminate non-existing liabilities; and fully amortize elements fiscally.

It is also important to develop the tax effects of the companies that adopt this updating law. They must satisfy a single tax of 5% on the credit balance of the account "revaluation reserve of Law 16/2012 27 December", as is defined in paragraph 8 of Article 9. The time of accrual is, for legal entities, the time when the updated balance

becomes approved by the competent authority. The single tax, which has consideration of tax liability, will be due the day that the declaration concerning the tax period to which the balance including updating operations relates. In the event that the exercise of a society coincides with the calendar year, the single tax will be due in 2014, when the annual accounts for 2013 became approved. The levy would be both reverse-charged and paid with the declaration of income tax. If a company presents it after the deadline, the update operations would be invalid.

To illustrate the process of applying these rules, a practical example is presented below²¹.

Practical example

The company AGUILELLA-RIBES has only one machine as PPE in its financial statements. The company acquired this machinery on 1 January 2007 for a price of € 750. The accounting year of the company coincides with the calendar year, so the date of its last balance is December 31, 2012. In order to calculate the accounting amortization, a useful life of 10 years with no residual value was estimated using straight-line method, giving an annual 10% amortization, thereby coinciding both the accounting and fiscal amortization stipulated on official tables²².

In January 1, 2009, the company made an improvement in the machinery with no increase in its useful life of cost € 120.

At the end of the reporting period 2012, recoverable value of the machine is € 450.

To make the decision about adopting or not the Law 16/2012 December 27, the company wants to know which would be the effect on its financial statements. Therefore, the company collects all necessary information, which is detailed bellow:

- The actualization of values will be practiced on elements susceptible to be updated appearing in the first closed balance after the entry into force of this provision. (...)*

²¹ This example is based on the example number 4.3, page 558 of Alonso and Pousa (2013).

²² The official amortization tables for tax purposes could be found in: <https://www.boe.es/buscar/pdf/2004/BOE-A-2004-14600-consolidado.pdf>.

- The amount of accounting revaluations resulting from operations will be taken to the account called: "revaluation reserve of Law 16/2012 27 December." (...)
- (...) The amount of the updating is calculated using the coefficients listed in the law as follows:

- o On the acquisition price or production cost, in response to the year of acquisition or production of the asset. The coefficient applicable to the improvements will be the corresponding to the year in which they have been made.
- o On the accounting depreciations corresponding to the acquisition price or production cost that were fiscally deductible, according to the year in which they were made.
- o In case of company machinery, the relevant coefficients are:

Year of acquisition	Coefficient
Tax year 2007	1.0781
Tax year 2008	1.0446
Tax year 2009	1.0221
Tax year 2010	1.0100
Tax year 2011	1.0100
Tax year 2012	1.0000

The application of the coefficients in the example produces the following results:

Concept	Accounting	Fiscal	Coefficient	Actualized value
Acquisition price (1/1/2007)	750	750	1.07818	808.575
2007 Amortization	(75)	(75)	1.0781	(80.8575)
2008 Amortization	(75)	(75)	1.0781	(80.8575)
2009 Improvement(*)	120	120	1.0221	122.652
2009 Amortization (**)	(88.53)	(88.53)	1.0221	(90.49)
2010 Amortization	(88.53)	(88.53)	1.0100	(89.42)
2011 Amortization	(88.53)	(88.53)	1.0100	(89.42)
2012 Amortization	(88.53)	(88.53)	1.0000	(88.53)
Actualized value	365.88	365.88		411.65

Notes:

(*)The situation of machinery once improvement has been undertaken is the following:

Acquisition price (1/1/2007)	€ 750
- Accumulated amortization until 1/1/2009	€ 161.715
+ Improvement (1/1/2009)	€ 120
ACCOUNTING VALUE	€ 708.285
Remaining useful live	8 years
New amortization installments from 2009	€ 88.53

(**) The new accounting amortization includes the amount of improvement made on 1/01/2009.

Fiscal amortization from 2009 until the end of the useful life of the machinery:

According to Article 1 of the Regulation of Corporate Tax, "(...) assets that have been subject to renewal, extension or improvement operations, will continue been amortized by the method that had been applied prior to the realization of those operations."

