Do asset revaluations signal future performance of private firms?

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Abstract:

This study investigates whether upward (write ups) and downward revaluations (write-offs) of non-financial fixed assets predict future performance of private firms. We show that upward asset revaluations are related to future operating performance depending on the changing net tax benefits they bring to firms. When tax benefits in the form of future tax shields are expected to exceed current tax costs in the form of "substitute tax" payable at the time of revaluation, firms revalue assets upward if they forecast positive future taxable income to exploit the net tax benefit. This results in a *positive* relation between revaluations and future cash flows. The financial reporting process appears *as if* it is consistent with reporting true firm performance. When current tax costs are low or zero, firms exploit the discretion in revaluations more loosely to achieve also other objectives of financial reporting. This results in a *negative* relation between upward revaluations and future cash flows. Write-offs are never significantly *negatively* related to future operating performance. Indeed, they become significantly positively related to future performance during the general economic downturn. Though these findings contrast the expected outcome according to accounting standards, they are consistent with the high alignment/tax rate and the non-tax cost and benefits that characterise the setting in which private firms typically operate.

1   Introduction

A primary objective of the financial reporting process is to provide users of financial statements with reliable information to assess the amount and timing of future cash flows. As a summary statistic for complete financial statements, earnings are deemed to be more persistent and less volatile than cash flows. And persistent earnings are deemed to be of higher quality (Dechow, Ge & Schrand, 2010). Earnings, and in particular the accrual components, are more informative about future cash flows than current cash flows (Dechow, Kothari & Watts, 1998; Barth et al., 2001; FASB, 1978). Assessing the validity of these accounting properties for private firms is particularly relevant given their predominance in the world economy, but it poses different challenges as private firms differ from public firms in terms of governance, ownership, financing, compensation and management structures (Ball & Shivakumar, 2005; Kosi & Valentincic, 2013).

This study investigates whether upward and downward adjustments to book values of non-financial long-term assets predict future operating performance of private firms in a codified institutional setting with high alignment between financial and tax accounting. In particular, the analysis focuses on both upward revaluations (or write-ups) and downward revaluations (or write-offs) of operating fixed assets: two accrual components of (comprehensive) earnings that share several features in terms of the financial reporting process as well as some fundamental differences. This renders their simultaneous analysis particularly suitable to understand the quality and incentives of the financial reporting process in private firms.

Regarding the similarities between write-ups and write-offs, both treatments aim at adjusting asset values that had been originally recorded in the financial statements at historical cost. Firms utilise operating assets to produce goods or services for sale and it is the future sales that realise the historical cost anticipated in investing as long as sales cover all costs, including depreciations, over the useful life of

the asset (Onida, 1950; Penman, 2010). When an asset's recoverable amount exceeds its book value, upward asset revaluations aim at incorporating in current reported earnings future gains that were not predictable at the time of investing. As Kosi & Valentincic (2013) put it, asset write-offs can be viewed as negative upward asset revaluations as they represent negative departures of current values from book values. Timeliness in recognising unrealised gains and losses – another key accrual accounting property – must occur around the time of revisions in expectations of future performance (Basu, 1997). Thus, reliable upward asset revaluations should be positively related to future operating performance while reliable write offs should anticipate worsening operating performance. Yet, both treatments require critical accounting estimates whose potential lack of reliability depends on the uncertainty inherent in the estimation process, whether it arises from uncertainty inherent in forecasting future economic conditions or the discretion firms may opportunistically use to cope with that uncertainty (Aboody, Barth & Kasznik, 1999). This issue becomes a major concern in the context of private firms, where the financial reporting process is more likely oriented towards obtaining economic benefits for the firm and the owners rather than to communicate the true value of the firm to outside stakeholders (Coppens & Peek, 2005, Burgstahler, Hail & Leuz, 2006; Garrod, Kosi & Valentincic, 2008).

Regarding the fundamental differences between the two instruments of financial reporting, upward asset revaluations are recognised directly in the balance sheet bypassing thus the income statement, a practice commonly referred to as dirty surplus accounting (Pope, 1993). In contrast, losses from asset write offs do flow through the income statement respecting the clean surplus accounting relation (Mura & Roberto, 2014). Upward revaluations are discretionary when asset values increase whereas write offs are compulsory when asset values decrease (Aboody et al. 1999). This asymmetry expresses another fundamental property of accounting rules and practices in that losses are generally recognised in a more timely fashion – the asymmetric timeliness of losses versus gains (Ball & Shivakumar, 2006; Basu 1997). However, whether this asymmetric treatment is also common to accounting practice in private firms is far

from clear (Ball & Shivakumar, 2005). While there is evidence on write-offs in private firms, there is no empirical evidence regarding upward asset revaluations in private firms, either as a stand-alone issue or as part of the more complex combination of write-ups and write-offs. Examining upward asset revaluations and write-offs simultaneously offers the chance to further our understanding of accounting properties in the context of private firms. Here, the different role of institutional factors and capital market forces in influencing the informativeness of financial reporting has long been recognised (Burgstahler, Hail & Leuz, 2006). Pressures from financial analysts, regulating authorities and investors of public capital markets disappear (Van Tendeloo & Vanstraelen, 2008). Ownership and governance structure are less sophisticated, with main shareholders often acting as managers. Hence, the demand for financial reporting to resolve information asymmetries between owners and outside parties is less intense (Garrod et al., 2008). Private firms are more likely to shape their accounting choices toward the objective of tax minimisation than public firms. Cloyd et al. (1996) show that a higher level of book-tax reporting conformity represents a common strategy that private firms adopt to reach this goal. Fiscal authorities, in turn, especially in countries with a high book-tax alignment, are claimed to take on the role of direct stakeholder and primary user of private firms financial statements in order to verify the congruity of taxable income (Van Tendeloo & Vanstraelen, 2008; Kosi & Valentincic, 2013). Yet, tax minimisation, though relevant, is not the only financial reporting objective that private firms appear to target: paying stable dividends, accommodating lenders expectations, getting better terms of trade with suppliers, customers and employees are also claimed to be important objectives in the growing literature relating to private firms (Ball & Shivakumar, 2005; Coppens & Peek, 2005; Szczesny & Valentincic, 2013).

The extant literature investigating the effects of upward asset revaluations, though large, is limited to public companies (Whittered & Chan 1992; Barth & Clinch 1998; Aboody et al. 1999; Lopes & Walker, 2012) and offers conflicting findings. Significantly, Barlev et al. (2007) analyse motivations for and effects of asset upward revaluations across 35 countries to find out that they are not uniform and that conclusions

from previous studies are not applicable to countries with different institutional features. Amongst the contributions analysing the motives for upward revaluations, just two relate to private firms and highlight how the presence of a high proportion of financial debts and weak solvency conditions make this accounting choice more likely: this happens both in Belgium and Italy (Gaeremynck & Veugelers, 1999; Piras & Mura, 2015). However, evidence on the effects of upward asset revaluations on future performance in the context of private firms is lacking. In contrast, various contributions comprehensively study how private firms balance the tax and non-tax costs of choosing to write their assets off in different institutional settings (Germany, Slovenia) and under changing fiscal conditions (Garrod, Kosi & Valentincic, 2008; Kosi & Valentincic, 2013; Szczesny & Valentincic, 2013). Again, no existing studies investigate jointly the effects of write-ups and write-offs.

We focus on Italy, whose entrepreneurial system is dominated by private firms. These firms operate in a codified legal environment and heavily depend on banks and other financial intermediaries for funding their investments (Burgstaler et al., 2006; Piras & Mura, 2015). A high level of corporate taxation and a high alignment between accounting and taxation provide strong incentives toward the adoption of aggressive strategies to minimise the tax burden (Mura, Emmanuel & Vallascas, 2013; Gavana et al., 2013). The Global Competitiveness Report (World Economic Forum, 2014) reports that out of 144 countries Italy ranks 143st on the extent and effect of tax and 134rd in terms of total tax rate (65.8%). The empirical analysis of this setting adds another dimension to the extant revaluation literature. In this scenario, it is the central government that identifies the timing and the fiscal conditions to account for upward revaluations through the enactment of special laws, while write-offs are not fiscally deductible. Taken together, asset upward revaluations and write offs in Italy present a complex set of tax and non-tax costs and benefits that firms can flexibly combine to reconcile the expectations of fiscal authorities, lenders, suppliers, employees and other stakeholders that may exert diverging impact on their financial reporting process. It is thus interesting to understand whether the intermittence and the fiscal conditions characterising the Italian

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special laws generate different relations between asset revaluations and future performance as compared to other institutional settings. In effect, the extant literature is almost focused on accounting regimes based on Common Law, where asset upward revaluations are generally allowed with no temporal limitations and no fiscal implications. Brazil is an important exception (Lopes & Walker, 2012).

We analyse the effects of three special revaluation laws (enacted in the year 2003, 2005 and 2008) on a large sample that comprises more than 14,000 private Italian firms complying with local Italian GAAP. We combine the traditional approach that captures the reliability of revaluations in a multivariate setting by focusing on the relation between them and future performance - as measured by either operating income or operating cash-flows - with the model analysing the persistence of earnings components (accruals and cash flows) as a measure of earnings quality (see Dechow, Ge & Schrand, 2010 for a comprehensive literature review). In particular, accruals are split into its write-up component, write-off component and other accruals. The results show that upward asset revaluations are related to future operating performance either positively when firms are able to collect tax benefits via revaluations or negatively when firms pursue objectives other than reporting true firm performance and other than tax benefits. This depends on the details of the special law applicable in a particular year regarding the tax treatment of write-ups. We view these results as indicating that reporting true firm performance may result even in the context of private firms, but is inferior to the tax minimisation motive. Write-offs of fixed assets, on the other hand, are never significantly *negatively* related to future operating performance in all regimes. Indeed, right when the damaging effects of the financial crisis are expected to compromise the profitability of Italian private firms, write-offs become significantly *positively* related to future operating performance.   This is in contrast with the intent of accounting standards to report the present value of decreases in expected future cash flows, but is in line with the set of economic incentives under which Italian private firms operate. As there is no tax effect of these write offs, firms pursue other non-tax

benefits of reporting write offs (e.g., debt capacity, dividend policy, terms of trade; Szczesny & Valentincic, 2013).

The remainder of the paper contains five sections: the first of which explains the peculiarities of accounting for asset revaluations in Italy. Section 3 reports the theoretical development of the two hypotheses to be tested. The research design is explained in section 4. The results of the empirical tests are then given in section 5 and a final section discusses the implications of the findings.

