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Article

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Journal of Accounting and Management Information Systems (JAMIS)

Provided in Cooperation with:
The Bucharest University of Economic Studies

Suggested Citation: Dima, Bogdan; Dima, Ştefana Maria; Năchescu, Miruna; Saccon, Chiara (2015) : Professional Autonomy and IFRSS Adoption, Journal of Accounting and Management Information Systems (JAMIS), ISSN 2559-6004, Bucharest University of Economic Studies, Bucharest, Vol. 14, Iss. 4, pp. 627-654

This Version is available at:
https://hdl.handle.net/10419/310604

Accounting and Management Information Systems
Vol. 14, No. 4, pp. 627-654, 2015

Professional autonomy and IFRSs adoption

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Abstract: Since the concept of professional judgment is at the core of principles-based financial reporting, the present article analyses the connection between professional autonomy (including as component professional judgment) and International Financial Reporting Standards (IFRSs) adoption. Thus, we developed a methodology for estimating the IFRSs' adoption status for 44 countries and constructed an Index of Professional Autonomy based on World Value Surveys. The levels of the respective index were estimated in an Exploratory Factor Analysis framework. In order to deal with the reverse causality issues, a GMM methodological framework was adopted. The results reveal that the overall index is positive and statistical significant at 1% related to IFRSs adoption. These findings are robust even if "the implication in voluntary work for professional associations" and the "importance of the material motivation of work" are considered as control variables.

Keywords: professional autonomy, professional judgment, IFRSs' adoption, principles-based, ruled-based

JEL codes: M48

1. Introduction

The concept of professional autonomy if widely spread in the literature, even if not usually linked to financial reporting or auditing, in general, or to IFRSs adoption, in particular. Thus, we note a great body of literature addressing autonomy in all

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fields of medicine (WMA, 1987; CSP 2015), nursing (Skår, 2010), teaching (Hoecht, 2006), and engineering (Davis, 1998) and so on. The basic idea is that professional autonomy refers to making decisions independently and responsibly in a professional context. For instance, professional autonomy may be seen as general characteristics of the assurance profession (Bik, 2010: 20).

In this context, respecting professional standards, rules and regulations in the area of expertise, while making individual decisions based on personal experience and competence is connected to the concept we define, in financial reporting and auditing, as professional judgement. According to ICAS (2012:3) "professional judgement is a key skill for preparers, auditors and regulators of financial statements". Overall, professional judgement is a process that implies using for different circumstances, relevant information available at a certain moment, in order to generate a conclusion. It involves a sceptical and objective approach of any problem and the identification of alternatives that even seemingly contradictory may represent the solution to the problem. In this context, knowledge and experience are extremely important. A well-reasoned professional judgement needs to focus on the substance of the analyzed situation and not only on its form.

The novelty of our approach consists in addressing the linkage between IFRSs adoption and the concept of professional autonomy (including as component professional judgement), as well as addressing this concept in the context of the accounting profession. In the broader sense, Davis (1998) identifies three trends in the literature concerning the concept of autonomy: <<(1) a general philosophical literature on „personal" autonomy, (2) a philosophical literature explicitly concerned with „professional autonomy"; and (3) a sociological literature concerned with autonomy in the work place>> (p.157). In regard to „personal" autonomy, it may be linked to the desires, motivation and aspirations of an individual. On the other hand, professional autonomy may have two nuances: "organizational" autonomy as regulated by a specific profession, through codes, guides, professional standards; "individual" autonomy refers to the capacity to control its own work and not be controlled by others in the working environment.

In order to capture the weight of professional judgement in work attitudes, and, extensively, the views toward professional autonomy, we construct an ***Index of Professional Autonomy,*** based on *World Value Surveys'* integrated questionnaire, and considering five variables: 1) the overall perception to the individual freedom of choice and control in life; 2) the attitudes toward following instructions at work; 3) the importance of individual initiative in work; 4) the respect for the societal hierarchical structures and, respectively, 5) the confidence in the justice system. We can find the link between the concepts of autonomy and the components of our index. Thus, „personal" autonomy may be linked to variable 1 - individual "freedom of choice and control"; "organizational" autonomy is connected to 4 and 5 - "Future changes: Greater respect for authority" and "Confidence: Justice

System"; the concept of "individual" autonomy, which in our approach is directly related to professional judgement, refers to variables 2 and 3 - "Following instructions at work" and "Important in a job: an opportunity to use initiative".

Thus, we consider that the present paper will contribute to the discussion of the relevance of professional judgement in the context of wider work autonomy and of principles-based accounting standards model; since, in financial reporting and auditing, the concept of judgement is traditionally linked to the Anglo-Saxon concept of a 'true and fair view' of a company's financial position and performance, but also to more established practice-orientated professional associations in the Great Britain, USA, Canada and so on. Anglo-Saxon practice depends greatly on the individual judgement of independent professionals based on previous experience and knowledge. Conversely, in Continental European countries, the professional is more concerned in applying the detailed requirements of the law (Deegan, 2009: Ch.4).

Nowadays, professional judgement is seen more than ever as critical in determining the nature, scope, succession and extent of the audit procedures as well as in appropriately selecting the accounting treatments relevant for specific economic circumstances. Moreover, even if the requirements are identical, the interpretation according to the judgement of the professional may lead to different results.

An essential argument relevant to our discussion can be found in Gray (1988), who based on Hofstede's model, was first to introduce cultural dimensions into accounting, by creating several accounting values. Among these, of particular interest is the variable 'professionalism versus statutory control' which refers to a preference for the use of individual professional judgement and the preservation of professional self-regulation over the option to comply with the regulatory requirements and statutory control. "A preference for independent professional judgement is consistent with a preference for a loosely knit social framework where there is more emphasis on independence, a belief in individual decisions and respect for individual endeavour. This is also consistent with weak uncertainty avoidance where practice is all important, where there is a belief in fair play and as few rules as possible, and where a variety of professional judgements will tend to be more easily tolerated" Gray (1988: 9).

Thus, higher a country's relative preference to freely exercise professional judgement, more likely is for the respective country to adopt principles-based standards, such as IFRSs. Moreover, the capacity to freely exercise professional judgement is a key component of professional autonomy. Consequently, the connection between professional autonomy (including professional judgement) and IFRSs adoption (as a representation of the use of principles-based standards) is bi-univocal. The goal of this paper is to seek for empirical evidences to support such connection both for developed and developing countries.