(...) the difference between the amounts determined by applying the provisions of the previous paragraph will be reduced in the previous net value and, over the result will be applied, as appropriate, a coefficient that will be determined by:

1°. In the numerator: equity.

2°. In the denominator: equity plus total liabilities less receivables and cash.

The determinant magnitudes of the coefficient are those that company has had during the holding period of the asset or during the previous five years prior to the date of updating balance sheet if this lower, leaving the choice to the taxpayer.

This coefficient will not be applied when it is higher than 0.4 (...).”

Following the example, the difference between the net actualized value and the previous net value is:

Net actualized value	€ 411.65
Previous net value	€ 365.88
Difference	€ 45.77

This difference is the amount of currency depreciation or net increase in value of the updated asset. This amount will be credited to the account “revaluation reserve of Law 16/2012, 27 December.”

In the case of our society, these are the data presented in its balance sheet since the machine was acquired:

	2007	2008	2009	2010	2011	2012	Average holding period	Average of the five years prior to 1/1/2013
Total liabilities	340	480	460	500	440	480	450	472
Receivables	40	30	50	60	30	30	40	40
Cash	10	12	8	4	6	8	8	7.6
Equity	80	300	260	280	300	310	255	290

With the previous data, the coefficient detailed above is calculated with the two mentioned approaches:

- Depending on the holding period of the asset:

$$\frac{\text{Equity}}{\text{Equity} + \text{Total liabilities} - \text{Receivables} - \text{Cash}} = \frac{255}{255 + 450 - 40 - 8} = 0.3881 < 0.4$$

- Depending on the 5 years prior to the current date:

$$\frac{\text{Equity}}{\text{Equity} + \text{Total liabilities} - \text{Receivables} - \text{Cash}} = \frac{290}{290 + 472 - 40 - 7.6} = 0.4059 > 0.4$$

If the company aims, as the example establishes, to revalue the maximum possible amount, it will opt to use the coefficient corresponding for the previous five years to the date of the updating balance, because, as it exceeds 0.4, it will not be applied. Therefore, the revalued amount is 45.77.

The accounting recording is as follows:

	DEBIT	CREDIT
Machinery	45.77	
Revaluation reserve of Law 16/2012, 27 December		45.77

(...) the new actualized value cannot exceed the market value of the actualized element, taking into consideration its use status based on the technical and economic wear and its use by the taxpayer. (...)

The market value of the machine at the closing date of the balance sheet is €450, less than the present value calculated above, amounting to €411.65.

(...) Taxpayers that adopt the actualization will have to pay a 5% once only tax on the credit balance of the account “revaluation reserve of Law 16/2012, 27 December.”

The 5% tax, in the example, will be applied on €54.77. The tax liability is recorded as follows:

	DEBIT	CREDIT
Revaluation reserve of Law 16/2012, 27 December	2.29	
Tax payable for tax reasons (45.77*5%)		2.29

6. Is the *ad hoc* update of the balance sheet compatible with the PGC and the IASB models?

In light of the above exposition, it can be deduced that in Spain, groups of companies with listed securities have two different options for updating the value of their fixed assets: in their consolidated statements, according to IAS, companies have the opportunity to adopt the revaluation model of IAS 16 and/or IAS 40; and in their individual statements, which necessarily must be prepared in accordance with the PGC (and serve as the basis to calculate the corporation tax), they can adopt the *ad hoc* updating laws.

The question of whether these fiscal revaluation laws are compatible with the accounting regulations arises.

In the “Consulta núm.5 del BOICAC 92”, December 2012, there are some clarifications regarding the compatibility of the latest updating law, described above, and the existing regulatory framework (see Ortega and Díaz Moro (2013) for a discussion).

The actualization laws are totally compatible with the cost model required by the Spanish PGC. Given that with the actualization the company obtains a new value of the assets, which is comparable to the acquisition price or the production cost, so it is considered as such. When a company adopts an *ad hoc* actualization law in its individual statements, it maintains the principle of acquisition price that Spanish law requires.

However, can a Spanish group listed on a stock market of a Member State adopt the revaluation laws enacted by the Spanish government in their individual statements and prepare its consolidated statements according with IAS as the law establishes, containing, the corresponding “revaluation surplus” of its consolidated statements?

