
The informativeness of accounting policy changes: European Evidence

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Title: “The informativeness of accounting policy changes: European Evidence”

- Investigate the impact of Accounting Policy Changes (IAS 8)
- Relevance of accounting policy changes for corporate financial performance (earnings and cash flows and their informativeness / persistence)
- Analyst expectations and analyst efficiency with respect to the incorporation of accounting policy changes
- Market valuation of accounting policy changes

- We document that accounting restatements that result from accounting policy changes increase the informativeness (persistence) of current earnings and cash flows for future earnings and cash flows
- The market positively views these accounting policy changes as indicated by increased equity valuation measures

- The restatement effect of the accounting policy change on the earnings and cash flows of the firm (fiscal year t) can systematically predict variation in the future ($t+1$) analyst forecast error of earnings
- The results suggest that financial analysts cannot anticipate the impact of an accounting policy change that has not been published yet

- IAS 8 refers to *“selecting and applying accounting policies, accounting for changes in estimates and reflecting corrections of prior period errors with an aim to provide guidance on developing accounting policies that result in relevant and reliable accounting information”*.
- As per IAS 8 *“an entity is permitted to change an accounting policy only if the change is required by an IFRS or improves the usefulness of information provided to financial statements users on the firm’s financial position, financial performance, or cash flows”* [IAS 8.14].

- The standard has been issued with an aim of disclosure enhancement as the firm needs to substantiate the choice to alter its accounting policy and provide supporting arguments.
- The reliability and relevance of accounting information is crucial for the formation of accurate expectations of corporate performance and ultimately accurate equity valuation.
- The importance of having reliable accounting information coupled with the lack of empirical evidence on the informativeness of accounting policy changes provides the motivation for this study.

RQ1: Do accounting policy changes lead to higher persistence of earnings and cash flows?

RQ2: Do financial analysts incorporate accounting policy changes in their forecasts?

RQ3: Do accounting policy changes affect equity valuation?

- Majority of related studies on the importance of accounting estimates and judgements from an accounting perspective focusing on U.S. samples (e.g., Lev and Sougiannis, 2010; Albrecht et al., 2017; DeFond et al., 2018).
- Limited attention on the real effects of accounting policy choices under the IFRS framework; and those mainly focus on regulatory incidents and not corporate performance per se.

- Bradbury and Scott (2020) show that one of the top-five accounting standards that result in enforcement actions in the post-IFRS era is IAS 8; they show that IAS 8 is one of the standards that frequently give rise to enquiries.
- IAS 8 is one of the top accounting standards related to audit effort (De George et al., 2013) and with the largest financial statement impact on equity (Stent et al., 2010).
- Nobes and Stadler (2015) hand-collect policy choices made by 514 large IFRS firms during 2005–2011 and identify 204 reasons for policy changes. The majority refer to qualitative characteristics from the conceptual framework of the standard-setter (e.g., relevance, comparability), but also transparency.

RQ1: Do accounting policy changes lead to higher persistence of earnings and cash flows?

H1. *Accounting policy changes lead to higher persistence of earnings and cash flows.*

- The prior literature has suggested that accounting estimates have a meaningful impact on firm earnings and that analysts' forecasts and management decisions are influenced by them (e.g., Albrecht et al. 2017).
- The analysts' interest is positively affected by enhanced disclosure (Healy et al., 1999). Analysts are expected to closely follow firm accounting policies and positively view changes in accounting policy that are substantiated.
- The analysts' expertise and sophistication allow them to thoroughly evaluate management accuracy and reporting quality (e.g., Williams 1996) and reliably estimate the persistence of accounting fundamentals (Gu and Chen 2004).

RQ2: Do financial analysts incorporate accounting policy changes in their forecasts?

