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Article (Accepted Version)

Hyndman, Noel, Liguori, Mariannunziata, Meyer, Renate E, Polzer, Tobias, Seiwald, Johann and Steccolini, Ileana (2019) Justifying public-sector accounting change from the inside: ex-post reflections from three countries. *Abacus*, 55 (3). pp. 582-609. ISSN 0001-3072

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Justifying public-sector accounting change from the inside: ex-post reflections from three countries

Noel Hyndman
Mariannunziata Liguori
Queen's University Belfast, UK

Renate E. Meyer
WU Vienna University of Economics and Business, Austria
Copenhagen Business School, Denmark

Tobias Polzer
University of Sussex, UK

Johann Seiwald
WU Vienna University of Economics and Business, Austria

Ileana Steccolini
Newcastle University London

Abstract: *Looking at accounting reforms in central government, the paper investigates how key actors (senior managers responsible for developing and/ or implementing change) account for the related change outcomes subsequent to implementation. Using aggregated data from three countries (UK, Italy and Austria), and a mixed-methods approach, the study investigates which rhetorical strategies are used to construct ex-post legitimation or delegitimation of the changes, and how these strategies are associated with different perceived outcomes of change. Building on previous literature, possible strategies for ex-post (de-)legitimation and outcomes of change are identified. The study finds that radical change (leading to new accounting systems bedding down with accompanying new interpretative schemes) is associated with ex-post legitimation based on rationalization. In contrast, incremental change (introducing new accounting tools, but not resulting in changed interpretative schemes) is often connected with narratives criticizing (or delegitimizing) the change. The study contributes to the scant body of literature focusing on ex-post legitimation of accounting change. How managers justify change in relation to its outcomes provides useful insights for the current situation when, as a consequence of crisis and austerity, new roles and relevancies for accounting and control systems continue to emerge. It is argued that for change to be substantive, it is not only essential that the actual systems and structures of accounting are adjusted, but it is critical that the way people interpret and make sense of accounting information (and consequently take decisions) is also modified. The particular challenges of achieving this in a period of crisis are highlighted.*

Key words: public-sector accounting, accounting change, outcomes of change, ex-post legitimation, mixed methods, central government

(accepted in Abacus on 06/02/2019)

INTRODUCTION

Since the 1980s, accounting tools (traditionally associated with the business sector) have progressively been introduced into the public sectors of a number of countries on the basis that they can improve both decision making within, and accountability by, public-sector bodies. This is often associated with the embracing of a New Public Management (NPM) agenda¹, although whether the outcomes are as intended, or even possibly undermine the operation of such organizations, has been debated (Lapsley, 2009). Moreover, it has been argued that at a time of crisis (or in a period of austerity) in the public sector, increased importance is frequently put on the use of these new accounting instruments, albeit possibly adjusted to meet distinctive control and expenditure requirements related to such crises (Barbera *et al.*, 2017; Bracci *et al.*, 2015). However, the ability of such accounting tools to support public-sector organizations in decision-making and accountability processes stresses the necessity to understand the extent to which accounting reforms are seen to pave the way for new solutions and support change. This is the case in both stable and crisis situations.

In their attempts to shed light on accounting and organizational change, and its outcomes and impacts (including in periods of financial or organizational turmoil), scholars have adopted a variety of approaches. Different (often competing, but sometimes complementary) conceptual lenses have been used to explore outcomes of change, the conditions under which change occurs (or does not occur) and related processes (e.g. Van de Ven *et al.*, 2013). Studies have pointed to the importance of rhetoric in legitimating (justifying) and/or delegitimizing (criticizing) change (Cornelissen *et al.*, 2015). Such studies highlight that novel organizational practices and policies, if they are to embed and be utilized, require new arrangements to be viewed as appropriate responses to the demands of the situation and to be more legitimate than pre-existing ones (Suddaby and Greenwood, 2005; Green *et al.*, 2009). Once a novel practice diffuses, its legitimation may increase if positive evidence of its use accumulates from both external and internal sources (Green, 2004). Similarly, delegitimation (or criticisms) may occur if the new practice proves unsatisfactory in use. Most literature studying change in general (and accounting change in particular) has focused on the ex-ante conditions that facilitate or hamper change, or on the ways in which change is legitimated before and during the process of change (Vaara *et al.*, 2006; Liguori and Steccolini, 2018). However, as change processes are continuous, so are legitimation and delegitimation; they are likely to continue ex-post, i.e. after the consequences of change emerge and manifest. In spite of this, limited consideration has been given to the ways in which actors legitimate or delegitimize change ex-post, i.e., how they account for change after they have experienced it, and how such explanations are related to the perceived outcomes of change. This is the focus of this paper.

This paper aims at contributing to a better understanding of this underexplored phenomenon by looking at how different types of outcome of change go hand-in-hand with particular ex-post legitimation strategies (Van Leeuwen and Wodak, 1999; Vaara *et al.*, 2006).² While the data for this paper draw on the perceptions of key actors (senior managers responsible

¹ Some writers have suggested that public sector accounting reforms may have moved on from an NPM influence towards a New Public Governance approach (Osborne, 2006), but this has been disputed by others (Hyndman and Liguori, 2016).

² We use the terms 'ex-post legitimation' and 'justification' (and the contrary: 'ex-post delegitimation' and 'criticism') as interchangeable. The concept of justification has been defined as 'an idea being used to provide legitimacy or support for another idea or for some form of behaviour' (Jost and Banaji, 1994, p. 1), and has been suggested as a fruitful lens for studying the role of organizational actors during change (Dacin *et al.*, 2002).

for developing and/or implementing changes³) with respect to the accounting reforms in the central governments of three countries (namely, the UK, Italy and Austria), it does not focus on a cross-country comparison (this is done in other papers – e.g. Hyndman *et al.*, 2018). Rather, by aggregating all data, it identifies patterns and associations between ex-post legitimation (or delegitimation) strategies and perceptions of outcomes of change in order to present theoretically-informed insights (a novel approach); any comparisons between the three countries, if referenced, are merely presented as additional insights. The paper considers accounting change in three different areas of accounting (financial and cost accounting – FCA –, budgeting and performance management) over almost thirty years, and investigates how organizational actors interpret the related changes and, in particular, how these are assessed and legitimated, and/or delegitimated, ex-post. The main research questions are as follows: how is change legitimated ex-post? Are different patterns of legitimation associated with different types of outcomes of change?

Building on previous literature, the empirical analysis uses a framework of six possible strategies for ex-post legitimation or delegitimation and connects these to three types of perceived outcomes of change (radical, incremental and no change). The perception of change outcome is determined by the extent to which both accounting structures and systems (the new accounting tools) and the underlying interpretive schemes (how people think about and reflect upon this new information) have been changed by reforms. Combining qualitative and quantitative analysis, the paper shows that radical change (i.e. change leading to new accounting systems bedding down, with accompanying new interpretative schemes for organizational actors) is associated with ex-post legitimation based largely on rationalization. In contrast, incremental change (i.e. change introducing new accounting tools, but not resulting in changed interpretative schemes) is connected to narratives criticizing (or delegitimizing) the changes. The study empirically adds to the scant body of literature focusing on ex-post legitimation. Moreover, it presents a quantitative analysis of concepts that have mainly been investigated from a qualitative point of view in the past. The remainder of the paper is structured as follows: the next section provides an overview of relevant literature. The third section outlines the empirical setting and research methods, and the fourth section presents findings. The final section discusses the findings and presents conclusions and further research avenues.