The adoption of the IFRSs may be described in terms of a political game between the national regulators and the accounting professional bodies. Every time the adoption of IFRSs is taken into consideration, the topic of the forces behind a jurisdiction's decision and accounting profession's approach towards to right way to do so comes into discussion. The extent and complexity of the international differences between national financial reporting systems allow an interdisciplinary perspective in the broader field of social sciences. Arnold (2009) argues that macroeconomic and political factors play an important role in the evolution of international financial reporting standards, permitting a more profound understanding of the dynamics of institutional change in financial reporting. Perry and Nölke (2006) argue that financial reporting standards are inherently political, while Ezzamel *et al.* (2007), in the analysis of the relationship between political ideology and accounting change (in regard to the transition from Maoism to Dengism in China), consider that accounting is a „malleable object shaped by the force of the dominant political discourse". So, ideology created a context more or less favourable to the adoption of particular accounting standards.

In the context of a globalized world looking for harmonization in all fields, inclusively in financial reporting, the accounting profession is under rising institutional pressures. Thus, we remark the leading role of multinational professional firms in accounting, taxation and auditing which represent sites for standardized practices and where „professional identities are mediated, formed and transformed, and where important conceptions of personal, professional and corporate governance and management are transmitted" (Cooper and Robson, 2006:1). In regard to the way the mid-tier accounting firms deal with changes in professional's role and organizational structure, Lander *et al.* (2013) observe that there is internal resistance against the transformations in professional identity. For example, non-partnered accountants mainly find challenging the new roles that might upset their existing work routines, while partners resist those changes that might affect their professional autonomy. On the other hand, Suddaby *et al.* (2009) note that, despite the deep changes in the context, content and location of their work, the a majority of accounting professionals remain committed to their profession.

In regard to how institutional pressures influence jurisdictions' decisions to adopt IFRS voluntarily. Guerreiro *et al.* (2012) conclude that companies in a code law jurisdiction consider the change to a common-law institutional logic, if that change has positive overall benefits. In the case of the IFRS adoption, the issues to be addressed include achieved legitimacy, consistency of IFRS with their institutional context, and the loss of autonomy likely to occur from adopting IFRS. The authors find that the companies' acceptance of IFRS is not a blind response to institutional demands, being predictable "by virtue of the inherent nature and importance of such institutional pressures to them".

Taking into account the considerations above, we structure the paper as follows: firstly, we briefly review the literature; secondly, we present the model we developed and research hypothesis; thirdly, the data and the research methodology; fourthly, results and robustness checks are reported. Some conclusions are drawn and some further policy implications are suggested in the final section.

2. Literature review

Davis (1996) and Davis (1998) attempt to clarify the concept of professional autonomy starting from the general statement that <<employed professionals (e.g., accountants or engineers)—and those who study them—sometimes claim that their status as employees denies them the "autonomy" necessary to be "true professionals>>. In order to consider professional judgement as a key component of professional autonomy, more exactly reflecting "individual" professional autonomy, we must account for broader country specific work environment. In this context, we argue that the quality of professional judgement is influenced by the work motivation of the professionals. Job satisfaction affects behaviour and influence work productivity, work effort, employee absenteeism and staff turnover (EWCO, 2007). Luthans (1998) considers that motivation is a process that arouses, energizes, directs and sustains behaviour and performance allowing people to achieve a desired task. Attitude has direct impact on job satisfaction. Job satisfaction was analyzed in connection with overall individual well-being (Diaz-Serrano & Cabral Vieira, 2005), with the intention of employees to leave a job (Gazioglu & Tansel, 2002), with happiness (Nguyen *et al.*, 2003a) but also with job quality (e.g. Diaz-Serrano & Cabral Vieira, 2005; D'Addio *et al.*, 2003; Llorente & Macías, 2003).

According to Nguyen *et al.* (2003b) one of the variables that influence job satisfaction is "*the degree of perceived autonomy that workers enjoy in the way they do their job"*. More autonomy is associated with greater job satisfaction. Greater the auditor's or accountant's autonomy, more likely it is for the professional to embrace the use of IFRSs. This idea supports the goal of the present paper and will help construct our research hypothesis.

Currently, there is a large body of literature emphasizing the role of work-related autonomy and arguing that a bureaucratic work environment may lead to dissatisfaction and alienation (Scott, 1965; Bailyn, 1985, 1993; Wallace, 1995). As Morgeson *et al.* (2005) argues several relations can be identified between job autonomy, cognitive ability, job-related skill, role breadth, and job performance. Moreover, flexibility and career flexibility may have a great impact upon job satisfaction and consequently on professionals overall performance. However, the existence of flexibility is not sufficient in generating job satisfaction as even if

flexibility exists in a company, many workers do not use it (Bailyn, 1993; Christiansen & Staines, 1990; Batt & Valcour, 2003). Hence, the flexibility and autonomy offered to the managers and employees is important as long as it is perceived by these. At the organizational level, the key issue becomes whether flexibility in the workplace facilitates actual attempts at implementing individual flexibility (Rapaport *et al.*, 2002; Perlow, 1997).

The literature concerning the resistance of professionals to change is inconclusive. Hage and Aiken (1970) found that most studies showed a positive correlation between professionalism, change, and innovation, but this is a result challenged by other authors that analyze these sorts of connections for different professions (Levine, 1963; Fishman & McCormack, 1969). Palumbo and Styskal (1974) find three reasons for these contradictions: (1) the term professionalism is used to apply to varied phenomena; (2) some researchers measure change attitudinally, while others use structural or behavioural measures; (3) the relationship between professionalism and change may be a function of contextual factors such as organizational complexity, the environment, degree of consensus, and so on.

In this section we approach as well the exercise of professional judgement starting from its functions, constraints, the inclusion in different classifications and the determinants of its quality. Johnson (1971) categorized thought in three categories, namely preparation for intellectual activity (or all that precedes and influences the thoughts); productive thought (the process of examining options and trying to solve different problems) and judgement. The latter one represents a "conclusive or decisive process, […] the emphasis is upon choosing between alternatives responses, or placing the object of judgement into one category or another" (Johnson, 1971).

Professional judgement depends on social, historical and ideological constraints (Carr, 1995) as well as on the awareness of the experienced professionals in regard to the fact that some of the problems they might face can often be indeterminate, complex and with no clear solution in sight (Schön, 1983). Since without judgement, professional practice is merely technical work, Tripp (1993) divides judgements that professionals need to make in 'practical', 'diagnostic', 'reflective' and 'critical' judgements, critical judgement being the most complex form that involves "both a reflective critical attitude and the gathering of diagnostic information about professional practices through more formal and interventional research strategies". Grundy (1987) divides judgement in 'strategic', 'practical' and 'professional' judgement; where strategic judgement involves following rules and procedures laid down by others to achieve predetermined ends, practical judgement involves choice, while 'professional judgement' involves the freedom of action and allows the professional to question the conventional ways of acting. Coles (2002) takes into account all the classifications of judgements and considers that in the course of his or her practice, a professional is likely to engage several of

the forms of judgement in order to solve particular problems. Newcomers to a profession have the capacity from the outset to make deliberative judgements, although they might only be called on to make intuitive or strategic ones in the practice situations to which they are introduced. In this context, professional judgement is a "critical reconstruction of practice, including deliberation, which is distinguished from mere reflection" (Coles, 2002: 3) and allows a flexible response to the various circumstances that can emerge in work.

