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Accounting – Profession vs. Science

SUMMARY: Defining accounting as a scientific field has been a matter of controversy. This paper is intended to describe the scientific grounds of accounting by way of analysing the International Financial Reporting Standards system. We compare T. S. Kuhn's theory of scientific philosophy with the regulations and evolution of the selected reporting system. We conclude that the elements of the disciplinary matrix of accounting are prescribed by the Framework and by the specific problem-solving methods associated with the standards. Over the last few decades, the economy has been subject to fundamental changes that have tested the resilience of any accounting system. These challenges to the paradigm have launched a series of shifts in the field of international accounting, which correspond to the steps of scientific revolutions described by Kuhn. At present, standard setters are focused on renewing the reporting paradigm and formulating globally relevant standards.

KEYWORDS: international financial reporting, disciplinary matrix, scientific revolutions.

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Defining accounting as a scientific field is not self-evident to everyone. Some view accounting as a practical activity aimed at creating a report that describes the financial, income and earnings position of an economic entity. However, the methodology providing the framework for financial reporting inevitably relies on scientific research, given that its subject – the assets and the business activity of economic agents – is subject to continuous change, which the methods describing them are bound to follow. Accordingly, the definition of accounting should include both science and practice.

According to *Sterling* (1975), the most important question is how one defines accounting. The definition he quotes includes the word “art”. This definition is based on the argument that no trend can be called scientific unless it relies on eternal laws and absolute truths and obviously, accounting does

not fit the bill. *Sterling*, however, points out that scientific claims are not infallible truths but generalisations which must be put to test continuously. Other disciplines also involve changes, uncertainties and unresolved issues; this is no reason in and of itself to exclude accounting from this category:

“There is nothing intrinsically unscientific about accounting; our approach is unscientific” (*Sterling*, 1975, p. 29).

We examine the scientific grounds of accounting along the lines of *Thomas S. Kuhn's* work, “The Structure of Scientific Revolutions”, which describes the possible foundations of specific scientific disciplines and the steps that accompany scientific progress. International literature includes a number of studies linking accounting to Kuhn's theory of scientific philosophy (*Schiehl et al.*, 2007; *Shortridge – Smith*, 2009; *Wells*, 1976); these, however, are analyses of the scientific grounds and evolution of the accounting system applied in the United States. This study is intended to compare

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Kuhn's theory to the bases and evolution of the most broadly applied international accounting standards of our time, the International Financial Reporting Standards (IFRS). First, we identify the elements of the so-called disciplinary matrix within the set of rules established by the International Financial Reporting Standards; secondly, we discuss the stages of scientific revolutions by focusing on one of the biggest challenges faced by the accounting profession: the subject of new asset types (intangible assets and financial instruments). Our goal is to demonstrate, by examining a specific reporting system, that accounting is based on scientific grounds and that the stages of its evolution are similar to those of natural sciences.

THE SCIENTIFIC GROUNDS OF ACCOUNTING

Thomas (1981) presents several approaches describing accounting as a scientific field. One such approach claims that accounting is a social institution and a regulatory system that satisfies human needs. From this aspect, we may view accounting as a normative science, which defines how professionals should perform their work in order to ensure a suitably efficient way of satisfying social needs. According to a different logic, the branch of accounting that functions as a positive science is focused on describing, explaining and forecasting for the users of financial reports, and evaluating the social and economic effects of the application of bookkeeping methods. Indeed, Thomas even links the two approaches: *"Selecting the best bookkeeping methods is a result of human decisions, which fall outside the realm of science. In order to make those decisions, however, one must forecast their consequences, which presumes the existence of a positive accounting science"* (Thomas, 1981, p. 550).

Thus, it is worth examining the scientific grounds of accounting. As regards theories of scientific philosophy, the names of Kuhn and Popper should be mentioned – two authors formulating contrasting opinions: *"while science is a 'permanent revolution' to Popper, with judgment constituting the essence of any scientific pursuit, Kuhn looks at revolution as an anomaly that does not even belong to science"* (Lakatos, 1997, page 20). For the rest of our paper we proceed with our analysis along the lines of Kuhn's theory. As it is outside of the scope of our paper, we refrain from contrasting different theories of scientific philosophy in respect of accounting, which could be a topic for further research.