CHANGE AND LEGITIMATION: RESEARCH FRAMEWORK

Explaining Change and its Outcomes

Changes in accounting practices often bring about, or more generally intertwine with, organizational change. In times of financial crisis, organizational responses typically encompass adjustments in the accounting and/or control systems. An increasing body of literature has shown that organizational change may stray from original intentions, or translate into different (unexpected or even unwanted) consequences (Lapsley, 2009). Exploring the outcomes of change in accounting systems requires defining how outcomes of change can be conceptualized and made sense of, whilst acknowledging the subjectivity involved in evaluating the consequences of accounting reforms by different actors. This paper draws on archetype theory to define possible types of outcomes of change. An archetype is a set of structures and systems that reflects a single interpretive scheme, made up of ideas, beliefs and values (Greenwood and Hinings, 1993). Organizational structures and systems can be seen as embodiments of ideas, beliefs and values that

³ While there is a range of actors who may impact on the legitimation (or delegitimation) of accounting reforms, the actors focused on in this study are senior managers responsible for accounting policy formulation and/or accounting-reform implementation. It is considered that such actors, often being less transient than other actors in the public sector, have a key role in the development and embedding of accounting change.

constitute an overarching and prevailing interpretive scheme. Very often accounts of changes in accounting focus on the technical aspects, i.e., changes affecting accounting structures and systems. However, a number of studies have shown that without a change in actors' values, the impact of such accounting-system changes is likely to be extremely limited (Covaleski *et al.*, 2013; Hyndman and Liguori, 2018). Archetype theory holds that the outcome of change can be defined in terms of a shift in structures and systems on the one hand, and in the related (underlying) ideas and values on the other.

This gives rise to a differentiation between incremental and radical outcomes of change. Radical change happens when not only structures and systems (the accounting tools) change, but also the related interpretive schemes change (the way people think about and use accounting information). When only the structures and the systems change, but not the interpretive schemes, incremental change is identified. 'No change' occurs when individuals perceive a change neither in the accounting tools, nor in the use and understanding of the accounting information. In the public sector, the changes investigated in this study envisaged a movement from a bureaucratic to a managerial archetype in both structures and related interpretive schemes (Liguori and Steccolini, 2012).

Legitimation and Delegitimation Strategies

Accounts are explanations actors give in order to connect the new with the established, or the problematic with the accepted (Creed *et al.*, 2002). Organizational actors' accounts of perceived change (or non-change) are often manifestations of how appropriate or problematic they regard the outcomes of reform projects (Meyer, 2014). Accounts have been found to be essential in the implementation of change (Tost, 2011), as changes in organizational practices and policies require the new arrangements to be viewed as more legitimate than pre-existing ones (Suddaby and Greenwood, 2005). This may be even more relevant when change is introduced as a consequence of a (perceived) crisis.

Actors' accounts are strategic rhetorical devices that can be used to legitimate (justify) or delegitimate (criticize) a particular state or position. Organizational actors' accounts have been shown to rely on five possible discursive strategies (Van Leeuwen and Wodak, 1999; Vaara *et al.*, 2006; Lefsrud and Meyer, 2012): authorization, rationalization, normalization, moralization or narrativization. Authorization refers to legitimation through authority of tradition, custom, law and persons upon whom institutional authority has been bestowed. Rationalization is related to legitimation by referring to the utility of the new system giving the proposed change(s) cognitive validity. Such a strategy mainly focuses on the benefits, purposes or outcomes that a certain course of action can bring. Normalization legitimates by exemplarity that can involve 'retrospective' (similar cases, events or practices in the past) or 'prospective' (new cases, events or practices to be expected) references, which make the case at hand something 'normal'. Moralization refers to legitimation by reference to specific value systems. Finally, narrativization is about legitimation conveyed through narratives; telling a story can provide evidence of acceptable, appropriate or preferential behavior. Authorization, rationalization and normalization strategies align with notions of logos, while moralization strategies align with what Green (2004) calls ethos. Green (2004) also identifies a route of legitimation via pathos (by appealing to emotions), which does not necessarily coincide with the above strategies.

Ex-post (De-)legitimation of Change

Legitimation strategies have been the subject of scholarly attention as relevant in explaining organizational change processes from an ex-ante (Liguori and Steccolini, 2018) or interim point of view (Vaara *et al.*, 2006). However, as change processes are continuous, legitimation and delegitimation of change are likely to continue also ex-post, i.e., after the consequences of

accounting change emerge and manifest more clearly. Hence, ex-post, actors' use of legitimation strategies reflects, at least in part, their assessment of the outcome of change.

To date, there is only limited research on how actors legitimate (or delegitimate) change rhetorically 'ex-post'. Hyndman and Liguori (2018), for example, comparing Westminster and Scottish central governments at different organizational levels, argue that the effective embedding of change requires those involved at the operational level to see change as both rational and promoted by those in authority. Their exploratory, qualitative study argues that for radical accounting change to embed, it is necessary for it to be primarily perceived as rational. Conversely, incremental change is associated with modest legitimation via rationalization, and delegitimation based on pathos and rationalization. Building on this, this paper aims at exploring the relationship between perceived outcomes of accounting change and ex-post legitimation strategies across different countries using a wider, quantitative stance. In particular, it focuses on the association between how actors ex-post (de-)legitimate accounting reforms and the way they perceive the related (radical, incremental, non-existent) outcome of change.

EMPIRICAL CONTEXT, METHODS, DATA AND ANALYSIS

The study explores central-government-level accounting changes that have been implemented in three European countries over the last three decades. It applies a mixed-methods approach, combining qualitative (coding of interview data) and quantitative (logistic regression models) analyses.

Public-sector Accounting Reforms in the UK, Italy and Austria

The aim of the research is to explore how, ex-post, actors justify (if at all) change(s) brought about by public-sector reforms at central-government level and which patterns of legitimation are associated with which outcomes of change. Accounting changes from the late 1980s (when NPM-related adjustments began to gain momentum in terms of their introduction) until 2013 (including periods before and after the 2008 global financial crisis, which affected the three countries to different extents, see European Commission, 2017) were investigated in the UK, Italy and Austria. These included changes in FCA, budgeting and performance management (collectively referred to as 'accounting').

