

THE VALUE RELEVANCE OF BANKS' ACCOUNTING NUMBERS IN US AND EUROPE: WHAT CHANGED WITH THE INTRODUCTION OF IFRS?

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ABSTRACT

This study concentrates on properties of banks' accounting numbers in an international context before and after the introduction of IFRS. In particular the objective is to answer to the followings four questions: (1) Are there systematic differences in value relevance between banks' earnings and book value across European countries and US ? (2) Do banks' book value and earnings convey different information to stock valuation? (3) Do banks accounting earnings present different properties in US and Europe? (4) What changed with the introduction of IFRS in Europe? Data show that before the introduction of IFRS banks' earnings and book value, together, in Italy and France were as value relevant as in US, while in Germany the value relevance appears inferior. Looking to valuation properties of banks' accounting numbers across countries considered, data show that in US and surprisingly in Germany earnings dominated book value, while the opposite happened in France. In Italy both earnings and book value had statistically significant incremental explanatory power. The results of the analyses performed change radically in 2005 after the introduction of IFRS in Europe. European banks' earnings become more value relevant and dominate book value as in US. In particular, as in US, earnings appear very timely but not conservative. All together the results suggest that, in a value relevance perspective, the introduction of IFRS has standardized the quality of banks' earnings and book value worldwide. Furthermore is confirmed banking industry's speciality, actually the properties of banks' accounting numbers, although standardised worldwide, appear different from those of industrial firms' accounting numbers as reported in previous international accounting literature. This evidence could suggest the need for special accounting standards dedicated to financial institutions.

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1. INTRODUCTION

From first January 2005 all European listed companies must draw up their consolidated financial statements using International Financial Reporting Standards (IFRS). This is a big innovation because IFRS differ substantially from General Accepted Accounting Principles (GAAP) used in many European countries, especially Continental countries (Italy, Germany and French).

Two are the major objectives pursued by European Union with this innovation:

- 1) the harmonization of accounting practices across Europe for listed companies, considered a fundamental step towards the final goal of complete integration of European capital markets;
- 2) the improvement of the average quality of accounting information provided by European listed firms to capital markets. In particular a specific objective pursued by International Accounting Standards Board (IASB) is to generate accounting information that current and potential investors can use in making rational investment decisions, i.e. financial information that is useful in estimating the intrinsic value of securities issued by a listed firm.

In this sense it is not surprising that the IFRS issued by IASB present a great level of similarity with the home GAAP of Anglo-Saxon countries (USA, UK, Canada), where the typical approach to financial reporting is exactly the usefulness approach, according to which the major goal of financial statement is to help investors to take investment decision. Adopting this view of the key role of financial reporting, financial accounting theory and research has operationalized the concept of usefulness equating it with the concept of information content of accounting information.

A definition of this approach is provided by W. R. Scott (2003) “... *The information perspective on decision usefulness is an approach to financial reporting that recognizes individual responsibility for predicting future firm performance and that concentrates on providing useful information for this purpose. The approach assumes that the market will react to useful information from any source, including financial statements*”. According to this approach the criteria by which evaluate the quality of financial reporting information is that of value relevance of accounting information, where the concept of value relevance is strictly related to the study of association between accounting amount and equity market values, Barth et al. (2001) provides the following definition : “... *an accounting amount is value relevant if it has a predicted association with equity market values.*” .

From the pioneer study of Ball and Brown (Ball and Brown 1968) the relation between accounting numbers and stock market values (or changes in values) has been investigated by researchers in a huge number of studies using different empirical

specifications (Holthausen and Watts 2001). Many researchers performed international studies with the objective to identify the standards of higher quality, where the concept of quality has been defined long different dimensions (value relevance, timeliness and conservatism), almost related to the capability of financial statements to convey useful information to the investors (e.g. Alford et al. 1993, Amir et al. 1993, Banyopadhyay et al. 1994, Harris et al. 1994, Joos and Lang 1994, Barth and Clinch 1996, Joos 1997, Lewitt 1998 and Pope and Walker 1999). All these studies concentrate on industrial firms excluding from the analysis banks, so properties of banks' accounting numbers in an international context are quite unknown. In this sense the study presented in this paper tries to overcome this lack studying the properties of banks' accounting numbers in an international context.