Upon examining the scientific framework in the context of which accounting professionals perform their activities, we can identify the elements of the disciplinary matrix outlined by Kuhn. According to Kuhn, this matrix is *"disciplinary because it refers to the common possession of the practitioners of a particular discipline; matrix, because it is composed of ordered elements of various sorts, each requiring further specification"* (Kuhn, 2002, page 187). The matrix is made up of the following elements:

- symbolic generalisations;
- preferred metaphors or models;
- values;
- exemplary problem solutions (Kuhn, 2002).

■ Kuhn holds that *symbolic generalisations* are "those expressions, deployed without question or dissent by members of a scientific community, which can readily be cast into a logical form" (Kuhn, 2002, p. 187). Capturing Kuhn's disciplinary matrix in accounting thought is the subject of Wells' 1976 article, in which the author classifies, among other things, the basic equations of double-entry bookkeeping, the classification of fixed assets, current assets and the calculation method of the debt/equity ratio as symbolic generalisations (Wells, 1976).

The IFRS standards are issued by an international standard-setting organisation, the International Accounting Standards Board (IASB). The objective of the IASB is to establish a globally valid, high quality and easy-to-use set of rules. The standards are currently applied in more than a hundred countries worldwide, and since 2005 it has been mandatory for listed companies in the European Union to prepare consolidated reports in accordance with the IFRS. In addition to the standards, a document entitled “Framework” has been drawn up with a view to clarifying basic concepts. The Framework constitutes a theoretical basis for those applying the standards, and facilitates consistent interpretation by providing a description of the most important concepts, procedures and methods. As such, the document describes the terms generally accepted and treated consistently by accounting professionals during the preparation of financial reports; in other words, it contains the symbolic generalisations of the IFRS, including the elements of financial statements: assets, liabilities, capital, revenues and expenditures.

■ *Preferred metaphors*, i.e. beliefs in particular models, constitute the next element of the disciplinary matrix (Kuhn, 2002, p. 188). According to Wells (1976), concepts belonging to this category include the principles of commensurability, revenue recognition and going-concerns, as well as cost-based asset measurement. Owing to the comparability requirement of reports, the definition of the applied principles is essential in all accounting systems. In the IFRS the Framework describes the basic underlying principles of reporting, and contains the definition of the objective of financial statements, the clarification of accrual accounting and cash accounting, and the recognition and measurement criteria associated with the elements of financial

statements. The latter elements are not easy to formulate; they are complex models and rules which qualify as preferred metaphors (models) in the disciplinary matrix.

■ *Values*, which contribute to creating a sense of community, constitute the third element of the disciplinary matrix (Kuhn, 2002, p. 190). In this context, Wells emphasises the principles of prudence, consistency and relevance. In the IFRS system the Framework describes the qualitative characteristics to be followed when preparing financial statements. The so-called fundamental qualitative characteristics—relevance and fair presentation—are of key importance. The following qualitative characteristics have a supplementary, supporting role: comparability, verifiability, timeliness and understandability.

■ The first three elements, however, do not suffice to establish a coherent framework on their own; they must be accompanied by specific, practical problem solutions to facilitate the enforcement of the symbolic generalisations, preferred metaphors (models) and values of accounting. In keeping with Kuhn’s (2002) terminology, we call these *exemplary problem solutions*, which can originate from a great number of sources such as training, practical application, articles and studies or even simple question and answer exercises. This constituent of the disciplinary matrix is not mandatory; it does not apply to everyone and cannot necessarily be generalised; indeed, its special trait is precisely its ability to incorporate specific problem solutions into the logic of the disciplinary matrix. There is a need for exemplars partly because even though it is possible to lay down generally accepted rules that are easy to standardise from a number of perspectives, stakeholders (i.e. those taking them into consideration) can be extremely different.

The accounting policy of entities can be viewed as such an exemplar; its provisions reflect the uniqueness and heterogeneity of entities in

such a way that the three common elements accepted by the professional community (as discussed above) remain compatible with each other. The standards themselves follow this logic in the sense that annexes, practical field manuals or examples are attached to them. The purpose of these publications is to prevent exemplars from becoming a confusing stockpile of accumulated items; instead, they should be used as a tool to create a logic conducive to resolving specific problems. While depreciation write-off is a generally accepted, mandatory concept, its specific definition gives rise to an exemplar. While the elements of financial statements (assets, liabilities, etc.) are symbolic generalisations of the Framework, their presentation in financial statements becomes an exemplar as there is no single paradigm uniformly applicable by all. The fourth element of the disciplinary matrix deserves more attention than the rest for the following reason: while general, theoretical rules are integrated into the logic of the professional community and can be considered, therefore, as relatively permanent (thus potential changes in these elements are often difficult to accept as old habits die hard), practice constantly brings new sets of problems to the surface. We may also include the different representations of creative accounting in this category, as in many cases it is creativity itself that becomes the source of exemplars.