Table 1 provides an overview of the main reforms in the three countries through time. As can be seen, over a prolonged period, the accounting systems in each country have moved along a continuum of 'modernisation', often embracing NPM-style modifications (albeit at different times and with varying intensities). In FCA this is seen largely in movements from cash to accruals accounting; in budgeting, this is reflected in both changes solely relying on cash (towards an adoption of accruals principles as either replacements and/or supplements) and in more flexible arrangements with respect to underspend carry forward; and, in the case of performance management, with much greater focus on outputs and outcomes. However, specifically in the context of crisis, it should be noted that accounting reforms initially introduced to facilitate both more efficient and effective decision making, and better accountability (key themes in the NPM rhetoric), were adjusted significantly when considered necessary. For example, as seen in Table 1 with respect to the UK, annuality (the requirement of budget allocations to be spent by the financial year-end or be surrendered to the centre) was initially abolished in 1997 at central government departmental level with end-year flexibility (EYF) being permitted in its place (allowing the carry forward of unspent resources from one year to the next). However, as a consequence of the 2008 financial crisis, this flexibility was removed in 2011. This was replaced by a system of Budget Exchange, which set much restricted limits on any carry forward permitted, and thus afforded much tighter, and more central, control of expenditure (for more detail see Hyndman *et al.*, 2007; Christensen and Parker, 2010). Another example of the impact the 2008

financial crisis had on budgeting rules can be observed in Austria, where a four-year medium-term expenditure framework (MTEF) was implemented at the federal level in 2009, with the aim of giving line ministries planning security (while the spending ceilings had to be formally approved annually, an additional ceiling was added every year). In the years after the financial crisis, as central budgets had to be approved at a time when the banks had to be bailed out, the MTEF was changed several times, and undermined the planning security initially enjoyed by line ministries (Hammerschmid and Grünwald, 2014).

Insert Table 1 here

This study uses aggregated data from three countries. In order to observe sense making of broader experiences, we selected countries that have undertaken comprehensive accounting reforms at central government level. These reforms cover all parts of the public financial management system and have been implemented and further enhanced over a longer period of time. The countries represent different traditions – the Anglo-Saxon system (UK), Continental Europe (Austria) and Southern Europe (Italy) – in order to identify patterns and associations between ex-post legitimation/delegitimation strategies and perceptions of outcomes of change.⁴

As seen in Table 1, each of the accounting systems in these countries has moved along similar ‘modernisation’ routes, albeit at varying times and with different intensities (Pollitt and Bouckaert, 2011). The study focuses on central government entities. To account for the diversity of activities carried out, three different areas of competency were chosen (following Speklé and Verbeeten’s (2014) classification of public services related to the measurability of their output). In addition to Treasury/Ministry of Finance (HMT in the UK, MoF in Italy and Austria), which was the main designer and implementer of the reforms in the three countries, the areas of rural development (RD) and higher education (HE) were selected. While RD was considered as having relatively greater ease of measurability of output (with many RD outputs being freely traded on commercial markets), HE outputs generally are viewed as more problematic in terms of measurement and comparison (with clear challenges relating to the measurement of both teaching and research outputs). This selection criterion aimed to strengthen variety in the activities and accounting techniques within, and across, each organization. In addition, and unlike most other research in this area, this study uses a mixed-methods approach (linking quantitative and qualitative data) as a basis for increasing the depth and breadth of understanding of the research problem (McKim, 2017).

Data Sources, Coding and Variables

Speech, rather than being simply a channel through which content is disseminated, has been found to reflect ‘particular cognitive outcomes or representations’ of the speakers (Cornelissen *et al.*, 2015, p. 12). Therefore, an approach drawing on the experiences of the key actors (senior managers involved with promoting and/or making accounting changes go ‘live’, and working with them on

⁴ It should be noted that while the UK and Italy are both G7 countries and respectively examples of the Anglo-Saxon and Southern Europe traditions of public administration, Austria is a country with a Continental Europe tradition of public administration, but is not a G7 member. However, Austria, relatively early and with a reasonable degree of intensity, embraced reformed, ‘modern’ adjustments to their accounting and reporting systems. It was therefore selected as a appropriate country for investigation in this study. It contrasts with a possible alternative, and much larger country with a Continental Europe tradition, such as Germany, which has not yet initiated or implemented a comprehensive central government accounting reform (Seiwald and Meyer, 2012; Seiwald *et al.*, 2013) and was therefore excluded from this study.

a day-to-day basis) was viewed as appropriate. In total, 34 semi-structured interviews with such actors, usually heads of divisions,⁵ were conducted to explore their understanding of the main changes in the three reform features explored.⁶ Interviews were based on common interview guidelines, lasted about one hour and were transcribed in full. Quotations from the interviews are identified by country and number (e.g. 'UK4' refers to the UK interviewee number 4).

Interviews were first coded qualitatively (using ATLAS.ti 7) on the basis of the constructs proposed by existing literature. The unit of analysis was the single argument or account within the interview (i.e., a sentence or number of sentences ex-post (de)legitimizing a certain reform feature). Identifying (de-)legitimation strategies requires bundling individual sentences into arguments and understanding and reconstructing the meaning of an argument. Hence, interpretation, and not merely automated coding is necessary. For each argument, the perceived outcome of change was coded, as well as the (de-)legitimation strategies used, and the reform feature(s). Each interview was coded independently by two researchers, with all cases of disagreement being reviewed and resolved by the team. In total, 1,259 arguments were identified. Although it is not argued that a causal relationship exists between the perceived outcome of change and ex-post (de)legitimation strategies, in order to answer the research questions (how change is legitimated ex-post, and how different patterns of legitimation are associated with different outcomes of change), perceived outcomes are referred to as dependent and the types of ex-post (de)legitimation as independent variables, next to a number of control variables (see below).

Perceived Outcome of Change. Archetype theory differentiates radical from incremental change. Following previous studies using this approach (Liguori, 2012; Liguori and Steccolini, 2012), three types of outcome were identified. *Radical change* (1=yes; 0=no) was coded when, from an interviewee's response, it was visible that, besides changes in the accounting systems and instruments, there were also major shifts in the core values and interpretive schemes. When the interviewees suggested that interpretive schemes and values were largely unaltered (despite changes in the accounting systems and instruments), *incremental change* (1=yes; 0=no) was coded. Finally, *no (actual) change* (1=yes; 0=no) was coded when interviewees perceived no substantial change either in the accounting systems and instruments or in the interpretive schemes⁷. Within the same reform feature, different outcomes of change were occasionally perceived by the interviewees depending on specific aspects of the reform itself (these were coded as separate distinct arguments). Examples of radical and incremental change (the most prevalent outcomes of change identified in the research – see Appendix) are:

My personal view would be, pretty much all of it [the change] has been good. Actually, a lot of the things that have happened, to me are natural, and are the right things to happen, and should have already been happening. (UK2; radical change)

Not having been used for performance evaluation purposes, accrual accounting lost most of its meaning and possible use. (IT-Italy-1; incremental change)

⁵ 12 interviews (5 in HE, 5 in RD and 2 in HMT) were conducted in the UK, 12 (4 HE, 4 RD and 4 MoF) in Italy and 10 (4 HE, 4 RD, 2 MoF) in Austria.

⁶ Interview guidelines available from the authors upon request.

⁷ As a residual category, it was also coded when the type of outcome of change was not mentioned at all and/or was not visible/identifiable through the words of the interviewee in a specific argument. The data relative to this category have been included in the overall analysis for completeness (see also the Appendix); however, as it does not constitute the focus of the paper, the category is not investigated separately, and is not reported in the paper for presentation purposes.

