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The risk relevance of International Financial Reporting Standards: Evidence from Greek banks

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ABSTRACT

The main purpose of the paper is to estimate market, interest rate and exchange rate risk of Greek financial institutions and to explore the relationship between market-based measures of risk and accounting variables before and after the adoption of International Financial Reporting Standards (IFRS) in order to examine whether IFRS introduction enhances the information content of accounting data. Empirical results reveal that all banks are exposed to market risk while interest rate and exchange rate risk affect them occasionally. Moreover, the IFRS introduction reinforces the explanatory ability of accounting data, on systematic and non-systematic risks. Concerning the risk-relevance of accounting ratios, liquidity measures, credibility, earnings per share and provisions for credit loss are inversely related to systematic and non-systematic risks under IFRS. Moreover, loans to total assets ratio, interest rate spread and income diversification are directly associated with market measures of risk, while bank size is negatively related to both risk measures under IFRS. Our findings imply that the fair value orientation of IFRS is responsible for the higher risk-relevance of fundamentals as opposed to the historically oriented Greek Accounting Standards (GAS).

1. Introduction

The increasing numbers of banks, which go bankrupt, calls for a renewed interest in assessing the risk performance of banks. Market measures of risk and accounting ratios are often used to make an assessment of the risk performance of a firm (inter alia: Beaver, Kettler, & Scholes, 1970; Brimble & Hodgson, 2007; Chun & Ramasamy, 1989; Elyasiani & Mansur, 2005; Mansur, Zangeneh, & Zitz, 1993; Salkeld, 2011). Financial analysts, investors and stockholders pay considerable attention in analyzing the information on a firm's financial statements in order to use it as a base for their investments. Corporate executives also employ accounting data to formulate operating policies.

Previous accounting literature indicates that the implementation of IFRS reinforces accounting quality and leads to value relevant accounting measures (inter alia: Barth, Landsman, & Lang, 2008; Iatridis, 2008, 2010; Karamanou & Nishiotis, 2009; Iatridis & Rouvolis, 2010; Morais & Curto, 2009; Swartz & Negash, 2006). According to Niskanen, Kinnunen, and Kasanen (2000); Bartov, Goldberg, and Kim (2005) and Agostino, Drago, and Silipo (2011), the IFRS adoption emerges the value relevance of earnings. Moreover, Hung and Subramanyam (2007) find that the total assets, the book value of equity and the variability of book value and income are more value relevant under IFRS than under German GAAP. Barth et al. (2006) find that accounting quality of IAS is lower than US GAAP but higher than other domestic GAAP.

From the aforementioned studies it is clear that further research is needed regarding the impact of IFRS on accounting quality and especially at risk-relevance. In other words, whether the adoption of IFRS, has increased the explanatory ability of accounting variables of balance sheet and income statement concerning systematic and non-systematic risks, remains under question. The scope of our work is to shed light on the risk relevance of accounting measures related to bank size, loans, liquidity, credibility, earnings and income diversification in the pre- and post-IFRS periods. It comes to fill-in studies that focus on value relevance of IFRS, by investigating the risk relevance of IFRS in a code-law country. Our investigation is concentrated on Greece, primarily to control for institutional and political factors such as the legal system, bank orientation and taxation. According to La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) that investigates the legal system's effect on a country's financial system, the common law countries have better accounting systems and better protection of investors than code law countries.[1] Additionally, Greek Accounting Standards differ substantially from IFRS as they emphasize to historical cost accounting and are heavily influenced

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[1] Unlike code-law countries, common law countries are associated with weaker government intervention in economic activity, stronger protection of private property and accounting information is directed toward the needs of investors.

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by tax minimizing considerations (Baralexis, 2004; Iatridis & Dalla, 2011; Koumanakos, Siriopoulos, & Georgopoulos, 2005).

Therefore accounting ratios that refer to loans valuation, bank size measured by total assets, deposits and income diversification may be more risk relevant variables under IFRS than under Greek Accounting Standards (GAS). The same argument applies to earnings per share ratio (EPS) given that the fair value orientation of IFRS is associated with lower earnings management.

To this end we follow a theoretical risk decomposition model in order to measure the effect on the quality of accounting data due to a switch from a poor to a high quality and transparent accounting system as IFRS.[2] The increasing information content of accounting variables (lending activity, liquidity, credibility, earnings and income diversification ratios) regarding risk can be possibly linked to IFRS adoption due to accounting harmonization and non-opportunistic managerial discretion.

Our study contributes to the international accounting research in several aspects. First, we provide empirical evidence for the direct application of the common-law oriented IFRS (Barth et al., 2008) in a code-law country instead of using a multinational sample from common-law and code-law jurisdictions. Multinational datasets raise the concern of omitting country-specific elements that influence the properties under investigation (Soderstrom and Sun, 2007). Second, literature of IFRS mostly explores the value relevance of accounting variables, without taking into consideration any risk relevance issues. The risk relevance of loans to total assets, liquidity, credibility, income diversification, EPS, loan loss provisions ratios and bank size is investigated in a panel data model. Therefore, empirical evidence on risk relevance of IFRS is provided by using a broad set of accounting measures. Although the paper deals with a period before the impending financial crisis, our results provide evidence that IFRS may have auspicious effects on the financial markets' transparency. Third, previous research focuses on the information content of accounting measures within non-financial firms. The generalization of such results in banking institutions is under question since banks exhibit significant differences compared to non-financial firms.

