



# Timeliness and conservatism

## Changes over time in the properties of accounting income in France

Yuan Ding and Herve Stolowy  
*Department of Accounting and Management Control,  
HEC School of Management (Groupe HEC),  
Jouy-en-Josas, Yvelines, France*

### Abstract

**Purpose** – This paper aims to investigate the changes in the properties of accounting income published by French listed companies during the 1990s. It also analyzes the impact of certain corporate characteristics such as size, international financing, and audit firm, on such changes.

**Design/methodology/approach** – Multivariate regression is used.

**Findings** – In French companies, good news has a delayed impact on earnings, as accountants only allow the effect of such news to be recognized gradually in the earnings measure. Conversely, bad news is reflected rapidly in earnings. The results confirm a general upward trend in the degree of conservatism of accounting earnings over the period as a whole. However, except for firm size, none of the corporate characteristics examined can predict a company's accounting earnings properties.

**Research limitations/implications** – In future studies, it will be interesting to develop and test other possible corporate and/or institutional factors relating to accounting earnings properties.

**Practical implications** – The paper provides an insight analysis on the evolution of institutional environment in France and its impact on accounting.

**Originality/value** – First study on properties of accounting income in France.

**Keywords** Multivariate analysis, Accounting, Earnings, Corporate finances, France

**Paper type** Research paper

### 1. Introduction

Our paper investigates changes in the properties of accounting income published by French listed companies during the 1990s, with accompanying analysis of the impact of certain corporate characteristics on this trend. The two properties of accounting income examined are timeliness and conservatism. Timeliness is defined as the extent to which current-period accounting income incorporates current-period economic income. Conservatism is interpreted as the extent to which current-period accounting income asymmetrically incorporates economic losses, relative to economic gains (Basu, 1997). The corporate characteristics referred to in this research are size, international financing and Big Five auditing.

France is a good test location for several reasons: It provides a different institutional context from the US, the country where such accounting properties were initially tested. Most importantly, France is often quoted as a leading representative of the code

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law system. This characteristic strengthens the politicization of its accounting regulations (Ball *et al.*, 2000). There is also significant divergence between the corporate governance environment in France and Anglo-American countries, making it interesting to analyze the earnings properties in French firms.

Further, over the last decade profound changes have taken place in France's accounting regulation system, the development of its financial markets and the internationalization of French firms. These transformations provide an excellent opportunity to analyze trends in earnings properties and test the impact of various corporate characteristics on such properties.

The results of our study are consistent with former studies on asymmetric conservatism (Basu, 1997; Giner and Rees, 2001): in French companies, good news has a delayed impact on earnings, as accountants only allow the effect of such news to filter through gradually to the earnings measure. Conversely, bad news is reflected rapidly in the figures, but its effect is more transient. Except for firm size, however, none of the corporate characteristics examined can predict the accounting earnings properties of a firm. The major contribution of our study is to extend Basu's paper by analyzing the impact of certain corporate characteristics, such as size, international financing, and audit firm used, on the changes of accounting earnings properties, as in previous studies (Basu, 1997; Giner and Rees, 2001), the model was only tested over the all firm sample.

The paper is organized as follows. Section 2 presents the models used in this study. Section 3 provides a contextual analysis, describing accounting standard-setting and capital market development in France and our hypotheses, while Section 4 provides definitions of the variables used and a description of the data collection method. Section 5 presents the statistical results, and Section 6 summarizes and concludes the study.

## 2. The model for incorporation of economic income into accounting income

Until the late 1960s, accounting practice focused largely on accrual accounting, while research was dominated by normative theory. Stimulated by developments in the fields of finance and economics (e.g. positive economic theory, the efficient markets hypothesis and the capital asset pricing model), accounting researchers then began to use economic income as a benchmark to measure the quality of accounting income. For example, Ball and Brown (1968), basing their work on the efficient markets hypothesis, studied the link between unexpected earnings and abnormal returns. The model used is as follows:

$$NI_{it} = \alpha_0 + \alpha_1 R_{it} + \varepsilon_{it}$$

where  $NI_{it}$  and  $R_{it}$ , respectively, denote accounting earnings yield (net income scaled by the year-end market capitalization) and annual rate of return of firm  $i$  for the fiscal year  $t$ . In this model, the rate of return is used as a proxy of the newly created economic value of the firm during the related fiscal. By studying the link between accounting value and economic value, the authors explored the capacity of accounting earnings to reflect the intrinsic value of the firm. The  $R^2$  of the regression is used as a proxy to measure the extent to which current-period accounting income (NI) incorporates current-period economic income ( $R$ ), i.e. the timeliness property of accounting income. They concluded that accounting income systematically lagged behind economic

income. Consequently, accounting income was found to have low timeliness and thus low value-relevance.

Other researchers (Beaver *et al.*, 1980; Easton *et al.*, 1992; Kothari and Sloan, 1992) looked further into the timeliness property of accounting income. They showed that the lag in accounting income behind economic income extended over multiple periods. The main reason is that the accounting recognition principles, such as revenue realization or expense matching, cause economic income to be incorporated into accounting income in a lagged and smoothed manner over time.