In particular the objective is to answer to the followings four questions: (1) Are there systematic differences in value relevance between banks' earnings and book value across Continental European countries and US ? (2) Do banks' book value and earnings convey different information to stock valuation? (3) Do banks accounting earnings present different properties in US and Continental Europe? (4) What changed with the introduction of IFRS in Europe?

These questions are relevant from both: a standard setting perspective and a valuation perspective. For standard setting purposes the improvement of value relevance of accounting numbers is one of the goals pursued by standard setters (IASB framework). So, the assessment of the value-relevance of accounting numbers provides to standard setters helpful information to identify eventual improvement's necessities (Barth, Beaver, Landsman, 2001). From a valuation point of view the relation between accounting numbers and value is a crucial element. In particular, it is important to identify which is the strength of this relation and to identify the valuation model that performs better from an empirical point of view (Kothari 2001).

To answer to the research questions, I perform an international relative association study in which I compare the association of earnings and book values with stock prices and returns for European (Italian, French and German banks) and American listed banks for the period 2001-2005. In particular, I analyze the different properties of banks' accounting numbers in these countries. The period chosen allows having quite homogeneous data on US banks, in fact in 2000 US GAAP have been revised in many aspects crucial for banks' financial statements (i.e. accounting for derivatives and business combinations). Furthermore the inclusion of 2005, year for which results are presented separately, allows appreciating the initial effect of the introduction of IFRS in Europe.

2. METHODOLOGY AND RESEARCH DESIGN

The difference in value relevance of accounting numbers across Europe and US

The first question I address is related to the cross-country differences in value relevance: are banks' accounting numbers more value relevant in US than in European Continental countries? What changed with the introduction of IFRS in Europa? Following previous evidence (Joos 1997; King and Langli1998) I analyze this problem studying the relation between financial statement variables and stock prices. In particular I use the following EBO model (Ohlson 1995):

$$P_{it} = a_0 + a_1BV_{it} + a_2NI_{it} + e_{1it} \quad (1)$$

where P_{it} is the share price for company i at balance sheet date t^1 , BV is the book value, and NI the accounting earnings in a per share basis².

Brown et al. (1999) show that the use of R^2 to measure value relevance could be inappropriate for comparisons between different samples using levels regressions like model (1). This is due to the existence of scale effects that increase R^2 , and these effects increase the scale factor's coefficient of variation. Although the comparison of R^2 's is appropriate when there are no significant differences in the scale factor's coefficient of variation across samples, a previous analysis of the data shows large differences across the countries understudy.

Following Brown et al. (1999) this problem is solved deflating each variable in model (1) by a proxy for the unobservable scale factor. I use the share price at the beginning of the period to proxy for the scale factor. Then model (1) and subsequent models are estimated deflating by P_{it-1} . Further more, to control for possibly exogenous market-wide effect on independent variable, I deduct from it the sample mean ratio P_1/P_0 in fiscal year t for the firm's reporting country j . Controlling for market-wide effect creates an independent variable that sums zero for each country-year sample and hence is risk-free in the context of a domestic CAPM.

¹ I have repeated the analysis using share price for company i three months after balance sheet date t . The results don't change significantly.

² I use per share values to mitigate the effect of heteroscedasticity (Barth and Kallapur, 1996), even though I estimate the t-statistics using the White (1980) heteroscedasticity consistent standard errors.

The relative importance of book value versus earnings for valuation

In order to test the relative importance of banks' book value versus banks' earnings for valuation, I decompose model (1) into two models that consider the individual value relevance of book value and earnings. The models considered are derived from model (1):

$$P_{it} = a_0 + a_1 BV_{it} + e_{2it} \quad (2)$$

$$P_{it} = b_0 + b_1 NI_{it} + e_{3it} \quad (3)$$

The value relevance of the book value and earnings is measured with the R^2 in models (2) and (3). Then to compute the incremental R^2 of both earnings and book value and test the statistical significance of both measures I use a two-step regression and t -test. The "two-step t -test" indicates if book value (earnings) conveys different information than earnings (book value).