H2. *Accounting policy changes have a significant impact on analyst forecasts.*

- The link between disclosure and reporting activities to firm-specific and market-wide economic outcomes is crucial to evaluate regulation as such evidence provides economic justification of regulation (Leuz and Wysocki, 2016).
- Evidence of market relevance of changes in accounting estimates (e.g., Albrecht et al., 2017)
- Favorable disclosures of earnings by management, financial analysts, and the press have been associated with a decline in the firm's perceived risk and the required return, increasing stock returns (Kothari et al., 2009).

RQ3: Do accounting policy changes affect equity valuation?

H3. *Accounting policy changes lead to higher market responses.*

Accounting policy changes and the persistence of earnings and cash flows

Earnings and cash flow persistence models in line with Finger (1994):

$$CFO_{t+1,i} = \beta_0 + \beta_1 APC_{t,i} + \beta_2 CFOR_{t,i} + \beta_3 CFOR_{t,i} * APC_{t,i} + \beta_4 EARNINGSR_{t,i} + \beta_5 EARNINGSR_{t,i} * APC_{t,i} + CONTROLS + \varepsilon \quad (1)$$

$$EARNINGS_{t+1,i} = \beta_0 + \beta_1 APC_{t,i} + \beta_2 CFOR_{t,i} + \beta_3 CFOR_{t,i} * APC_{t,i} + \beta_4 EARNINGSR_{t,i} + \beta_5 EARNINGSR_{t,i} * APC_{t,i} + CONTROLS + \varepsilon \quad (2)$$

where $CONTROLS = \{lnASSETS_{t,i}, BTMR_{t,i}, LEVR_{t,i}\}$

$EARNINGS_{t+1,i}$	<p>Net Income before extraordinary items/preferred for firm i and fiscal year t+1 deflated by Common shares outstanding at t.</p> <p>Source: Datastream Worldscope</p>
$CFO_{t+1,i}$	<p>Net Cash Flow from Operations for firm i and fiscal year t+1, deflated by Common shares outstanding at t.</p> <p>Source: Datastream Worldscope</p>
$CFOR_{t,i}$	<p>Restated Net Cash Flow from Operations for firm i and fiscal year t, where the restatement in t has occurred due to an accounting policy change (or other reason), deflated by Common shares outstanding at t-1.</p> <p>Source: Datastream Worldscope</p>
$EARNINGSR_{t,i}$	<p>Restated Net Income before extraordinary items and preferred dividends for firm i and fiscal year t, where the restatement in t has occurred due to an accounting policy change (or other reason), deflated by Common shares outstanding at t-1.</p> <p>Source: Datastream Worldscope</p>
$APC_{t,i}$	<p>Indicator variable</p> <p>= 1 when the restatement of t financial results is associated with an accounting policy change and</p> <p>= 0 when the restatement of t financial results is associated with another reason</p> <p>Source: Datastream Worldscope</p>

Earnings and cash flow persistence (models 1 – 2).

- In line with H1, current earnings' and cash flows' persistence is expected to increase for restatements resulting from accounting policy changes, and thus the estimated regression coefficients β_3 and β_5 in Models 1 and 2 are expected to be positive and significant.
- The regressions are also performed after segmenting the sample based on the effect of the restatement (increasing or decreasing effect) on the net income of fiscal year t (alternatively, cash flows) to show whether the superiority of persistence in the case of accounting policy changes holds notwithstanding the direction of the impact of the policy change on the financial results.

Financial Analyst Forecasts and Accounting policy changes

We investigate the analyst forecast errors (surprises) of the fiscal year t+1 (H2) with Models 3 - 4.

$$\begin{aligned}
 |FE(EARNINGS)_{t+1,i}| &= \beta_0 + \beta_1 APC_{t,i} + \beta_2 CFODIFF_{t,i} + \\
 &\beta_3 CFODIFF_{t,i} * APC_{t,i} + \beta_4 EARNDIFF_{t,i} + \beta_5 EARNDIFF_{t,i} * APC_{t,i} + \\
 &CONTROLS + \varepsilon \quad (3)
 \end{aligned}$$

$$\begin{aligned}
 |FE(CFO)_{t+1,i}| &= \beta_0 + \beta_1 APC_{t,i} + \beta_2 CFODIFF_{t,i} + \beta_3 CFODIFF_{t,i} * APC_{t,i} + \\
 &\beta_4 EARNDIFF_{t,i} + \beta_5 EARNDIFF_{t,i} * APC_{t,i} + CONTROLS + \varepsilon \quad (4)
 \end{aligned}$$