Ex-post Legitimation. A coding scheme was developed based on existing literature on legitimation strategies (as outlined above). Arguments were coded for authorization (AUT), rationalization (RAT), normalization (NOR), moralization (MOR), narrativization (NAR), and pathos (PAT). It should be noted that these strategies are not mutually exclusive, and more than one strategy may be deployed in a single argument. Each strategy was operationalized as the number of times (counts) ideas/issues drawing on a certain strategy were used. Within a certain unit of analysis, multiple recourse to a particular idea/issue within the same strategy was only counted once. Furthermore, strategies can be deployed in an affirming, i.e. legitimating (e.g. AUT1), or unsupportive, i.e. delegitimizing, way (e.g. RAT2), and this distinction was identified in the analysis. An example of a single argument containing more than one strategy is:

Universities applied for a budget, but, what was new is that there were negotiations with the universities. Universities had to calculate their financial demand and had to apply for funding... The presidents [of the universities] were then given the possibility to split the budget internally to faculties, always keeping something on the side in case the extraordinary happens. (AT6; RAT1, NAR1)

When arguing in terms of authorization, interviewees could refer to political/financial departmental pressures, financial crisis, internal managers or legal requirements. Rationalization might refer to enhancement of effective planning, NPM/managerialization ideas, or more efficient use of resources; while for normalization, interviewees could refer to the role of professions or private/public sector differences. Moralization might be expressed by referencing topics such as good governance or sustainability; while when the interviewee was telling a story to illustrate the implemented changes, it was coded as narrativization. Finally, pathos accounted for references to personal commitment or preferences.

Control Variables. For each argument, references to the reform feature(s) were coded (i.e. mentioning of FCA, budgeting, performance management; or 'reform as a whole'; each coded yes=1 or no=0). This allowed for the identification of whether different reform aspects are (de)legitimated differently, as suggested by the literature (Rubin, 2017). Furthermore, the study controlled for the interviewees' previous work experience in the private sector and (formal) training as an accountant (for each: yes=1/no=0). Extant research has pointed to the prominent role of professionally qualified accountants as promoters of private sector accounting techniques in the public sector (Connolly and Hyndman, 2006; Christensen and Parker, 2010). Finally, controls were used for country (UK/IT/AT; yes=1/no=0), department (HMT or MoF/HE/RD), gender (*male*=1/*female*=0), age (*years*), and tenure (*years*) of the interviewee.

Statistical Analysis

The statistical analysis was performed using STATA 14. Given the nature of the dependent variables, and in order not to restrict the model to assumptions of normality, a logistic (*logit*) regression was used to explore the association between the outcome of accounting change and the ex-post (de)legitimation strategies used. A separate logistic regression was run for each of the three outcomes of change, i.e. *radical change*, *incremental change* and *no change*, clustered by interviewee/respondent.⁸

⁸The three dependent variables are binary and present skewed distributions of success and failure (a certain perceived outcome of change being identifiable or not) cases. To address this potential issue and confirm the robustness of the results, a sensitivity analysis was carried out using the same variables of the logistic regressions in a set of complementary log-log regressions with, in general, no material change in coefficient estimates. Only the variable NOR2 (delegitimation via normalization strategies) became non-significant in the radical change regression of the complementary log-log model. The significance of this variable was only marginal in the original logistic model (see Table 4 and later in the results). More details are available from the authors on request.

Apart from the occasional high correlation between a few of the independent variables in the descriptive statistics, no multicollinearity problems were encountered, nor ‘abnormally’ high values among the odds coefficients or the standard errors were returned (see later in the findings). The only exception was the variable MOR2 (delegitimation via moral arguments). This was present in only one observation in the dataset and perfectly predicted the failure (0) of each of the outcomes of change; it has therefore been omitted from the analysis.

FINDINGS: CHANGE AND LEGITIMATION STRATEGIES

As discussed earlier, the findings of this study are based on 34 interviews. Across the three countries, the majority of the interviewees were male (about 67% on average overall, Table 2, gender row). Men were particularly present in Italy, where they represented about 78% of the interviewees (in the UK men represented 68%, and in Austria 64%, data not shown in tables). The average interviewee’s age was 49, with values similar across countries (50 in Austria, 47 in Italy and 46 in the UK). The overall average tenure in the sector was 19 years⁹ (Table 2): in Italy and Austria the managers had served in the public sector for, on average, 21 and 23 years respectively, while the UK counterparts had been in government for a slightly shorter period (14 years). In the UK, in particular, the higher mobility of civil servants and the movement from private to public sector may have influenced some of the interviewees’ replies (see later for further comments on this). Overall, however, the data highlight a high degree of continuity of service and suggest the interviewees’ ability to reflect on the changes that were the object of the study. This is confirmed also by their previous private-sector experience, for which the average value of 0.2272 (Table 2) indicates that the majority of the interviewees, across the three countries, had not previously worked outside the public sector (this was particularly the case in Austria, where 90.3%¹⁰ of the interviewees had always worked in the same sector). The majority an accounting background, although with major differences across countries. In the UK, the vast majority were professionally qualified accountants (92%), while in Italy 58% had such a background; in Austria qualified accountants were not represented at all (although a number of interviewees had an education background in business-related areas; details not shown in tables). As far as the ex-post legitimation strategies are concerned, these were coded as indicated in the previous section and aggregated to produce count variables that were treated as continuous (there is no upper limit to the number of strategy cues that may be used).

Insert Table 2 here

Overall Results

When prompted to talk about accounting changes, the key actors that were the focus of this study framed them in a variety of ways. The outcome of change most often perceived was incremental (270 times), followed by radical change (240 times) and no change (50 times; while in 699 cases the type of outcome of change was not mentioned or not identifiable, see Appendix). On occasions, the same actor referred to a specific reform feature (e.g. FCA, budgeting, performance management or reform as a whole) using different ex-post (de)legitimation strategies, depending on the features being discussed. All interviewees addressed each of the reform features, and within

⁹ Many of the changes in each jurisdiction took place during the tenure of the key actors interviewed. From the interviews, it was clear that the history of most (if not all) of the other changes, which predated their appointment, was well known (and often discussed in the work setting), and so interviewees were aware of the pre- and post-change positions. Given that the interviews focused on ex-post legitimation and perceived change outcomes, it was considered that the interviewees had the ability to provide informed views/perceptions.

¹⁰ Information not shown in tables.

each, different types of outcomes (radical, incremental or no change) could be perceived depending on the specific aspect or element of the change being discussed. Table 3 shows the relative frequency of each strategy used to legitimate ex-post the changes. The most frequent ex-post legitimation strategy was authorization (AUT1, 610 counts), followed by rationalization (RAT1, 486 counts) and narrativization (NAR1, 206 counts). As suggested in previous studies (Hyndman and Liguori, 2015; Hyndman *et al.*, 2018), organizational actors tended to discuss past accounting changes mainly in positive terms. Also in this research, criticisms (ex-post delegitimation) were limited, the most frequent being delegitimation on rational grounds (RAT2, 177 counts, 9.3% of the total strategies used – see Table 3). Ex-post legitimation of accounting changes seems strongly based on authorization and rationalization, and only in some cases narrativization and normalization strategies (Table 3). Moral and pathos-based ex-post legitimations play a very minor role. A common thread across countries was the perceived impact of relatively recent perceived crises; often referenced in terms of a scarcity of resources (or the effect of cuts) and external macroeconomic pressures to justify changes (or modification of previous changes) in accounting systems. The results of the regression analyses carried out on the three possible perceived outcomes of change confirm this picture (see Table 4) and suggest that, although a number of strategies are available to actors to talk about the changes, only a few of these are actually employed to make sense, and explain, what has happened and why.