2   Revaluations and impairment of fixed assets in Italy

The Italian Civil Code (art. 2426, § 1) and, accordingly, both local accounting standards OIC 16 – *Immobilizzazioni materiali* and OIC 24 – *Immoblizzazioni immateriali* (the two Italian accounting standards related to tangible and intangible fixed assets, respectively) prescribe that non-financial fixed assets are recorded in the balance sheet at their historical cost and systematically depreciated over their useful life if this is limited. This apparently strict adherence to historical cost accounting is randomly deviated by the enactment of special laws that allow upward revaluations of fixed assets during specific financial years. First adopted and occasionally re-proposed to cope with the distorting effects of inflation on the reliability of financial accounts – a critical phenomenon that became dramatic during the seventies of the previous century – these special laws have now become so frequent to lose both their original role and their extraordinary character. In effect, in a period during which deflation worries European monetary institutions more than inflation, the enactment of 6 special laws in less than fifteen years (specifically in 2000, 2001, 2003, 2005, 2008, 2013) narrows the distance between this accounting practice and the "revaluation model" prescribed by IAS 16 or commonly adopted in other institutional settings investigated in the extant literature (e.g. UK and Australian GAAP). In these contexts, recognising fixed assets at

revalued amounts is permitted with no temporal limits, is independent from inflation and has no fiscal implications.

In Italy, a qualified independent appraiser is normally required to undertake the valuation of the assets. Yet, each special law has its own detailed prescriptions relating to the types of assets to be revalued (though lands and buildings are common to every law), the temporal limit for revaluing them as well as the related fiscal conditions. In this last respect, the upward revaluation amounts are subject to the payment of a substitute tax measured as a specific percentage of their amounts. Such payment is also a condition ensuring that future depreciation related to the upward revaluation amounts will be recognised as tax deductible expenses. In relation to the three special laws whose effects are investigated in this analysis, those issued in 2003 and 2005 prescribed the highest fiscal rates for the substitute tax, while the 2008 special law not only prescribed – by far – the lowest rates, but it also included, for the first time, the option of revaluing assets with no tax implications. Thus, in the latter case, the upward revaluation was not fiscally charged and, correspondingly, the depreciation of the revalued amounts was not fiscally deductible in the following years.

More specifically, the 2003 and 2005 special laws prescribed the payment of a substitute tax on the revaluation amounts whose rates for depreciable assets ranged from 19% (in 2003) to 12% (in 2005) while for non-depreciable assets ranged from 15% (in 2003) to 6% (in 2005). The depreciation process started to be fiscally recognised either in the following year (for the 2003 special law) or in the third year (for the 2005 special law) after the choice of revaluating. In contrast, according to the 2008 special law, the payment of the substitute tax was only optional and its rates ranged from 3% (for depreciable assets) to 1.5% (for non-depreciable assets). In case firms opted for paying the substitute tax, the depreciation process started to be fiscally recognised in the third year after the revaluation.

Despite the distinctive features of each special law, they share a common accounting procedure that is also common to other institutional contexts: the revalued amount is debited to the relating fixed asset in the balance sheet and it is directly credited to a revaluation reserve within shareholders' equity (net of fiscal charges if present), thus bypassing the income statement. The revaluation reserve is separately displayed on the balance sheet under the heading "*riserve di rivalutazione*" (item *A*III of the balance sheet, art. 2424 of the Civil Code).

The Italian Civil Code (art. 2426, § 3) requires that firms recognise impairment of fixed assets in presence of durable losses. OIC 24 and OIC 9 specify that this occurs when the recoverable amounts of the asset persistently fall below its carrying amounts. Write-offs of fixed assets are displayed separately in the income statement under operating expenses "*svalutazione delle immobilizzazioni*" (item *B*10*c* of the income statement, art. 2425 of the Civil Code) and are fiscally neutral, as they are not recognised as tax deductible expenses.

3   Background and hypotheses development

The extant literature shows that private firms are less concerned than public firms in making accounting earnings less informative in the process of minimising taxes and/or achieving other financial reporting objectives (Kosi & Valentincic, 2013). This is particularly true when private firms operate in high book-tax alignment and/or tax rate countries (Burghtshler et al., 2006). Gavana et al. (2013) highlight the existence of a strong reciprocal influence between tax and financial reporting in Italy with several items where accounting values are determined by having in mind the tax incentives or using tax rules directly. They also speculate that the fiscal attractiveness of Italian special laws on revaluations represents the main consideration for firms deciding whether (and to what extent) to revalue their fixed assets. If this conjecture is true, such a decision depends on the balance between tax costs and tax benefits related to

the choice of revaluing fixed assets (Cloyd et al. 1996). More specifically, the so-called substitute tax on upward revaluation amounts that is payable at the time of revaluation is the tax cost to be compared with the tax benefit stemming from the fiscal recognition of the revaluation amounts as tax deductible expenses in future reporting periods when revalued assets are depreciated over the (fiscal) life of the asset. The spread between the rate of the substitute tax and the overall corporate tax rate (that is the sum of the rates of the two corporate Italian taxes – called IRES – corporate income tax and IRAP – regional production tax) measures the net fiscal benefit of the accounting choice. This spread, though variable over time, has been systematically favourable to the choice of revaluation under any of the special laws enacted during the period of this study, thus constantly resulting in a potential *net* tax benefit. Yet, only firms that will have taxable earnings in future reporting periods that are sufficiently high to absorb the fiscal deduction of the depreciation in the following years will be able to fully exploit this net tax benefit. Hence, reliably forecasting the firm's future profitability that will be registered when the revalued asset is depreciated is essential for gaining the tax relief. Crucially for our research, this implies that if a firm is able to increase firm value by exploiting this particular financial reporting instrument this results in increased earnings quality. We stress that this is not the result of applying the intent of accounting standards in upward asset revaluations (i.e., increases in expected future operating cash flows), but a result of firms exploiting the financial reporting process for motives other than reporting true firm performance. In this situation, both exploiting the fiscal incentives of the special laws and presenting a true and fair view of the firm stimulate managers towards the decision of accounting for a reliable upward revaluation. In addition, this choice presents the non-tax benefit of strengthening the perception of a firm's financial solidity as it generates an immediate increase of both total assets and shareholders' equity. It is thus an accounting treatment that under the circumstances described above, enables a firm to reach multiple objectives of financial reporting at the same time: obtain the tax benefit, depict a true and fair view and reassure lenders, suppliers and

other outside parties on the financial health of the firm. This leads us to formulate the following hypothesis:

H_1: Upward revaluations of fixed assets in private Italian firms are reliably positively associated with future operating performance.

It is difficult to assess whether this relation will still be expected when the tax benefits of upward revaluations decrease or optionally disappear as in the case of the 2008 special law. The immediate perception of an increase in the firms' wealth might remain the only real motivation in favour of upward revaluations, especially for firms that need to demonstrate to potential and existing lenders and suppliers their ability to pay back loans and trade credit, respectively (Piras & Mura, 2015). In this case, upward revaluation amounts that are not predictive of positive future performance might arise in the financial reporting process, since the condition of realising future taxable earnings loses its relevance. This will in turn affect negatively earnings quality. In empirical tests we account for these potential issues.

The accounting choice of writing assets off is subject to different tax and non-tax consequences than upward asset revaluations. On the one hand, the Italian Civil Code and accounting standards dictate that firms must write their fixed assets off as soon as they realise that the ability of these assets to generate future operating cash flows and earnings is deteriorating. This leads us to expect a negative relation between future operating performance and current write-offs. On the other hand, impairment accounting in private firms is less likely to be demanded by the market. Firms may be reluctant to write their assets off because they do not want to acknowledge the losses involved. In sum, other economic motives may prevail in the choice of writing assets off (Garrod et al. 2008, Kosi & Valentincic, 2013). Indeed, private firms may be even tempted to slow the rate or amount of depreciation when their profitability weakens. Exercising such discretion in the financial reporting process is likely to be less difficult for private than public firms, as

financial analysts, strong minority share-holders, unions and investors are less likely to scrutinise financial statements to the same extent as for public firms.

In our setting, the non-tax cost to the firm of appearing worse off to outside parties due to write-offs combines with the fiscal neutrality of write-offs as they are not recognised for tax purposes in Italy. Hence, the timing and amount of write offs are not likely to "raise suspicion" of fiscal authorities: the fundamental stakeholder and user of private firms' financial reports that is also claimed to increase the likelihood of audit failure detection in high tax alignment countries (Van Tendello & Vanstraelen, 2008). We thus expect that private firms write their assets off not to admit the presence of imminent future losses, as this would anticipate doubts on their financial solidity, but rather as a buffer to smooth earnings over time. When earnings are temporarily high, private firms may have the incentives to write (some of) their fixed assets off. A long standing view in the international accounting literature is that firms use their accounting discretion to reduce fluctuation in reported earnings so as to give the impression of a smoothly increasing earnings series. During the sixties and seventies of the previous century leading academics in Italy (above all, Onida, 1970), theoretically supported earnings smoothing as a plausible objective of financial reporting. Though the Civil Code and local Italian GAAP have never shared this view, Coppens & Peek (2005) empirically document that Italian private firms consistently smooth earnings over time and avoid reporting losses. Mura & Piras (2016) provide persuasive evidence that the deferred tax account is one specific accrual that Italian private firms use to reach these goals.

Both deferred taxes and write-offs of fixed assets are highly discretional accruals that have no tax (cash flows) implications. The empirical evidence on the relation between write-offs and simultaneous profitability in other settings uniformly shows that more profitable firms write assets off more frequently and intensively and that non-tax benefits remain a relevant driver of this relation. Szczesny & Valentincic (2013) show that private German firms decrease earnings via write-offs to preserve their future capacity of meeting lenders' expectations as well as to allow a stable payment of dividends out of current profits in

future years. We thus expect that write-offs in Italy are used in a similar fashion in the financial reporting process. If a firm writes some of its assets off in order to decrease earnings that are temporary high and the operating performance of these assets is unchanged, these assets will still generate positive effects in terms of operating cash flows and earnings during their useful life. In sum, we formulate the following second hypothesis:

H_2: Write-offs of fixed assets in private firms do not predict negative future operating performance

4 Research design

4.1 The sampling process

The sample of private companies is drawn from the database AIDA, managed by Bureau Van Dijk, that contains detailed financial accounting and qualitative data (industry, geographical location, ownership, independent/group) on a large number of companies located in Italy. The final sample is the result of the application of various selection criteria. First, due to their specificities in terms of business policies and strategies, the sample does not include financial, insurance and real estate firms and firms with activities related to the public sector. Second, co-operative firms as non-profit maximizing entities are also excluded from the sample. Thus the sample includes only limited-liability corporations. Third, all firms in the sample comply with local Italian GAAP (Civil Code and OIC) and their accounting data are from unconsolidated, firm-level, financial statements. Firms voluntary adopting IAS/IFRS are removed from the sample as the revaluation special laws are not applicable to them. In fact, they can use the revaluation model as prescribed by IAS 16. Fourth, we removed from the sample firms that are allowed to file an abridged version of financial accounts (those not exceeding for two consecutive years two of the three following limits: 4,400,000 EUR of total assets, 8,800,000 EUR of revenues and 50 employees). This is because, amongst other simplifications, these firms do not have to separately report write-offs of fixed assets in the

balance sheet thus preventing us from observing a fundamental item for this analysis. The final sample consists of about 14,000 private Italian firms.