According to ICAC the answer to this question is no. Revaluation laws issued by the Spanish government do not seem compatible with the IASB regulations adopted by the EU. International standards, as mentioned before, contemplate the revaluation model in IAS 16 and 40 concerning PPE and IP respectively. Those standards include the possibility to value those assets according to their fair value. The incompatibility arises since IASB standards require actualizing the PPE with a determinate frequency (IAS 16), and IAS 40 requires doing the actualization of IP every year. This is not

compatible with the updating laws issued in Spain. Moreover, the ad hoc Spanish updating regulations do not necessarily result into the fair value valuation of the updated assets. The application of the coefficients established in the law basically corrects the assets' value for the inflation effects, but do not have into consideration other fluctuations of asset prices. Consequently, the updated values do not comply with the fair value definition of IFRS 13.

As a consequence of this incompatibility, when a company prepared its consolidated statements in accordance with IASB standards, if any of the societies that form its group had adopted an actualization based on ad hoc laws and, therefore, incorporated the corresponding "Revaluation Surplus" in its equity, the group would have to undo the update to prepare the consolidated financial statements. In other words, the updating practiced must be undone because there is no place for it under international accounting standards.

7. The choice of revaluating non-financial fixed assets

In the previous sections of the project, the two valuation alternatives for non-financial fixed assets have been explained. The accounting revaluation model, such as the one developed by the IASB standards, is allowed only in some jurisdictions and always as an explicit option, that is, the company can decide to apply it or not. In this context, some questions arise, which a number of previous studies have analyzed, providing us with some conclusions that help to better understand the decision to revalue, their causes and their potential consequences. In this section, without intending to be exhaustive, the evidence provided in the literature on the decision to revalue the elements of the balance is reviewed. Subsequently, the results of the descriptive analysis on the decision to revalue carried out by the Ibex-35 companies are shown.

7.1 Previous literature on the decision to revalue fixed assets

One of the questions that arises, in the context of accounting choice allowed by accounting regulations in some countries, regarding the revaluation of fixed assets is: **to what extent do companies choose to revalue?** Information on the use of the allowed accounting option could be of help to both the users of the financial statements and the accounting standard setters. Table 2 shows the answer to this question given by a few representative studies carried out in different contexts.

Table 2. The extent of fixed assets revaluation

Paper	Sample / country	% Firms revaluating fixed assets
Dahl and Nyman (2012)	NASDAQ OMX Stockholm 30 companies. Sweden.	3.33%
Diehl (2010)	companies listed in the premier segment of ten Scandinavian and Baltic stock exchanges	Baltic: every industry had at least one company Scandinavia: only a few companies in the financial industry applied fair value.
Aboody et al (1999)	11,319 Industrial commercial firms from UK.	58.9%
Barth and Clinch (1998)	Australian companies	45%

In some countries, fixed assets revaluation is very infrequent. Dahl and Nyman (2012) analyzed the choice of fair value model from a sample of Swedish firms: those that form the NASDAQ OMX Stockholm 30. Only one chose the fair value method offered by IAS 16. Diehl (2010) did a study of the premier segment of ten Scandinavian and Baltic stock exchanges. The results of his project were that, while in the Baltic, one company of each sector chose to use the fair value in their financial statements; in Scandinavia, only a small number of companies, with activities in the financial sector, chose this option.

In contrast, there is evidence that revaluation is a common practice in other countries, such as UK and Australia. Aboody et al (1999) analyzed a sample of UK companies and conclude that: “upward revaluations are common in the UK, 6,633 of the possible 11,319 firm-year observations, 58.9%, have a non zero revaluation balance. These revaluations are associated with 738 firms. Although revaluations are not evenly distributed across industries, all but one of 32 DI industry classifications have at least one observation with a non zero revaluation balance.” Barth and Clinch (1998) report that “that 45% of Australian companies revalued property, plant and equipment in the period 1991–1995”.