Basu (1997) improved the model significantly by adding another property of accounting income: conservatism. He interprets conservatism as the accountant's tendency to require a higher degree of verification for recognizing good news than bad news in financial statements. Earnings, as a result, reflect bad news more quickly than good news, and this is called conservative asymmetry in accounting income timeliness. His model can be written as:

$$NI_{it} = \beta_0 + \beta_1 RD_{it} + \beta_2 R_{it} + \beta_3 R_{it} RD_{it} + \varepsilon_{it}$$

where  $RD_{it}$  is a dummy variable equal to 1 if  $R_{it} < 0$ , 0 otherwise. Here,  $RD_{it}$  is used as a proxy of good news versus bad news. It is possible to decompose the above-presented model into two linear models:

When good news,  $RD_{it}$  is equal to 0; the model is  $NI_{it} = \beta_0 + \beta_2 R_{it} + \varepsilon_{it}$

When bad news,  $RD_{it}$  is equal to 1; the model is  $NI_{it} = \beta_0 + \beta_1 + (\beta_2 + \beta_3)R_{it} + \varepsilon_{it}$

If  $R^2$  for bad news is higher than that for good news, earnings are timelier in the first case. Furthermore, a positive  $\beta_3$  means earnings are more sensitive concurrently to reporting publicly available bad news than good news. Basu (1997) showed that earnings' sensitivity to current negative returns increased relative to earnings' sensitivity to current positive returns over the period 1963-1990, consistent with accounting conservatism increasing over time. He attributed this to two factors: (1) the legal liability exposure of auditors and managers for tardy disclosure of bad news has increased significantly over the last three decades; and (2) contracting parties increasing their demand for conservatism.

### 3. Hypotheses

#### *General trends in the timeliness and conservatism of accounting income*

To analyze changes in the properties of accounting income published by French companies, it is important to understand the institutional context of France and recent developments in French accounting regulation and corporate financing methods.

*Politicization of accounting standard-setting.* Traditionally, establishing and enforcing national accounting standards has been the task of the French government. The first French chart of accounts was developed by the French Vichy administration under German occupation in 1942, and it has been the cornerstone of the French accounting system ever since. During the early post-war period, accounting standard-setting was still the Government's responsibility for two main reasons: France's wartime experience of national vulnerability created a determination that the state should have a greater say in the operation of the economy and performance of key sectors; at the time, France had very few professionally qualified accountants and an

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immature organization structure for the accounting profession, dating only from the wartime reforms (Standish, 1996).

This politicization of accounting standard-setting and enforcement weakens the demand for timely and conservative accounting income, while conversely increasing the demand for an income variable with low volatility (Ball *et al.*, 2000). But since 1996, the French accounting system has undergone significant change, especially with the reform of the French National Accounting Council (CNC) and the foundation of a new Accounting Regulation Committee (CRC). The objective of the reform was to modernize the French accounting standards system to make it more effective, and also to speed up its responses to foreign GAAP, particularly US GAAP and IAS. The reform was a major redirection of the standardization process and challenged the existing balance of power between the various socio-economic actors directly concerned by the process. To a certain extent such redirection is reflected in the make-up of the standard-setting bodies. Further, following the reform the role of certain actors, starting with the state, was limited and the roles of others – especially the accounting profession and enterprises – was strengthened (Colasse and Standish, 1998).

In addition to such internal changes, the European Parliament has decided to require all listed EU companies to prepare their consolidated financial statements in accordance with International Accounting Standards (IAS) from 2005 onwards, at the latest (European Union, 2002). This decision is likely to have a deep impact on accounting practices in France, at least for listed companies, since the IAS are widely viewed as reflecting a largely common-law approach to transparent timely disclosure (Ball *et al.*, 2000).

So, although France traditionally has a highly politicized accounting regulation system, recent developments indicate a move towards a model with lower political involvement. We believe this situation has had some impact on the improved degree of timeliness and conservatism in accounting earnings published by French listed firms.

*Providers of capital and development of financial markets.* Prevalent types of business organization and ownership differ across nations. Zysman (1983) identified three main types of financial system in developed countries: capital market systems (e.g. the UK or US), credit based governmental systems (e.g. France or Japan) and credit based financial institution systems (e.g. Germany). According to the existing literature (Hung, 2001; Hope, 2003), the degree of transparency in accounts in the first type of financial system is different from that in the last two. The demand for transparent accounting is higher in countries with more market-oriented institutions, because lenders, shareholders and other users rely to a greater degree on public disclosure to reduce information asymmetry. Conversely, the demand for accounting transparency is lower in countries with more politicized, planning-oriented institutions or with more extensive family or other networks, because information asymmetry is more likely to be reduced by insider access. In such countries, accounting income is designed more to meet other demands, including a reduction in political costs and the determination of income tax and dividend payments (Ball *et al.*, 2003).

Ball and Shivakumar's (2002) study on earnings quality in UK private firms provides another interesting viewpoint on how the quality of financial reporting is affected by the market demands. Their results suggest that in the UK – although private and public companies faced the same regulations on auditing, accounting standards and tax laws – private-company financial reporting nevertheless was lower in quality due to lower market demand.

Traditionally business financing in France has been the preserve of a closed and highly nationally oriented community: many industries used to be financed by government or through cozy relationships with local banks. This is principally because the small and medium enterprises which form the backbone of the French economy have often developed from cottage industries or small family businesses. Independence and security are their two primary management objectives, so the capital of their enterprise comes largely from family financing and profit reinvestment (Redis, 1994). A second reason is that guaranteeing shareholder stability and the longevity of enterprises has always been part of the French government's economic policies, and cross-investment between large companies is also encouraged by the state. This explains why, in comparison with the UK or US, France has a less developed financial market (see Table I). Ball *et al.* (2000) considered this credit based financial system as politicization at the firm level, which leads to stakeholder governance involving agents for major groups contracting with the firm. The problem of information asymmetry between managers and stakeholders is solved by insider communication. Since stakeholders prefer the stability of payouts, managers try to reduce income volatility, and consequently the timeliness and conservatism of accounting income are relatively low in the stakeholder governance model.