In terms of sample composition by industry sector as identified by the capital letter of the ATECO code (the Italian industry classification), manufacturing is by far the most prevalent sector (50.8% of observations), followed by retail and wholesale trading (29.1%). The sampling process has focused on the period spanning 2002 to 2011 to ensure the availability of lagged and lead variables; this period is characterised by the enactment of three special laws on revaluation (2003, 3005 and 2008). For this reason, this period is particularly suitable to study the main implications of this accounting practice.

< TABLE 1 HERE >

Table 1 reports both the percentage of firms that revaluated their assets when special laws were enacted and the percentage of firms that wrote their assets off. These percentages mirror those of public Italian firms and those in countries where the "revaluation model" is allowed (Barlev et al., 2007). It is evident that the 2008 special law was the most popular. As pointed out in section 2, this special law imposes the lowest fiscal charges on firms and, for the first time, introduces two options: 1) revaluating fixed assets by paying a substitute tax (at the cheapest rate for the period) for having the possibility to have the depreciation deduction at full corporate tax rates in future periods; 2) revaluating fixed assets without fiscal implications either in the current or future periods (no substitute tax, no fiscal relief).

< TABLE 2 HERE >

Table 2 shows descriptive statistics for the set of variables used in our model (Panel A). The variables entering our model have been winsorised (Tokey, 1962) in order to remove the influence of extreme values. Overall, applying these criteria to sample selection and required variables allows us to generate a large sample of the medium-sized private Italian sector that mirrors the institutional settings employed in Kosi & Valentincic (2013) and Szczesny & Valentincic (2013). Panel B reports selected financial

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statement items at the firm level. Table 3 shows the bivariate Pearson correlation coefficients. We note

weak bivariate correlations of our two main variables (REVAL, WO) with other variables which indicates

that the relations must be modelled carefully.

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4.2 Variable construction and statistical tests

The two main dependent variables we use in our study are operating income before write-offs $OI_{(t+n)}$,

n = 1,2,3, and operating cash flows $OCF_{(t+n)}$. The latter is estimated as net income *EARN* less accruals, where

accruals are constructed as: ACC_t = *ΔInventory + Δdebtors + Δother current assets – Δcreditors – Δother

current liabilities – depreciation –* provisions *– fixed assets write-offs*. Both dependent variables are scaled

by the total assets at the beginning of year t.

Period t denotes the years: 2003, 2005 and 2008 – i.e. years in which revaluation was allowed by

special laws. An important factor for this decision is to try to minimize the error in the *REVAL* variable. In

years when revaluations were not allowed (e.g., 2004, 2006, 2009, etc.), the value of zero of the *REVAL*

variable may mean that: i) there is no departure of book value from the recoverable amount (= the higher

of net selling price or value in use); or ii) that there is a difference, but the firms cannot record it because

they are not allowed in that particular year as no special law was issued. It must be noted that even in years

with the special law the measurement error in *REVAL* may still be present, as there is no obligation to

revalue assets upwards even if revaluation is allowed by the special laws.

We also use the following control variables: *QR* – quick ratio; *LEV* – financial leverage; *SIZE*; *GROUP*

– this indicates whether the firm forms part of a group or not and it is important to gauge the degree to

which a firm's accounting policy is independent; *IND* – industry, *REG* – region, etc.

4.3   Methods

We start by relating period t revaluations (*REVAL*) and write-offs (*WO*) to future operating income (*OI*) and future operating cash flows (*OCF*), controlling for the other accruals indirectly via earnings *EARN*:

$$(OI_{t+n}, OCF_{t+n}) = \beta_0 + \beta_1 REVAL_t + \beta_2 WO_t + \beta_3 EARN_t + \beta_{10} controls_t + \epsilon_t \qquad (1)$$

Note that *REVAL* is not part of earnings as it is recorded directly in owners' equity, hence it will not be captured by subtracting cash flows from earnings. We then split earnings into its two principal components: accruals other than write-offs (*ACCOTH = ACC - WO*) and operating cash flows (*OCF*):

$$(OI_{t+n}, OCF_{t+n}) = \beta_0 + \beta_1 REVAL_t + \beta_2 WO_t + \beta_3 ACCOTH_t + \beta_4 OCF_t + \beta_{10} controls_t + \epsilon_t \qquad (2)$$

We are aware that the relation between current earnings components and future profitability will be different for firms with positive *OCF* (or increases in *OCF*) than for firms with negative *OCF* (or decreases in *OCF*). While we do not hypothesize explicitly the direction of these interactions, we are careful to control the results for this basic property of accounting. We define a dummy variable to indicate periods with bad economic news *DOCF*=1 if $CFO_t \leq 0$ and 0 otherwise (alternatively, *DOCF*=1 if *ΔOCFO*≤0):

$$(OI_{t+n}, OCF_{t+n}) = (\beta_0 + \beta_1 REVAL_t + \beta_2 WO_t + \beta_3 ACCOTH_t + \beta_4 OCF_t) \cdot DOCF_t + \beta_{10} controls_t + \epsilon_t$$

$$(3)$$

Finally, we know from the literature on public firms that the extent to which conditional conservatism affects the financial statements in period t depends also on the amount of unconditional conservatism a firm pre-commits to at the time it makes an investment (Pope & Walker, 2003; Beaver & Ryan, 2005). Write-offs are a primary manifestation of conditional conservatism (and revaluations, too, to the extent that *REVAL* can be viewed as negative write-offs), which is however limited by the degree of unconditional conservatism. In other words, the role of *WO* for two similar firms with different levels of unconditional conservatism may be very different. To account for this, we repeat the above analyses controlling for the unconditional conservatism.

5   Results

This section discusses the results of the regression tests elaborated in section 4 by modeling future operating performance as a function of a set of covariates including upward revaluations, write-offs, other combined accrual components, cash flows and several control variables. Our primary concern is to gain insights on how upward and downward revaluations are associated with future operating performance of private firms in the Italian institutional setting. Our results are subject to different and separate effects due to distinctive features of each special law enacted over the period analysed in this study. As a matter of fact (see Section 2 and Table 1), the 2008 special law was more attractive than the other two (2003 and 2005) in two main respects. First, the substitute tax rates of the 2008 revaluations – by far the lowest in the Italian history of these special laws – were particularly convenient as they kept intact the tax benefit of future revalued depreciation deductibility at full corporate tax rates. Second, the 2008 special law, unlike the previous ones, allowed the option to revalue assets with no fiscal implications. That is, with neither fiscal charge at the time of revaluing nor fiscal relief when the revaluation amounts would be later depreciated. In other words, the 2008 special law opened up to all firms – including those under difficult liquidity conditions or with uncertain future profitability – the door to cheap or free upward revaluations so that they might have explored this instrument to obtain economic benefits, e.g. via the effects on the debt-to-equity ratio, borrowing capacity, etc.

We thus present our analyses separately for two sub-samples: one that keeps together the years 2003 and 2005, as the related special laws have very similar prescriptions and very similar current tax costs, and the other that only regards the effects of the 2008 special law.

< TABLE 4 HERE >

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In Table 4, we report the regression results related to the first subsample (2003 and 2005). We find that upward asset revaluations are *positively* related to future operating cash flows and to future operating profitability. As noted, this is the result of firms reaping economic benefits in the form of the present value of future tax shields due to increased depreciation net of current tax levied on the revaluations. The result is that the financial reporting process is consistent with reporting true firm performance (i.e., increased future cash flows). However, this is not due to operating ("true economic") reasons but due to firms using a particular financial reporting instrument – the revaluations – to obtain economic benefits in the form of tax savings. In additional tests (not reported) we interacted the *REVAL* variable with an indicator of bad news (OCF<0). The interaction *REVAL*DOCF* was not statistically significant, but firms that are hit by bad news appear to be reporting on average higher future operating incomes (but not higher operating cash flows).

Write-offs, on the other hand, are not *negatively* related to future performance. Thus firms do not seem to use this accounting treatment to anticipate worsening operating performance as required by accounting standards. In 2 out of 6 specifications of our model write-offs are actually *positively* related to future operating profitability. Because write-offs do not result in a tax benefit, there must be economic benefits other than tax that induce firms to use this financial reporting instrument (otherwise firms would incur costs in generating this financial reporting item without the corresponding benefit). The use of this instrument must produce real economic effects that result in increased future cash flows and profitability. The ultimate goal of this strategy seems to be earnings smoothing. Stabilising the firm's capacity of distributing profits, reassuring lenders on the firm's ability to pay back loans in the future as well as signalling to suppliers and employees a stable financial performance (Szczesny & Valentincic 2013; Kosi & Valentincic, 2013) appear all plausible objectives, as discussed in the hypothesis development section. In addition, the fiscal irrelevance of write-offs as deductible expense in this setting, renders the practice of earnings smoothing particularly loose as this is not likely to attract the attention of fiscal authorities. In additional tests (not reported) we interacted the *WO* variable with an indicator of bad news (OCF<0). The

expectation is that if write-offs reflect bad economic news, write-offs should be higher for bad-news than for good-news observations. The interaction *WO*DOCF* was not statistically significant. On the whole, write-offs do not appear to signal negative future profitability of Italian private firms, supporting our second hypothesis.

<center>< TABLE 5 HERE ></center>

The results for the second sub-sample – the 2008 (see Table 5), reveal an opposite pattern between upward revaluations and future performance. The variable *REVAL* is now *negatively* and significantly related to future operating performance in 5 out of 6 specifications of our model. This relation suggests that firms choose to write their assets up either to obtain cheap net fiscal benefits or to take the opportunity to improve the perception of their financial health to outsiders at a relatively low cost. Indeed, the option of cheap (or free) upward revaluations may appear as an irresistible temptation for firms that foresee worsening operating performance. Obviously, the consequence of these opportunistic behaviours negatively impact the earnings quality of private firms where the lack of economic meaningful values is reflected in an artificial overvaluation of total assets, of shareholders' equity and firms' wealth.