Despite the importance of the concept, there is little literature defining, categorizing and emphasizing the role of professional judgement for the accounting profession. For instance, Einhorn (1974) analyses the importance of auditors' judgement consistency. Due to the importance of audit opinions for different stakeholders, the consistency of auditors' judgement is vital and the same auditor cannot offer different opinions on the same set of financial statements. Still, experienced and knowledgeable persons can reach different conclusions regarding a certain circumstance, according to different choices in applying professional standards. Moreover, the professional action must be a "reasoned action that can be defended discursively in argument and justified as morally appropriate to the particular circumstances in which it was taken" (Carr, 1995: 71). When the professional judgement process is appropriately applied and contemporaneously documented, the auditor can easily support and defend the conclusions reached; otherwise, decisions appear to be arbitrary (Moore, 2009). Haron *et al.* (2004) use a judgement model to find out which criteria are used by external auditors to influence their reliance on internal auditors' decisions. Given the absence of suitable criteria distinguishing between correct and incorrect judgements, the decision on the correctness of internal auditor's judgement is difficult to achieve.

Worldwide there are various professional organizations that consider relevant the topic of professional judgement for accountants and auditors. For instance, American Institute of CPAs (AICPA)'opinion on the topic is that: "We expect financial statement preparers to apply judgement in the preparation and auditors to apply judgement in the audit of financial statements in a professional manner". However, AICPA's view is similar to ours as the judgement involves for both professions "applying relevant training, knowledge, and experience within the context provided by relevant professional and technical standards, as applicable, in making informed decisions about courses of action that are appropriate in the circumstances".

Also, there is an increased emphasis on the importance of professional judgement in the context of the move toward more principles-based accounting and auditing standards. Since IFRSs are developed as a principles-based set of standards, their adoption in many countries generated an important interest among researchers. The effect of mandatory IFRSs adoption on financial reporting comparability is the

focus of several recent studies, especially in the EU, most of them finding positive economic consequences (e.g., Daske *et al.*, 2008; Horton *et al.*, 2008; Li, 2009; DeFond *et al.*, 2010; Yu, 2009; Lang *et al.*, 2010; Barth *et al.*, 2010).

Principles-based versus rules-based standards became a debate topic mainly in relation to the convergence process between the international accounting standards issued by IASB and the US GAAP. At the core of this debate, one can find: the facility to exercise professional judgement; the enforceability of accounting standards; the importance of comparability; concerns for complexity, overload and delay in setting and modifying standards; the potential for creative accounting; and the representation of economic reality (ICAS, 2006).

More recently, ICAS (2012) discusses the importance of professional judgement in a principles-based accounting standards model, provides guidance for preparers, auditors and regulators, and provides recommendations for standard setters, in a proposed professional judgement framework. It states that the "success of principles-based standards relies on the ability of accountants to make 'good quality' judgements" (ICAS, 2012: 1) and "both preparers and auditors should act ethically when making a judgement, and not be swayed by any undue pressures or conflicts of interest" (ICAS, 2012: 5). The framework is intended to be applied worldwide by different size, type and governance regimes' economic entities. According to ICAS (2012: 4) the working group developing the framework believes that it has wider international relevance than IFRSs' adopting jurisdictions.

When discussing the features of professional judgement, one aspect relevant is applying professional skepticism in conducting audits and evaluating preparers' judgements, by each individual auditor on the engagement team. PCAOB (2012) reveals that "PCAOB standards define professional skepticism as an attitude that includes a questioning mind and a critical assessment of audit evidence". So, while accountants make the judgement the role of auditors is to challenge it and of the regulators is to assess it given the data available and the circumstances (ICAS, 2012).

Since the purpose of our research is to analyze the bi-univocal connection between professional autonomy (including professional judgement) and IFRSs adoption (as a representation of the use of principles-based standards), we may find among the arguments for adopting principles-based standards instead of rules-based standards, some support for the impact of IFRSs adoption on professional judgement. Ng (2004) considers that "rules must be argued against but principles must be argued for, requiring a different professional attitude", then again, the rules give auditors the possibility to draw a line when a company takes the professional judgement too far, missing the rule. Kivi *et al.* (2004) consider that rules are driven by demand, as these are easy to apply, audit and enforce; whereas, principles-based

standards put more pressure on the preparers and auditors. More principles-based standards can result in several interpretations of financial results and, consequently, accountants and auditors would need to be well trained in determining the economic substance of a transaction. In a speech before the Subcommittee on Commerce, Trade and Consumer Protection, US House of Representatives, the Chief Accountant of SEC, Herdman (2002) notices that: "Rule-based accounting standards provide extremely detailed rules that attempt to contemplate virtually every application of the standard. This encourages a check-the-box mentality to financial reporting that eliminates judgements from the application of the reporting. […] Rule-based standards make it more difficult for preparers and auditors to step back and evaluate whether the overall impact is consistent with the objectives of the standard".

There are major advantages of principles-based standards in regard to the elimination of creative accounting as well as to the liberty of thought and professional judgement provided to professionals. Shortridge and Myring (2004) cite David Knott on the fact that an increase in principles-based accounting standards reduces manipulations of the rules. By using principles, accountants and auditors tend to better represent reality, although using unsuitable principles generates a need for new rules that limit the professional judgement. Psaros and Trotman (2004) examined the judgements of experienced accountants in Australia, by asking two accountants' groups to make consolidation judgements on two situations, one involving a loss-making investee and the other a profit-making investee. The first group was asked to use a substance-over-form accounting standard and the second used a rules-based standard. The researchers found that the fact that rules were stronger for the second group didn't change the consolidation judgements, but only encouraged innovations that are designed to achieve the same outcomes.

Moreover, on the direct link between IFRSs adoption and professional judgement, we notice that the entire corpus of the international standards issued by IASB makes reference to the use of estimates, judgements and models rather than exact depictions (IASB, 2010). For this purpose, the updated version of the Conceptual Framework for Financial Reporting establishes the concepts that underlie those estimates, judgements and models. According to the Conceptual Framework, the providers of financial information are required to exercise professional judgement in guiding their choices about recognition, measurement and the other aspects of financial reporting. Even the general objective of financial reporting by itself "leaves a great deal to judgement and provides little guidance on how to exercise that judgement" (IASB, 2010: BC3.4). Among the main implications for professional autonomy deriving from the use of IFRSs, we notice that "in the absence of a standard or an interpretation that specifically applies to a transaction, other event or condition, management shall use its judgement in developing and

applying an accounting policy" that results in reliable, neutral and complete information faithfully representing the financial position, financial performance and cash flows of the entity and reflecting the economic substance of transactions, other events and conditions (IAS 8). In making this judgement, management will consider the existing relevant standards and interpretations of IASB or other similar standard-setters; the definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the Conceptual Framework; and other accounting literature and accepted industry practices. Moreover, the same IAS 8 states that "as a result of the uncertainties inherent in business activities, many items in financial statements cannot be measured with precision but can only be estimated. Estimation involves judgements based on the latest available, reliable information". Thus, IFRSs leave more autonomy to the professionals to base their judgements on cross-national and cross-industry relevant sources, according to their best knowledge and expertise.