Similarly to most applied accounting definitions, the disciplinary matrix reflects the duality of theory and practice. While the first three elements describe the theoretical scientific fundamentals, the fourth element – exemplars – explain the relevant specific problem solving methods. In fact, those excluding accounting from the realm of science disregard the first three elements of the disciplinary matrix, and identify accounting merely with practical activity. As regards reporting standards, standard setters are responsible for establishing the

first three elements. The creation of exemplars remains the duty of the accounting profession and they come into being during the execution of firms' bookkeeping tasks, accounting training and activities organised by professional organisations. Thus we may look at standard setters as a type of scientific workshop and firms as an arena where established theories and regulations are being tested and where one can observe how standards perform in practice. The operation of the scientific workshop requires the understanding of practical problems. In developing regulations, the International Accounting Standards Board (IASB) attaches great importance to understanding the fourth element of the disciplinary matrix; in other words, it uses public opinion as an input for the formulation of standards and subsequently monitors the problems arising during practical application. In the next section of our paper we present a series of factors which pose a challenge for the disciplinary matrix, i.e. the paradigm.

THE LATEST CHALLENGES

The business environment in which entities operate is subject to continuous change and, driven by a need to keep pace with the changes, accounting must make constant progress. Kuhn (2002) holds that scientific progress has two alternative phases. In what he calls the normal phase of scientific research, a cumulative development takes place where knowledge is extended, the forecasts of a paradigm are constantly compared against facts and theory is continuously adjusted. With slowly changing standards, the evolution of accounting usually followed this route (Shortridge – Smith, 2009). Science, however, will enter a revolutionary phase when a crisis may no longer be solved within the context of the dominant paradigm, i.e. a paradigm shift occurs: *“We cannot get to the new from*

the old simply by the cumulative addition of new knowledge. Similarly, we cannot really describe a new term by the old dictionary, and vice versa” (Kuhn in ed. Laki, 1998, p. 138). Kuhn (2002) describes scientific revolutions by the following stages:

- ① recognition of anomalies;
- ② a period of uncertainty (crisis);
- ③ development of alternative sets of ideas;
- ④ domination of the new paradigm.

One of the greatest challenges accounting has faced recently is the increased role of hard-to-grasp, intangible asset items. *Shortridge and Smith* cite *Alan Greenspan* on this subject: “*Goods are increasingly valued not for their physical properties but for weightless ideas*” (Shortridge – Smith 2009, p. 15). The true value of the enterprises operating most successfully in the global environment derives not merely from the tangible, physical property they own, but also from the “soft” factors known in accounting as intangible assets. Although their existence and dominance are irrefutable, the range of intangible assets which can constitute a part of balance sheet assets is significantly restricted by the regulations. In most cases, corporate balance sheets exclude assets such as a successful brand name, a loyal customer base, employees’ competences, well-run enterprise control systems, corporate culture, and so forth. Even though intangible assets undoubtedly play an important role in the competition, accounting specialists have yet to come up with a method by which such assets could be incorporated into the balance sheet in the context of the existing regulatory framework. And given that knowledge-based assets play a decisive role in the contemporary business environment, a solution must be found: “*We may even venture to say that in this day and age nearly all commodities are – at least in part – intellectual commodities*” (Szabó – Hámori, 2006, p. 121).

Although a separate standard has been dedicated to intangible assets (IAS 38),

the leeway it can provide in respect of the presentation of these types of asset items is basically defined by the Framework. Indeed, it is the Framework that provides a definition for the asset, as well as the recognition criteria on the basis of which it is determined whether or not the specific asset constitutes a part of the balance sheet assets. As regards the recognition of intangible assets, the most heated debates flared up around the recognition criteria. Based on existing regulations, internally generated intangible assets can only be presented in financial statements to a very limited extent. Despite the financial and human resources devoted to increasing an entity’s intangible assets, only development expenditures can be presented in its balance sheet. This means that assets such as research, employees’ knowledge base, a well-structured organisation, corporate governance methods, own brand names, a stable customer base and a comprehensive, development-oriented organisational culture, are excluded from the balance sheet. Expenses related to these items do not qualify as investment; instead, they are recognised under the costs of the specific period.