Managers and auditors in these circumstances encounter a comparatively low incentive for transparency, due to a reduced market demand for accounting information, and a correspondingly higher political influence on what is reported and on the mechanisms for enforcing accounting standards (Ball *et al.*, 2003).

As discussed, however, the institutional context in France has changed, at least for large companies, over the last ten years. The Paris Bourse has become more international: an average 35 per cent share of the top 40 companies on the Paris stock exchange is now held by US and UK institutional investors and pension funds. Overall, 15 per cent of the French population now owns stock, increased from just 1 per cent a decade ago (Tagliabue, 2000). Furthermore, cross-border mergers and acquisitions involving French firms have increased rapidly in recent years. Some of France's leading companies are emerging from years of restructuring at home to pursue global objectives. With globalization driving consolidation in a host of industries, executives realized their firms either had to become larger and more powerful, or risk being acquired. This suggests it is no coincidence that French companies, since early 2000, have instigated six major takeovers with a combined value of more than \$125 billion, plus many smaller deals (Woodruff and Delaney, 2001).

The greater importance of institutional investors reinforces the pressure for disclosure, since institutional investors hold larger blocks of shares and may be better organized than private shareholders. We expect that financial reporting by French listed companies will include increasingly fuller disclosures (Nobes, 2000).

Countries	Market capitalization (\$ millions in 1999)	Market capitalization (% of GDP in 1998)	Value traded (% of GDP in 1998)
France	991,484	69.5	40.1
UK	2,374,273	174.9	86.0
USA	13,451,352	163.4	159.8

**Table I.**  
Stock markets in France,  
the UK and the USA

**Source:** 5.2 Stock markets (World Bank, 2000)

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The differences in the resulting timeliness of earnings result, in turn, from differences in production functions and investment opportunities of these firms (Fekrat and Belkaoui, 2002). Accordingly, we expect to find that over this period, accounting disclosures by French listed companies increasingly incorporate the accounting income properties that are considered desirable in common law countries. According to Ball *et al.* (2000), such properties are determined primarily in the disclosure market and include timeliness in incorporating negative economic income.

The general hypothesis for our study is therefore:

- H1.* The accounting earnings disclosed by French listed firms became increasingly timely and conservative over the period studied.

In our paper, we not only analyze the general trend in the timeliness and conservatism of accounting income, but also examine whether certain variables affect these trends. The variables selected are size of the firm, presence of foreign stockholders, and nature of auditing firms.

*Large versus small firms.* Our first variable is the size of the firm. The impact of corporate size on the conservatism of accounting earnings is not clear. Studies carried out on US samples (Basu *et al.*, 2001a, b; Ryan and Zarowin, 2001) show that large firms are often less conservative than small ones. There are several possible explanations. First, this apparent size anomaly is a natural consequence of market efficiency, since small firms are more risky in terms of the market value of equity. Second, small firms tend to be less diversified than large ones. Their returns are more volatile, making them more likely to have material economic impairments and therefore exposing their auditors and managers to greater legal liability risk. This could translate into more or bigger writedowns being required for small firms as auditors and/or managers try to reduce their legal liability exposure, which could explain the greater asymmetry for small firms.

Most probably, these arguments are valid only for countries with a capital market based financial system, and less valid for code law countries like France, where shareholder class-action lawsuits are uncommon (Basu, 2001). Changes discussed in the French institutional context essentially concern large firms. Generally speaking, large firms have more public visibility and are supposed to be subject to more pressures from different economic actors. Furthermore, large French firms often take their foreign counterparts as models and imitate their managerial and accounting practices. Most such role model companies are global players of Anglo-American origin. We formulate the next two hypotheses as follows:

- H2.* The accounting earnings disclosed by large listed companies are more timely and conservative than those published by small ones.
- H3.* The trend towards more timeliness and conservatism in accounting earnings is clearer in large listed companies than small ones.

*Internationally financed versus domestically financed firms.* The development of international financing activity is often seen in the literature as a primary possible explanation for the improvement in accounting timeliness and conservatism. Basu (2001) points out that European firms are reporting more conservatively in order to improve their ability to raise capital in global debt and equity markets. Other researchers also propose that firms issuing (or preparing to issue) debt or equity in foreign markets are more likely to report conservatively relative to other domestic

firms (Huijgen and Lubberink, 2001; Lang *et al.*, 2003). Lang *et al.* (2003) analyze the characteristics of local generally accepted accounting principles (GAAP) earnings for firms cross-listing on US exchanges relative to a matched sample of foreign firms currently not cross-listing in the USA. They investigate whether US listing is associated with differences in accounting data reported in local markets. They find that “cross-listed firms differ in terms of the time-series properties of earnings and accruals, and the degree of association between accounting data and share prices. Cross-listed firms appear to be less aggressive in terms of earnings management and report accounting data that are more conservative, take account of bad news in a more timely manner, and are more strongly associated with share price” (p. 363).