Insert Table 3 and 4 here

Radial Change

The first outcome of change here considered is radical change. For this, the model reports a satisfactory predictive power with a Receiver Operating Characteristic (ROC) curve value of 0.6955¹¹. Radical change shows a significant (at 1% and 5% respectively, Table 4) association with two ex-post legitimation strategies: RAT1 (legitimation through rational arguments), with positive association, and AUT1 (legitimation through reference to authority), with negative association.¹² RAT1 also shows a higher coefficient value when compared to AUT1 (log-odds coefficient 0.5843074 versus -0.2392327 respectively, converted into odds ratios as 1.793748 versus 0.7872317). Legitimation through rationalization arguments thus strongly influences the chances of perceiving radical change, while the odds and association with delegitimation via authorization are lower. This means that when a change in both accounting systems and interpretive schemes was identifiable, this was most likely presented and talked about by the interviewees using rationalization arguments. Many stressed the pivotal role of financial (but not only) resources and appropriate decision-making channels. For example:

Certainly the Public Service Agreements [PSAs], after the Labour government, seem to drive an awful lot of the behaviour in expenditure. For example, in internal discussions, in preparation for spending reviews, there was a clear priority towards policy areas which appeared to support specific PSAs, and so things which helped deliver a PSA rose up the hierarchy of expenditure decisions. That was very clear. (UK8; RAT1, AUT1; radical change/1)

In addition, and with particular reference to the crisis in the public-sector arena, a number of comments highlighted that the progressive scarcity of resources resulted in a negative impact

¹¹ The ROC curve is a diagnostic test used as indicator of goodness of fit (Green and Swets, 1966; Hosmer *et al.*, 2013). This calculates the area under the curve identified by the data, hence, the predictive power of the model (a model with area 0.5 being considered of no predictive power, while a perfect model showing value of 1).

¹² As discussed in the methodology, NOR2 was significant at 10% in the logistic regression, but not in the complementary log-log regression. Beside the weak association with the perception of radical change, this also shows a very low and marginal odds ratio of 0.2983257 (log-odds coefficient -1.209569, Table 4).

on decision-making processes and organizational flexibility, albeit such adjustments were perhaps understandable. Indeed, several suggested that changes, initially introduced to facilitate better control of expenditure and more efficient operations, had to be adjusted in the light of emerging financial constraints. For instance:

And now we see the effect of the decision made in February, which was to implement a stability package [a consequence of a significantly reduced budget]. This makes things even harder, as the ministries now know that it is their task to focus on essential things. Well, in the past there was some room to maneuver, there was some flexibility for special wishes, or some leeway. This leeway is now gone. (AT2; RAT1; radical change/1)

Those using accruals accounting have now realized the need to keep cost dynamics under control, as full costs, marginal costs, etc.... Accruals accounting has produced positive effects, not only in terms of stronger awareness about financial conditions, but also to stimulate cultural change. (IT1; RAT1; radical change/1)

Although with a lesser impact than rationalization arguments, ex-post legitimation of change based on references to forms of authority (most often the country's parliament, government or the finance department) made the perception of radical change less likely. These results contribute to qualify and refine previous studies on the topic. For example, Hyndman and Liguori (2018), who explored the interaction of different government levels during change, suggest that both rationalization and authorization strategies are necessary for the perception of radical change. However, the more fine-grained analysis presented in this paper shows that, while rationalization strategies are positively associated with the recognition of this outcome of change, authorization, although present when radical change is perceived, has a negative and weaker association with it. In other words, ex-post, if changes are remembered as largely related to authority, then the likelihood of the change being perceived as radical is reduced.

With regard to the control variables, it is interesting to note that, for an interviewee, being in Austria (1% significance) or Italy (10% significance), compared to the UK, makes the identification of radical change significantly and strongly more likely (Austria and Italy both showing odds ratios bigger than 2). In Italy, in particular, managers tended to make fewer references to financial crises and external macroeconomic equilibria, while stressing how everything had to be filtered through laws and regulation. Perhaps unsurprisingly, the interviewees' previous private sector experience is negatively associated (1% significance) with the perception of radical change. Interviewees who already had dealt with business-like accounting systems, and had private sector benchmarks, did not view the changes as particularly radical (perhaps understandably so, given that many of the public-sector accounting reforms reflected long-standing private sector approaches) and were less likely to identify substantive change in the way people took decisions in their everyday job. This was particularly the case in the UK, where mobility across sectors was higher. Finally, the reform feature and the department of origin do not appear to be significantly associated with the occurrence of radical change.

Incremental Change

This second model results in a good ROC curve value of 0.7383. Incremental change is shown to be negatively associated with authorization, used either for ex-post legitimation (log-odds coefficient -0.3526384; odds ratio 0.7028313) or delegitimation (log-odds coefficient -0.7711083; odds ratio 0.4625002), both at 1% significance (Table 4). Incremental change is also positively associated with the use of NAR2 (ex-post delegitimation through reference to exemplary cases and stories), with log-odds coefficient 1.675594, which translates into a high odds ratio of 5.341966. This may not be surprising, as negative stories and examples may be more likely to signal that

change has not been embedded in people's interpretive schemes. The analysis shows that, if this type of delegitimation takes place in the managers' minds, odds of incremental change being perceived are much higher. For instance, in the UK:

One particular change that was brought in, as part of accruals accounting when I was in Treasury, was the introduction of the cost of capital charge. I worked on an exercise to see whether or not it actually had a desired effect within accounts and budgeting and in the estimates process. Based on the findings that I had discovered, it just wasn't doing what it was designed to have done. So that was one of the changes that was instituted as part of the Clear Line of Sight, which they then decided to drop because departments were engineering things so they had the right figure as opposed to the actual cost of capital charges. (UK7; NAR2, RAT2; incremental change/1)

Although associated with lower odds ratios, it is interesting to note that when actors perceive changes as being driven by authority, this decreases the likelihood of a perception of incremental change (regardless of whether the authority is legitimated ex-post in positive or negative terms; both AUT1 and AUT2 being significant). Also in the case of incremental change, the perceived financial pressures, the role of the European Union and the use of austerity packages often came to the fore as justifications during the interviews. For instance:

I understand why they [Treasury] have done it [removed EYF], they just haven't got the resources... they need every single penny... I think they're gonna have to sort of grab all the money... So we need some sort of mechanism, so they introduced the budget exchange. I don't know whether it's really working, but I think they need to maintain it because otherwise things will slowly deteriorate. (UK9; AUT1, RAT1, incremental change/1)

We have now introduced this massive stability programme because of the European Union. This savings package is counter-productive because it creates more and more work and at the same time, we have fewer and fewer staff, and we are not even allowed to replace staff that are leaving. Well, I see some big discrepancies. I think the basic idea is good, but it has not been implemented as it should be. (AT1; AUT2, RAT2; incremental change/1)

Whereas in the private sector, budgeting and control are essential to improve actions, in the public sector they are simply requirements with which to comply. Besides the usual activities performed in response to legality principles, we now need to address all these requirements, which have complicated everything. I'm still waiting in anticipation for the moment I'll be able to say that I use a tool which actually helps improve the quality of my work! (IT3; AUT1, NOR1; incremental change/1)