- $|FE(EARNINGS)_{t+1,i}|$ and $|FE(CFO)_{t+1,i}|$ are the measures of the analysts' consensus forecast error of earnings and cash flows respectively and are equal to the absolute difference between the actual reported earnings (cash flows) and the analyst mean consensus forecast of earnings (cash flows) as reported in Refinitiv Eikon.
- $CFODIFF_{t,i} = CFOR_{t,i} - CFO_{t,i}$
- $EARNDIFF_{t,i} = EARNINGSR_{t,i} - EARNINGS_{t,i}$

- Analysts do not possess a priori knowledge of the accounting policy change.
- As per H2, analysts cannot be expected to anticipate the consequences of the effects of an accounting policy change ex-ante.
- Thus, the restatement impact will be able to systematically predict variation in the analyst forecast error (β_3 and β_5 in Models 3 and 4 will be significant).

Market Implications of Accounting policy changes

To investigate H3 that is related to the market response to accounting policy changes, the study uses Tobin's Q following the prior accounting literature (Ryngaert and Thomas, 2012; Daske et al., 2008) using the following model:

$$Q_t = (TA_t - BVE_t + MVE_t - DT_t) / TA_t \quad (5)$$

where TA = total assets (Datastream)

BVE = book value of equity (Datastream)

MVE = market value of equity (Eikon)

DT = Deferred Taxes (Datastream)

- The study computes both non-restated Q_t and the restated Q_t (using restated TA , BVE , and DT) as well as the (non-restated) Q_{t+1} .
- MVE has been computed at the announcement date of t (and $t+1$) of actual financial results for every firm-year (or alternatively, at 30 days after the announcement date of actual financial results).
- The increase of TOBINS' Q post APC will indicate that the market positively views APCs.

Sample Description

Table 1. Sample Selection

	number of firms with other reasons restatements	firm years of restatements	no of firms with acc policy changes	firm years of acc policy changes
Grand Total	4,761	14,336	924	1,125

Notes: The sample includes primarily quoted equity securities of major class listed firms from the European Economic Area. The sample excludes Financial Institutions, Insurance firms, Real Estate, REITS, and firms of unclassified sector leading to 924 firms with at least one restatement resulting from accounting policy changes and 4,761 firms with at least one restatement resulting from other reasons.

Sample Description

Table 2a. Distribution Descriptive Statistics

Variable	No APC	APC	Mean diff (0-1)	t-test of mean diff
	Mean (0)	Mean (1)		
CFO_{t+1}	8.6300	9.9244	-1.2944	-0.9735
$EARNINGS_{t+1}$	1.0229	2.2975	-1.2745	-2.1077**
CFO_t	8.8468	9.2448	-0.3980	-0.2919
$EARNINGS_t$	0.9376	2.6457	-1.7081	-2.6878***
$CFOR_t$	8.6927	8.9937	-0.3010	-0.2296
$EARNINGSR_t$	0.8792	2.7476	-1.8684	-2.7197***
$CFODIFF_{t,i}$	-0.2283	-0.2815	0.0532	0.2032
$EARNDIFF_{t,i}$	-0.0982	0.1091	-0.2072	-1.2819*
$FE(CFO)_{t+1,i}$	-0.3504	-0.3559	0.0055	0.0678
$FE(EARNINGS)_{t+1,i}$	-0.1558	-0.1100	-0.0458	-1.3190*
$ FE(CFO)_{t+1,i} $	1.0046	0.8447	0.1599	1.3358*
$ FE(EARNINGS)_{t+1,i} $	0.5104	0.3612	0.1492	3.0182***
$TOBINQ_t$	1.6691	1.5076	0.1615	2.2239**
$TOBINQR_t$	1.9248	1.6572	0.2676	1.4817*
$TOBINQ_{t+1}$	1.7066	1.5531	0.1535	1.9380**