In particular, it is possible to distinguish if earnings and book value convey different information to explain market values by decomposing the R^2 of model (1) as (Theil 1974):

$$R_{(1)}^2 = R_{NI}^2 + R_{bv}^2 + R_c^2$$

where R_{bv}^2 is the incremental book value R^2 on earnings, R_{NI}^2 is the incremental earnings R^2 on book value and R_c^2 is the common R^2 to book value and earnings. The incremental R^2 of book value (earnings) on earnings (book value) is computed as the difference between the R^2 of model 1 and the R^2 of model 2 (model 3):

$$R_{bv}^2 = R_{(1)}^2 - R_{(3)}^2$$

$$R_{NI}^2 = R_{(1)}^2 - R_{(2)}^2$$

The explanatory power common to book value and earnings is the total explanatory power of book value and earnings less the incremental explanatory power of book value and the incremental explanatory power of earnings.

$$R_c^2 = R_{(1)}^2 - R_{bv}^2 - R_{NI}^2$$

This Methodology is carried out in many international accounting papers such as Joos (1997) and King and Langli (1998).

The timeliness and the conservatism of banks' earnings

The research design infers timeliness and conservatism from the way banks' accounting incomes incorporate their economic incomes over time. I therefore specify accounting income as the dependent variable. I measure firms' economic incomes as fiscal-year changes in market values of equity, adjusted for dividends and capital contributions (Hicks, 1946).

“Clean surplus” accounting (Ohlson, 1988) implies two relevant identities for all firms. First, accounting income equals fiscal-year change in book value of equity, adjusted for dividends and capital contributions. Second, a firm's accounting and economic incomes summed over its lifetime are identical. I investigate the temporal process of the incorporation of economic income in accounting income, i.e., the accounting model of income determination. This research design allows for two fundamental features of the accounting model of income determination: accounting recognition principles that generally reduce the timeliness of accounting income by smoothing its incorporation of economic income over time and accounting income-statement conservatism.

The most fundamental feature of accounting determining the incorporation of economic income in accounting income over time are the accounting recognition principles, including the Revenue Realization and Expense Matching principles. Whereas economic income immediately incorporates changes in expectations of the present values of future cash flows, the recognition principles incorporate such changes in accounting income gradually over time, generally at points close to when the actual cash flow realizations occur. Hence, accounting income systematically lags economic income (Ball and Brown, 1968) and the lag extends over multiple periods (Beaver et al., 1980; Easton et al., 1992; Kothari and Sloan, 1992). The recognition principles therefore cause economic income to be incorporated in accounting income in a lagged and smoothed fashion over time. This feature of accounting income arises because there is demand for an income variable with properties additional to timeliness. While timeliness per se is desirable, information asymmetry between managers and users creates a demand for an income variable that is observable independently of managers. Accounting income thus incorporates only the subset of available value-relevant information that is independently observable, whereas economic income incorporates information that is not independent of managers, such as plans and forecasts. In other words, accounting income does not attempt to anticipate future cash flows to the same extent as economic income. The first-

order effect of the recognition principles thus is to make accounting income a complex moving average of past economic incomes:

$$NI_{it} = f(\Delta P_{it}, \Delta P_{it-1}, \Delta P_{it-2}, \dots) \quad (4)$$

where NI and ΔP , respectively, denote accounting and economic income. Economic income, ΔP , is fiscal-year change in the market capitalization of equity plus dividends and minus capital contributions during the year (Hicks, 1946). I hypothesize that the accounting model is applied differently across different accounting systems, and assume the model's parameters hold for all banks i that report under the accounting system of country j . Assuming that ΔP is independent over time, this simplifies to

$$NI_{it} = g_j(\Delta P_{it}, n_{it}) \quad (5)$$

The disturbance n_{it} incorporates lagged changes in market values ($\Delta P_{it}, \Delta P_{it-1}, \Delta P_{it-2}, \dots$). This disturbance term affect the R^2 of regression (5), which is used as a proxy for the timeliness property of accounting income. After scaling by opening market value, P_{it-1} , the dependent and independent variables are annual rate of return ($R_{it} = P_{it}/P_{it-1} - 1$) and earnings yield (NI_{it}/P_{it-1}), and a linear specification gives

$$NI_{it} / P_{t-1} = \partial_{01} + \partial_{1j} R_{it} + e_{it}^3 \quad (6)$$

The second fundamental feature of the accounting income model I study is conservatism. A longstanding example of income conservatism is the “lower cost principle” that obliges to recognize unrealized loss but does not permits to recognize unrealized gains.