In addition, professional judgement is required in applying the recognition criteria for property, plant and equipment to an entity's specific circumstances (IAS 16); in estimating the useful life of the asset based on the experience of the entity with similar assets (IAS 16); in selecting of the depreciation method (IAS 16); in determining whether an asset that incorporates both intangible and tangible elements should be treated under IAS 16 or IAS 38; in determining "the functional currency that most faithfully represents the economic effects of the underlying transactions, events and conditions" (IAS 21); in determining "the amount of borrowing costs that are directly attributable to the acquisition of a qualifying asset" (IAS 23); in the restatement of financial statements in accordance with IAS 29 since "the consistent application of judgements from period to period is "more important than the precise accuracy of the resulting amounts included in the restated financial statements" (IAS 29).

Thus, by reviewing the literature, we found that, while there is some theoretical support for the impact of IFRSs' adoption (as a representation of the use of principles-based standards) on professional autonomy (including professional judgement), the reverse connection lacks empirical and theoretical support. Our study intends to cover this gap, by addressing this reverse connection as well.

Consequently, based on the previous arguments we adopt the following research hypothesis:

> ***H:*** *An increase in professional autonomy is likely to contribute to the adoption of principles-based standards, such as the International Financial Reporting Standards (IFRSs).*

3. Model and research hypothesis

Considering all of the above, we start our model by assuming that each professional group in society enjoys a certain level of professional autonomy, ω while each professional activity i is subject to a specific set of regulations p^i. We also assume that individual utility function for a professional group i is ordinal observable, and that the utilities are interpersonally comparable. That is, if two professional groups i and j feel the same personal utility, then the equality $U^i_t = U^j_t$ holds. In other words, the accounting profession in each society share with the other professional groups the same relative preference for professional autonomy, but it is facing a specific level of 'regulatory burden'. Still, is less plausible to suppose that the impact of a change in the status of the adopted regulations on the specific utility is a linear one. Rather, one may expect to see an inverted „U-shape" relation between regulatory status and utility. Below a certain threshold, an increase in the number and complexity of adopted regulations will help to improve the professional activity, to offer control mechanisms and to protect the practitioners from various sources of interference. Above this threshold, the increase in the 'regulatory burden' is counter-productive, since it limits the professional autonomy and exposes the individuals to political constraints. Also, the professionals should consider the willingness of the regulatory bodies to impose new regulations and to exercise a certain level of political pressure over the profession, l_t, with this purpose. The effects of this willingness may be ignored by the profession only up to a certain point since the resistance to political pressure may enhance the professional cohesion. However, after this point, its members may be convinced to accept the new regulations. Hence, the utility function for the 'representative accountant', U^A_t, may be described as:

$$U^A_t : \alpha_1 p_t - \alpha_2 p_t^2 + \beta_1 \omega_t + \beta_2 l_t - \beta_3 l^2_t + \gamma_1 x_t + \varepsilon^U_t \quad (1)$$

x is a matrix of other determinants of professional satisfaction, while ε^U is a "white noise" shock, $\varepsilon^U \sim N\left(0; \sigma_{\varepsilon^U}^2\right)$. The relations between the corresponding coefficients can be interpreted in caeteris paribus conditions in terms of trade-offs to maintain a constant level of utility, which is in principal the marginal rate of substitution.

Further, we suppose that in each period t the levels of the relative preferences for professional autonomy, ω may be directly observed by the public regulatory bodies and this is taken into account in the decision of issuing new regulations. In the meantime, the regulatory authorities seek to obtain political benefits by increasing their involvement in professional life through an extensive regulatory framework. Let g^*_t denote the estimated levels of such gains. But in imposing new regulation

and in their enforcement, the regulatory bodies have to support certain material and human resources' costs, k_t which are increasing proportionally with the complexity of the regulatory framework. Supplementary, the national bodies are facing international pressures for harmonizing their national standard. Let y_t denote the costs encumbered by such pressures. Hence, the current status of the public bodies to enforce the new regulations is a function of political gains, the relative preferences for professional autonomy and the associated costs:

$$l_t = z_1 g_t - z_2 \omega_t - z_3 k_t p_t - z_4 y_t \tag{2}$$

Substituting (2) in (1) and considering the optimization condition $\frac{\partial U^A}{\partial p} = 0$ will lead to an optimal level of 'regulatory burden', p^*_t:

$$p^*_t = \frac{1}{2\left(\frac{\alpha_2}{k_t} + \beta_3 z_3{}^2 k_t\right)}\left[\frac{\alpha_1}{k_t} - \beta_2 z_3 + 2\beta_3\left(z_1 g_t - z_2 \omega_t - z_4 y_t\right) z_3\right] \tag{3}$$

Accordingly to relation (3), the public bodies will tend to regulate the accounting profession as long as the perceived political gains will exceed their sensitivity to the accountants' relative preferences for professional autonomy, $z_1 g_1 > z_2 \omega$. If this relation does not hold any longer, the regulatory authorities will not issue new regulations and / or support a regulatory framework that places a greater emphasis on professional autonomy and professional judgement such as the IFRSs. Similarly, the optimal level of the national standard extension is reduced by the costs associated with international pressure for harmonization / conformity, $z_4 y_t$. As this pressure is increasing, the national authorities will tend to deviate less from the international trend.

4. Data and Methodology

4.1 Data and sources

PricewaterhouseCoopers (2011) provides an assessment of IFRSs' adoption by domestic listed and unlisted companies, summarizing data collected from various sources during March 2011. The data reflect four dimensions referring to: the existing rules for listed filings, for statutory filings, the conversion plans and the type of tax regime. Based on these data, we scored the 44 countries included in the dataset according to the methodology synthesized in Table 1.