These regulations are problematic from several perspectives. Financial statements are meant to provide interest holders with the highest possible quality and most comprehensive information about the financial and earnings position of an entity, but they will be unable to fulfil their mission if internal intangible assets are excluded from—or only partially presented in—the balance sheet. The specific rules pertaining to intangible assets are prescribed by the IAS 38 standard, which provides a definition for intangible assets and describes the application of the presentation criteria to these asset items. The problem is that the standard distinguishes between internally generated assets and assets acquired from external sources. Assets acquired from external sources (e.g. assets purchased, received as a

grant or acquired in a business combination) easily meet the recognition criteria, as they are likely to provide economic benefits to the entity after their purchase and their cost can be measured reliably. Internally generated intangible assets, however, almost never meet the criteria based on this standard. According to existing regulations, only development costs can be capitalised, provided that the six additional conditions prescribed by IAS 38 are met (IFRS Foundation, 2012b).

While the asset definition of the Framework does not mention the origin of asset items, the treatment of intangible assets distinguishes between the assets on the basis of origin, as discussed above. *Upton* (2001) holds the view that such a distinction makes no sense—the essence of the asset will remain the same whether it was purchased or generated internally; an asset, therefore, is not defined by its origin. Therefore, the bulk of intangible assets presented in financial reports are made up of assets acquired from external sources. Assets held and generated by the entities themselves remain invisible (including brands, customer lists and research projects). As *Laáb* (2010) puts it, in terms of reporting, entities' assets are split between a visible (balance sheet items) and an invisible part (non-balance sheet items). Consequently, financial reporting fails to fulfil its primary objective: provision of information to interest holders on all relevant data. The reporting anomalies related to intangible assets have escalated to the point where international reporting standards are subject to more and more criticism. Therefore, of the different stages of Kuhn's scientific revolution, two factors are in place already: anomaly and the resulting uncertainty. The only question is how significant this anomaly will prove to be, and what kind of changes will be triggered by it.

Another similarly debated problem is the realm of financial instruments. Finan-

cial instruments constitute a broad range of extremely complex assets (from ordinary securities and claims to the various forms of derivative transactions and structured products). In recent years, these transactions have come into focus in numerous cases. The financial crisis strongly contributed to this turn of events; in fact, the general consensus is that the outbreak of the crisis in 2007 was triggered precisely by the loss or deterioration of confidence in these special and complex financial products (Nagy – Sipos, 2008). Standard setters, in turn, have accelerated their efforts to work out a set of new regulations for this area. Instruments recognised at fair value were among the assets hit hardest by the crisis; as markets became inactive and trade dried up, fair value took a steep fall, leading to immediate write-offs. This gave rise to the need to revise the reclassification prohibition of the relevant standard (namely, that financial instruments held for trading purposes may not be reclassified into a different group) and, at the same time, to reconsider the entire subject of financial instruments.

Below we discuss potential answers to address the reporting/recognition problems described above.

THE ANSWERS

The area of accounting did not remain unscathed by the immense changes affecting the economy. Globalisation, international capital flows and the extremely rapid development of information technology have prompted a need for the creation of a uniform "accounting language" recognised and applied all over the world. For the time being, it appears that the IFRS system will assume the role of a global financial reporting standard. The application of standards has been gaining ground steadily and simultaneously, massive

efforts are in progress to improve them. In the area of intangible asset reporting, standard setters face enormous challenges that may well lead to a paradigm shift in accounting.

There have been numerous attempts to address the problem affecting intangible assets, all relying on very different approaches. The proposed solutions can be divided into two groups depending on how they envisage the solution: within or outside of the framework of financial accounting. Those belonging to the second group do not propose the modification of existing accounting regulations and standards, but suggest that financial statements should be supplemented by statements containing information about intangible assets for the use of interest holders. A disadvantage of this group of solutions is that neither their introduction, nor their uniform application can be guaranteed given that they are not a part of any accounting system. The other possibility is to remain within the boundaries of the specific accounting regulations and stretching them to the limit, get standard setters to modify the existing regulations. In case of its implementation, this alternative has the benefit of achieving a uniform application and mandatory use in countries where legislators have adopted the IFRS system.