On average, future (t+1) performance for cases where firms apply accounting policy changes is higher than for cases of restatements due to other reasons (CFO_{t+1} and $EARNINGS_{t+1}$ both higher for $APC=1$). Difference for $EARNINGS$ is statistically significant at the 5 percent level.

FE of analysts negative in line with prior literature (over-optimistic analyst forecasts).

Sample Description

Table 2b. Accounting policy changes and increasing or decreasing performance metrics.

Metric:	All	Increasing	Decreasing	Missing observations
<i>Net Income before extraordinary/preferred</i>	1,125	283 (25%)	801 (71%)	41 (4%)
<i>Net operating cash flow</i>	1,125	184 (16%)	905 (80%)	36 (3%)
<i>Revenue</i>	1,125	111 (10%)	980 (87%)	34 (3%)
<i>Liabilities</i>	1,125	434 (39%)	674 (60%)	17 (1%)
<i>Net PPE</i>	1,125	134 (12%)	969 (86%)	22 (2%)

Table 2b presents statistics on the effect of an accounting policy change on several accounting performance metrics (net income, cash flows, revenue etc.).

The findings show that the effect of the accounting policy change on the performance is decreasing, that is, the accounting policy change leads to more conservative figures.

Sample Description

Table 3. Accounting policy changes and analyst accuracy (absolute forecast error of earnings)

<i>APC sample</i>	Obs	Mean	St. Dev.	Diff	t-stat
$ FE(EARNINGS)_{t,i} $	772	1.3602	6.9206	1.0254	4.2181***
$ FE(EARNINGS)_{t,i} $	772	0.3348	1.0079		
$ FE(EARNINGS)_{t,i} $	751	0.2920	0.8575	-0.0621	-1.3580*
$ FE(EARNINGS)_{t+1,i} $	751	0.3542	1.0521		

Table 3 presents the difference between the current year analyst absolute forecast error and the same error computed with restated figures. The latter is significantly larger as analysts cannot anticipate ex-ante the changes brought by the accounting policy change.

When we compare analyst accuracy between t and $t+1$, we see the analyst forecast error increases in the year of the accounting policy change, as financial analysts cannot foresee the change notwithstanding its significance.