Our next two hypotheses are:

- H4. The accounting earnings disclosed by internationally financed companies are more timely and conservative than those published by domestically financed ones.
- H5. The trend towards more timeliness and conservatism in accounting earnings is clearer in internationally financed companies than domestically financed ones.

*Big Five audited versus domestically audited firms.* Another possible factor behind the increasing timeliness and conservatism of accounting earnings among European companies relates to the quality of auditing. In a study of the relationship between audit quality and earnings management, the then Big Six auditors were assumed to have higher quality than non-Big Six auditors (Becker *et al.*, 1998). Basu (2001) suggests globalization of auditing has resulted in the extension of common-law country auditing practices to code law countries. Another study found that Big Six auditors encourage more conservative financial reporting than non-Big Six auditors (Ruddock *et al.*, 2002). Since Big Five accounting firms audit most large non-US firms, it is possible that they enforce greater asymmetric conservatism in France due to their reputation concerns.

We thus propose two hypotheses concerning the audit firms engaged by French companies:

- H6. The accounting earnings disclosed by Big Five audited companies are more timely and conservative than those published by domestically audited ones.
- H7. The trend towards more timeliness and conservatism in accounting earnings is clearer in Big Five audited companies than domestically audited ones.

#### 4. Data and variables

##### *Sample*

The sample used for our statistical tests is based on French listed companies from the Worldscope database (Thomson One Banker – Analytics), which contains a total of 1,420 such companies. Since we study trends over the 10-year observation period 1990-1999, sample constancy is vital; i.e. the observed changes must concern the same sample companies throughout the period. We therefore eliminated all companies for which any data was missing during these ten years. The final sample contains 267 companies, resulting 2,670 firm-year observations from 1990 to 1999.

Timeliness is tested with the Ball and Brown (1968) model:

$$NI_{it} = \alpha_0 + \alpha_1 R_{it} + \varepsilon_{it} \quad (1)$$

and conservatism with the Basu (1997) model:

$$NI_{it} = \beta_0 + \beta_1 RD_{it} + \beta_2 R_{it} + \beta_3 R_{it} RD_{it} + \varepsilon_{it} \quad (2)$$

Accounting income ( $NI_t$ ) is the net income before extraordinary items/preferred dividends. It represents income before extraordinary items and preferred and common dividends, but after operating and non-operating income and expense, reserves, income taxes, minority interests and equity in earnings. In our study,  $NI_t$  is scaled by the year-end market capitalization of the firm for the period  $t - 1$  to become the accounting earnings yield.

Return ( $R_t$ ) is represented by the total investment return, measured as:

$$R_t = \frac{MP_t + D_t + \sum_{Q=1}^4 SD_Q}{MP_{t-1}} - 1$$

where  $R_t$  is the total investment return for year  $t$ ,  $MP_t$  the market price per share at end of year  $t$ ,  $D_t$  dividends per share for year  $t$  and  $SD_Q$  the special quarterly dividend per share.

Like Basu (1997), we use negative and positive annual investment return to proxy for bad news and good news. Here,  $RD_t$  is a dummy variable equal to 1 if  $R_t < 0$ , 0 otherwise.

Recognizing that France has lower public disclosure standards, and that its capital markets are less mature and have lower liquidity, the validity of annual investment return as a proxy for economic income could be questioned. In defense of the proxy, we argue that even in countries alleged to have unusually large proportions of uninformed investors, information influences stock prices nevertheless through the trading behavior of informed investors. Also, we use annual stock returns, which are less sensitive than short-interval returns to issues of liquidity, transaction costs, and the precise timing for market incorporation of information (Ball *et al.*, 2003).

Table II shows the descriptive statistics for the sample.

#### *Variables relating to corporate characteristics*

*Size.* We use total market capitalization to measure the size of firms. Year by year, we classified our sample in order of market capitalization, then divided it into two subsamples: large firms and small firms. We use a dummy variable where size equals 1 if large, 0 otherwise.

*International financing.* The existing literature quite often uses cross-border listing to measure the degree of internationalization in a firm's financing structure. In our opinion, this proxy has lost relevance as the French market has progressively become more open to foreign investors and institutional investors have become ever more internationally mobile (both of these developments being facilitated by technological advances). Arguably, nowadays, a company that is listed in its own internationally important domestic market and also included in an internationally recognized stock



	Return			NI		
	Average	Median	Standard deviation	Average	Median	Standard deviation
1999	0.2649	0.1455	0.4986	0.0596	0.0617	0.3144
1998	0.1861	0.1200	0.4440	0.0425	0.0624	0.2589
1997	0.2369	0.1822	0.3888	0.0402	0.0690	0.2435
1996	0.2339	0.1544	0.4172	0.0320	0.0617	0.2349
1995	-0.0728	-0.0630	0.2779	0.0301	0.0559	0.1567
1994	0.0435	-0.0209	0.3721	0.0247	0.0509	0.2280
1993	0.4166	0.3396	0.5254	0.0128	0.0598	0.2373
1992	-0.0220	-0.0220	0.3030	0.0511	0.0640	0.1682
1991	0.0579	0.0303	0.3462	0.0553	0.0747	0.2255
1990	-0.1751	-0.1845	0.2705	0.0755	0.0734	0.1947

**Notes:** <sup>a</sup>The sample consists of 267 French listed companies selected from the Worldscope database over 1990-1999, i.e. 2,670 firm-year observations. Any firms with missing values are eliminated to facilitate comparability; Return = annual investment return; NI = annual earnings per share before extraordinary items/preferred dividends

**Table II.**  
Descriptive statistics<sup>a</sup>

index is less exposed to international market fluctuations than a company listed abroad but in a less important market. International investors own almost 40 per cent of the share capital of French CAC 40 companies (the 40 largest French listed companies making up the CAC 40 Index). We therefore chose to use stock index listing as a proxy for the degree of international financing.