Therefore, the updating of balances is not a common practice in all countries, and even in those where it is, not the majority of the companies choose to evaluate. In view of these results some questions arise: If this practice is not used globally, which is the reason why it is included in IASB model? If the regulator wants it to be adopted by companies, should it be mandatory and not an option, especially for investment

properties? Who benefits from the existence of this accounting option? How does it affect the characteristics of useful financial information? It could be argued that, companies get more benefits from the existence of the option than accounting information users. This is because companies have the option to decide updating their balances or not, and they have incentives other than presenting their true and fair view, that may influence this decision. Moreover, the fact that companies can choose to upgrade or not, results in a lower comparability of financial statements, which is prejudicial to users.

Another issue of interest is: **What are the characteristics of companies that revalue?** Behind this question **lies a second one: what is the motivation underlying the decision to revalue**

There are some different reasons to revalue on which the literature has provided empirical evidence. We focus on two papers within this research line to provide an overall idea on the factors that might determine the revaluation decision: Missionier-Piera (2007) and Seng and Su (2010).

Missionier-Piera carried out an empirical study on the determinants of the revaluation decision by a group of Swiss companies. He identifies in prior literature the following factors as determinants of the revaluation decision: 1) violations of debt covenants, restricting debt levels, while improving the firm's ability to obtain new loans because the firm can report a lower debt ratio as a result of its higher asset value. Prior studies in Australia, the UK, and Hong Kong had found that these factors are related to the revaluation decision; 2) Another reason is the attempt to dissuade hostile takeover bids because, after the update, the company shows a book value into line with the fair value of its assets, thus reducing the probability of a successful under-value; 3) Another highlight point is that, through the increase of ROA and ROE allowed by the updating, companies assume lower political costs.

Seng and Su (2010) described the potential benefits of updating the fixed assets of the company through previous researches that other authors had previously done. Those are: "reduced debt contracting costs, the decreased profit and therefore lessened political attention, and the reduced information asymmetry regarding future prospects of the firm."

Finally, there is a last main question that literature on asset revaluation has been interested in, such as **what is the economic impact of the revaluation?** That is, **how users of the accounting information react to the decision of firms to revalue?** Regarding these questions, literature has mainly analyzed the relation between the revaluation of fixed assets and stock returns. This line of research focuses on contexts in which the revaluation of fixed assets is common practice, such as in the UK and Australia. Aboody et al (1999) hypothesized and found that "...upward revaluations of fixed assets by UK firms are significantly positively related to changes in future performance, measured by operating income and cash from operations, indicating revaluations reflect asset value changes." Sharpe and Walker (1975) analyzed a sample of large Australian public companies, which announced upward assets revaluations during the period 1960-1970. The main conclusion of their analysis was that: "an announcement of a revaluation of assets was accompanied, on average, by a cumulative average increase in return of about 18% or 19% above than expected from the general state of the stock market."

7.2 The choice to revalue by the Ibex-35 companies

In order to know the extent of the revaluation of fixed assets in Spain, an analysis of the revaluation decision in a sample of Spanish companies has been undertaken. In particular, the sample includes the listed companies that, at December 31, 2013, were part of the Ibex-35, the largest companies in the Spanish stock market²³. The financial statements²⁴ of these companies corresponding to the years 2012-2013 were examined and information on their accounting policies was collected. For comparative purposes, it was also necessary to collect information of these companies of years 1996-1997, where the previous balance sheet updating regulation was applied.

As mentioned in previous sections, Spanish listed companies have two options for the revaluation of their non-financial fixed assets: the pure accounting one in its consolidated financial statements, which must be prepared according to IASB standards; and the one derived from the fiscal regulations, which has impact on their individual financial statements and must be prepared in accordance with the PGC. Information on both decisions was collected.

²³ The necessary information of these entities is known, except for "Arcelomittal", for which it has not been possible to find the financial statements.

²⁴ All the Annual Financial Statements have been downloaded from the CNMV webpage.

Consolidated Statements: The IASB revaluation model choice

The results derived from the analysis of the data collected show that only one of the 34 companies in the Ibex-35 with available information mentioned that the revaluation model is chosen for some fixed asset: Banco Popular. This company explains in its notes to financial statements that it values all its tangible assets according to the cost model, except for two properties where the revaluation model is applied. The type of assets revalued, properties, is not surprising given that these are the type of elements that make more sense to apply the revaluation model.