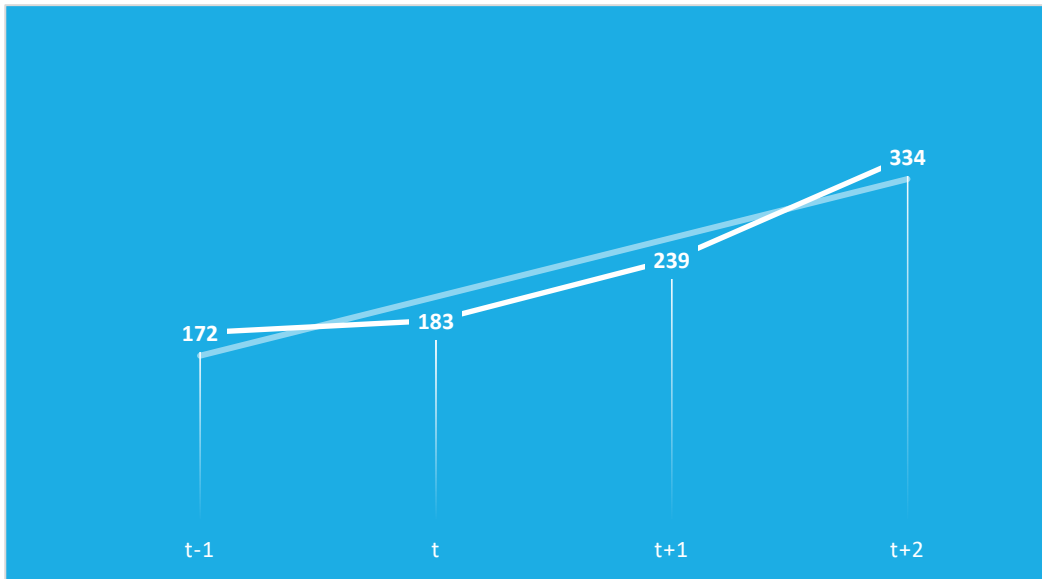


Figure 1

Notes: This figure presents a peak frequency graph for *net operating cash flows* during 2005-2018 for firms that have proceeded to an accounting policy change at t . The frequency peak is drawn for $[t-1, t+2]$ period around the first year affected by the policy change (t).

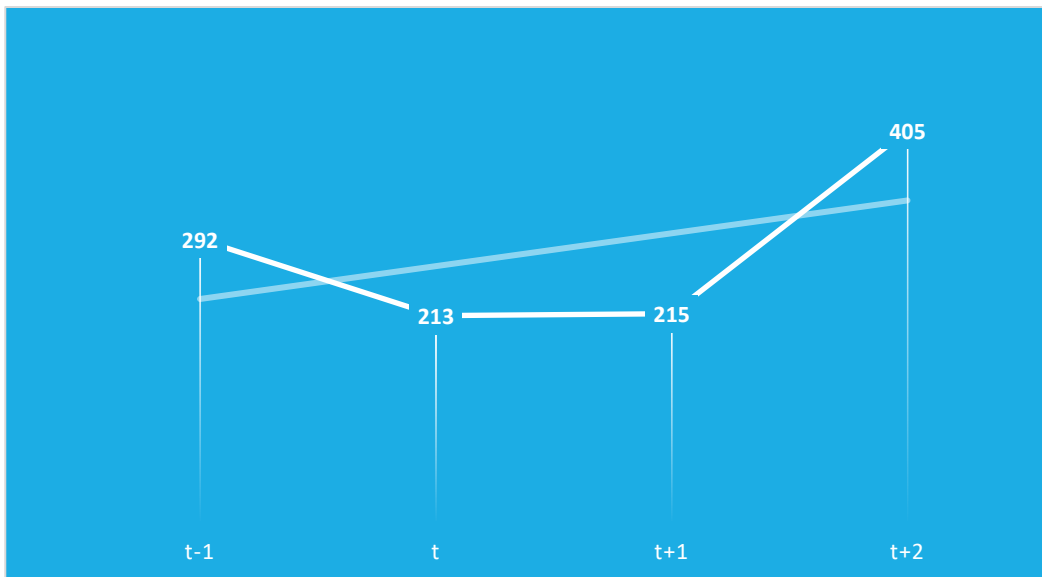


Figure 2

Notes: This figure presents a peak frequency graph for *net income* during 2005-2018 for firms that have proceeded to an accounting policy change at t . The frequency peak is drawn for $[t-1, t+2]$ period around the first year affected by the policy change (t).