Write-offs are strikingly more *positively* related to future operating profitability in 2008. Thus, the higher the current write-offs, the higher the future operating profitability (measured by future operating income and, just less reliably, future operating cash flows). We can speculate that firms write their assets off more loosely to smooth earnings during this period, which falls within the financial crisis, as they are protected by this circumstance that legitimises their accounting choice and masks their ultimate goal. There are indications that, at least in the 2008 sub-sample, there is a tendency that firms hit by bad news write-off on average more than firms with positive operating cash flows (*OCF*>0). However, this is expected in part as Garrod et al. (2008) report that multiple objectives of financial reporting may co-exist and operating

(impairment) reasons do not necessarily preclude firms from obtaining other economic benefits from their reporting choices, too.

Overall, these additional tests confirm the hypothesis that private Italian firms opportunistically use upward revaluations and write-offs. Exploiting varying fiscal incentives, managing balance-sheet items, smoothing earnings over time, all appear as relevant objectives for private Italian firms. Our evidence also suggests that true economic performance is incidentally reflected in private firms' financial statements when it is aligned with tax benefits.

In terms of control variables, the results are consistent with the findings in Ball & Shivakumar (2006). There is a strong predictive power of other earnings components, namely contemporary accruals and cash flow for future cash flows and profitability. The variables $ACCOTH$ and OCF_t are both positively related to future operating income and cash flows, as indicated by their coefficient that is positive and significant under all 6 specifications of our model. This is a manifestation of the primary role of accrual accounting: ameliorating transitory working-capital effects on cash flows (Dechow, 1994; Ball & Shivakumar, 2006). For firms affected by bad news ($DOCF$=1; OCF<0) these two relations are less persistent (more transitory). In additional un-tabulated analyses, it has emerged that bad news are positively related with future accruals. Tables 4 and 5 also show that the interaction terms between bad news and other current accruals as well as the interaction term between bad news and current cash flows are negatively related to future performance. This means that in case of bad news the coefficients of variables $ACCOTH_t$ and OCF_t drastically decrease, with the implication that these earnings components are less able to predict future cash flows. Stated differently, the asymmetrical loss recognition of accrual accounting is not supported by our analysis even when unrealised gains and losses are not related to long-term assets.

These tests also indicate that firm-specific characteristics are significant drivers of future performance in Italy. It appears that financial leverage and size play influential roles in explaining the level of future

operating income and cash flows. This evidence accords with the finding in Mura et al. (2013) of a negative

influence of financial leverage on firms' profitability as well as of a negative influence of size on

profitability. The latter relation confirms the fundamental role that small and medium sized firms

traditionally play in the Italian economy.

6   Additional and sensitivity analyses

In this section, we discuss some additional tests that we conduct to check the validity of the findings

in the main results' section. First, we aggregate the dependent variable across future years, so that the

dependent variables in models (1)-(3) become operating cash flows/operating income for one year-ahead

and then the sum of year t+1 and t+2 and the sum of years t+1, t+2 and t+3. The expectation from this

aggregation is that the measurement error inherent in the *independent* variables REVAL and OCF is going to

be reduced. Both write-ups and write-offs are present value calculations across the current and several

future periods that involve estimates. The timing issue in particular is a feature of the special revaluation

laws, as tax benefits are only accessible in future years.[1]

The resulting departure from book values can thus contain an error with respect to timing as well as

the size of these differences. However, as time passes, both sources of errors are likely to be reduced and

cumulative present-value effects captured by the cumulative dependent variable. As shown in Tables 6 and

7, the results become stronger thus corroborating this expectation.

< TABLES 6 & 7 HERE >

Second, we study the motivation to revalue and the de-motivation to write-off for firms when

financial leverage is present. It appears that levered firms are less profitable on average, but that the

amount of revaluation and write-offs does not increase with increasing leverage. The additional presence of

bad news (OCF<0) does not affect this inference. We find this result somewhat surprising, but we are

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[1] See Section 2 on details of the special laws, in particular the 2003 and 2005 law.

cautious at this stage and conjecture that this might be due to mis-measurement of leverage (financial vs. total) and the possible effects of optimal capital structure and the inverted-U pattern of firm value as a function of leverage.

Third, the literature on public firms shows that the extent to which conditional conservatism affects the financial statements in period t depends on the amount of unconditional conservatism a firm pre-commits to at the time it makes an investment (Pope & Walker, 2003; Beaver & Ryan, 2005). Write-offs are a primary manifestation of conditional conservatism (and revaluations, too, to the extent that *REVAL* can be viewed as negative write-offs), which is, however, limited by the degree of unconditional conservatism. The role of *WO* for two similar firms with different levels of unconditional conservatism may thus be very different. The issue with unconditional conservatism in private firms arises because general proxies for unconditional conservatism used in the publicly-quoted firms' literature (market price, R&D and advertising expenses) are not available. Valentincic (2015) develops an alternative general proxy for this – capital intensity defined as the ratio of sales *S* to recognised opening total assets (S_t/A_{t-1}). Firms with high values of the S/A ratio are more likely to be highly conservative unconditionally (i.e., they tend to expense more of investments they make through time compared to less unconditionally-conservative firms). In the case of Italian private firms, however, the level of unconditional conservatism can also be captured by the existence of capitalized R&D expenditure (see Prencipe et al., 2008, and Markarian et al., 2008, for details of R&D capitalization in Italy covering in part our sample period).[2]

< TABLES 8 & 9 HERE >

The results of these analyses are presented in Tables 8 and 9. Firms that are more unconditionally conservative (i.e., do not have capitalized R&D) report a stronger positive relation between revaluations of fixed assets and future profitability than firms that are less unconditionally conservative. There is no

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[2] Another alternative would be capitalized incorporation costs.

differential effect on revaluations for firms that are economically worse off. Firms that have accumulated a higher stock of unconditional conservatism and have on average lower book values of total assets, are better able to exploit benefits from revaluation of assets.[3] This is consistent with firms only exploiting costly revaluations (i.e. in the period 2003-2005) when the offsetting future tax benefits are more likely to appear – i.e. when profitability is sufficiently high so that the tax shield from revalued depreciation amounts can be exploited. Conversely, for the year 2008, more unconditionally-conservative firms exhibit a stronger negative relation between current revaluations and future profitability. If these firms revalue assets upwards, they are more likely to do it for opportunistic reasons than for operating reasons. The same appears true for less unconditionally-conservative firms, but to a lesser extent.

Finally, we carried out a further test to exploit the unique combination of tax and non-tax costs and benefits offered by the 2008 special law. In effect, apart from requiring the cheapest rates for the substitute tax on the revaluation amount, this special law was also the only one to allow the option to revalue assets upward for free, with no fiscal implications. Under these circumstances, the incentive to revalue upward should be particularly strong and attractive also for firms that need to exploit this financial reporting instrument for purposes other than either reporting true firm performance or minimising the tax burden. And these are more likely to be less profitable firms. For example, a firm may be under more pressure to report higher assets for loan and/or trade purposes if it is simultaneously also less profitable. To show these effects, we split the firms into more profitable and less profitable firms by either an absolute threshold for lower profitability (reported bottom-line net earnings <5% of the opening value of total assets) or a relative threshold (mean, median profitability per year by industry). The results are presented in Table 10.

< TABLE 10 >

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[3] Another way to express this is to say that firms with no capitalized R&D expenditures have »more room« to catch up in terms of reaping revaluation benefits compared to firms that already have assets valued less conservatively (i.e., at higher book values).

Less profitable firms exhibit a significant negative relation between current revaluations and future operating cash flows and profitability for all future periods under study. At the same time, the relation between current write-offs and future operating income is positive and significant. The conclusion is that less profitable firms increase the asset base and increase future reported operating income (but not cash flows).

We have performed several other analyses to check the robustness of our results: i) excluding outliers at the top/bottom 1% of values; ii) including/excluding observations with zero reported revaluation and/or write/offs (and modifying the estimation method accordingly); iii) using full scale variables instead of dummy variables; iv) deflating the data by the general level of inflation given that the periods under study are relatively widely apart; v) clustering the errors; vi) methods to minimize measurement error in independent variables; etc. In general, all these analyses changed the results slightly in quantitative terms, occasionally change the statistical significance of individual estimated regression coefficients, but the inferences are qualitatively robust to all these checks.

7   Conclusion

This paper investigates how tax and non-tax costs and benefits affect the earnings quality of private firms in Italy. We conduct our study by observing two financial reporting instruments characterised by a relatively large discretionary component they allow in the financial reporting process: upward asset revaluations and asset write-offs. Upward asset revaluations are only allowed when and if the government allows them by special law for each fiscal year. This defines well the current tax costs payable on revaluated amounts (the "substitute tax"). Firms weigh these costs against expected future tax benefits in the form of an additional tax shield that results from higher (revalued) amounts of depreciation. In firms where current tax costs are relatively high, firms will only revalue assets if future tax benefits are positive – i.e., if expected

profitability is high enough. Hence we find current revaluations are positively related to future profitability. The financial reporting process appears consistent with reporting true firm performance. If, on the other hand, current tax costs are relatively low (or zero), firms are less constrained in following other objectives of financial reporting (e.g., smoothness, book levels of asset for loan purposes, etc.), with the general result that this policy will be followed for opportunistic reasons. Hence we find that current revaluations are negatively related to future profitability.

Write-offs are not deductible for tax purposes. While they are required by accounting standards, they are not monitored by either the market or by the fiscal authorities (unlike in several other similar studies). We find that throughout the periods under study, write-offs are never negatively related to future profitability. This is not consistent with accounting standards, but is consistent with firms obtaining economic benefits other than maximizing firm value or minimising the tax payable.

More widely, this analysis sheds some light on accounting properties in the field of private firms. While the fundamental role of accrual accounting of ameliorating transitory working-capital effects on cash flows is evident in the financial reporting practices of Italian private firms, it is less evident the role of the asymmetric timeliness recognition of losses versus gains not only when unrealised gains and losses relate to fixed assets (Dechow, 1994; Ball & Shivakumar, 2006). Even the relation between the actual level of conditional conservatism and the pre-existent level of unconditional conservatism takes distinctive features in the field of private firms in relation to the the specific set of tax and non-tax costs and benefits they face.