Following Basu (1997), I incorporate conservative asymmetry in accounting income timeliness by modifying (6) for asymmetric incorporation of negative economic income:

$$NI_{it} / P_{t-1} = a_{0j} + b_{1j} RD_{it} + c_{2j} R_{it} + d_{3j} R_{it} RD_{it} + e_{it} \quad (7)$$

³ As in the previous equations, to control for possibly exogenous market-wide effect on independent variable, I deduct the sample mean return R in fiscal year t for the banks' reporting country j . Controlling for market-wide effect creates an independent variable that sums zero for each country-year sample and hence is risk-free in the context of a domestic CAPM.

The dummy variable RD_t assumes its value based on the sign of stock return, not earnings: one if return R_t is negative, and zero otherwise. c_{2j} and $(c_{2j} + d_{3j})$ capture the incorporation in current-year accounting income of positive and negative income respectively, in country j .

This specification has several attractive features. One advantage of specifying accounting income as the dependent variable is avoiding the need for a noisy earnings expectations model. Here, the independent variable (annual stock return) is relatively free of short-term microstructure, liquidity or mispricing effects. An additional advantage of the specification is that it incorporates the fundamental tenets of accounting income recognition. In particular, it incorporates lags that arise from the demand for an independent income measure, and piecewise linearity allows us to study international differences in asymmetric timeliness, or conservatism.

I estimate separate individual-country relations for each country j , pooling all banks i reporting under the country's accounting standards and all years t ⁴. International differences in income timeliness, for positive and negative income combined, are reflected in the R^2 's of individual-country regression (7).

3. DATA SELECTION AND SAMPLE DESCRIPTION

The sample, per each European Country, is represented by the banks listed on the primary home stock exchange in the period 2001-2005. Data on these banks are collected from BANKSCOPE. Firm/year observations with a missing value for any variable are excluded, giving the same observation set for the various variables and models estimated. Compustat Bank file and Compustat PDE file are used to select US banks and to collect data on them. US samples include only banks with fiscal year end (FYE) in December and that in the period 2001-2005 were listed in one of the principal US capital markets (NYSE, NASDAQ and AMEX). In particular, according to previous research (Alford et al.; Pope 1999), to ensure a better comparability between European and US banks, I select per each year considered three subsets of US banks matching them with the three samples of European banks in terms of size measured as market capitalization at December 31 of each year. For the Italian case, at 31/12/2001, 31 Italian banks were listed on Italian Stock exchange. I divide these banks in quartiles (*Italian quartiles*) according their market capitalization at 31/12/2001, to each quartile corresponds a certain market value range (*Italian market value range*). Then, using

⁴ For 2005 results are presented separately. In this year observations for European banks are pooled because the accounting system is common and because the observations for each country are few.

market capitalization at 31/12/2001 I identify the US banks falling in each “*Italian quartile*” defined by “*Italian market value range*”. The 3rd quartile is that in which the smaller number of US banks (29) fall. So for the year 2001, to replicate in the US sample the same size distribution of Italian sample, I select 29 US banks for each quartile. To select these banks I use a simple and neutral rule: per each quartile I select the 29 banks identified in Compustat file by the smaller GVKEI code number.

Table 1. – descriptive statistics

	<i>Mean</i>	<i>Max.</i>	<i>Min.</i>	<i>Std. Dev.</i>	<i>N</i>
Italy					
<i>NI/PO</i>	0,05	0,16	-0,41	0,07	127
<i>BV/PO</i>	1,09	11,59	0,07	1,27	127
<i>P1/BV</i>	1,57	7,75	0,10	1,23	127
<i>P1/NI</i>	22,86	110,33	4,66	17,45	127
US Matched					
<i>NI/PO</i>	0,08	0,49	-0,32	0,06	497
<i>BV/PO</i>	0,58	3,67	0,12	0,66	497
<i>P1/BV</i>	2,22	5,71	0,40	0,88	497
<i>P1/NI</i>	14,29	57,13	-3,68	11,10	497
France					
<i>NI/PO</i>	0,18	0,73	0,02	0,22	153
<i>BV/PO</i>	1,01	2,82	0,23	0,74	153
<i>P1/BV</i>	1,49	4,85	0,34	0,91	153
<i>P1/NI</i>	17,63	63,65	2,22	13,48	153
US Matched					
<i>NI/PO</i>	0,07	0,39	-0,28	0,08	512
<i>BV/PO</i>	0,61	3,08	0,24	0,42	512
<i>P1/BV</i>	2,08	5,14	0,33	0,80	512
<i>P1/NI</i>	13,64	47,04	-4,17	7,12	512
Germany					
<i>NI/PO</i>	0,04	0,63	-1,82	0,36	101
<i>BV/PO</i>	1,28	10,57	0,07	1,49	101
<i>P1/BV</i>	1,25	4,36	0,13	0,95	101
<i>P1/NI</i>	25,79	68,72	1,81	14,15	101
US Matched					
<i>NI/PO</i>	0,07	0,46	-0,28	0,09	476
<i>BV/PO</i>	0,56	3,08	0,12	0,88	476
<i>P1/BV</i>	2,11	5,14	0,39	0,71	476
<i>P1/NI</i>	14,03	57,13	-4,17	12,73	476