The staff of the Australian standard setter (Australian Accounting Standards Board, AASB) put together a discussion paper in 2009, proposing far-reaching innovations for IASB with a view to carrying out the reform of intangible asset accounting. They proposed to treat internally generated intangible assets the same way as similar assets acquired in a business combination; in other words, to introduce fair value based measurement, following the pattern of assets acquired in a business combination. Obviously, recognition, once again, is contingent upon the specific asset's compliance with the definition of intangible assets and the recognition criteria defined by the

Framework. If the proposal were implemented, the range of intangible assets recognisable in financial statements would be extended; however, numerous assets would still remain invisible, namely those not meeting the existing definition of intangible assets.

In the standard formulation process, the publication of a discussion material would normally be followed by the publication of a draft standard, which would be preceded by the discussion of comments received in relation to the discussion material and the incorporation of proposals into the draft. However, no new draft standard has been prepared in relation to intangible assets; moreover, citing limited resources, the IASB has also suspended the research project itself. Thus, for the time being, the initiative of AASB has failed to launch changes that would help address the reporting anomalies related to intangible assets. In summary, the tools available for normal science were not sufficient to make progress in this issue, which would be extremely hard to resolve if previous achievements and traditions were to be preserved. According to Kuhn (2002), if the tools of normal science prove to be inadequate to address an anomaly, extraordinary research will begin, opening up the way for the scientific resolution, ultimately leading to a new paradigm that is incommensurable with the previous one.

Shortridge and *Smith* (2009) also agree that the changes behind the anomalies surrounding the recognition of intangible assets are of such magnitude that they may lead to a paradigm shift in financial reporting. In the context of the accounting/reporting system of the United States, the authors forecast the events which will eventually translate into an adjustment to the new phenomena of the information economy. In their opinion, the most important elements of the emerging paradigm will be the following:

- globalisation;
- increased emphasis on principles in the regulatory framework;
- a focus on the substance of economic events;
- reliability is replaced with faithful representation;
- relevance as a central qualitative characteristic;
- fair value measurements.

Below we identify these elements of the newly emerging paradigm in the IFRS system, in which similar changes are currently taking place. Globalisation and the principle-based approach are listed among the objectives of IASB's proprietor, the IFRS Foundation, as demonstrated by this statement: *"The goal of the IFRS Foundation is to develop, in the public interest, a single set of high-quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles"* (IFRS Foundation, 2010a). And it follows from fair presentation, that in financial disclosures, transactions are captured based on their economic substance rather than their legal form (IFRS Foundation, 2010b).

Relevance and fair presentation have been given a central role in the IFRS system as well, in the review of reporting principles. The IASB is engaged in an active project aimed at reforming the Framework published in 1989, namely, to lay down the new foundations of financial reporting. Shortridge and Smith (2009) also indicated that the paradigm shift in accounting is still in progress; thus, the existing US regulations include elements both from the old and the new paradigm. The IFRS system is going through precisely the same transitional period, as the IASB implements the transformation of the Framework describing the paradigm in several stages. The first stage has been concluded already, in the context of which the parts dedicated to describing the objectives of financial reporting and the

qualitative principles have been revised. In the disciplinary matrix qualitative characteristics were classified among values. This area has experienced substantial changes compared to the 1989 version. The new Framework highlights two qualitative factors, relevance and fair presentation, which have become the most important characteristics of the information disclosed in financial statements. The reason why these factors have become the most important qualitative characteristics is the fact that only true and relevant information can be useful for the users of the reports (IFRS Foundation, 2010b).

The role of fair value measurement in IFRS appears to be changing as well. Theoretically, parties have three evaluation models at their disposal to measure their asset items: the original cost, the revaluation and the fair value models. The concepts of fair value and fair value measurement have been referred to in this study as an opportunity conducive to overcoming certain balance sheet constraints (e.g. those mentioned in relation to intangible assets). Essentially, the idea is that irrespective of the original cost, the current value of asset items reflects current relative values, thus it is suitable for recognising asset items where original cost cannot be identified. The Framework discusses general measurement bases; however, it does not single out any one of them as a principal evaluation rule, which nevertheless does not imply that either one of them can be applied in any case. Indeed, entities' elbow room in selecting the measurement formula is restricted by the individual standards, to such an extent that at times the standards allow the application of only one possible formula.