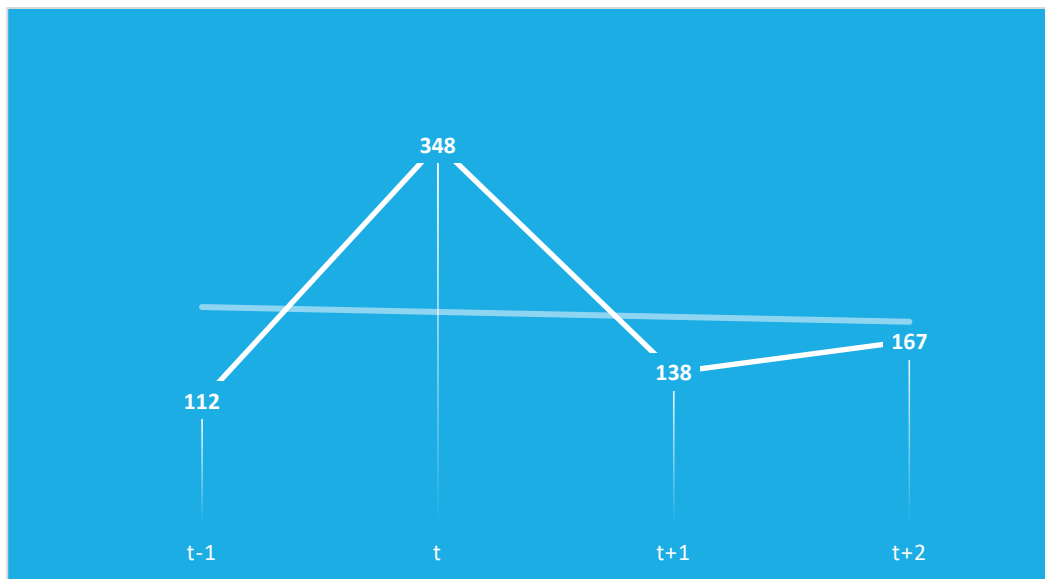


Figure 3

Notes: This figure presents a peak frequency graph for *absolute forecast error of earnings* during 2005-2018 for firms that have proceeded to an accounting policy change at t . The frequency peak is drawn for $[t-1, t+2]$ period around the first year affected by the policy change (t). Not that in the above graph t actual data are restated.

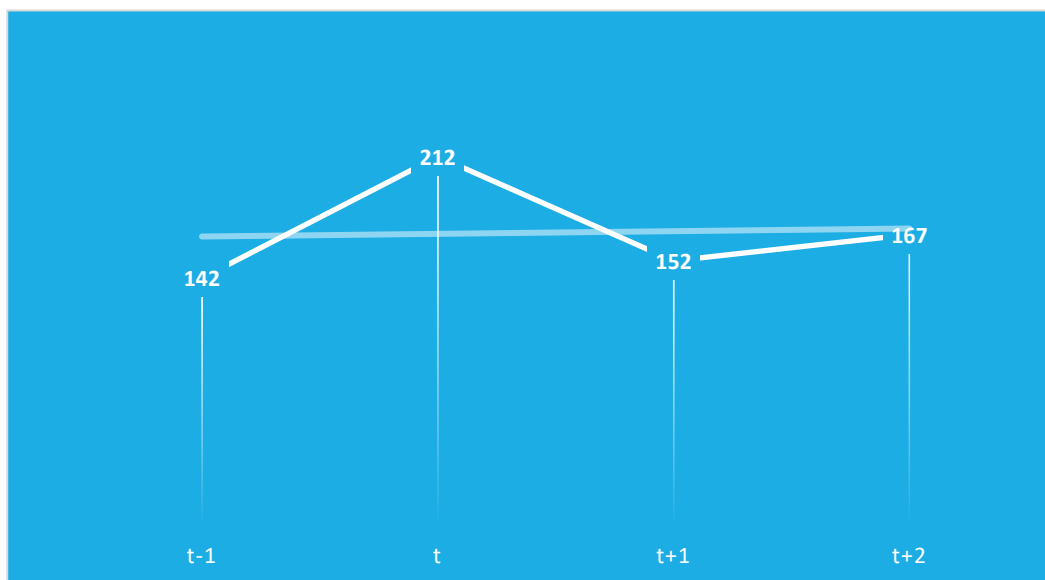


Figure 4

Notes: This figure presents a peak frequency graph for *absolute forecast error of cash flows* during 2005-2018 for firms that have proceeded to an accounting policy change at t . The frequency peak is drawn for $[t-1, t+2]$ period around the first year affected by the policy change (t). Not that in the above graph t actual data are restated.

Empirical Results

Table 4. Accounting Policy Changes and Future Corporate Performance.