Table 1. Construction of IFRSs adoption score

Rules for listed filings	IFRS required or permitted for listed companies?	2- required for consolidated and standalone/separate financial statements
		1-required only for consolidated / permitted for standalone/separate financial statements
		0-no
	Version of IFRS	2-IFRS (as adopted by European Union/ published by IASB)
		1-as adopted local
		0-no
	Are subsidiaries of foreign companies or foreign companies listed on local exchanges subject to different rules?	1-different rules (all / some)
		0-no
Rules for statutory filings	Is IFRS or IFRS for SMEs required, permitted or prohibited for statutory filings?	5- for all
		4-required for most
		3-requied for some (e.g. listed or financial institutions and eventually permitted for others)
		2-permitted
		1- permitted but not IFRS for SME
		0-not permitted
	Version of IFRSs	2-IFRS (as adopted by European Union/published by IASB)
		1-as adopted local
		0-no
	In addition to local GAAP statutory financial statements, are there any other regulatory financial statement requirements that permit or require the use of IFRS?	1-Yes
		0-No
IFRSs conversion plans		1-Plan for conversion
		0- No / not applicable
Type of tax regime		1-Independent
		0-Dependent or quasi-dependent

This methodology attributes maximal values for countries in which IFRSs (as adopted by European Union or published by IASB) are required both for consolidated and standalone/separate financial statements of listed companies and foreign companies or subsidiaries of these may be subject to different rules on local exchanges. Also, maximal scores may be achieved in cases in which IFRSs (or IFRSs for SMEs) are required for statutory filings, the plans for converging are clearly formulated and financial reporting is independent from taxation. The

overall score is obtained by simply adding the values of individual elements. The scale is ranging from "0" to "15" with "15" reflecting full adoption cases. Such a case is sensitive in respect to the great diversity of practices regarding the IFRSs adoption along the four mentioned dimensions.

The dataset includes a wide spectrum of situations: countries like Denmark, Estonia, or Latvia are close to full adoption, whereas in Argentina, India, Romania, or Colombia the financial statements must be prepared mainly in accordance with local GAAP. For instance, in the case of Denmark, IFRSs (as adopted by the European Union) are required for consolidated as well as standalone financial statements, if consolidated financial statements are not prepared. The listed foreign companies follow requirements for the country of residence, while the subsidiaries of foreign companies are not subject to different rules. Also, for statutory filing purposes IFRSs are permitted for consolidated and standalone/separate financial statements, although the IFRSs for SMEs are prohibited. Finally, the taxable profit is determined in accordance with a specific set of tax rules with little reliance on the legal entity statutory account. In the case of Colombia, all financial statements must be prepared in accordance with local GAAP and there is no clear convergence plan. The taxable profit is principally based on the legal entity statutory accounts.

Table 2. IFRSs adoption scores

Country	*Listed*	*Statutory*	*Conversion*	*Tax*	*Score IFRSs*
Argentina	1	0	1	0	2
Australia	4	5	0	1	10
Austria	3	3	0	0	6
Brazil	1	4	1	0	6
Bulgaria	4	5	0	0	9
Canada	4	5	1	0	10
Chile	2	6	1	0	9
Colombia	0	0	0	0	0
Czech Republic	5	4	0	0	9
Denmark	5	6	0	1	12
Estonia	5	5	0	1	11
Finland	4	5	0	0	9
France	4	1	0	0	5
Germany	4	4	0	1	9
Great Britain	3	4	1	0	8
Greece	4	3	0	0	7
Hungary	3	4	0	0	7
Iceland	4	4	0	0	8
India	3	0	1	0	4
Ireland	4	4	1	0	9
Italy	4	5	0	0	9
Japan	3	3	1	0	7
Latvia	5	6	0	0	11
Lithuania	5	3	0	0	8
Macedonia	3	4	0	1	8

Country	***Listed***	***Statutory***	***Conversion***	***Tax***	***Score IFRSs***
Mexico	4	3	1	0	8
Netherlands	4	3	0	1	8
New Zealand	3	4	0	0	7
Norway	4	4	0	1	9
Peru	4	6	1	0	11
Philippines	4	5	0	0	9
Poland	4	5	0	1	10
Portugal	4	5	0	0	9
Romania	3	0	0	0	3
Russian Federation	4	4	0	1	9
Slovakia	4	5	0	0	9
Slovenia	3	3	0	0	6
South Africa	4	6	0	0	10
Spain	3	3	0	0	6
Sweden	3	4	0	0	7
Switzerland	4	3	1	0	8
Turkey	4	1	1	0	6
Ukraine	3	1	0	0	4
United States	1	0	1	1	3

In order to capture the weight of professional judgement in work attitudes, and, in broader sense, the views toward professional autonomy, we construct an ***Index of Professional Autonomy*** based on the average of the individual answers to the related questions from *European Values Study 1981-2008 / World Value Survey 1981-2008 official aggregate* integrated questionnaire. Five dimensions are hence considered: 1) the overall perception to the individual freedom of choice and control in life; 2) the attitudes toward following instructions at work; 3) the importance of individual initiative in work; 4) the respect for the societal hierarchical structures and, respectively, 5) the confidence in the justice system. From these variables, the second and the third ones are directly related to the importance of professional judgement; the first one is a global description of individual autonomy prevalent in society, while the last two are related to the functional characteristics of the social environment, which are able to influence / support the individual autonomy.

Table 3. Dimensions of professional autonomy

Freedom of choice and control	Average of the answers to the question: "Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale where "1"means "none at all" and "10" means "a great deal" to indicate how much freedom of choice and control you feel you have over the way your life turns out-5: Missing; Unknown:-4 Not asked in survey;-3: Not applicable;-2: No answer; -1: Don´t know;1: None at all;2: 2;3: 3;4: 4;5: 5;6: 6;7: 7;8: 8;9: 9;10: A great deal"	EVS(2011); WVS (2009)

Following instructions at work	Average of the peoples answering "must be convinced first" to the question: "People have different ideas about following instructions at work. Some say that one should follow one's superior's instructions even when one does not fully agree with them. Others say that one should follow one's superior's instructions only when one is convinced that they are right. With which of these two opinions do you agree?"	EVS(2011); WVS (2009)
Important in a job: an opportunity to use initiative	Average of the answers to the question: "Here are some more aspects of a job that people say are important. Please look at them and tell me which ones you personally think are important in a job?- An opportunity to use initiative -5 Missing; Unknown;-4: Not asked in survey;-3: Not applicable;-2: No answer;-1: Don´t know;0: Not mentioned;1: Mentioned"	EVS(2011); WVS (2009)
Future changes: Greater respect for authority	Average of the answers to the question: "I'm going to read out a list of various changes in our way of life that might take place in the near future. Please tell me for each one, if it were to happen, whether you think it would be a good thing, a bad thing, or don't you mind?- Greater respect for authority -5: Missing; Unknown;-4: Not asked in survey; -3: Not applicable;-2: No answer;-1 Don´t know;1: Good thing;2: Don´t mind;3: Bad thing"	EVS(2011); WVS (2009)
Confidence: Justice System	Average of the answers to the question: "I am going to name a number of organisations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?- Justice system: -5: Missing; Unknown;-4: Not asked in survey;-3: Not applicable;-2: No answer; -1: Don´t know;1: A great deal;2: Quite a lot;3: Not very much;4: None at all"	EVS(2011); WVS (2009)

The objective of the World Value Survey is a comparative examination of public values and attitudes on various social issues in the frame of modernization processes on more than 60 countries. Although there can be some methodological biases in the construction and implementation of the questionnaires (Mellon, 2011, Hurtienne & Kaufmann, 2011), the World Values Surveys display several advantages. Among them, there are at least two which are relevant in the context of this study. Firstly, the questions are formulated in neutral terms and, thus, are less affected by an occidental-centric view. Secondly, the successive waves of surveys are able to reflect the time-dependency of values and beliefs and the shifts of these accordingly with the social and economic transformations. We are using averages of all available surveys between 2001 and 2010.