However, due to data constraints, apart from tax minimisation, we have not managed to disentangle the influence exerted by other financial reporting objectives: dividend policy, debt capacity, terms of trade, union relation, etc. This represents the main limitation of this study as well as the challenge of future research that aims at improving our understanding of the financial reporting process in the field of private firms.

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Table 1: Sample composition (2003, 2005, 2008)

	Italian Private Firms			
Year	Non writing-up firms	Writing-up firms	Total	Writing-up Percentage
2003	7,997	896	8,893	10.08%
2005	8,979	781	9,760	8.00%
2008	9,174	3,729	12,903	28.90%
Year	Non writing-off firms	Writing-off firms	Total	
2003	8,702	191	8,893	2.15%
2005	9,588	172	9,760	1.77%
2008	12,639	264	12,903	2.05%

Table 2: Descriptive statistics (pooled 2003, 2005, 2008)

Panel A: Variable-level descriptives (all, writing-up firms, writing-off firms)

Variables	N	Mean	Median	Std. Dev.	P1	P99
Entire Sample						
REVAL	31,556	0.1713	0	0.3768	0	1
WO	31,556	0.0199	0	0.1396	0	1
$ACCOTH_t$	31,556	-0.0398	-0.0272	0.1067	-0.4731	0.2541
OCF_t	31,556	0.0750	0.0579	0.1132	-0.2476	0.5287
DOCF	31,556	0.1665	0	0.3725	0	1
$ACCOTH_{t-1}$	31,556	-0.0326	-0.0257	0.0983	-0.3640	0.2814
OCF_{t-1}	31,556	0.0674	0.0579	0.1039	-0.2883	0.4071
QR	31,556	1.1309	0.9121	2.7908	0.1577	4.5208
LEV	31,556	0.7199	0.7611	0.1899	0.1927	0.9929
DIM	31,556	16.87712	16.7184	0.9056	14.8458	19.8253
GROUP	31,556	0.1649	0	0.3711	0	1
Non writing-up firms						
REVAL	26,150	0	0	0	0	0
WO	26,150	0.0206	0	0.1420	0	1
$ACCOTH_t$	26,150	-0.0373	-0.0251	0.1072	-0.4768	0.2541
OCF_t	26,150	0.0726	0.0558	0.1143	-0.2476	0.5287
DOCF	26,150	0.1764	0	0.3812	0	1
$ACCOTH_{t-1}$	26,150	-0.0316	-0.0248	0.0999	-0.3677	0.2814
OCF_{t-1}	26,150	0.0660	0.0568	0.1057	-0.2883	0.4077
QR	26,150	1.1366	0.9235	2.7141	0.1601	4.5426
LEV	26,150	0.7357	0.7803	0.1873	0.2017	0.9946
DIM	26,150	16.8537	16.6993	0.9058	14.7799	19.8165
GROUP	26,150	0.1667	0	0.3730	0	1
Writing-up firms						
REVAL	5,406	1	1	0	1	1
WO	5,406	0.0165	0	0.1273	0	1
$ACCOTH_t$	5,406	-0.0519	-0.0370	0.1033	-0.4653	0.2127
OCF_t	5,406	0.0865	0.0682	0.1070	-0.1868	0.5287
DOCF	5,406	0.1184	0	0.3231	0	1
$ACCOTH_{t-1}$	5,406	-0.0376	-0.0295	0.0900	-0.3354	0.2337
OCF_{t-1}	5,406	0.0741	0.0632	0.0945	-0.2073	0.3925
QR	5,406	1.1035	0.8602	3.1353	0.1467	4.4868
LEV	5,406	0.6437	0.6725	0.1836	0.1625	0.9480
DIM	5,406	16.9907	16.8121	0.8957	15.2728	19.8481
GROUP	5,406	0.1548	0	0.3618	0	1
Non writing-off firms						
REVAL	30,929	0.1719	0	0.3773	0	1
WO	30,929	0	0	0	0	0
$ACCOTH_t$	30,929	-0.0397	-0.0271	0.1064	-0.4702	0.2541
OCF_t	30,929	0.0751	0.0579	0.1129	-0.2432	0.5287
DOCF	30,929	0.1655	0	0.3716	0	1
$ACCOTH_{t-1}$	30,929	-0.0323	-0.0255	0.0981	-0.3617	0.2814
OCF_{t-1}	30,929	0.0674	0.0578	0.1036	-0.2883	0.4076
QR	30,929	1.1326	0.9132	2.8140	0.1584	4.5172
LEV	30,929	0.7198	0.7611	0.1897	0.1942	0.9924
DIM	30,929	16.8635	16.7115	0.8928	14.8442	19.7203
GROUP	30,929	0.1644	0	0.3707	0	1
Writing-off firms						
REVAL	627	0.1419	0	0.3493	0	1
WO	627	1	1	0	1	1
$ACCOTH_t$	627	-0.0447	-0.0333	0.1203	-0.4780	0.2541
OCF_t	627	0.0677	0.0571	0.1259	-0.2476	0.5287

DOCF	627	0.2153	0	0.4114	0	1
$ACCOTH_{t-1}$	627	-0.0494	-0.0385	0.1098	-0.3730	0.2759
OCF_{t-1}	627	0.0683	0.0613	0.1186	-0.2883	0.3951
QR	627	1.0494	0.8552	1.1623	0.1264	4.6300
LEV	627	0.7265	0.7711	0.1957	0.1625	1.0152
DIM	627	17.5506	17.3803	1.2216	14.9379	19.9285
GROUP	627	0.1882	0	0.3912	0	1

Panel B: Firm-level descriptives

		ENTIRE SAMPLE				
Total assets	31,556	36,268,638	14,694,537	149,481,432	2,956,825	356,943,643
Debt	31,556	25,271,708	10,239,173	121,311,949	1,744,527	244,626,752
Current assets	31,556	23,469,871	10,434,193	79,028,219	1,594,333	219,697,163
Fixed assets (incl. intangibles)	31,556	12,451,876	3,125,764	78,315,991	41,156	150,704,950
Cash	31,556	1,716,734,353	420,962	6,531,015,214	282	20,356,245
Sales	31,556	44,453,341	18,226,602	270,870,316	2,801,981	407,378,323
Operating profit (pre-write-off)	31,556	1,664,349,848	670,364	12,841,465	-4,004,543	23,088,452
Net income	31,556	6,967,070,273	169,491	17,274,794	-5,313,524	14,853,358
Cash flow from operations	31,556	2,424,487,179	7,905,333,125	15,022,239	-7,345,627	36,360,144
Current taxes	22,753	8,397,086,458	287,462	3,974,100,715	0	10,062,080

Notes. Panel A of this table reports the basic descriptive statistics for the variables employed in empirical analyses. *OCF* is the operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise. *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise. $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions. OCF_t is the operating cash flow in year *t; DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news. The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively lagged (opening) other accruals and operating cash flow in year *t-1*; QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represents the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable that takes on the value 1 if the observed firm is part of a group of firms and the value 0 otherwise. The variables *ACCOTH*, *OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Panel B reports firm-level descriptives of some of the main financial-statements items.

Table 3: Bivariate Pearson correlation coefficients (pooled 2003, 2005, 2008)

	OCF_{t+1}	OCF_{t+2}	OCF_{t+3}	OI_{t+1}	OI_{t+2}	OI_{t+3}	REVAL	WO	$ACCOTH_t$
OCF_{t+1}	1.0000								
OCF_{t+2}	**0.1994**	1.0000							
OCF_{t+3}	**0.2384**	**0.2280**	1.0000						
OI_{t+1}	**0.4616**	**0.4160**	**0.4058**	1.0000					
OI_{t+2}	**0.4225**	**0.4829**	**0.4461**	**0.8027**	1.0000				
OI_{t+3}	**0.3800**	**0.4440**	**0.5047**	**0.6855**	**0.8152**	1.0000			
REVAL	0.0049	**0.0071**	-0.0015	-0.0150	0.0057	0.0045	1.0000		
WO	**-0.0103**	**-0.0075**	-0.0039	**-0.0108**	**-0.0109**	**-0.0118**	-0.0051	1.0000	
$ACCOTH_t$	**-0.0126**	**-0.0802**	**-0.0759**	**-0.0863**	**-0.0984**	**-0.1013**	**-0.0299**	**-0.0183**	1.0000
OCF_t	**0.1701**	**0.2183**	**0.2044**	**0.4033**	**0.3563**	**0.3262**	**0.0292**	-0.0005	**-0.8668**
DOCF	**-0.0551**	**-0.0833**	**-0.0721**	**-0.1620**	**-0.1318**	**-0.1128**	**-0.0315**	0.0098	**0.4726**
$ACCOTH_{t-1}$	**-0.0354**	**-0.0333**	**-0.0322**	**-0.0344**	**-0.0341**	**-0.0391**	-0.0098	**-0.0226**	0.0089
OCF_{t-1}	**0.1622**	**0.1459**	**0.1389**	**0.2812**	**0.2482**	**0.2257**	**0.0218**	-0.0003	**0.0102**
QR	**0.0173**	**0.0116**	**0.0148**	**0.0263**	**0.0230**	**0.0208**	-0.0036	-0.0025	**0.0149**
LEV	**-0.1310**	**-0.1044**	**-0.0934**	**-0.2180**	**-0.1783**	**-0.1482**	**-0.0962**	0.0039	**-0.0863**
DIM	**-0.0251**	**-0.0406**	**-0.0538**	**-0.0163**	**-0.0592**	**-0.0849**	**0.0289**	**0.1086**	**0.0139**
GROUP	**0.0073**	**0.0083**	**0.0097**	**0.0135**	**0.0153**	**0.0151**	-0.0067	0.0059	-0.0053

Continued…

	OCF_t	DOCF	$ACCOTH_{t-1}$	OCF_{t-1}	QR	LEV	DIM	GROUP
OCF_t	1.0000							
DOCF	**-0.5462**	1.0000						
$ACCOTH_{t-1}$	**0.0359**	**-0.0862**	1.0000					
OCF_{t-1}	**0.1170**	-0.0044	**-0.8596**	1.0000				
QR	0.0026	**0.0116**	**0.0137**	0.0056	1.0000			
LEV	**-0.0491**	0.0097	**-0.0675**	**-0.0831**	**-0.1144**	1.0000		
DIM	**0.0142**	**-0.0397**	0.0006	**0.0177**	**-0.0194**	0.0062	1.0000	
GROUP	**0.0069**	0.0015	**-0.0084**	**0.0085**	-0.0029	**-0.0082**	**0.0345**	1.0000

Note: This table reports correlation coefficients for dependent and explanatory variables employed in the main regression model. Correlation coefficients that are statistically significant at the 0.05 level are shown in bold face. *OCF* is the operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise. *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise. $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions. OCF_t is the operating cash flow in year *t; DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news. The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively lagged (opening) other accruals and operating cash flow in year *t-1*; QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represents the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable that takes on the value 1 if the observed firm is part of a group of firms and the value 0 otherwise. The variables *ACCOTH*, *OCF* and *OI* are deflated by the total assets at the beginning of year *t*.