DEP. VAR.=	(1) CFO_{t+1}	(2) CFO_{t+1}	(3) $EARNINGS_{t+1}$	(4) $EARNINGS_{t+1}$
<i>APC</i>		-1.094*** (-3.336)		0.086 (0.252)
<i>CFOR_t</i>	0.571*** (27.420)	0.585*** (27.148)	0.066*** (4.805)	0.069*** (4.524)
<i>CFOR_t * APC</i>		0.106** (2.315)		-0.048 (-1.366)
<i>EARNINGSR_t</i>	0.144*** (3.620)	0.125*** (3.016)	0.410*** (15.819)	0.383*** (13.290)
<i>EARNINGSR_t * APC</i>		0.045 (0.363)		0.137* (1.733)
Controls	Included	Included	Included	Included
<i>Linear Combination Coefficient tests</i>				
<i>CFO+inter</i>		0.692***		0.021
<i>EARN+inter</i>		0.171		0.520***
R^2	0.676	0.706	0.436	0.411
Adjusted R^2	0.676	0.706	0.435	0.411
Observations	13287	12685	13304	12698

Notes: This table presents the results of the OLS regression of Models 1 and 2. *APC* is an indicator variable equal to one when the restatement of *t* results is attributed to an accounting policy change and zero otherwise. Continuous variables are winsorized at 1% at both sides. *t*-statistics (in parentheses) are based on robust standard errors. ***, **, and * represent significance levels of 1, 5, and 10 percent, respectively.

Empirical Results

Table 5. Accounting Policy Changes and leading (t+1) analyst forecast error.

DEP. VAR. =	(1)	(2)	(3)	(4)
		$ EPSFE_{t+1} $		$ CFOFE_{t+1} $
<i>APC</i>		-0.110*** (-2.743)		-0.112 (-1.082)
<i>CFODIFF_t</i>	0.005 (0.644)	0.006 (0.741)	-0.012* (-1.654)	-0.011 (-1.518)
<i>CFODIFF_t * APC</i>		-0.041** (-2.180)		-0.030 (-0.460)
<i>EARNDIFF_t</i>	-0.004 (-1.173)	-0.004 (-1.077)	-0.009 (-1.392)	-0.006 (-1.224)
<i>EARNDIFF_t * APC</i>		-0.051 (-1.304)		-0.474 (-1.323)
Controls	Included	Included	Included	Included
<i>Linear combination tests</i>				
<i>CFOD+inter</i>	na	-0.035**	na	-0.041
<i>EARND+inter</i>	na	-0.055	na	-0.481
<i>R²</i>	0.024	0.025	0.023	0.026
<i>Adj R²</i>	0.024	0.024	0.022	0.025
<i>Obs</i>	7782	7782	5777	5777

Notes: This table presents the results of the OLS regression of Models 3 and 4. ***, **, and * represent significance levels of 1, 5, and 10 percent, respectively.

Empirical Results

Table 6. Accounting Policy Changes and leading (t+1) analyst forecast error based on net income restatement effects.

	(1)	(2)	(3)	(4)
DEP. VAR.=	$ EPSFE_{t+1} $		$ CFOFE_{t+1} $	
APC effects	Dnetincome>0	Dnetincome<0	Dnetincome>0	Dnetincome<0
<i>APC</i>	-0.128** (-1.973)	-0.217*** (-3.068)	0.089 (0.309)	-0.334** (-2.426)
<i>CFODIFF_t</i>	0.015 (1.129)	0.019 (1.156)	0.013 (0.718)	0.006 (0.996)
<i>CFODIFF_t * APC</i>	-0.015 (-1.110)	-0.078** (-2.494)	-0.016 (-0.744)	-0.029 (-0.513)
<i>EARNDIFF_t</i>	0.006 (0.478)	-0.004 (-1.523)	0.016* (1.726)	-0.004 (-0.972)
<i>EARNDIFF_t * APC</i>	0.001 (0.077)	-0.067 (-1.163)	-0.159 (-1.215)	-0.160 (-0.765)
Controls	Included	Included	Included	Included
<i>Linear Combination Coefficient tests</i>				
<i>CFOD+inter</i>	0.000	-0.060**	-0.003	-0.023
<i>EARND+inter</i>	0.007	-0.071	-0.142	-0.164
<i>R²</i>	0.036	0.051	0.018	0.021
Adjusted <i>R²</i>	0.029	0.046	0.008	0.015
Observations	1084	1645	813	1242