4.2 Research methodology

Based on the mentioned five dimensions, we estimate the levels of the Index of Professional Autonomy in the factor analysis framework. The so-called Exploratory Factor Analysis (EFA) is a method for explaining the covariant relationships amongst a number of observed variables in terms of a much smaller

number of unobserved variables that are named factors. In other words, it is a variable reduction technique that identifies the number of latent constructs and the underlying factor structure of a set of variables. In EFA, the observed variables are a linear combination of the underlying factors (the estimated factor and a unique factor). Communality is the variance of observed variables accounted for by a common factor. These factors account for common variance in the data and not for a maximal amount of variance of observed variables. This distinction can be viewed as an important argument in choosing this technique against others, such as the Principal Components Analysis (PCA), which accounts for a maximal amount of variance in the observed variables. The key argument is that there are presumably more variables, which can influence the evolution of the considered dimensions of governance. Such "hidden" variables are not explicitly considered, but can induce several types of exogenous distortions. However, if communalities are large enough, the results from the EFA and PCA could be quite similar.

In EFA, the observed variables are linear combinations of the underlying and unique factors. It is important to note that this technique can be used to explore the possible underlying factor structure of a set of measured variables without imposing any preconceived structure on the outcome (Child, 1990).

Table 4. Values of *Professional Autonomy Index*

Country	Freedom of choice and control	Future changes: Greater respect for authority	Confidence: Justice System	Following instructions at work	Important in a job: an opportunity to use initiative	Professional Autonomy Index
Argentina	7.86	1.27	3.13			
Australia	7.69	1.47	2.43			
Austria	6.96	1.78	2.26	0.40	0.45	9.60
Brazil	7.73	1.26	2.58			
Bulgaria	5.88	1.54	3.02	0.44	0.63	8.49
Canada	7.63	1.35	2.25	0.42		
Chile	7.30	1.38	2.95			
Colombia	8.04	1.09	2.83			
Czech Republic	6.63	1.66	2.79	0.28	0.40	8.98
Denmark	7.69	1.60	1.90	0.32	0.50	10.11
Estonia	6.47	1.67	2.46	0.31	0.50	8.95
Finland	7.51	1.93	2.07	0.42	0.46	10.32
France	6.47	1.22	2.63	0.44	0.33	8.46
Germany	6.68	1.73	2.46	0.28	0.41	9.10
Great Britain	7.18	1.24	2.42	0.34	0.45	9.22
Greece	6.80	1.95	2.56	0.36	0.33	9.44
Hungary	6.48	1.54	2.73	0.36	0.17	8.53
Iceland	7.94	1.59	2.21	0.36	0.56	10.44
India	5.85	1.72	2.06	0.39	0.64	8.59
Ireland	7.22	1.35	2.59	0.31	0.57	9.45
Italy	6.00	1.48	2.64	0.33	0.52	8.33
Japan	6.08	2.79	2.03		0.49	
Latvia	6.20	1.77	2.65	0.39	0.35	8.71
Lithuania	6.96	1.75	2.89	0.39	0.46	9.56

Country	Freedom of choice and control	Future changes: Greater respect for authority	Confidence: Justice System	Following instructions at work	Important in a job: an opportunity to use initiative	Professional Autonomy Index
Macedonia	6.52	1.56	2.83	0.38	0.48	8.93
Mexico	8.38	1.18	2.81			
Netherlands	6.57	1.30	2.57	0.35	0.79	9.00
New Zealand	7.91	1.52	2.56	0.25	0.72	10.40
Norway	7.64	2.06	2.02	0.21	0.42	10.34
Peru	7.18	1.19	3.38	0.54	0.40	9.32
Philippines	6.80	1.39		0.48	0.31	8.98
Poland	6.59	1.66	2.74	0.43	0.49	9.17
Portugal	6.21	1.16	2.67	0.45	0.59	8.41
Romania	7.42	1.35	2.80	0.35	0.60	9.72
Russian Federation	6.81	1.56	2.76	0.33	0.40	9.10
Slovakia	6.75	1.41	2.82	0.33	0.45	8.94
Slovenia	7.40	1.75	2.71	0.48	0.57	10.20
South Africa	7.35	1.25	2.25	0.40	0.51	9.50
Spain	6.86	1.28	2.54	0.41	0.13	8.67
Sweden	7.76	2.34	2.21	0.24	0.63	10.97
Switzerland	7.30	1.57	2.14	0.37	0.46	9.71
Turkey	6.41	1.50	2.09	0.49	0.85	9.25
Ukraine	6.06	1.38	2.99	0.32	0.39	8.15
United States	7.69	1.46	2.38			

Furthermore, we use these estimations to test the connection between professional autonomy and IFRSs adoption**.** In addressing this connection, according to the literature previously mentioned, a reverse causality may emerge, since the adoption and enforcement of various rules can affect the behavior of professionals, as these encourage / restrain the use of professional judgement, stimulate / limit the work initiative or sustain / inhibit the attitudes toward the hierarchic structures and mechanisms. Also, there can appear some unobserved country specific effects, which may produce inconsistent estimates given that these effects are likely to be correlated with the explanatory variables. In the presence of any correlation between the right hand side variables and the country specific effect, estimation methods such as ordinary least squares will not be consistent.

Finally, the orthogonality condition between the error term and the regressors is not likely to be met for either the Generalized Least Squares or the Fixed Effects estimator to produce consistent estimates. Thus, we apply an instrumental variables (IV) method (Generalized Method of Moments-GMM) and we instrument the income per capita, by using the development of the banking sector and the quality of public governance. Such instruments can be viewed as orthogonal to the error term in the explanatory equation and may be sufficiently strongly related to income as endogenous explanatory variable.