Notes:

Data: 2001-2005 observations pooled;

NI= net income;

BV=book value at the reporting date;

P0= beginning of period price;

P1= end of period price.

I repeat the procedure for all the five years considered. As for European countries I exclude each firm/year observation with a missing value for any variable, giving the same observation set for the various variables and models estimated.

I replicate this sorting strategy to select US matching samples for French, German and 2005 European samples.

All the samples are formed for the majority by commercial banks as identified by the international classification provided by BANKSCOPE, furthermore the financial analyst coverage for banks included in the samples selected, on average, is quite similar. Table 1. provides some descriptive statistics.

4. EMPIRICAL RESULTS

Evidence for the period 2001-2004: before the introduction of IFRS

The first question I address concerns differences in the value relevance of banks' accounting numbers across Italy, France, Germany and US before the introduction of IFRS (figure1.).

Table 2. presents the R^2 obtained performing models (1), (2) and (3) using observations relative to the period 2001-2004. First of all, data show that before the introduction of IFRS banks' earnings and book values, together, in Italy and French are as value relevant as in US. In particular in all these three countries the R^2 is about 11%, while in Germany it assumes the lowest value (4,2%).

This evidence differs from that presented by Alford et, al. (1993), while, at least for France and Germany, confirms results presented by Arce and Mora (2002). Both these studies consider only industrial firms.

Looking to valuation properties of banks' accounting numbers across countries considered, table 3. shows that in the period considered in US and surprisingly in Germany earnings dominate book values, while the opposite happens in France. In Italy both earnings and book values have statistically significant incremental explanatory power, suggesting that in Italy Economic Value Added models probably are the most performing valuation models for banks.

Table 2. – Estimated regressions of models (1), (2) and (3)

	<i>Intercept</i>	<i>NI/PO</i>	<i>BV/PO</i>	<i>R-Sq.</i>
Italy	-0,11	0,79	0,06	0,108
	(0,010)	(0,050)	(0,004)	
	-0,05	0,90	--	0,034
	(0,226)	(0,044)	--	
	-0,07	--	0,07	0,083
	(0,050)	--	(0,003)	
US Matched	-0,12	0,97	0,08	0,104
	(0,000)	(0,002)	(0,121)	
	-0,10	1,24	--	0,098
	(0,000)	(0,000)	--	
	-0,09	--	0,17	0,067
	(0,000)	--	(0,000)	
France	-0,21	0,11	0,19	0,108
	(0,001)	(0,483)	(0,000)	
	-0,04	0,24	--	0,013
	(0,331)	(0,12)	--	
	-0,21	--	0,21	0,111
	(0,001)	--	(0,000)	
US Matched	-0,10	1,01	0,07	0,123
	(0,000)	(0,000)	(0,143)	
	-0,10	1,18	--	0,102
	(0,000)	(0,000)	--	
	-0,08	--	0,21	0,065
	(0,000)	--	(0,000)	
Germany	0,00	0,25	0,01	0,042
	(0,985)	(0,050)	(0,800)	
	0,01	0,26	--	0,041
	(0,835)	(0,050)	--	
	-0,03	--	0,022	0,003
	(0,636)	--	(0,4939)	
US Matched	-0,13	0,99	0,09	0,109
	(0,000)	(0,000)	(0,111)	
	-0,19	1,17	--	0,090
	(0,000)	(0,000)	--	
	-0,09	--	0,20	0,056
	(0,000)	--	(0,003)	

Notes:

The estimated regressions of models (1), (2) and (3), based on ordinary least squares. The independent variables are net income (NI) and book value (BV). Variables in the model are deflated by the share price at the beginning of the period. R-Sq. is the estimated R2 adjusted to the degrees of freedom. Figures in parentheses represent the t-test. The standard errors are calculated using the White (1980) heteroscedasticity-consistent variance-covariance matrix. Data are 2001-2004 observations pooled.