Notes: This table presents the results of the OLS regression of Models 3 and 4 controlling for the net income restatement effects. ***, **, and * represent significance levels of 1, 5, and 10 percent, respectively.

Empirical Results

Table 7. Accounting Policy Changes and leading (t+1) analyst forecast error based on cash flow restatement effects.

	(1)	(2)	(3)	(4)
DEP. VAR.=	$ EPSFE_{t+1} $		$ CFOFE_{t+1} $	
APC effects	Dcashflow>0	Dcashflow<0	Dcashflow>0	Dcashflow<0
<i>APC</i>	-0.178 (-1.565)	-0.048 (-0.367)	-0.308 (-1.166)	-0.509*** (-3.507)
<i>CFODIFF_t</i>	0.030** (2.070)	-0.004 (-1.024)	-0.015* (-1.659)	-0.018 (-1.047)
<i>CFODIFF_t * APC</i>	-0.029* (-1.935)	-0.055*** (-2.868)	0.031 (1.594)	-0.033 (-0.525)
<i>EARNDIFF_t</i>	-0.002 (-0.763)	-0.002 (-0.211)	0.001 (0.273)	-0.009 (-0.703)
<i>EARNDIFF_t * APC</i>	0.046** (2.298)	-0.112* (-1.699)	-0.025 (-0.243)	-0.183 (-0.672)
Controls	Included	Included	Included	Included
<i>Linear Combination Coefficient tests</i>				
<i>CFOD+inter</i>	0.001	-0.059***	0.017	-0.051
<i>EARND+inter</i>	0.045**	-0.114*	-0.024	-0.192
<i>R²</i>	0.062	0.015	0.033	0.022
Adjusted <i>R²</i>	0.056	0.008	0.024	0.013
Observations	1142	1190	849	893

Notes: This table presents the results of the OLS regression of Models 3 and 4 controlling for the cash flow restatement effects. ***, **, and * represent significance levels of 1, 5, and 10 percent, respectively.

Empirical Results

Table 8. Market Impact of restatements arising from accounting policy changes and other reasons.

<i>TOBINQ</i>	Restated	Obs	Mean	Diff	t-stat
<i>Panel A. Tobins Q computed using non-restated financial data for t and t+1</i>					
<i>Date of calculation of market value of equity: At announcement of financial results (of t and t+1)</i>					
NO APC					
<i>TOBINQ_t</i>	No	6,534	1.6648	0.0381	2.8932***
<i>TOBINQ_{t+1}</i>	No	6,534	1.6267		
APC					
<i>TOBINQ_t</i>	No	685	1.5358	-0.0524	-2.0876**
<i>TOBINQ_{t+1}</i>	No	685	1.5882		

Notes: This table presents Tobins Q comparisons. Similar results are obtained when the Date of calculation of market value of equity is 30 days after announcement of financial results.

Interpretation: for restatements that occur due to accounting policy changes TOBIN Q increases from t to t+1 while it reduces for restatements due to other reasons.

The change from t to t+1 for the accounting policy changes is significant at the 5 percent level.

Conclusions

- Accounting policy changes increase the informativeness of current earnings and cash flows for future earnings and cash flows.
- Accounting policy changes improve persistence and thus lead to more meaningful accounting numbers, but the analysts cannot anticipate and incorporate this important information ex-ante.
- The market positively views the accounting policy changes as indicated by stronger market responses to them.