5. Results and robustness check

5.1 Results

Table 5 (PANEL A) reports the results of the GMM estimations for the correlations between the score of IFRSs adoption and each individual dimension of the *Index of Professional Autonomy* for the full sample. All these dimensions are statistical significant at 1% correlated with the index. The largest impact seems to be exercised by the two variables defining the professional judgement, while the lowest is the one for the freedom of choice and control. The endogeneity, weak instruments and over-identifying restrictions tests support the quality of the models for all the IV methods.

Table 5. Professional autonomy and IFRSs adoption (GMM estimations- basic model)

PANEL A: Full sample

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Freedom of choice and control	1.14***					
	(0.04)					
Greater respect for authority		5.07***				
		(0.25)				
Confidence in justice system			3.11***			
			(0.15)			
Important in a job: an opportunity to use initiative				16.90***		
				(0.97)		
Follow instructions: must be convinced					21.60***	
					(0.93)	
Professional Autonomy Index						1.15***
						(0.05)
Adjusted R^2 (first stage)	0.99	0.96	0.99	0.92	0.97	0.99
C-statistic (difference-in-Sargan statistic)	1.42	4.01	0.53	11.33	9.66	4.93
	[p=0.23]	[p=0.05]	[p=0.47]	[p=0.00]	[p=0.00]	[p=0.03]
Shea's partial R-squared	0.99	0.96	0.99	0.92	0.97	0.99
Cragg and Donald *Minimum eigenvalue statistic* test	583.05	133.72	484.90	47.04	137.52	271.38
2SLS relative bias (5%)	19.86	19.86	19.86	19.86	19.86	19.86
2SLS Size of nominal 5% Wald test (10%)	31.50	31.50	31.50	31.50	31.50	31.50
LIML Size of nominal 5% Wald test (10%)	4.18	4.18	4.18	4.18	4.18	4.18
Hansen's J test	5.85	7.73	7.79	3.29	6.80	4.75
	[p=0.44]	[p=0.26]	[p=0.25]	[p=0.78]	[p=0.34]	[p=0.58]
Observations	44	44	43	36	36	34

PANEL B: OECD countries

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Freedom of choice and control	1.14***					
	(0.04)					
Greater respect for authority		5.28***				
		(0.27)				
Confidence in justice system			3.13***			
			(0.09)			
Important in a job: an opportunity to use initiative				16.33***		
				(1.11)		
Follow instructions: must be convinced					22.79***	
					(0.96)	
Professional Autonomy Index						0.54***
						(0.03)
Adjusted R^2 (first stage)	0.99	0.96	0.99	0.93	0.98	0.99
C-statistic (difference-in-Sargan statistic)	2.78	4.32	0.07	3.65	4.69	0.50
	[p=0.09]	[p=0.04]	[p=0.79]	[p=0.06]	[p=0.03]	[p=0.48]
Shea's partial R-squared	0.99	0.96	0.99	0.93	0.98	0.99
Cragg and Donald *Minimum eigenvalue statistic* test	414.49	67.84	451.62	29.38	137.52	217.44
2SLS relative bias (5%)	19.86	19.86	19.86	19.86	93.53	19.86
2SLS Size of nominal 5% Wald test (10%)	31.50	31.50	31.50	31.50	31.50	31.50
LIML Size of nominal 5% Wald test (10%)	4.18	4.18	4.18	4.18	4.18	4.18
Hansen's J test	5.78	5.74	7.61	5.93	5.84	7.54
	[p=0.45]	[p=0.45]	[p=0.27]	[p=0.43]	[p=0.44]	[p=0.27]
Observations	28	28	28	23	23	22

Notes: +/*/**: significant at 10% / 5% /1%, respectively; standard errors in () and p-values in [].R square corresponds to first- stage regressions. All models includes as instruments for the dimensions of *Professional Autonomy Index*: GNI per capita and GNI per capita square, Market capitalization (% GDP), and 4 indicators from the *Worldwide Governance Indicators* (*Voice and Accountability*, *Political Stability and Absence of Violence*, *Government Effectiveness*, and, respectively, *Rule of Law*) (World Bank, 2012). In all the models, the dependent variable is the IFRSs adoption score.

Explanation of the various diagnostic and specification tests reported:

Endogeneity: The null hypothesis of the C-statistic tests is that the considered variables can be treated as exogenous. C-statistic (difference-in-Sargan statistic) (Hayashi, 2000) can tolerate heteroskedasticity in errors. These tests reject the null that variables are exogenous at 1% for all the models.

Shea's Partial R-squared: Shea's (1997) "partial R-squared" is a diagnostic statistic for determining the strengths of instruments. These values are reasonably high, indicating that co- linearity between instruments is not a problem.

Weak instruments: contains critical values to test if: 1) the instruments are weak based on the bias of the 2SLS estimator relative to the bias of the OLS estimator (Stock and Yogo, 2005); 2) parameters estimated by instrumental-variables estimators suffer from size distortions. This last test is carried out if a Wald test at the 5% level can have an actual rejection rate of no more than a certain threshold (15%). Since the *Minimum eigenvalue* statistics are higher than *2SLS relative bias (5%)*, and, respectively, *2SLS Size of nominal 5% Wald test (15%)* and *LIML Size of nominal 5% Wald test (15%)* for all the models, we can reject the null hypothesis of weak instruments.

Over-identifying restrictions: The Hansen's J tests are simultaneously trying to check if: 1) whether the instruments are correlated with the error term and 2) if the equation is misspecified and that one or more of the excluded exogenous variables should in fact be included in the structural equation. Since none of these tests are significant, these two hypotheses can be rejected for all the models: the instruments appear to be uncorrelated with the structural error term and, respectively, there are no evidences of misspecifications.

The overall index is also positive and significant at 1% related to IFRSs adoption. In order to reflect the potential structural differences in the impact induced by the

levels of development, Table 5 also reports separate estimations for the OECD member countries. The signs of the explanatory variables as well as their statistic significance are preserved at the level of this sub-sample. Also, the levels of the coefficients for the individual dimensions of professional autonomy are quite similar. However, the most substantial change seems to be in the level of the overall index coefficient which is almost two times smaller compared to the full sample. Thus, it may be argued that there are some scale effects in the transmission of the impact exercised by professional autonomy on IFRSs adoption. As Houqe *et al.* (2012) noticed "In countries where the regulation of accounting standards is considered to be stronger, particularly OECD countries, companies are more likely to follow IFRS".

Hence, the quality of previous local GAAP may influence the shape of the professional autonomy's influence on IFRSs adoption. Other factors may be related to the degree of openness, the effects of globalization, the development of financial markets or broader cultural variables.