Table 3 – R² decomposition model (1)

	R-Sq.	Sig.
Italy		
<i>Incremental R-Sq. of NI/P0 on BV/P0</i>	0,025	0,049
<i>Incremental R-Sq. of BV/P0 on NI/P0</i>	0,074	0,000
<i>Common R-sq.</i>	0,009	
<i>Total</i>	0,108	
US Matched		
<i>Incremental R-Sq. of NI/P0 on BV/P0</i>	0,037	0,023
<i>Incremental R-Sq. of BV/P0 on NI/P0</i>	0,006	0,490
<i>Common R-sq.</i>	0,061	
<i>Total</i>	0,104	
France		
<i>Incremental R-Sq. of NI/P0 on BV/P0</i>	-0,003	0,428
<i>Incremental R-Sq. of BV/P0 on NI/P0</i>	0,098	0,000
<i>Common R-sq.</i>	0,013	
<i>Total</i>	0,108	
US Matched		
<i>Incremental R-Sq. of NI/P0 on BV/P0</i>	0,058	0,000
<i>Incremental R-Sq. of BV/P0 on NI/P0</i>	0,021	0,068
<i>Common R-sq.</i>	0,044	
<i>Total</i>	0,123	
Germany		
<i>Incremental R-Sq. of NI/P0 on BV/P0</i>	0,039	0,000
<i>Incremental R-Sq. of BV/P0 on NI/P0</i>	0,001	0,679
<i>Common R-sq.</i>	0,002	
<i>Total</i>	0,042	
US Matched		
<i>Incremental R-Sq. of NI/P0 on BV/P0</i>	0,053	0,000
<i>Incremental R-Sq. of BV/P0 on NI/P0</i>	0,019	0,216
<i>Common R-sq.</i>	0,037	
<i>Total</i>	0,109	

Notes:

Data: 2001-2004 observations pooled.

Two-step regression is used to test the incremental explanatory power of earnings figure (NI) over book value (BV) and vice versa. Sig. indicates the probability to accept the null hypothesis of equality of R² to zero.

The second question I address concerns the differences of banks' earnings properties across countries analyzed before the introduction of IFRS. In particular, I study timeliness and conservatism of earnings as defined by Basu (1997). The presence of these properties is interpreted by researchers as signal of quality of earnings.

Previous studies referred to industrial firms, show that historically accounting earnings are more timely and conservative in Common law (i.e US) countries than in Code law countries (Ball et al. 2000; Ball et al. 2003). The empirical results obtained performing models (6) and (7) suggest that in the case of banks things are different. US banks' earnings are very timely but not conservative (Table 4.). In Italy and Germany accounting earnings appear more conservative than in US.

Table 4. - Estimated regressions of models (6) and (7)

Model (7):						
$NI/PO=a+b*RD+c*R+d*R*RD+e$						
	c	p(c)	d	p(d)	R-Sq.	N
Italy	0,02	0,287	0,11	0,050	0,047	127
US. Matched	0,08	0,04	0,03	0,234	0,089	497
France	0,04	0,03	0,04	0,04	0,037	153
US Matched	0,10	0,001	0,03	0,296	0,094	512
Germany	0,05	0,089	0,087	0,050	0,061	101
US Matched	0,08	0,001	0,020	0,031	0,097	476

Model (6):		$NI/PO=a+b*R+e (R>0)$			$NI/PO=a+b*R+e (R<0)$		
	b	R-Sq	N	b	R-Sq.	N	
Italy	0,04	-0,013	67	0,12	0,063	60	
US. Matched	0,10	0,098	257	0,07	0,051	240	
France	0,07	0,011	78	0,06	0,048	75	
US Matched	0,13	0,097	271	0,09	0,047	241	
Germany	0,08	0,041	52	0,09	0,071	49	
US Matched	0,14	0,092	247	0,10	0,044	229	

Notes:

Data= 2001-2004 observations pooled;

R= buy-and-hold security return inclusive of dividends over the fiscal year minus sample mean return in fiscal year t for the banks' reporting country j;

RD= RD equals one if return R is negative and zero otherwise;

p(.)=These figures represent the t-test.