The rest of the paper is organized as follows. Section 2 describes the institutional background of Greece and how this complies with IFRS. In Section 3, the literature review is present. In Section 4, systematic and non-systematic risks are modeled and the main hypotheses tested are established. Section 5 reports the empirical findings. Finally, Section 6 includes the conclusions of the paper.

2. The Greek banking and accounting system

Banks are characterized as heavily regulated firms due to their specific business nature acting as money intermediates of surplus and deficit units within the economy. Until the mid-1980s the Greek banking system was characterized by regulations which produced allocative inefficiencies and distortions in the function of the banks. However, after 1992 when the Greek parliament passed the Second Banking Directive the financial system changed significantly. Moreover, during the last years many Greek banks expanded their activities abroad and through mergers and acquisitions strengthened their position. Commercial banks are the dominant form of banking firms in Greece and regarding the ownership we should stress the abandonment of the state which led to a reduction of the number of state controlled banks to three in 2003. The impact of that government decision on the capital adequacy of banks was notable forcing banks to turn to the capital market in order to fund their activities. The adoption of the Euro in 2002 accelerated additional changes both on operational and accounting environment of banking institutions as liberalization leaded into an increased financial disclosure. But the major improvement concerning the accounting rules took place by the implementation of IFRS in 2005 which influenced significantly the value relevance of accounting variables of banking institutions in other countries (inter alia: Agostino et al., 2011; Bartov et al., 2005; Callao, Ferrer, Jarne, & Laínez, 2010; Hung & Subramanyam, 2007). However, the question whether IFRS influenced the risk relevance of accounting ratios is still to be answered.

A significant feature of the Greek accounting system is its law oriented, weak shareholders' protection, low litigation and reputation risk and not the market oriented institutional specialization (La Porta et al., 1998). Prior to IFRS implementation, the government had an active role in the formation of accounting standards, promoting taxation as the first priority for such standards (Ballas, 1994). We have to mention at this point that Guenther and Young (2000, p. 55) claimed that "in countries where there is a relationship between financial accounting and tax accounting rules, financial accounting information may differ from underlying economic activities because firms attempt to minimize taxable income". According to Spathis, Kosmidou, and Doumpos (2002) and Baralexis (2004), this implies that Greek firms seek to minimize tax obligations and tend to use creative accounting in such environment.

Additionally, the state's role was also conspicuous because the Greek auditing profession was state-supervised and therefore underdeveloped, until 1993 when the auditing profession became self-regulated (Caramanis & Lennox, 2008). In the code-law countries as Greece (also referred as stakeholder-oriented) firms' financing relies heavily on banking institutions and is basically fulfilled through relationship-based systems in which stock market and public disclosure are of secondary importance (Rajan and Zingales, 2003).

Accounting standards are in accordance with the status of the local institutional environment (Ball, Robin, & Wu, 2003) so we expect that Greek Accounting Standards (GAS) will diverge from IFRS in many areas such as of measurement and disclosure (Bae, Tan, & Welker, 2008; Ding, Hope, Jeanjean, & Stolowy, 2007). Indeed, Ding et al. (2007) classify Greece as the country with the highest "absence" score out of 30 countries examined for accounting rules incorporated from IAS but missing from GAS. The main areas that GAS and IFRS diverge relate mainly to the valuation and measurement of tangible and intangible assets as GAS is historic-cost oriented as opposed to IAS 16 and IAS 38, which encourage, and in some cases require, the fair value valuation of various elements of financial statements.

Moreover, IFRS do not focus on tax reporting in contrast to GAS, which are mainly tax-conformed. For instance, depreciation, amortization and depletion methods and rates are defined by tax legislation while under IFRS the firm has the discretion to apply a fair value rate. IAS 12 requires an entity to account for deferred tax using the balance sheet liability method while the Greek tax law requires an entity to account for deferred tax using the income statement liability method. Additionally, due to tax law, certain income and expenses are considered as extraordinary items under GAS while under IFRS such a distinction does not exists.

Concerning the amortization of intangible assets IAS 38 recognizes the unlimited useful life of them, which therefore need not be amortized as opposed to GAS where intangible assets are always amortized. IAS 39 which deals with the measurement of financial assets requires that the valuation of financial assets at fair value and of financial liabilities at amortized cost while under GAS financial assets are valued at the lower value of acquisition cost and market and financial liabilities at repayment value. IAS 37 recognizes provisions when and only when the firm has a present obligation, it is possible that the outflow of resources will be required to settle it and the amount of obligation can be reliably estimated while GAS consider provisions and impairments in the value of assets.

[2] Since 1 January 2005 all listed companies in the European Union (EU) have been required to publish their consolidated financial statements in accordance with International Accounting Standards (IAS) rather than national requirements (Generally Accepted Accounting Principles, GAAP). The IAS originally issued by the International Accounting Standards Committee (IASC) has evolved into the International Accounting Standards Board (IASB). IFRS comprise the standards issued by the IASB and those issued by the IASC, some of which have been amended by the IASB.