Clearly, using the revaluation model of fixed assets allowed by the IASB standards is not a common practice among Spanish companies, quite the opposite. The results are not surprising if we compare them with previous studies carried on in other European countries, like Sweden, as shown in the previous section. However, the Spanish case is particularly significant: it could be said that the revaluation choice rate is practically zero in the analyzed sample. In view of this result, a number of questions arise: Why is the rate of choice of option to revalue so low? What are the differences between the Spanish context and others, such as the UK, where revaluation of fixed assets is more common? Without any claim to exhaustiveness, two general answers to these questions could raise: the accounting tradition and the type of accounting information that users demand could be two of the factors underlying these differences. Regarding to accounting tradition, Christensen and Nikolaev (2013) claim that “the UK have different traditions for asset valuations than other EU countries. The differences in its accounting traditions are due to institutional differences in economic, governance, and the legal system. The UK’s accounting practices have historically developed separately from tax accounting.” That is something completely different in Spain, where the degree of book-tax conformity is high, as occurs in other continental European countries. On the other hand, in Spain, the users of accounting information give more importance to the reliability than to the relevance, and the opposite occurs with UK users. Accordingly, Spanish companies prefer to use the cost model above the revaluation model, which enhances reliability instead of relevance.

Individual Statements: The *ad hoc* revaluation decision

The second way for Spanish companies to update the value of their non-financial fixed assets is through the updating laws, although, as mentioned previously, this ad

hoc update does not seem to be compatible with the IASB standards and should be undone in the consolidated accounts.

The last voluntary balance sheet updating law eligible for Spanish companies is the one established in the Law 16/2012. This law stated that companies should indicate their intention to adopt the revaluation in their 2012 financial statements, even though it would have an effect on the 2013 financial statements. Table 3 collects the information on the choice made in this regard by the 34 companies in the sample. If a company does not mention in its 2012 financial statements that it adopts the revaluation option, it is assumed that it does not, although this has been checked in the 2013 financial statements²⁵.

For comparative purposes, Table 3 also includes information on the choice that the company made in the previous updating regulation, the Law 7/1996. In this case, the sample was reduced to 27 companies, because 7 of the previous 34 companies either were not quoted companies in 1996²⁶, or they did not already exist in that year²⁷, or there is no available data for that period²⁸.

²⁵ Some companies, such as Telefónica or Enagás, indicate in their 2012 Financial Statements Report that they are considering the advantages of adopting the updating law 16/2012, which, at first, makes one think they will adopt it. However, when consulting the 2013 financial statements, the year that this update should appear, it is verified that the updating has not finally been carried out, thereby demonstrating that, after cost-benefit analysis of balance updating, the result for these companies has been contrary to revalue.

²⁶ "Amadeus", a company that was created in 1987 but it was included in the Ibex-35 on December 9, 2010.

²⁷ That is the case of "Bankia", created in 2010; "BME", established 2007; "Caixabank", created in January, 2011; "Ebrofoods", established in 2000 as a result of the merger of "Azucarera Ebro Agrícolas" and "Puleva"; "IAG", was created in January, 2011 and is the parent company of "British Airways", "Iberia" and "Vueling"; and "Jazztel", founded in 1998. This information has been collected from the webpage of each company.

²⁸ It is known that Ferrovial adopted the 1996 revaluation, but financial data for this period is not available, so in the subsequent analysis this company will not be considered.

Table 3. The decision of Ibex-35 companies to adopt the balance sheet revaluations in 2012 and 1996

Company	Balance sheet updating choice	
	1996	2012
GAMESA	NO	NO
ACCIONA		
MAPFRE		
ABERTIS		
BANCO POPULAR		
ACS		
SACYR		
FCC		
TÉCNICAS REUNIDAS		
BANKINTER		
DIA		
INDRA		
GRIFOLS		
MEDIASET		
BANCO SABADELL	YES	NO
GAS NATURAL		
TELEFÓNICA		
ENAGAS		
VISCOFAN		
SANTANDER		
OHL		
BBVA		
FERROVIAL		
IBERDROLA		
AMADEUS	N.A.	NO
BANKIA		
BME		
CAIXABANK		
EBRO FOODS		
IAG		
JAZZTEL		
INDITEX	NO	YES
R.E.C.		
REPSOL	YES	