Table 4: OLS regression for future operating cash flow and future operating income (sub-sample 2003-2005)

VARIABLES	OCF_{t+1}	OCF_{t+2}	OCF_{t+3}	OI_{t+1}	OI_{t+2}	$OI_{t.3}$
			Dependent variable			
Earnings components						
REVAL	**0.0103***	**0.0097***	0.0058	**0.0164***	**0.0170***	**0.0160***
	(3.27)	**(2.90)**	(1.47)	**(8.57)**	**(6.85)**	**(5.26)**
WO	-0.0084	**0.0154**	0.0001	**0.0069***	0.0026	0.0011
	(-1.27)	**(2.14)**	(0.01)	**(1.69)**	(0.56)	(0.21)
$ACCOTH_t$	**0.4889***	0.5096***	0.4607***	0.9335***	0.9182***	0.9217***
	(13.79)	(13.05)	(10.82)	(29.58)	(20.85)	(18.88)
OCF_t	**0.5793***	0.7358***	0.6954***	1.1379***	1.1447***	1.1703***
	(16.12)	(18.24)	(15.96)	(35.70)	(25.88)	(23.48)
Bad news timeliness recognition						
DOCF	-0.0013	**0.0071***	0.0026	**0.0077***	**0.0094***	**0.0095***
	(-0.37)	**(1.91)**	(0.64)	**(3.54)**	**(3.54)**	**(3.03)**
DOCF × $ACCOTH_t$	-0.0191	**-0.2039***	**-0.1194***	**-0.3865***	**-0.4236***	**-0.4788***
	(-0.35)	**(-3.01)**	**(-1.79)**	**(-8.62)**	**(-7.81)**	**(-8.20)**
DOCF × OCF_t	**-0.3303***	**-0.5101***	**-0.5052***	**-0.6881***	**-0.7672***	**-0.9139***
	(-5.45)	**(-6.83)**	**(-6.68)**	**(-14.81)**	**(-13.42)**	**(-13.40)**
Control variables						
$ACCOTH_{t-1}$	**0.1517***	0.0365	**0.1265***	**0.1679***	**0.1651***	**0.1504***
	(4.35)	(0.97)	**(3.05)**	**(6.28)**	**(4.71)**	**(3.52)**
OCF_{t-1}	**0.2134***	**0.1073***	**0.1927***	**0.2408***	**0.2341***	**0.2112***
	(6.27)	**(2.90)**	**(4.73)**	**(9.16)**	**(6.76)**	**(5.04)**
QR	-0.0001	**-0.0007***	-0.0003	-0.0003	-0.0003	-0.0001
	(-0.26)	**(-1.81)**	(-0.78)	(-1.22)	(-1.05)	(-0.32)
LEV	**-0.0378***	**-0.0263***	**-0.0207***	**-0.0414***	**-0.0354***	**-0.0182***
	(-6.53)	**(-4.27)**	**(-2.94)**	**(-11.67)**	**(-7.87)**	**(-3.35)**
DIM	**-0.0054***	**-0.0084***	**-0.0125***	**-0.0055***	**-0.0102***	**-0.0152***
	(-4.78)	**(-6.95)**	**(-8.73)**	**(-7.63)**	**(-11.34)**	**(-12.96)**
GROUP	-0.0031	-0.0028	0.0016	0.0023	0.0005	0.0025
	(-1.32)	(-1.09)	(0.52)	(1.53)	(0.25)	(1.03)
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Geographic dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	**0.1670***	**0.1995***	**0.3164***	**0.1563***	**0.2418***	**0.3113***
	(7.28)	**(7.21)**	**(9.73)**	**(10.32)**	**(11.38)**	**(13.40)**
Observations	18,653	18,653	18,653	18,653	18,653	18,653
R-squared	0.1103	0.1119	0.1007	0.4945	0.3758	0.2962

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes − financial gains and losses − extraordinary gains and losses + depreciation + provisions + write-offs − Δ inventory − Δ debtors − Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets − Δ creditors − Δ other current liabilities − depreciation − provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t*-1. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** p<0.01, ** p<0.05, * p<0.1. Boldfaced estimates significant at 5% or better.

Table 5: OLS regression for future operating cash flow and future operating income (sub-sample 2008)

VARIABLES	Dependent variable					
	OCF_{t+1}	OCF_{t+2}	OCF_{t+3}	OI_{t+1}	OI_{t+2}	$OI_{t.3}$
Earnings components						
REVAL	-0.0017	**-0.0066***	**-0.0056**	**-0.0068***	**-0.0092***	**-0.0123***
	(-0.85)	**(-3.05)**	**(-2.51)**	**(-5.33)**	**(-6.58)**	**(-7.89)**
WO	0.0065	**0.0140***	**0.0190**	**0.0155***	**0.0180***	**0.0206***
	(0.98)	**(1.65)**	**(2.21)**	**(3.23)**	**(3.23)**	**(3.31)**
$ACCOTH_t$	**0.4834***	**0.4885***	**0.4751***	**0.8531***	**0.7273***	**0.7146***
	(13.24)	**(12.05)**	**(10.85)**	**(31.18)**	**(22.57)**	**(19.71)**
OCF_t	**0.5833***	**0.6736***	**0.6356***	**1.0111***	**0.9300***	**0.9345***
	(15.43)	**(16.18)**	**(13.90)**	**(36.76)**	**(28.27)**	**(25.23)**
Bad news timeliness recognition						
DOCF	0.0018	0.0012	-0.0037	**0.0055**	**0.0068**	**0.0076**
	(0.43)	(0.27)	(-0.82)	**(2.33)**	**(2.44)**	**(2.35)**
DOCF × $ACCOTH_t$	0.0513	-0.0617	-0.0692	**-0.2019***	**-0.2609***	**-0.2200***
	(0.72)	(-0.86)	(-0.91)	**(-4.16)**	**(-5.05)**	**(-3.86)**
DOCF × OCF_t	**-0.2326***	**-0.3322***	**-0.3439***	**-0.3703***	**-0.5246***	**-0.5316***
	(-3.17)	**(-4.13)**	**(-4.10)**	**(-7.49)**	**(-9.62)**	**(-9.01)**
Control variables						
$ACCOTH_{t-1}$	**0.1249***	-0.0011	**0.0874***	0.0249	**0.1264***	**0.1708***
	(3.19)	(-0.03)	**(1.83)**	(0.85)	**(3.80)**	**(4.67)**
OCF_{t-1}	**0.1741***	**0.0740***	**0.1537***	**0.1178***	**0.2237***	**0.2720***
	(4.54)	**(1.77)**	**(3.24)**	**(4.14)**	**(6.84)**	**(7.50)**
QR	-0.0005	**-0.0007***	0.0005	-0.0001	-0.0003	0.0000
	(-1.64)	**(-1.91)**	(1.14)	(-0.63)	(-1.28)	(0.07)
LEV	**-0.0398***	**-0.0291***	**-0.0084**	**-0.0197***	**-0.0247***	**-0.0206***
	(-7.16)	**(-4.63)**	**(-1.23)**	**(-5.61)**	**(-5.99)**	**(-4.41)**
DIM	**-0.0036***	**-0.0107***	**-0.0111***	**-0.0045***	**-0.0096***	**-0.0154***
	(-3.01)	**(-7.74)**	**(-7.53)**	**(-5.86)**	**(-10.20)**	**(-13.51)**
GROUP	0.0012	0.0021	0.0019	0.0019	0.0010	-0.0002
	(0.47)	(0.74)	(0.63)	(1.08)	(0.50)	(-0.09)
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	**0.1502***	**0.2317***	**0.2125***	**0.1320***	**0.2063***	**0.3241***
	(5.97)	**(7.96)**	**(6.43)**	**(8.26)**	**(11.05)**	**(12.89)**
Observations	12,903	12,903	12,903	12,903	12,903	12,903
R-squared	0.1429	0.1311	0.1104	0.4453	0.3741	0.3347

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t-1*. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** p<0.01, ** p<0.05, * p<0.1. Boldfaced estimates significant at 5% or better.

Table 6: OLS regression for aggregated future operating cash flows and future operating income (sub-sample 2003-2005)