A dummy variable is used dividing our sample into two groups: equal to 1 if a company belongs to at least one of the following three stock indexes: DJ Global, FTSP World or CAC 40; 0 otherwise. The only exception is Bull Société Anonyme, which figures in both the New Zealand Stock Exchange 40 (NZSE) Index and in the Paris SBF 120 Index. Besides Paris, the company is also listed in Germany (Frankfurt, Berlin, Munich, Dusseldorf) and Switzerland (Zurich). We thus decided to include Bull in the International Financing group.

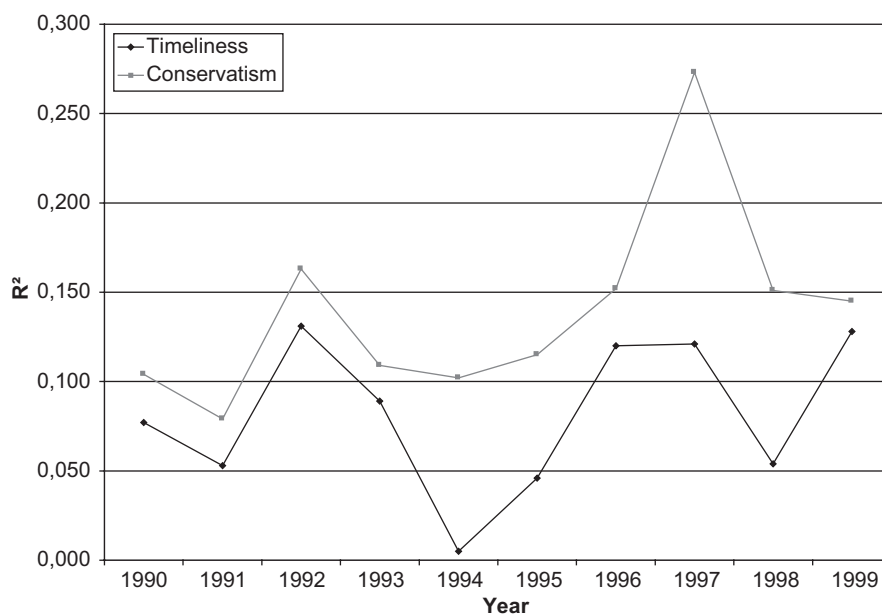
*Auditing firms.* The sample is divided into two sub-groups according to their auditors. If a company is audited by at least one Big Five accounting firm, the value of the dummy variable is 1, otherwise it is 0.

## 5. Results

Using the simple or multiple regression and average *t*-test methods, we test our seven hypotheses one by one.

First, we will consider *H1*. Using the Ball and Brown (1968) model  $NI_{it} = \alpha_0 + \alpha_1 R_{it} + \varepsilon_{it}$  for timeliness and the Basu (1997) model  $NI_{it} = \beta_0 + \beta_1 RD_{it} + \beta_2 R_{it} + \beta_3 R_{it} RD_{it} + \varepsilon_{it}$  for conservatism, we obtain the following results. Comparing  $R^2$  in the timeliness and conservatism models, a clear improvement can be observed in the second (Figure 1). The averages for  $R^2$  are respectively 0.082 (timeliness) and 0.139 (conservatism) (Table III). The *t*-test produces a *t* equal to -3.974 (0.003). The validity of Basu's model is thus confirmed for the French context: The published earnings of French companies are timelier in reflecting publicly available bad news than good news.

However, the above graph also indicates that there is no clear upward trend in the  $R^2$  using Ball and Brown's model. The simple regression of timeliness  $R^2$  over the



**Figure 1.**  
General trends in earnings properties

ten years confirms this impression ( $R^2 = 0.056$ , Sig = 0.511), which means the level of timeliness of accounting earnings among French companies did not improve during the 1990s.

Let us now turn to  $\beta_3$  in the Basu model used to measure the level of conservatism (Figure 2).

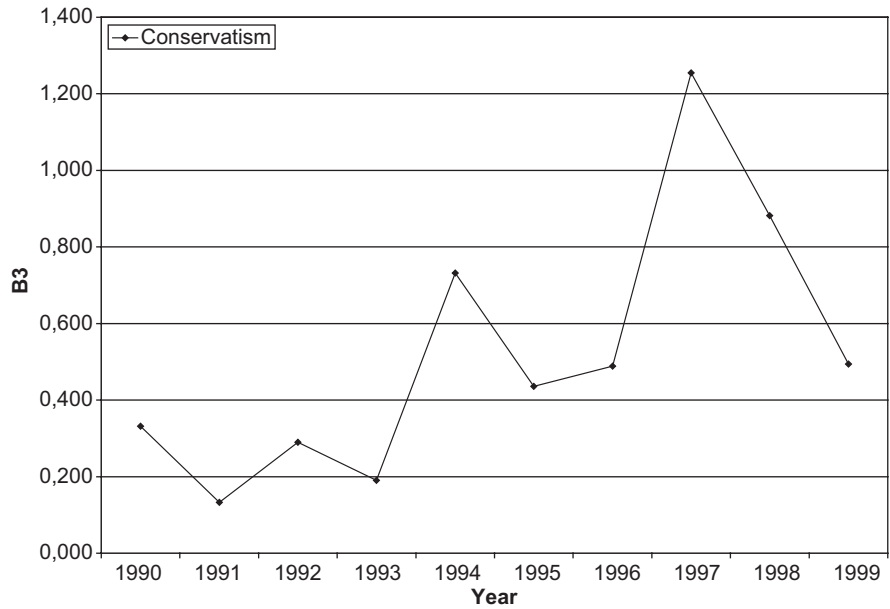
Despite a substantial value decrease from 1997-1999, the general trend observed is still upwards. The regression of  $\beta_3$  over the ten years gives  $R^2$  equal to 0.416 (0.044). Our results thus support the findings of Ball *et al.* (2000) and Giner and Rees (2001) ( $H2$  and  $H3$ ).