The proportion of companies that adopted the revaluation in 2012 is much lower than that in 1996. In 2012, only 3 of the 34 companies (8.8%) decided to update their individual balance sheets while in 1996 there were 11 of the 27 companies for which there is available information (40.74%). We further observe that there are 10 companies that adopted revaluation in 1996 and did not in 2012, 2 companies that

updated in 2012 and did not in 1996, and only one company, Repsol, adopted both updating laws. Probably the higher tax charge of the last regulation is one of the main reasons for this difference.

Granted that the sample is very small and does not allow carrying on a rigorous statistical analysis, hereafter some characteristics of the sampled firms, relating to the decision to upgrade their balance sheets, are analyzed, in order to obtain preliminary evidence that could be the basis for future investigations in this line.

For subgroups according to the decision whether to upgrade or not in 1996 and 2012, Table 4 presents the number of observations (N); the median values²⁹ of the following variables: logarithm of total assets (*Log_TA*), as a proxy of size; return on assets (*ROA*), calculated as profit before tax over average total assets; and the debt ratio (*Leverage*), calculated as total liabilities over total assets. In panel A, the information has been grouped according with the decision of companies concerning the two updating laws, while in panel B, the information of the two time periods has been pooled and the groups consist of 13 companies that actualized their balance sheets (10 in 1996 and 3 in 2012) and 47 that did not (16 in 1996 and 31 in 2012).

The financial information of the companies was obtained from the SABI database. Given that the updating has effects on the individual financial statements, we have worked with those accounts. The financial indicators considered are calculated prior to the accounting of the corresponding update, because the objective is to analyze the characteristics of the firms at the moment of making the decision and not those after the decision is already made.

In Table 4 the values of z-statistics of the nonparametric U test of Mann-Whitney to compare the corresponding variables in the revaluation and non revaluation groups are also shown. The null-hypothesis of this test is that the two subsamples compared, in this case the companies that reevaluate and those that do not, come from identical populations. If the null-hypothesis is rejected, it is assumed that there are significant differences between the two subgroups in the corresponding variable.

²⁹ In this analysis, the median has been used instead of the mean, because it is less sensitive to extreme values.

Table 4. Companies' characteristics depending on the decision to update in 1996 and 2012

Panel A: Analysis of the data of each actualization						
	Updating Law 7/1996			Updating Law 16/2012		
	Yes	No	Mann-Whitney	Yes	No	Mann-Whitney
<i>N</i>	10	16		3	31	
<i>Log_TA</i> ³⁰	8.90	6.46	-2.42**	8.61	8.72	0.15
<i>ROA</i>	5.0%	4.5%	-0.21	24.1%	2.7%	-1.73*
<i>Leverage</i>	55.9%	72.2%	0.00	22.7%	68.8%	2.03**
Panel B: Data pool						
	Actualization					
	Yes	No	Mann-Whitney			
<i>N</i>	13	47				
<i>Log_TA</i>	8.63	7.95	-0.87			
<i>ROA</i>	5.1%	3.7%	-1.70*			
<i>Leverage</i>	49.9%	70.4%	1.19			

The results of panel A provide the following evidence:

- Companies that revalued in 1996 were significantly larger than companies that did not. In 2012, there were no significant size differences observed between both subgroups.
- In both periods, companies that revalued had higher profitability than those that chose not to, though the difference was only significant in 2012.
- In both periods, companies adopting the updating laws had lower leverage, although, again, the difference was only statistically significant in 2012. This result, although would need a more rigorous multivariate analysis to be confirmed, suggests that in Spanish companies, real incentives have more weight than reporting incentives in the revaluation decision making. That is, a reporting incentive for a company to reevaluate could be to present a lower leverage ratio, so, accordingly, the more indebted firms would be those that actualize their balance sheets. However, we observe that the lower indebted companies are the ones that actualize their balance sheets, which suggests that those are the companies that can afford the updating tax more easily than the more indebted companies, which prefer to avoid that fixed payment, in order not to worsen their solvency situation.