What changed with the introduction of IFRS?

The results of the analyses performed change radically in 2005 after the introduction of IFRS in Europe. European banks' earnings become more value relevant and dominate book value as in US (table 5. and 6.). In particular, as in US, earnings appear very timely but not conservative (table 7). All together the results suggest that, in a value relevance perspective, the introduction of IFRS has standardized the quality of banks' earnings and book values worldwide.

Table 5. – Estimated regressions of models (1), (2) and (3) for 2005

	<i>Intercept</i>	<i>NI/PO</i>	<i>BV/PO</i>	<i>R-Sq.</i>
European pooled	-0,23 (0,000)	1,77 (0,000)	0,09 (0,117)	0,112
	-0,16 (0,000)	2,086 (0,000)	-- --	0,088
	-0,109 (0,000)	-- --	0,105 (0,010)	0,040
US Matched	-0,14 (0,000)	1,07 (0,006)	0,08 (0,126)	0,107
	-0,11 (0,000)	1,32 (0,000)	-- --	0,093
	-0,08 (0,000)	-- --	0,18 (0,004)	0,057

Notes:

The estimated regressions of models (1), (2) and (3), based on ordinary least squares. The Independent Variables are net income (NI) and book value (BV). Variables in the model are deflated by the share price at the beginning of the period. R-Sq. is the estimated R² adjusted to the degrees of freedom. Figures in parentheses represent the t-test. The standard errors are calculated using the White (1980) heteroscedasticity-consistent variance-covariance matrix. Data are year 2005 observations, with observations for the three European countries pooled.

Table 6 – R² decomposition model (1) for 2005

	<i>R-Sq.</i>	<i>Sig.</i>
European pooled		
<i>Incremental R-Sq. of NI/PO on BV/PO</i>	0,072	0,006
<i>Incremental R-Sq. of BV/PO on NI/PO</i>	0,024	0,369
<i>Common R-sq.</i>	0,016	
<i>Total</i>	0,112	
US Matched		
<i>Incremental R-Sq. of NI/PO on BV/PO</i>	0,050	0,023
<i>Incremental R-Sq. of BV/PO on NI/PO</i>	0,014	0,490
<i>Common R-sq.</i>	0,043	
<i>Total</i>	0,107	

Notes:

Data: year 2005, observations for the three European countries pooled.

Two-step regression is used to test the incremental explanatory power of earnings figure (NI) over book value (BV) and vice versa. Sig. indicates the probability to accept the null hypothesis of equality of R² to zero.

Table 4. - Estimated regressions of models (6) and (7) for 2005

<i>Model (7):</i> $NI/PO=a+b*RD+c*R+d*R*RD+e$						
	<i>c</i>	<i>p(c)</i>	<i>d</i>	<i>p(d)</i>	<i>R-Sq.</i>	<i>N</i>
European pooled	0,08	0,05	0,03	0,365	0,081	65
US. Matched	0,08	0,04	0,02	0,291	0,084	98

<i>Model (6):</i> $NI/PO=a+b*R+e (R>0)$			$NI/PO=a+b*R+e (R<0)$			
	<i>b</i>	<i>R-Sq</i>	<i>N</i>	<i>b</i>	<i>R-Sq.</i>	<i>N</i>
European pooled	0,09	0,091	33	0,06	0,048	32
US. Matched	0,10	0,096	45	0,06	0,047	43

Notes:

Data= year 2005, observations for the three European countries pooled;