VARIABLES	Dependent variable					
	OCF_{t+1}	$OCF_{(t+1)+(t+2)}$	$OCF_{(t+1)+(t+2)+(t+3)}$	OI_{t+1}	$OI_{(t+1)+(t+2)}$	$OI_{(t+1)+(t+2)+(t+3)}$
Earnings components						
REVAL	**0.0103***	**0.0184***	**0.0230***	**0.0164***	**0.0336***	**0.0493***
	(3.27)	**(3.67)**	**(3.26)**	**(8.57)**	**(7.99)**	**(7.22)**
WO	-0.0084	0.0074	0.0065	**0.0069***	0.0095	0.0086
	(-1.27)	(0.67)	(0.43)	**(1.69)**	(1.17)	(0.69)
$ACCOTH_t$	**0.4889***	**1.0165***	**1.4771***	**0.9335***	**1.8510***	**2.7698***
	(13.79)	**(16.53)**	**(17.54)**	**(29.58)**	**(25.09)**	**(23.29)**
OCF_t	**0.5793***	**1.3152***	**1.9874***	**1.1379***	**2.2851***	**3.4493***
	(16.12)	**(20.95)**	**(22.92)**	**(35.70)**	**(30.79)**	**(28.68)**
Bad news timeliness recognition						
DOCF	-0.0013	0.0052	0.0068	**0.0077***	**0.0170***	**0.0272***
	(-0.37)	(0.94)	(0.91)	**(3.54)**	**(3.68)**	**(3.70)**
DOCF × $ACCOTH_t$	-0.0191	**-0.2566***	**-0.4316***	**-0.3865***	**-0.8320***	**-1.3508***
	(-0.35)	**(-2.78)**	**(-3.45)**	**(-8.62)**	**(-8.63)**	**(-9.28)**
DOCF × OCF_t	**-0.3303***	**-0.8606***	**-1.3902***	**-0.6881***	**-1.4966***	**-2.4360***
	(-5.45)	**(-8.58)**	**(-10.04)**	**(-14.81)**	**(-14.75)**	**(-15.42)**
Control variables						
$ACCOTH_{t-1}$	**0.1517***	**0.1844***	**0.3083***	**0.1679***	**0.3307***	**0.5111***
	(4.35)	**(3.19)**	**(3.87)**	**(6.28)**	**(5.57)**	**(5.22)**
OCF_{t-1}	**0.2134***	**0.3159***	**0.5126***	**0.2408***	**0.4717***	**0.7099***
	(6.27)	**(5.63)**	**(6.62)**	**(9.16)**	**(8.08)**	**(7.39)**
QR	-0.0001	-0.0009	-0.0012	-0.0003	-0.0006	-0.0007
	(-0.26)	(-1.04)	(-1.16)	(-1.22)	(-1.22)	(-0.92)
LEV	**-0.0378***	**-0.0673***	**-0.0906***	**-0.0414***	**-0.0768***	**-0.0943***
	(-6.53)	**(-7.14)**	**(-6.29)**	**(-11.67)**	**(-9.97)**	**(-7.45)**
DIM	**-0.0054***	**-0.0141***	**-0.0272***	**-0.0055***	**-0.0159***	**-0.0314***
	(-4.78)	**(-7.67)**	**(-9.66)**	**(-7.63)**	**(-10.25)**	**(-11.88)**
GROUP	-0.0031	-0.0052	-0.0039	0.0023	0.0031	0.0063
	(-1.32)	(-1.35)	(-0.65)	(1.53)	(0.96)	(1.14)
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	**0.1670***	**0.3785***	**0.7073***	**0.1563***	**0.4106***	**0.7261***
	(7.28)	**(9.21)**	**(11.56)**	**(10.32)**	**(11.04)**	**(12.42)**
Observations	18,653	18,653	18,653	18,653	18,653	18,653
R-squared	0.1103	0.1674	0.1986	0.4945	0.4581	0.4235

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t*-1. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** p<0.01, ** p<0.05, * p<0.1. Boldfaced estimates significant at 5% or better.

Table 7: OLS regression for aggregated future operating cash flows and future operating income (sub-sample 2008)

VARIABLES	Dependent variable					
	OCF_{t+1}	$OCF_{(t+1)+(t+2)}$	$OCF_{(t+1)+(t+2)+(t+3)}$	OI_{t+1}	$OI_{(t+1)+(t+2)}$	$OI_{(t+1)+(t+2)+(t+3)}$
Earnings components						
REVAL	-0.0017	**-0.0076****	**-0.0134*****	**-0.0068*****	**-0.0162*****	**-0.0283*****
	(-0.85)	**(-2.46)**	**(-3.23)**	**(-5.33)**	**(-6.58)**	**(-7.60)**
WO	0.0065	**0.0279****	**0.0509*****	**0.0155*****	**0.0352*****	**0.0575*****
	(0.98)	**(2.30)**	**(2.91)**	**(3.23)**	**(3.56)**	**(3.75)**
$ACCOTH_t$	**0.4834*****	**0.9980*****	**1.5143*****	**0.8531*****	**1.6081*****	**2.3285*****
	(13.24)	**(16.44)**	**(18.06)**	**(31.18)**	**(29.18)**	**(27.26)**
OCF_t	**0.5833*****	**1.2656*****	**1.9343*****	**1.0111*****	**1.9717*****	**2.9073*****
	(15.43)	**(20.44)**	**(22.50)**	**(36.76)**	**(35.58)**	**(33.76)**
Bad news timeliness recognition						
DOCF	0.0018	0.0039	0.0012	**0.0055****	**0.0122****	**0.0225*****
	(0.43)	(0.62)	(0.14)	**(2.33)**	**(2.58)**	**(3.07)**
DOCF × $ACCOTH_t$	0.0513	-0.0775	-0.1854	**-0.2019*****	**-0.4802*****	**-0.7516*****
	(0.72)	(-0.73)	(-1.25)	**(-4.16)**	**(-5.09)**	**(-5.26)**
DOCF × OCF_t	**-0.2326*****	**-0.5929*****	**-0.9694*****	**-0.3703*****	**-0.9227*****	**-1.4759*****
	(-3.17)	**(-5.14)**	**(-6.06)**	**(-7.49)**	**(-9.60)**	**(-10.29)**
Control variables						
$ACCOTH_{t-1}$	**0.1249*****	**0.1212***	**0.1690***	0.0249	**0.1325****	**0.3282*****
	(3.19)	**(1.86)**	**(1.84)**	(0.85)	**(2.26)**	**(3.77)**
OCF_{t-1}	**0.1741*****	**0.2448*****	**0.3455*****	**0.1178*****	**0.3215*****	**0.6151*****
	(4.54)	**(3.83)**	**(3.79)**	**(4.14)**	**(5.62)**	**(7.18)**
QR	-0.0005	**-0.0012****	-0.0006	-0.0001	-0.0003	-0.0003
	(-1.64)	**(-2.15)**	(-1.12)	(-0.63)	(-0.73)	(-0.44)
LEV	**-0.0398*****	**-0.0711*****	**-0.0774*****	**-0.0197*****	**-0.0453*****	**-0.0659*****
	(-7.16)	**(-7.91)**	**(-6.23)**	**(-5.61)**	**(-6.37)**	**(-5.97)**
DIM	**-0.0036*****	**-0.0151*****	**-0.0273*****	**-0.0045*****	**-0.0146*****	**-0.0303*****
	(-3.01)	**(-7.46)**	**(-9.60)**	**(-5.86)**	**(-8.90)**	**(-11.47)**
GROUP	0.0012	0.0035	0.0048	0.0019	0.0032	0.0029
	(0.47)	(0.84)	(0.85)	(1.08)	(0.95)	(0.56)
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	**0.1502*****	**0.4009*****	**0.6421*****	**0.1320*****	**0.3505*****	**0.6936*****
	(5.97)	**(9.42)**	**(9.97)**	**(8.26)**	**(10.34)**	**(11.47)**
Observations	12,903	12,903	12,903	12,903	12,903	12,903
R-squared	0.1429	0.2099	0.2394	0.4453	0.4497	0.4400

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t-1*. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** p<0.01, ** p<0.05, * p<0.1. Boldfaced estimates significant at 5% or better.

Table 8: OLS regression for future operating income (sub-sample 2003&2005), split by low/high unconditional conservatism

VARIABLES	Low unconditional conservatism (capitalized R&D)			High unconditional conservatism (no capitalized R&D)		
	OI_{t+1}	OI_{t+2}	OI_{t+3}	OI_{t+1}	OI_{t+2}	$OI_{t.3}$
Earnings components and bad news timeliness recognition						
REVAL	**0.0107***	**0.0097**	0.0069	**0.0199***	**0.0172***	**0.0155***
	(3.62)	**(2.52)**	(1.44)	**(7.23)**	**(5.07)**	**(3.62)**
DOCF	**0.0115***	**0.0156***	**0.0138***	**0.0072**	**0.0099***	**0.0066**
	(3.09)	**(3.62)**	**(2.72)**	**(2.29)**	**(2.67)**	**(1.50)**
REVAL × DOCF	-0.0125	-0.0021	-0.0061	-0.0045	0.0096	0.0231
	(-1.09)	(-0.18)	(-0.41)	(-0.45)	(0.81)	(1.43)
WO	0.0090	0.0096	0.0085	0.0003	-0.0012	-0.0011
	(1.31)	(1.19)	(0.90)	(0.04)	(-0.18)	(-0.14)
WO × DOCF	-0.0153	0.0002	0.0088	-0.0010	-0.0067	0.0053
	(-0.89)	(0.01)	(0.38)	(-0.07)	(-0.44)	(0.31)
$ACCOTH_t$	**0.9359***	**0.9223***	**0.8845***	**0.9339***	**0.9006***	**0.9014***
	(19.24)	**(16.36)**	**(12.81)**	**(19.98)**	**(15.78)**	**(14.19)**
DOCF × ACCOTH	**-0.4807***	**-0.5241***	**-0.4069***	**-0.3137***	**-0.3774***	**-0.4512***
	(-6.47)	**(-6.61)**	**(-4.43)**	**(-5.09)**	**(-4.73)**	**(-5.58)**
OCF_t	**1.1524***	**1.1717***	**1.1605***	**1.1468***	**1.1456***	**1.1865***
	(24.18)	**(20.96)**	**(16.55)**	**(23.95)**	**(19.71)**	**(18.26)**
DOCF × OCF_t	**-0.7762***	**-0.8771***	**-0.8747***	**-0.6132***	**-0.7186***	**-0.9564***
	(-10.28)	**(-10.49)**	**(-8.93)**	**(-9.24)**	**(-8.57)**	**(-9.60)**
Control variables						
$ACCOTH_{t-1}$	**0.1183***	**0.1140**	**0.1176***	**0.1657***	**0.1621***	**0.1589***
	(2.83)	**(2.25)**	**(1.84)**	**(4.53)**	**(3.34)**	**(2.71)**
OCF_{t-1}	**0.2024***	**0.1969***	**0.1704***	**0.2421***	**0.2309***	**0.2107***
	(4.98)	**(3.92)**	**(2.73)**	**(6.69)**	**(4.86)**	**(3.70)**
QR	**-0.0005***	**-0.0006***	**-0.0008**	-0.0002	-0.0001	0.0000
	(-4.01)	**(-3.22)**	**(-2.29)**	(-0.84)	(-0.46)	(0.09)
LEV	**-0.0473***	**-0.0395***	**-0.0305***	**-0.0432***	**-0.0360***	**-0.0199***
	(-7.80)	**(-5.31)**	**(-3.29)**	**(-9.22)**	**(-6.07)**	**(-2.74)**
DIM	**-0.0067***	**-0.0100***	**-0.0153***	**-0.0053***	**-0.0095***	**-0.0156***
	(-5.12)	**(-6.46)**	**(-7.41)**	**(-5.53)**	**(-7.91)**	**(-10.07)**
GROUP	0.0035	0.0050	**0.0092**	0.0014	-0.0004	0.0014
	(1.45)	(1.60)	**(2.18)**	(0.72)	(-0.16)	(0.45)
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	**0.1885***	**0.2308***	**0.3171***	**0.1563***	**0.2183***	**0.3114***
	(6.78)	**(7.11)**	**(7.83)**	**(8.62)**	**(9.65)**	**(10.71)**
Observations	6,638	6,638	6,638	9,199	9,199	9,199
R-squared	0.4659	0.3687	0.2837	0.5040	0.3913	0.3132

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm writes-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm writes-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t*-1. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for

dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** $p<0.01$, ** $p<0.05$.