In 2011, the IASB issued the IFRS 13 standard; the first independent standard dedicated specifically to fair value measurement and applicable to both financial and non-financial assets. IFRS 13 defines fair value as *"the price that would be received to sell an asset or paid*

to transfer a liability in an orderly transaction between market participants at the measurement date” (IFRS Foundation, 2012a, paragraph 9). “*As such, fair value is a price emerging in a hypothetical market during a hypothetical transaction*” (Kovács, 2012, p. 169). Therefore, it is vital not to mix it up with a specific market price negotiated during an actual, completed market transaction. From the aspect of our topic, this new definition exhibits two major differences compared to the previous one (which appeared in several standards, including IAS 39). On the one hand, IFRS 13 clearly mentions a sale price, while the previous definition discussed, in general, an amount emerging during transactions executed at arm’s length; on the other hand, IFRS 13 refers to market participants, while the previous regulation mentions informed parties with an intention to execute a transaction (Kovács, 2012). The applied definition is of key importance not the least because the real challenge of fair value measurement is the definition of fair value, to which practical assistance is provided by the hierarchy of standard measurement methods. In terms of the disciplinary matrix, the standard is a preferred metaphor (model), with associated exemplars (illustrations or examples) facilitating application. The separate regulation of fair value measurement in the IFRS system is a decisive step toward the acceptance of the new paradigm.

Besides the highlighted elements, other important factors have changed or are about to change in the IFRS system. Only one of the underlying characteristics related to reporting was retained after the revision of the Framework. In the previous version, both the going-concern principle and accrual accounting had a role; in the new one accrual accounting remained the only basic characteristic. The modifications are explained in the Annex appended to the new Framework (IFRS

Foundation, 2010b). In contrast with US regulations, the IFRS reports do not put into focus, as the central part of financial reports, the accruals based information of economic entities which is meant to describe the financial performance of the entity. In reforming the Framework, standard setters found that, while users undoubtedly needed the information provided by accrual based accounting establishing the comprehensive income for the period, it would not be right to single out this group of information. Accrual accounting has therefore been removed from the underlying principles; however, its role is clarified in the part defining the objectives of reporting, and it is established that it provides a better basis for monitoring the events affecting the entity’s assets than cash accounting. Since we classified both the underlying principles and the objective of financial reporting as being a part of the preferred metaphors or models of the disciplinary matrix, accrual accounting has changed places only within this element of the matrix. The role of accrual based accounting is not expected to weaken in the future either, given that in addition to tracking the changes in an entity’s total assets, this method is also capable of assessing and forecasting an entity’s money creation ability; relying on cash accounting, however, the profit/loss realised may not be shown.

It is important to see how the modifications – both those that have already taken place and those envisaged – can help resolve the anomalies shown in the previous section. Putting relevance and fair presentation into focus and increasing the role and acceptance of fair value measurement may also pave the way for novelties in the area of tangible assets and financial instruments. In the next phase of the Framework project, the parts to be modified include, among other things, elements of financial statements, the recognition criteria and the assessment principles. If a new asset

definition is devised in future, one that is capable of covering more intangible assets, the number of asset items presented in the balance sheet will increase, and the financial report will be able to provide important and relevant additional information to users. The reconsideration of recognition criteria may also expedite the presentation of internally generated intangible assets in the financial statements. Pervasive changes are in the pipeline and the modifications will affect the foundations of the international accounting paradigm. It is conceivable that after the publication of the new Framework, the IASB will put the intangible assets project on the agenda once again, striving to formulate a new standard that will not give rise to such reporting anomalies as the existing different accounting method of internally generated and acquired intangible assets.

SUMMARY

The purpose of our paper was to analyse the structure of the paradigm prevailing in the system of International Financial Reporting Standards by identifying the elements of the disciplinary matrix described by Kuhn (2002). We have presented two topics that pose a challenge for the existing reporting paradigm:

the anomalies surrounding the recognition of intangible assets and the issues arising in the wake of the financial and economic crisis in respect of the value of financial instruments, which put fair value measurement into focus. We have shown that the different stages of scientific progress established by Kuhn (2002) can be also identified in the evolution of IFRS standards. Among the main pursuits of standard setters, we underscored the results achieved so far by the project aimed at the modification of the Framework and the development of a standard dedicated to fair value measurement. These achievements clearly demonstrate the IASB's ambition to create standards capable of reflecting the enormous changes observed over the past few years in business life and in the global economy. Since the project involves changes to each element of the disciplinary matrix, we may call it a paradigm shift. Financial reporting cannot really be successful if we are forced to describe current economic events using the terms of the "old dictionary". Certain parts of the existing reporting framework have become obsolete, incapable of describing the full impact of the tremendous advancement of recent decades on the economy. Standard setters have taken steps accordingly; they have begun to "update the dictionary" to expedite the formulation of globally applicable, modern and high quality financial reporting standards.

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