And also:

The impact of these changes depends on the necessity to respect the Maastricht criteria. What really impacts on the health of Italian public finances is being part of the Eurozone: we have to respect the 3% limit of public deficit over GD; we are under the sword of Damocles for excessive deficits for the Stability and Growth Pact; we are subject to the rules of the Internal Stability Pact... If we talk about budget data, the move to COFOG [Classification of the functions of the government] following ESA 95 has been merely to give formal recognition that the Italian National Institute of Statistics was doing something... I guess it wasn't perceived as a priority. (IT2; AUT2, NOR2; incremental change/1)

While previous research had tentatively proposed an association between incremental change and the use of authorization strategies (Hyndman and Liguori, 2018), contrary to this, the quantitative analysis in this study highlights that there is no actual association between this change outcome and rationalization or pathos strategies. In terms of control variables, incremental change is less likely perceived in the case of budgeting changes (versus FCA, performance management or reform as a whole), while it is more identifiable in Italy (odds ratio 3.514868) and Austria (odds ratio 4.735046), as opposed to the UK. Moreover, being male makes the identification of incremental change less probable (at 1% significance), whereas having previous private-sector experience makes it more likely (perhaps because of the higher benchmarks managers have in mind – this only significant at 10%). This last result is consistent with the data interpretation related to the case of radical change. Similar to radical change, ‘previous accounting education’ and ‘department’ do not seem to be associated with the identification of incremental change.

No Change

The outcome of ‘no change’ (occurring when no relevant change was implemented in systems and structure, and no actual change was perceived by the interviewees in the interpretive scheme) had only been identified as residual by previous literature (Liguori, 2012), but the analysis in this study finds conspicuous evidence of it (presenting completely novel findings and a contribution to theory). This last model has a good ROC curve value of 0.8163 and highlights some interesting relationships. The non-recognition of change is positively associated with ex-post delegitimation based on rationalization, authorization, normalization and pathos strategies (the first three significant at 1%, with pathos marginally less significant – Table 4). In simple terms, a change that is criticized on the basis of it not being rational, and/or being wrongly imposed by authority, and/or going against professional standards, and/or to which managers cannot relate, will not be perceived as having any impact on either structures and systems or interpretive schemes. Among the strategies used to delegitimize change, and affecting the perception of ‘no change’, the most noticeable are normalization (log-odds coefficient 1.685019, i.e. odds ratio 5.392554) and pathos (log-odds coefficient 1.58317, odds ratio 4.870376). For instance:

We rolled out a private sector-style cost-accounting system that we are required to run [became it was mandatory in the federal government from 2005]. This is, of course, not a steering instrument in reality... Honestly, there are various reasons for this. First, I could steer only a very very small part of the budget with this... The most significant parts are transfers, I think cash transfers, subsidies for universities of applied sciences, downpayments – these are all cash outflows, and are not steered via a cost accounting system. (AT1; AUT1, NOR2; no change/1)

This [RAB] is a biggy, particularly with our shift towards very much more money flowing through the student finance system... It can be affected by things outside of departmental control, the macroeconomic position; it's a highly significant feature of managing our overall budget and managing our overall relationship with Treasury. The issue is what attitude you take to these potential fluctuations. Do you take an attitude which says, 'Well it will fluctuate, but you know this is about a long-term shift in the way we fund higher education, it needs to be managed in the long term'?. Or do you take an attitude which says, 'Oh no, you've got to manage it yourself within your budget when that happens'? You can imagine that we weren't happy and went back to Treasury; but there is still tension. (UK8; AUT2, PAT2; no change/1)

And also:

Well, we discussed resource accounting, I think it was treated as a sort of nerdy accountants' exercise. Nobody really cared about it, no one did anything to push it. (UK11; PAT2; no change/1)

The results suggest that a proposed (or only ‘apparently implemented’) change that has little ex-post commitment (PAT2) on the part of those charged with implementation will be more likely perceived as resulting in ‘no change at all’ (with no discernible impact on either systems or interpretive schemes). Moreover, with reference to delegitimation based on rationalization and authorization:

When the budget for 2013 was discussed in parliament, of the over 183 members of parliament not everyone was interested in the budget, but those who were would complain that they were not familiar with the new rules and we would receive many enquiries. It would become a crazy madness. And I would need three more departments for what we had to report quarterly to the Ministry of Finance, to the Court of Audit and to the Federal Chancellery... I doubt the reform will ever really be implemented. (AT2; AUT2, NAR2; no change/1)

I am convinced the suspension of the new measurement system [referring to a performance management system initially introduced] is the result of the need to re-think performance measurement. Contrary to what was done, we should introduce measures that are as scientific and objective as possible. (IT3; RAT2; no change/1)

Also in the case of ‘no change’, the interviewees consistently highlighted the tense relationship between the introduction of accounting changes and financial pressures and cuts:

The administration has been forced, for quite some time now, to save money, it has to be efficient, it has to be effective. But there is the question of what happens when resources are getting scarce. No additional staff could be hired since 1995. So now I have to make up my mind and decide, ‘OK, I have to perform this task, or I can transfer this task?’; and I have to ask, ‘Can I still afford all of those services to be delivered by the public administration?’ (AT2; RAT1; no change/1)

Finally, with respect to the controls, ‘accounting education’ and ‘department’ remain not significant in this model, while the perception of ‘no change’ is more likely in Austria (log-odds coefficient 1.55887; odds ratio 4.753445, significant at 5%) compared to the UK. Moreover, the interviewee’s age is negatively associated with the identification of this outcome of change (although only significant at 10%). As might possibly be expected, the older the organizational actor (with greater organizational experience and history), the less likely they are to perceive that ‘no change’ has taken place in either accounting systems or interpretive schemes.

DISCUSSION AND CONCLUSION

While accounting systems in central governments in many countries have changed since the 1980s to embrace and support the NPM agenda, crises, shocks and austerity have resulted in further modifications to such changes (which, at times, have replaced or revised earlier NPM changes). This has often resulted in an intensification of controls on expenditure. For example, this was the case during the 2008 financial crisis where EYF was removed in the UK, the medium-term expenditure framework was changed several times in Austria to reflect lower-spend benchmarks, and stricter rules on a balanced budget were introduced in Italy. Such changes have been shown to be brought forward relying on different sources of legitimation (Hyndman *et al.*, 2014; Vaara *et al.*, 2006). While an increasing body of literature has looked at the role of rhetorical legitimation strategies in change processes, a predominant focus of such studies has been on how strategies are used before or during such processes (Liguori and Steccolini, 2018; Vaara *et al.*, 2006). This paper

takes a complementary perspective, looking at how actors legitimate (or delegitimate) change rhetorically ex-post, and how this is related to the perception of different change outcomes.