³⁰ The variable "Total Assets 1996" has been included on the analysis because variable "Total Assets 2012" includes the amount of revaluation that companies carried out in 1996 (if they did).

The results of panel B provide are pretty much consistent with those reported in panel A:

- Companies that reevaluate are larger than companies that do not, though differences are not statistically significant;
- Revaluating companies have a significantly higher *ROA* than companies that do not reevaluate.
- Finally companies that revalue present a lower leverage ratio, even though this difference is not statistically significant.

The analysis presented in Table 4 compares the characteristics of firms that reevaluate and those who do not reevaluate at the same moment of time, it is a cross-sectional analysis. Given that companies had the choice to adopt asset revaluations in 1996 and 2012, there is information available about the revaluation decision for the same companies over time. Exploiting the temporal dimension of the sample might also allow to obtain some conclusions on how the different factors analyzed affect the decision to update the balance sheet values. That is the objective of the analysis reported in Table 5, where we only include firms whose decision to update their balances has been different in 1996 and 2012, and for which there are available financial economic data at both points of time. This sub-sample is composed of 11 companies, of which 9 are companies that revalued in 1996 and did not in 2012³¹ and the remaining (2 companies) are companies that revalued in 2012 but did not in 1996. For each company, its *ROA* and Leverage in the period in which it decided to upgrade and in which it did not are presented. That is, for those companies that updated in 1996 and did not in 2012, for example, in the first column (*ROA* Year Revaluation) *ROA* 1996 is shown and in the second (*ROA* Year No Revaluation) *ROA* 2012 is shown, and vice versa. The average of the indicators at both time points, together with statistical T-Test for comparison of means in paired samples, are shown in the last lines of the table; and also the median at both points of time, together with the z statistic corresponding to the Wilcoxon Signed Rank test. Rejecting the null-hypothesis of these tests means accepting that there are significant differences in the level of profitability and / or leverage between the moment of time when a company decides to upgrade or not.

³¹ Ferrovial is excluded because there is no financial data available.

The evidence presented in Table 5 is consistent with the cross-sectional analysis. In 8 (3) of the 11 companies, the profitability is higher (lower) in the period in which they decide to revalue; while in 6 (5) of the 11 companies the level of debt in the year in which they revalue is lower (higher). When companies decide to update their balance sheets they are, on average, more profitable and less indebted. However, the differences were only statistically significant (residually) in the case the performance indicator (*ROA*).

Overall, although some preliminary insights can be obtained from the analysis carried on, we are conscious that no valid conclusions can be drawn about the effect of the analyzed factors on the decision to revalue. The analysis was carried out on a very limited sample and at the univariate level.

Table 5. Characteristics of firms that revalued in 1996 and did not in 2012 and vice versa

Company	ROA		LEVERAGE	
	Rev. year	No Rev. year	Rev. year	No Rev. year
Media	8.79%	4.45%	59.63%	66.30%
Paired T-Test (one tile)	1.54*		-1.28	
Medium	5.10%	5.02%	54.55%	65.77%
Wilcoxon Signed Rank test	1.33		-1.07	

In addition to the analysis provided in Tables 4 and 5, a search for qualitative information, company by company, was also carried out, in order to investigate the particular reasons given by them to adopt or not the 2012 revaluation. The information provided by companies in this regard is scarce. Some details of interest that emerge are:

- Viscofan, did not adopt the law 16/2012 to update its balance sheet, although it updated its assets adopting the Navarra Regional Law 21/2012, incorporating a revaluation reserve of €7 million (1.54% of its assets).
- Another company that decided to update its balance sheet in 1996 and did not in 2012 is Banco Santander SA, a company in which the 1996 updating represented only a 0.01561% of its total assets.

The financial statements closed at December 31, 2013 indicates that, during this year, the company made structural changes, such as the merger by absorption of “Banco Español de Crédito” and “Banco Banif”, among others. This led to an "exceptional" expense for the company that had, possibly, made it more difficult to afford the payment of the updating tax. Moreover, the set of assets incorporated in its balance as a result of these absorptions should appear at their present value, which may be another reason why this entity decided not to update its assets in 2012.