The regression results obtained according to firm size are shown in Table IV.

As far as timeliness is concerned, as already observed in the general trends, there is no marked upward (or downward) change for either small or large companies (see Figure 3).

	Year									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Timeliness										
$R^2$	0.077	0.053	0.131	0.089	0.005	0.046	0.120	0.121	0.054	0.128
$\alpha_1$	0.200	0.150	0.201	0.135	0.042	0.122	0.195	0.218	0.136	0.225
Sig for $\alpha_1$	0.000	0.000	0.000	0.000	0.262	0.000	0.000	0.000	0.000	0.000
Conservatism										
$R^2$	0.104	0.079	0.163	0.109	0.102	0.115	0.152	0.273	0.151	0.145
Sig for model	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
$\beta_3$	0.332	0.133	0.290	0.190	0.732	0.436	0.489	1.255	0.882	0.494
Sig for $\beta_3$	0.010	0.369	0.002	0.389	0.000	0.000	0.010	0.000	0.000	0.022

**Table III.**  
General trends in earnings properties



**Figure 2.**  
Changes in conservatism

The  $R^2$ s in the regression of timeliness  $R^2$  over time are respectively 0.076 (0.441) for small companies and 0.003 (0.879) for large companies. Contrary to our expectations, the average of timeliness  $R^2$  for small firms (0.129) is higher than that for large firms (0.069), although the difference is not statistically significant ( $t = 1.376$ , sig = 0.202).

	Year									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<i>Timeliness</i>										
Small										
$R^2$	0.103	0.064	0.286	0.120	0.003	0.012	0.136	0.130	0.086	0.351
$\alpha_1$	0.223	0.144	0.284	0.186	0.038	0.069	0.277	0.266	0.251	0.638
Sig for $\alpha_1$	0.000	0.003	0.000	0.000	0.524	0.210	0.000	0.000	0.001	0.000
Large										
$R^2$	0.057	0.047	0.057	0.035	0.124	0.114	0.121	0.092	0.033	0.007
$\alpha_1$	0.117	0.182	0.151	0.059	0.121	0.168	0.115	0.116	0.025	0.015
Sig for $\alpha_1$	0.006	0.011	0.005	0.031	0.000	0.000	0.000	0.000	0.036	0.349
<i>Conservatism</i>										
Small										
$R^2$	0.169	0.087	0.345	0.141	0.113	0.104	0.159	0.312	0.187	0.392
Sig for model	0.000	0.008	0.000	0.000	0.001	0.003	0.000	0.000	0.000	0.000
$\beta_3$	0.539	0.086	0.419	0.258	0.947	0.522	0.443	1.460	1.081	-0.099
Sig for $\beta_3$	0.010	0.624	0.002	0.464	0.000	0.001	0.190	0.000	0.000	0.731
Large										
$R^2$	0.067	0.093	0.065	0.038	0.250	0.161	0.168	0.111	0.069	0.071
Sig for model	0.029	0.005	0.032	0.169	0.000	0.000	0.000	0.002	0.025	0.523
$\beta_3$	0.207	0.529	0.137	0.038	0.372	0.359	0.436	0.101	0.177	0.005
Sig for $\beta_3$	0.242	0.115	0.434	0.987	0.000	0.004	0.008	0.701	0.027	0.985