In doing so, the study provides a three-fold contribution. First, by taking such an ex-post perspective, how actors explain and justify certain outcomes of change is explored, as are the rhetorical strategies they resort to when discussing past changes. This has implications for those charged with the formulation of policy with respect to accounting and reporting in central government. Second, this study links outcomes of change with justification processes. This is relevant especially since changes do not always proceed as expected or desired. For example, they can translate into radical outcomes, bringing about transformations in culture and values; or they may merely have incremental influences, where they only affect structures and systems, but leave organizational cultures, values and beliefs substantially untouched (Greenwood and Hinings, 1993; Liguori and Steccolini, 2012). Looking at how actors rhetorically explain such different outcomes sheds new light on how managers make sense of change processes, and on the factors they see central in making a difference in such processes. Although the three countries that provide the aggregated data for this study were affected to different extents by crises, some overall patterns of (de)legitimation emerged. As such, this study extends Greenwood and Hinings' (1993) archetype theory. Third, the paper takes on a novel approach, mixing qualitative and quantitative methods, in order to highlight significant associations. Most previous studies in this field have taken a qualitative stance (e.g., Vaara *et al.*, 2006). The present study combines a qualitative methodology, based on the coding and textual analysis of interviews, with a quantitative one, using the data generated in the qualitative part of the research to explore the association between ex-post legitimation strategies and outcomes of change. This approach allows the combination of corroborating quantitative findings to build on the in-depth insights that can be collected only through interviews (qualitative evidence). With this, the paper addresses calls for more mixed-methods research designs (Modell, 2010).

Overall, the findings show radical, incremental, and no change to be associated with different types of ex-post justifications. More specifically, rational grounds appear to be central in cases of radical change, whereas, authority is often seen as detrimental to attaining both radical and incremental change. Interestingly, narrativization strategies are especially used in explaining and criticizing incremental change. 'No change', instead, is de-legitimated using an amalgam of various strategies. The following subsections provide a more detailed discussion of the findings, the related implications and limitations, including future research avenues.

Explaining radical, incremental, or no change: ex-post views

Crises typically require adjustments in the government's accounting and/or control systems, and the question of whether and to what extent people have bought into such changes often comes to the fore. A key finding of this research is that radical change is more likely perceived to have taken place when actors legitimate it ex-post on rational grounds, i.e., focusing on the benefits, purposes or outcomes that it brought to them. This is the case in both stable environments and in crisis situations. For example, in the case of accruals accounting, the new information was seen as facilitating managers in making better decisions, leading to a more effective and efficient public sector (for a similar argument, see Likierman, 2003). The study also provides evidence that radical change is not seen (or remembered) ex-post as having been pushed by authority. On the contrary, the more change is recalled as being pushed through this, the less likely it is perceived ex-post as radical (like in the Austrian case, where the stability program addressing the 2008 financial crisis was strongly perceived as being pushed by the European Union). This indicates that, in order to perceive radical change, actors need to buy into the utility of the change, which suggests, at the very least, acquiescence with the adjustment. Authorization, on the contrary, attributes the change to external sources, making less likely a change in the actors' interpretive schemes. While, in stable conditions, change is often introduced more gradually and with more time for reflection,

explanation and education (and therefore more likely to be, and to be perceived, as rational), at times of crisis, where speed of adjustment is frequently required, and where authority is perhaps more utilised to gain an immediate response, this may be more problematic. Therefore with regard to the mastering of crisis situations, which often require both new tools and new interpretive schemes (and, hence, radical change), these findings suggest significant challenges and important implications.

Moreover, the extensive use of stories (narrativization) made to talk about changes perceived as radical, often reflecting on the benefits of the new information (rationalization), illustrates how legitimation strategies can be interwoven in use. This is a factor to be considered by promoters of change, both at the inception of change and as it is rolled out throughout the organization. It may be the case that authority is important in terms of the introduction of change (Hyndman *et al.*, 2014; Hyndman and Liguori, 2018), but it is not sufficient to alter interpretive schemes in the longer term, and therefore foster radical change (see the Italian example, where the Stability and Growth Pact was seen as predominantly pushed by authority). In order for change to be perceived as radical, this research suggests it needs to be accompanied by accounts that explain the change in terms of its utility for the users. Therefore, it is imperative to support actors as they get to grips with understanding and utilizing new accounting systems, possibly facilitated by instructions and education processes to encourage learning. This is in line with the current literature on public-sector training, which points towards the importance of aligning systems and structures with interpretive schemes (Hammerschmid and Grünwald, 2014; Schröter and Röber 2015).

The findings also show an association between incremental change and the use of stories (narrativization) to delegitimize (or criticize/undermine) the change. Evidence was found of cases where new systems were in place, while individuals' interpretive schemes remained unaltered. Here, negative stories, often reflecting antagonism and dislike of the new systems (frequently connected to their use or non-use) were common (see, for instance, the Clear Line of Sight project that was fully implemented in the UK during the last financial crisis). However, contrary to previous qualitative studies comparing different government levels (Hyndman and Liguori, 2018), no statistically significant association between this outcome of change (incremental change) and delegitimation based on rationalization or pathos was found. Instead, this study found a negative association between incremental change and authority (both legitimating and delegitimizing change), with the influence of authority (which may have been prominent at inception) lost (or at least diminished) or forgotten through time. Such a finding suggests that if the introduction of new accounting tools is not perceived ex-post as leading to adjustments in interpretive schemes, questions should be asked about the purpose of such instruments (which presumably consume resources and, at least somebody's, attention). Processes for 'flushing out' (or reformulating) such past changes, which result in little positive impact, would seem appropriate.

A number of delegitimizing arguments were presented when no actual change was perceived, despite the specific announcement of accounting reforms. A possible explanation of this is that announcements of change can be made at high (possibly political) levels to achieve external legitimacy (Meyer and Rowan, 1977), but there may be no (or limited) drive to implement the change at operational levels (or, in any meaningful way, at any level). Italy has been identified as a country where such has often occurred (see Hyndman *et al.*, 2014; Liguori *et al.*, forthcoming). A variation of this is where change is introduced (and operated) at a very high level, but is not cascaded down to where most operational decisions are made. An example in the UK is where annuality was supposedly replaced by EYF with respect to budget allocations, but most managers effectively still operated under the 'old' annuality regime (Hyndman *et al.*, 2007; Christensen and Parker, 2010). In this paper, the no change outcome was found positively associated with ex-post delegitimation based on a range of strategies (rationalization, authorization, normalization and pathos). This points to possible criticisms that 'announced' changes, which might have been

welcome on a range of fronts, were *de facto* not forthcoming. Such has the potential for increasing frustration at both implementation and operational levels, and suggests that the rhetoric of change is not always evidenced in action. A similar point can be made for Austria, where the evaluation of the latest reform shows dissatisfaction with the actual implementation of EYF in contrast to what was previously announced (Hammerschmid and Grünwald, 2014).

In general, the findings suggest that Italian and Austrian interviewees were more likely to perceive changes than their UK counterparts. This was the case for both radical and incremental changes. This may be explained by the fact that in the UK, where the public sector has internationally been at the forefront of FCA, budgeting and performance management reforms (with reform activities starting earlier than in the two other countries), changes happened much earlier and, ex-post, have become more 'taken for granted' (therefore being perceived as less conspicuous at the time of the interviews). In addition, given the much higher level of professionalism of staff in the UK, having accounting tools and an accounting focus more in line with private-sector practice (consistent with the interviewees' professional training and/or previous work experience) is likely to have been less remarked upon.