- Regarding IBERDROLA, SA, in its 2013 Management Report, the company claimed: “At the end of 2013, the Electricity Sector Law 24/2013 (December 26) was published. It included the new regulatory framework, which applies from January 1, 2014. This law nullifies the extraordinary credit of €2,200 million and eliminates the 50% extra-cost extra-peninsular funding in the State Budget.” (Iberdrola SA Management Report, 2013, paragraph 2). This reduction in credit offered by the State could have generated significant cash flow difficulties and have been one of the particular reasons why this company did not contemplate the option of adopting the revaluation law, thereby avoiding the fixed payment of the updating tax.

Finally, the three companies that decided to update their balance sheets in accordance with law 16/2012 are briefly analyzed: Repsol, R.E.C., and Inditex. Table 6 shows the *ROA*, *Leverage* and the percentage the revaluation reserve represents over total assets for these companies. The first two did not revalue in 1996, and presented both a higher *ROA* and a lower leverage ratio in 2012. Repsol, which adopted the two updating laws, presented in 2012 a lower *ROA* and was less leveraged than in 1996.

Table 6. Characteristics of Ibex-35 companies that adopted the law 16/2012

Company	Rev96?	ROA		LEVERAGE		% RS over TA	
		1996	2012	1996	2012	1996	2012
INDITEX	NO	8,01%	29,15%	61,23%	49,94%	n.a.	0.80%
R.E.C.	NO	6,22%	24,10%	53,85%	8,00%	n.a.	0.30%
REPSOL	SI	7,94%	1,33%	45,32%	22,66%	0,06%	0.13%

The three companies of the Ibex35 that decided to update their balances in 2012 do not seem to have much in common: each one belongs to a different sector of activity and the volume of asset differs significantly among them.

Although some interesting insights might be obtained from the descriptive analysis carried on, a more rigorous analysis using an extended sample of both listed and non listed companies and considering the effect of different factors at the same time should be performed in order to better understand the motives underlying the revaluation decision in Spain.

8. Conclusions

The Spanish local accounting standards has never allowed companies to value their assets at fair value. Similar to other jurisdictions, like US GAAP, the PGC only accepts the traditional historical cost model. However, in 2002, the EU adopted the standards of the IASB through the issue of Regulations. The first of those was the Regulation 1606/2002, it was established the obligation to develop the consolidated financial statements of groups of companies with securities listed on a regulated market of any member country in accordance with international standards adopted by the EU. This requirement became effective for fiscal years beginning on or after January 1, 2005.

Accordingly, the individual statements of listed Spanish companies and both individual and consolidated of unlisted should prepare their financial statements in accordance with the PGC (using only the cost model). Nevertheless, those companies had the option to actualize their balance sheets according to the updating laws that, over the past 40 years have been issued by Spanish governments. Those updating

laws allow a fiscal actualization, but the new value should be considered as a acquisition price. Companies do not actualize their balance sheets at market value.

The analysis that has been carried out in this project does not allow drawing rigorous conclusions, but it can be seen that the Spanish companies are not likely to upgrade their assets: with respect to the IASB revaluation model, there is only 1, of the 34 Ibex-35 companies forming the sample, that applies this model to prepare its financial statements. On the other hand, the adoption of updating laws is as follows: 10 out of 26 companies updated in 1996 (38.46%), while 3 out of 34 (8.82%) updated in 2012. The higher updating rate in 1996 is notable. Two variables could give an explanation: the lower updating tax contemplated in Law 7/1996 (3%) against a 5% in Law 16/2012; and the economic global crisis, which has reduced, in general terms, the liquidity of companies, making it more difficult to afford the payment of the updating tax. In addition, those percentages are lower compared with other countries where the actualization of balance sheets is a common practice, such as the UK. In this country, the accounting tradition is much more important than the one that exists in Spain, and the accounting information users give more importance to the relevance of reliability (which is achieved through the use of fair value), the opposite of what happens in our country.

As the analysis in the previous sections concludes: the companies that actualize their balance sheets are, significantly, more profitable and have less indebtedness. This suggests that real incentives could have more weight than the reporting incentives in the decision to revalue.

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