**Table IV.**  
Trends in earnings  
properties according to  
firm size

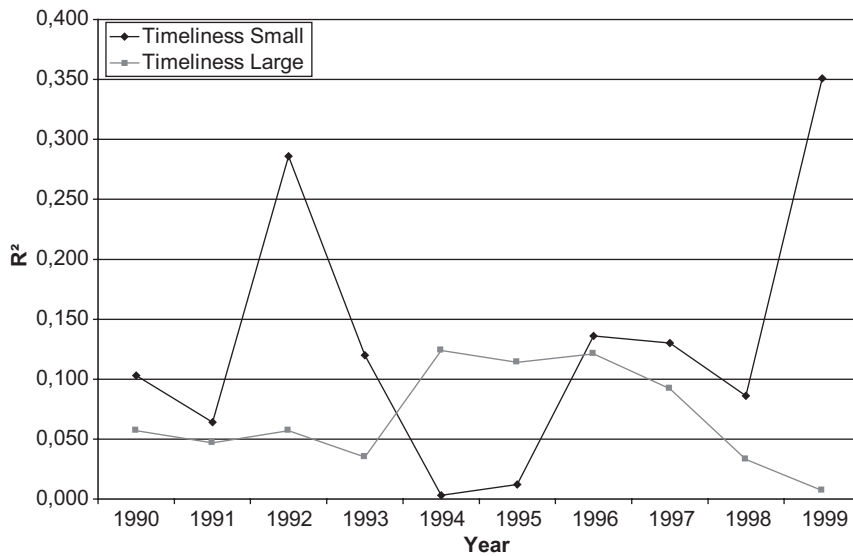


Figure 3. Timeliness/size

The same applies for conservatism, despite confirmation of the general trends (Figure 4): there is no significant change in  $\beta_3$  during the 1990s for either small or large firms; small companies show a higher average conservatism  $\beta_3$  (0.566 versus 0.236) with 10 per cent statistic significance ( $\text{sig} = 0.073$ ).

One positive point is that the application of Basu's model significantly improves the  $R^2$  for both groups (small and large firms).

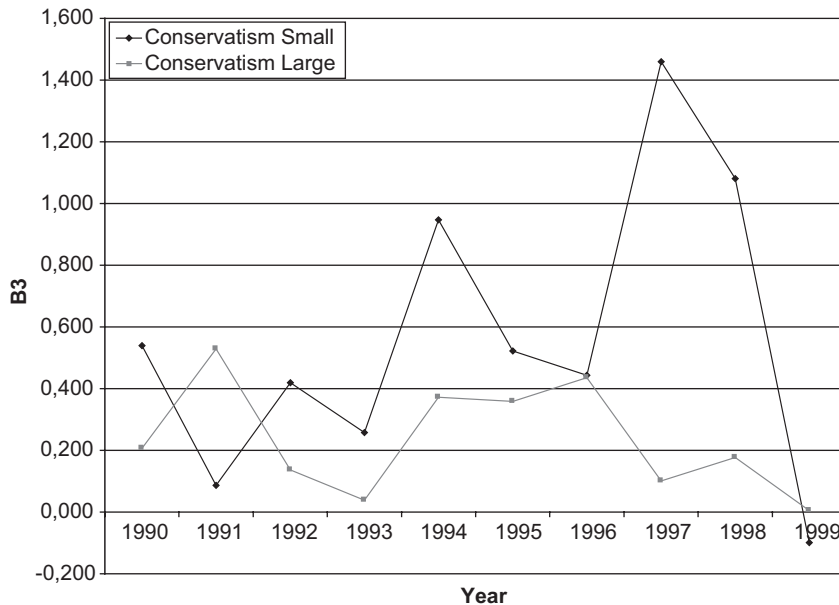


Figure 4. Conservatism/size

In conclusion, neither of *H2* and *H3* is confirmed by our statistic analyses. In fact, small firms show a higher degree of conservatism than large ones in France. This result is consistent with findings in the US (Basu *et al.*, 2001a, b; Ryan and Zarowin, 2001), despite the difference between the two countries' institutional contexts (*H4* and *H5*).

A serious problem was encountered in testing these hypotheses because of the limitations of the Worldscope database. Since Worldscope provides data only for the last year concerning the markets a company is listed on and the indexes it is included in (1999 in our study), we were not able to examine the trends in the earnings properties of French firms according to their international financing activities.

The only analysis possible is to compare the two groups in 1999. This gives a very interesting result, totally contrary to our hypotheses (see Table V): both Ball and Brown's and Basu's models are highly suitable for less internationalized French firms, but not at all suitable for those with intensive international financing. Obviously, no conclusion can be drawn from a one-year observation, but this indicates an interesting direction for future research if the data-collecting problem can be solved (*H6* and *H7*).

Here, we obtain almost identical results to the analysis of firm size (Table VI). There was no clear change during the 1990s in timeliness and conservatism for companies audited either by Big Five or non-Big Five firms (Figures 5 and 6). However, the

**Table V.**  
Trends in earnings  
properties according to  
international financing

	$R^2$	Timeliness		$R^2$	Conservatism		
		$\alpha_1$	Sig for $\alpha_1$		Sig for model	$\beta_3$	Sig for $\beta_3$
Non-international financing	0.303	0.528	0.000	0.336	0.000	0.054	0.820
International financing	0.000	0.002	0.915	0.012	0.836	-0.011	0.974

**Table VI.**  
Trends in earnings  
properties according to  
auditing firm

	Year									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<i>Timeliness</i>										
Non-Big Five										
$R^2$	0.063	0.072	0.267	0.120	0.002	0.049	0.289	0.121	0.030	0.196
$\alpha_1$	0.171	0.075	0.188	0.174	-0.031	0.168	0.243	0.170	0.064	0.336
Sig for $\alpha_1$	0.002	0.002	0.000	0.000	0.642	0.017	0.000	0.000	0.081	0.000
Big five										
$R^2$	0.088	0.091	0.082	0.052	0.251	0.049	0.048	0.134	0.072	0.046
$\alpha_1$	0.225	0.331	0.228	0.088	0.197	0.081	0.145	0.261	0.188	0.089
Sig for $\alpha_1$	0.001	0.000	0.001	0.006	0.000	0.006	0.006	0.000	0.001	0.006
<i>Conservatism</i>										
Non-Big Five										
$R^2$	0.089	0.101	0.361	0.172	0.167	0.165	0.346	0.251	0.055	0.211
Sig for model	0.005	0.003	6.000	0.000	0.000	0.000	0.000	0.000	0.126	0.000
$\beta_3$	0.279	0.071	0.350	0.183	1.306	0.797	0.720	0.535	0.351	0.564
Sig for $\beta_3$	0.139	0.435	0.000	0.611	0.000	0.000	0.006	0.050	0.123	0.177
Big Five										
$R^2$	0.119	0.115	0.093	0.052	0.272	0.087	0.081	0.316	0.189	0.082
Sig for model	0.002	0.001	0.004	0.055	0.000	0.004	0.005	0.000	0.000	0.003
$\beta_3$	0.371	0.446	0.252	-0.023	0.072	0.194	0.435	1.610	1.050	0.428
Sig for $\beta_3$	0.043	0.218	0.202	0.931	0.442	0.024	0.099	0.000	0.000	0.026