5.2 Robustness check

Several questions can be raised in respect to the robustness of the results. For instance, how sensitive are the components of IFRSs score to the cross-countries differences in the *Index of Professional Autonomy*? Table 6 re-estimates the model using as dependent variables two of the individual components: IFRSs for listed companies and, respectively, the IFRSs for statutory filings. For both these variables, the index is positive and statistical significant at 1% related to IFRSs adoption. The levels of the coefficients are close to one another (with the one corresponding to the listed companies filings being slightly higher).

Table 6. Professional autonomy' dimensions and IFRSs adoption (GMM estimations)

	Dependent variable: IFRSs for listed filings	**Dependent variable: IFRSs for statutory filings**
Freedom of choice and control	0.56***	
	(0.02)	
Greater respect for authority		0.54***
		(0.03)
Adjusted R^2 (first stage)	0.99	0.99
C-statistic (difference-in-Sargan statistic)	4.30	1.39
	[p=0.04]	[p=0.24]
Shea's partial R-squared	0.99	0.99
Cragg and Donald *Minimum eigenvalue statistic* test	271.38	271.38
2SLS relative bias (5%)	19.86	19.86
2SLS Size of nominal 5% Wald test (10%)	31.50	31.50

	Dependent variable: IFRSs for listed filings	Dependent variable: IFRSs for statutory filings
LIML Size of nominal 5% Wald test (10%)	4.18	4.18
Hansen's J test	7.86	7.11
	[p=0.25]	[p=0.31]
Observations	34	34

Notes: +/*/**: significant at 10% / 5% /1%, respectively; standard errors in () and p-values in [].R square corresponds to first- stage regressions. All models includes as instruments for the dimensions of *Professional Autonomy Index*: GNI per capita and GNI per capita square, Market capitalization (% GDP), and 4 indicators from the *Worldwide Governance Indicators* (*Voice and Accountability*, *Political Stability and Absence of Violence*, *Government Effectiveness*, and, respectively, *Rule of Law*) (World Bank, 2012). All the diagnostic tests have the same interpretation as in Table 5.

Moreover, how robust are these results if other control variables are considered? In order to evaluate this, we considered two control variables: the implication in voluntary work for professional associations and, respectively, the importance of the material motivation of work as described in Table 7.

Table 7. Control variables for the extended model

Voluntary work: Unpaid work professional associations	Average of the answers to the question: "And for which, if any, are you currently doing unpaid voluntary work- Professional associations: -5: Missing; Unknown;-4: Not asked in survey;-3: Not applicable;-2: No answer;-1: Don´t know;0: Not mentioned;1: Belong"	EVS(2011); WVS (2009)
Material motivation of work	Average of the answers to the question: "Here are some more aspects of a job that people say are important. Please look at them and tell me which ones you personally think are important in a job?- Good pay: -5 Missing; Unknown;-4: Not asked in survey;-3: Not applicable;-2: No answer;-1: Don´t know;0: Not mentioned;1: Mentioned"	EVS(2011); WVS (2009)

Table 8 reports on an extended model which includes these variables. The *Index of Professional Autonomy* remains significant at 1% as is the case of the voluntary work for professional associations. As for the material motivation of the work, this is significant at 10%.

Table 8. Professional autonomy and IFRSs adoption (GMM estimations- extended model)

	Dependent variable: IFRSs for listed filings
Professional Autonomy Index	0.80***
	(0.14)
Voluntary work: Unpaid work professional associations	13.77***
	(4.00)
Material motivation of work	2.67*
	(1.33)
Adjusted R^2 (first stage)	0.99

	Dependent variable: IFRSs for listed filings
C-statistic (difference-in-Sargan statistic)	4.46 [p=0.03]
Shea's partial R-squared	0.80
Cragg and Donald *Minimum eigenvalue statistic* test	273.67
2SLS relative bias (5%)	19.86
2SLS Size of nominal 5% Wald test (10%)	31.50
LIML Size of nominal 5% Wald test (10%)	4.18
Hansen's J test	4.13 [p=0.66]
Observations	34

Notes: +/*/**: significant at 10% / 5% /1%, respectively; standard errors in () and p-values in [].R square corresponds to first- stage regressions. All models includes as instruments for the dimensions of *Professional Autonomy Index*: GNI per capita and GNI per capita square, Market capitalization (% GDP), and 4 indicators from the *Worldwide Governance Indicators* (*Voice and Accountability*, *Political Stability and Absence of Violence*, *Government Effectiveness*, and, respectively, *Rule of Law*) (World Bank, 2012). All the diagnostic tests have the same interpretation as in Table 5.

6. Conclusions

The exercise of professional judgement is at the core of principles-based financial reporting. The present article finds empirical evidences for our research hypothesis stating that an increase in professional autonomy (including as component the concept of professional judgement) is likely to contribute to the adoption of principles-based standards, such as IFRSs.

In doing so, we developed a IFRSs adoption methodology and scored 44 countries. In order to capture the weight of professional judgement in work attitudes, and, in broader sense, the views toward professional autonomy, we constructed an *Index of Professional Autonomy* based on *World Value Surveys*. Moreover, we estimated the levels of the respective index in the so-called *Exploratory Factor Analysis* (EFA) framework.

In order to deal with the reverse causality issues, we adopted a GMM methodological framework. The results of the empirical study reveal that the overall Index of Professional Autonomy is positive and statistical significant at 1% related to IFRSs adoption. Also, the estimations of the correlations between the score of IFRSs adoption and each individual dimension of the *Index of Professional Autonomy* show that all dimensions are statistical significant at 1% correlated with the index. The largest impact seems to be exercised by the two variables defining the professional judgement, while the lowest is the one for the freedom of choice and control.

Moreover, on the sub-sample of OECD member countries, there are some scale effects in the transmission of the impact exercised by professional autonomy on

IFRSs adoption. Thus, the quality of previous local GAAP may influence the shape of the professional autonomy's influence on IFRSs adoption. Other factors may be related to the degree of openness, the effects of globalization, the development of financial markets or broader cultural variables.

In order to check the robustness of the results to cross-countries differences in the *Index of Professional Autonomy*, we re-estimates the model using as dependent variables two of the individual components: IFRSs for listed companies and, respectively, the IFRSs for statutory filings. For both these variables, the index is positive and statistical significant at 1% related to IFRSs adoption. Furthermore, we checked the robustness of the results at taking into consideration of two control variables: (1) the implication in voluntary work for professional associations and, respectively, (2) the importance of the material motivation of work. The first variable remains significant at 1%, while the latter is significant at 10%. The main policy implication of these findings can be resumed as follows: the formal adoption of IFRSs should be completed by a coherent set of measures aiming to support professional autonomy. Such measures may refer to the social standing of the professional self-regulatory bodies, professionals' independence or to the arbitrage mechanisms.

Even if there are inherent research limits, the present paper attempts to cover the gap in the literature, by contribution to the discussion regarding the importance of professional judgement - as a component of professional autonomy - in financial reporting and auditing.

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