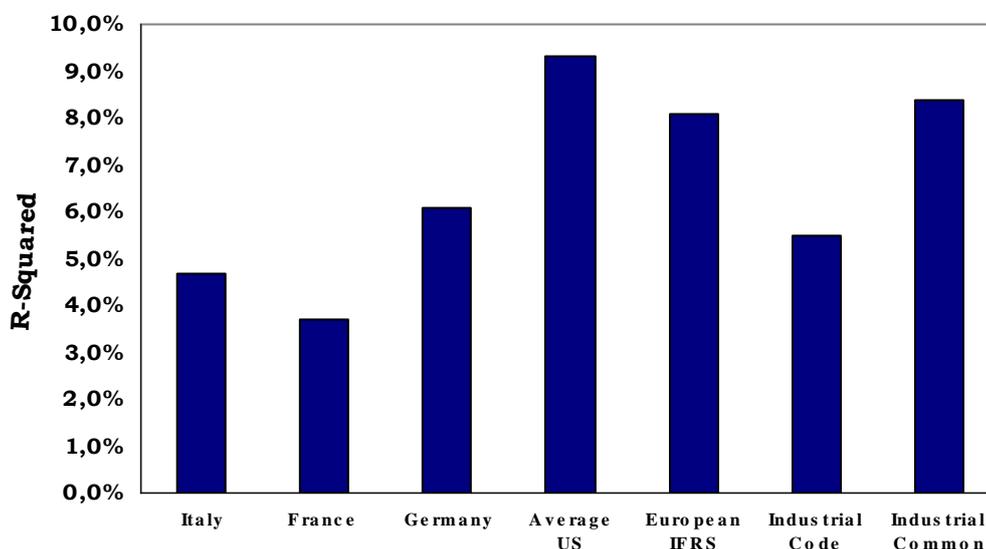
R= buy-and-hold security return inclusive of dividends over the fiscal year minus sample mean return in fiscal year t for the banks' reporting country j;

RD= RD equals one if return R is negative and zero otherwise;

p(.)=These figures represent the t-test.

Furthermore is confirmed banking industry's speciality, actually the properties of banks' accounting numbers, although standardised worldwide, appear different from those of industrial firms' accounting numbers (Figure 1 and 2.).

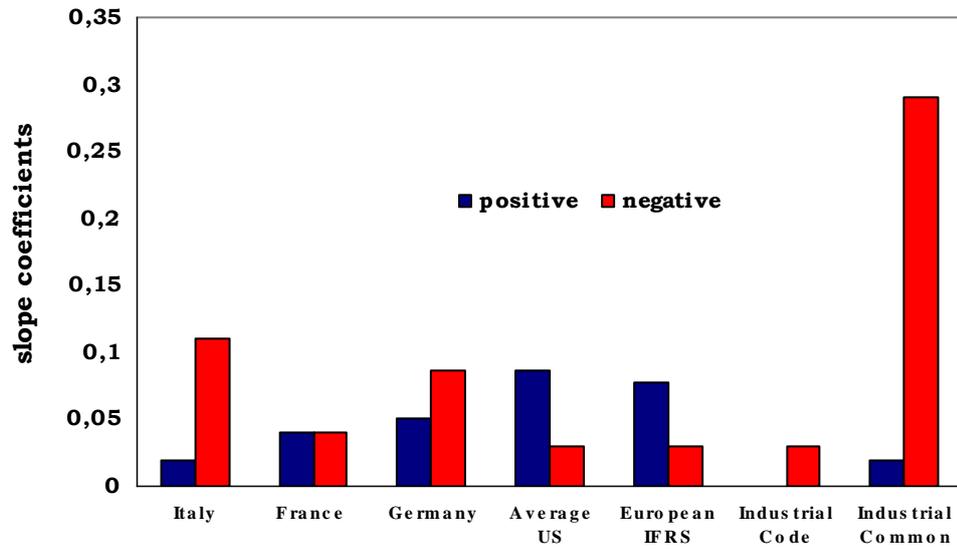
Figure 1. - R-Squared of model (7)



Notes:

Figure 1. shows R-Sq. obtained performing model (7) using all the different samples built. The R2s relative to the industrial firms are taken from Ball R., Robin A .and Wu J., (2003) "Incentives versus standards: properties of accounting income in four East Asian countries" Journal of Accounting and Economics, pp.235-270. The two benchmark categories are: (a) Common (Australia, Canada, UK and USA) and (b) Code (Germany, France and Japan).

Figure 2. - R-Squared of model (7)



Notes:

Figure 2. shows the slope coefficients obtained performing model (7) using all the different samples built. The slope coefficients relative to the industrial firms are taken from Ball R., Robin A. and Wu J., (2003) "Incentives versus standards: properties of accounting income in four East Asian countries" Journal of Accounting and Economics, pp.235-270. The two benchmark categories are: (a) Common (Australia, Canada, UK and USA) and (b) Code (Germany, France and Japan).

This evidence could suggest the need for special accounting standards dedicated to financial institutions.

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