Basu model significantly improves the regression of accounting earnings over returns for both groups.

### 6. Summary and conclusions

This study has looked at changes in the properties of accounting earnings in France during the 1990s, and attempted to validate certain hypotheses explaining these trends.

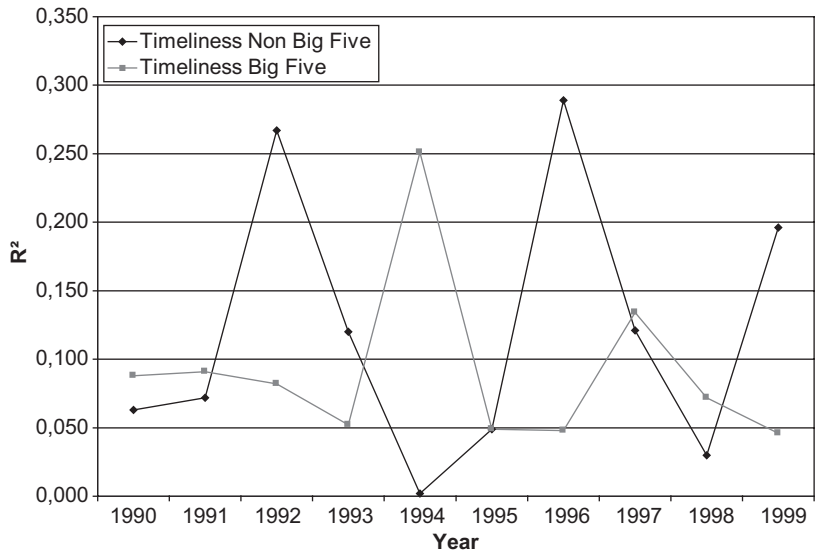


Figure 5. Timeliness/auditing firms

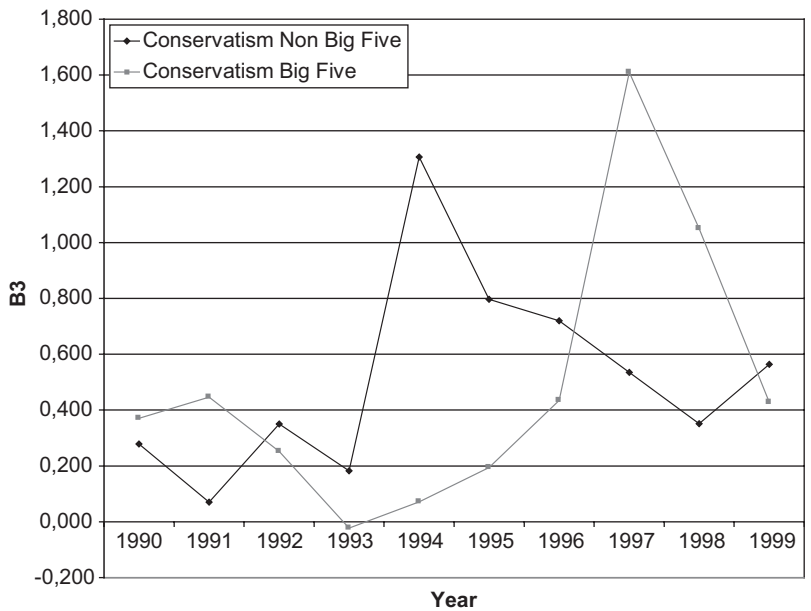


Figure 6. Conservatism/auditing firms

Our analyses show the validity of applying Basu's conservatism model to French companies, regardless of their size and auditing firms. We also confirmed the overall improvement in the conservatism aspect of accounting earnings published by French listed companies during the 1990s, as validated by Ball *et al.* (2000) and by Giner and Rees (2001) for certain years using a smaller sample.

Various arguments have been presented in the literature to explain the improvement of earnings timeliness and conservatism; for example, the size of the firm, listing on international markets, the presence of international investors or being audited by Big Five firms. Size is the only significant explanatory variable found in this study: as in results obtained from US samples, small firms tended to be more conservative than large ones in France.

The limitation of this study is that it relies on Basu (1997) for measuring timeliness and conservatism. Dietrich *et al.* (2003) demonstrate that Basu method results in misspecification. They believe that results obtained in previous studies are attributable to the estimation procedure rather than to conservatism.

In future studies, it will be interesting to develop and test other possible corporate and/or institutional factors relating to accounting earnings properties. Once the problem of data availability is solved, further research into the relationship between earnings properties and a company's degree of international financing will also be highly valuable.

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### Corresponding author

Yuan Ding can be contacted at: ding@hec.fr