Table 9: OLS regression for future operating income (sub-sample 2008), split by low/high unconditional conservatism

VARIABLES	Low unconditional conservatism (capitalized R&D)			High unconditional conservatism (no capitalized R&D)		
	OI_{t+1}	OI_{t+2}	OI_{t+3}	OI_{t+1}	OI_{t+2}	$OI_{t.3}$
Earnings components and bad news timeliness recognition						
REVAL	-0.0046**	-0.0078***	-0.0115***	-0.0067***	-0.0091***	-0.0116***
	(-2.11)	(-3.25)	(-4.32)	(-3.67)	(-4.51)	(-5.20)
DOCF	0.0055	0.0077*	0.0039	0.0068**	0.0076*	0.0094**
	(1.37)	(1.66)	(0.78)	(2.07)	(1.95)	(2.05)
REVAL × DOCF	-0.0010	0.0023	0.0127**	-0.0050	-0.0052	-0.0072
	(-0.19)	(0.41)	(2.06)	(-1.25)	(-1.23)	(-1.32)
WO	0.0173**	0.0159	0.0266**	0.0126*	0.0185**	0.0197**
	(2.24)	(1.39)	(2.21)	(1.67)	(2.55)	(2.27)
WO × DOCF	-0.0022	-0.0109	-0.0158	0.0083	0.0126	-0.0001
	(-0.16)	(-0.55)	(-0.78)	(0.54)	(0.83)	(-0.00)
$ACCOTH_t$	0.7961***	0.6711***	0.6357***	0.8803***	0.7527***	0.7454***
	(16.90)	(12.73)	(10.27)	(26.33)	(18.52)	(16.59)
DOCF × ACCOTH	-0.2800***	-0.2111**	-0.1805*	-0.1680***	-0.2855***	-0.2420***
	(-3.15)	(-2.26)	(-1.81)	(-2.85)	(-4.56)	(-3.43)
OCF_t	0.9482***	0.8947***	0.8720***	1.0408***	0.9433***	0.9561***
	(19.72)	(16.37)	(13.25)	(31.32)	(22.86)	(21.23)
$DOCF × OCF_t$	-0.4258***	-0.4569***	-0.4534***	-0.3411***	-0.5508***	-0.5676***
	(-4.65)	(-4.75)	(-4.54)	(-5.81)	(-8.21)	(-7.67)
Control variables						
$ACCOTH_{t-1}$	0.0479	0.1108**	0.1377**	0.0087	0.1293***	0.1765***
	(1.01)	(2.18)	(2.43)	(0.24)	(3.07)	(3.81)
OCF_{t-1}	0.1282***	0.2001***	0.2397***	0.1075***	0.2291***	0.2767***
	(2.77)	(4.03)	(4.37)	(3.08)	(5.52)	(6.00)
QR	0.0027***	0.0000	0.0038**	-0.0003	-0.0004	-0.0002
	(3.13)	(0.03)	(2.18)	(-1.27)	(-1.31)	(-1.03)
LEV	-0.0007	-0.0050	0.0042	-0.0234***	-0.0310***	-0.0243***
	(-0.11)	(-0.72)	(0.54)	(-5.42)	(-6.03)	(-4.17)
DIM	-0.0053***	-0.0102***	-0.0143***	-0.0039***	-0.0093***	-0.0158***
	(-4.19)	(-6.30)	(-7.68)	(-4.18)	(-8.02)	(-11.04)
GROUP	0.0018	0.0034	0.0045	0.0022	-0.0001	-0.0025
	(0.64)	(1.09)	(1.21)	(1.02)	(-0.05)	(-0.89)
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Geographic Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.1474***	0.2149***	0.2789***	0.1218***	0.2008***	0.3362***
	(5.65)	(6.91)	(7.76)	(6.10)	(8.69)	(10.41)
Observations	4,427	4,427	4,427	8,476	8,476	8,476
R-squared	0.4018	0.3394	0.2986	0.4647	0.3900	0.3510

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm write-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm write-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t*-1. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The

variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** p<0.01, ** p<0.05.

Table 10: OLS regression for future operating cash flow and future operating income (sub-sample 2008), split by low/high profitability

VARIABLES	High bottom-line profitability (>5%)						Low bottom-line profitability (<5%)					
	OCF_{t+1}	OCF_{t+2}	OCF_{t+3}	OI_{t+1}	OI_{t+2}	OI_{t+3}	OCF_{t+1}	OCF_{t+2}	OCF_{t+3}	OI_{t+1}	OI_{t+2}	OI_{t+3}
REVAL	0.0073	**-0.0100***	0.0022	-0.0017	**-0.0086***	**-0.0143***	**-0.0037***	**-0.0049****	**-0.0060****	**-0.0037***	**-0.0054***	**-0.0082***
	(1.22)	**(-1.66)**	(0.35)	(-0.40)	**(-1.84)**	**(-2.92)**	**(-1.89)**	**(-2.15)**	**(-2.58)**	**(-3.09)**	**(-4.01)**	**(-5.28)**
WO	0.0340	-0.0071	0.0336	0.0196	-0.0033	-0.0015	-0.0004	**0.0188****	0.0138	**0.0140***	**0.0220***	**0.0242***
	(1.64)	(-0.31)	(1.59)	(1.31)	(-0.24)	(-0.09)	(-0.06)	**(2.11)**	(1.49)	**(2.99)**	**(3.55)**	**(3.77)**
$ACCOTH_t$	**0.6109***	**0.5445***	**0.6156***	**0.8615***	**0.7983***	**0.8430***	**0.4496***	**0.3681***	**0.3374***	**0.6076***	**0.4756***	**0.4689***
	(11.52)	**(9.66)**	**(10.12)**	**(22.74)**	**(17.27)**	**(15.65)**	**(11.72)**	**(8.58)**	**(7.85)**	**(25.64)**	**(17.91)**	**(15.84)**
OCF_t	**0.6174***	**0.6808***	**0.7504***	**1.0138***	**1.0038***	**1.0388***	**0.5208***	**0.5061***	**0.4566***	**0.7225***	**0.6131***	**0.6218***
	(13.14)	**(12.97)**	**(13.76)**	**(29.95)**	**(23.81)**	**(21.58)**	**(13.49)**	**(11.80)**	**(10.67)**	**(30.79)**	**(23.27)**	**(21.23)**
QR	-0.0004	-0.0009	0.0020	0.0003	-0.0005	0.0005	**-0.0006****	**-0.0007****	0.0003	-0.0002	-0.0004	-0.0002
	(-0.22)	(-0.62)	(1.54)	(0.26)	(-0.50)	(0.45)	**(-2.26)**	**(-2.11)**	(0.67)	(-1.61)	(-1.64)	(-1.20)
LEV	**-0.0320****	-0.0249	0.0266	0.0145	-0.0088	-0.0078	**-0.0411***	**-0.0257***	-0.0105	-0.0056	**-0.0090****	-0.0055
	(-2.07)	(-1.48)	(1.43)	(1.27)	(-0.69)	(-0.54)	**(-6.61)**	**(-3.63)**	(-1.37)	(-1.53)	**(-1.98)**	(-1.07)
DIM	0.0006	**-0.0064****	**-0.0161***	**-0.0081***	**-0.0142***	**-0.0222***	**-0.0058***	**-0.0128***	**-0.0096***	**-0.0041***	**-0.0091***	**-0.0142***
	(0.21)	**(-1.96)**	**(-4.79)**	**(-3.85)**	**(-5.80)**	**(-7.51)**	**(-4.52)**	**(-8.52)**	**(-5.85)**	**(-5.74)**	**(-9.48)**	**(-12.16)**
GROUP	0.0076	**0.0125***	0.0074	0.0084	0.0006	0.0038	-0.0002	-0.0006	0.0006	-0.0000	0.0011	-0.0014
	(1.07)	**(1.78)**	(0.91)	(1.61)	(0.11)	(0.56)	(-0.09)	(-0.21)	(0.21)	(-0.00)	(0.61)	(-0.67)
Constant	0.0435	**0.1394***	**0.3364***	**0.2363***	**0.3242***	**0.4786***	**0.2127***	**0.2811***	**0.1917***	**0.1253***	**0.2019***	**0.3137***
	(0.65)	**(1.77)**	**(4.43)**	**(4.54)**	**(5.57)**	**(7.87)**	**(8.16)**	**(9.37)**	**(5.24)**	**(8.83)**	**(11.37)**	**(11.61)**
Observations	3,001	3,001	3,001	3,001	3,001	3,001	9,902	9,902	9,902	9,902	9,902	9,902
R-squared	0.1169	0.1433	0.1239	0.3582	0.3035	0.2781	0.0568	0.0633	0.0404	0.2065	0.1507	0.1393

Notes: *OCF* is operating cash flow calculated as net income + prepaid and deferred taxes – financial gains and losses – extraordinary gains and losses + depreciation + provisions + write-offs – Δ inventory – Δ debtors – Δ other current assets + Δ creditors + Δ other current liabilities; OCF_t is the operating cash flow in year *t*; *OI* is operating income; *REVAL* is a dummy variable which takes on the value 1 if the observed firm write-up its assets and the value 0 otherwise; *WO* is a dummy variable which takes on the value 1 if the observed firm write-down its assets and the value 0 otherwise; $ACCOTH_t$ represents the other accruals in year *t* calculated as Δ inventory + Δ debtors + Δ other current assets – Δ creditors – Δ other current liabilities – depreciation – provisions.; *DOCF* is a dummy variable which takes on the value 1 if the operating cash flow in year *t-1* was negative and value 0 otherwise; this variable is used as proxy for bad news; The variables $ACCOTH_{t-1}$ and OCF_{t-1} represent respectively other accruals and operating cash flow in year *t*-1. QR is the quick ratio calculated as current assets (leave out inventory) deflated by current liabilities; *LEV* represent the leverage calculated as total debts deflated by total assets in year *t*; *DIM* is a proxy used for dimensional control calculated as logarithm of sales; *GROUP* is a dummy variable which takes on the value 1 if the observed firm is in a group of firms and the value 0 otherwise. The variables *ACCOTH, OCF* and *OI* are deflated by the total assets at the beginning of year *t*. Robust *t*-statistics in parentheses; levels of significance: *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Boldfaced estimates significant at 5% or better.