Implications

This study has implications for change management and, more generally, the advancement of public-sector reforms, which may be especially relevant in times of shocks, austerity and crises, when change is strongly needed, proposed and, in some cases, resisted. First, this study suggests that actors will see changes as being more successful if they have a clearly rational basis. Policy makers proposing reforms should thus be careful in clearly articulating a rational ground for introducing and adopting them. Second, as authority appears to be perceived as not facilitating perceptions of radical change ex-post, particular care should be devoted to ensure key actors are encouraged to perceive reforms as not being introduced (solely or mainly) by coercive action of some source of authority (albeit while recognizing that, initially, some authority back-up may be needed to provide early momentum). Third, the results also support the literature that suggests that building positive stories and narratives may help sustain the momentum for change, while counteracting the negative narratives that appear to surround cases of limited or no change. A final consideration refers to the implications of the methods adopted in this study, and the advantages of mixed methods approaches. Qualitative collection of data, combined with quantitative analysis, may shed new lights on organizational phenomena.

Limitations and future research avenues

Similar to most empirical research, this study also has its limitations. As highlighted, this paper largely relies on aggregated data from three countries (which have experienced similar reform thrusts, albeit at varying times and with different intensities) to answer its research questions. Any references to individual countries' experiences are presented as additional insights. However, while in each country the dominant strategy used to justify change was authorization, patterns of legitimation varied to some extent. Given that the countries have different administrative traditions (common-law versus civil-law systems), this may influence the discursive legitimation strategies of public officials. It could be held that legitimation through authorization in common-law countries may rely more on the actions and statements of politicians and managers, whereas in countries with civil-law systems, the influence of written texts (such as the law) is likely to be greater. This may also impact on the types of argument used (even when those arguments fall under the broad label of authorization) and the source of those arguments. Further research is needed in this area. Additional research might also be undertaken to broaden the scope of analysis by including other practices, ministries and policy areas, and focusing on processes of change pre-, post- and during financial or organizational crises. In addition, taken-for-granted ideas (e.g. certain established processes in preparing budgets) may often remain 'under the radar' (Green, 2004), and this may

have influenced some of the results (possibly particularly salient with respect to moralization strategies). Further research along these lines could lead to additional insights, and to a situation where we are able to ask the proverbial 'better questions' (Peters, 1994, p. 82) relevant to public-sector accounting change in times of crisis.

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Tables

Table 1 – Main reforms by country

Country	UK	Italy	Austria
Financial and Cost Accounting	<p>1994 Resource Accounting and Budgeting (RAB) changes: announced accrual accounting to be introduced in all government departments</p> <p>1998 Scoping study for Whole of Government Accounts (WGA)</p> <p>2001 Resource (accrual) accounting ‘live’ in all central government departments</p> <p>2007 Announced that UK public sector bodies would use IFRS in financial statements</p> <p>2009 Move to IFRS completed</p> <p>2011 First set of Whole of Government accounts (WGA) produced</p>	<p>1997 Introduction of accrual (cost) accounting</p> <p>2007 Revision of cost accounting system and annual spending review</p>	<p>1986 Codification of Federal Budget Law (<i>Bundshaushaltsgesetz/ BHG</i>) based on cash accounting with supplementary accrual accounting (no accounting standards defined)</p> <p>1999 <i>Flexibility Clause</i> (ca. 20 pilot agencies) implemented still in a cash accounting regime</p> <p>2005 Cost accounting on the federal level</p> <p>2013 Accrual accounting; IPSAS-based fiscal statement (federal level)</p>
Budgeting	<p>1994 RAB changes: accrual budgeting to be introduced in all government departments</p> <p>1997 End-year Flexibility (EYF) allows budget carry forward</p> <p>1998 Treasury-led <i>Spending Reviews</i> initiated to set firm and fixed spending limits for multi-year periods</p> <p>2003 Resource (accrual) budgeting ‘live’ in all central government departments</p> <p>2007 <i>Clear Line of Sight</i> (CLOS) project to ensure better alignment of accounts, estimates and budgets</p> <p>2011 EYF abolished (due to financial pressures), replaced by a system of Budget Exchange</p>	<p>1997 Introduction of accrual budgeting</p> <p>1997 Political vs. managerial budgets</p> <p>2007 Reorganisation of the cash and commitment based budget</p> <p>2009 Experimentation: drawing on cash only</p>	<p>1996 Top-down budgeting (cash-based)</p> <p>1999 <i>Flexibility Clause</i> (pilots): global budgets and EYF</p> <p>1999 Announced budget monitoring to be introduced for all ministries</p> <p>2009 Binding medium-term expenditure framework (MTEF; 4 years); EYF</p> <p>2011-2014 Several changes to the MTEF budgets due to the financial crisis</p> <p>2013 Dual budgeting: appropriation based on <i>cash</i> and on <i>accruals</i>, global budgets with reallocation flexibility, performance-informed budget with definition of main policy objectives and core outputs (including objectives for key performance indicators)</p> <p>2014 EYF rules tightened in practice due to austerity policy</p>
Performance Management	<p>1988 <i>Next Steps Initiative</i>: executive agencies established with strict reporting regime</p>	<p>1997 Cost accounting with linked performance indicators</p>	<p>1999 <i>Flexibility Clause</i> (pilots): performance contracts; management by objectives</p>

	<p>1994 <i>Statements of Resources by Departmental Aims and Objectives</i> introduced in all government departments as part of the RAB changes</p> <p>1998 Performance-focused Public Service Agreements (PSAs) and Service Delivery Agreements (SDAs) introduced (quasi-contracts)</p> <p>2001 <i>Statements of Resources by Departmental Aims and Objectives</i> required as part of the RAB changes in all central government departments</p> <p>2004 SDAs replaced by Delivery Plans for each government department.</p> <p>2007 Evolution of PSAs to 30 cross-cutting priorities across multiple departments</p> <p>2010 Business Plans (with impact indicators) developed for each government department</p>	<p>2009 New law emphasizing performance management based on outputs and outcomes (linked to personnel appraisal)</p>	<p>2009 Strategy report for all ministries outlining main policy objectives and challenges</p> <p>2013 Outcome oriented management (<i>Wirkungsorientierte Verwaltungsführung</i>): performance reporting and contract management introduced for the whole federal sector</p>
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Table 2 – Descriptive statistics

	Count	Mean	Std. Dev.	Min	Max
Radical change	1259	.190628	.392952	0	1
Incremental change	1259	.214456	.410608	0	1
No change	1259	.039714	.195364	0	1
RAT1	1259	.3860207	.5655688	0	3
RAT2	1259	.1405878	.3846374	0	3
AUT1	1259	.4845115	.6722101	0	4
AUT2	1259	.0714853	.2841414	0	3
NOR1	1259	.1040508	.3304491	0	3
NOR2	1259	.0206513	.1477523	0	2
PAT1	1259	.0460683	.220795	0	3
PAT2	1259	.0349484	.1837221	0	1
MOR1	1259	.0405083	.2200847	0	2
MOR2	1259	.0007943	.028183	0	1
NAR1	1259	.1636219	.3700791	0	1
NAR2	1259	.0182685	.1339738	0	1
Feature_financial accounting	1259	.3272438	.4693936	0	1
Feature_budgeting	1259	.4042891	.490949	0	1
Feature_performance management	1259	.3582208	.479668	0	1
Country	1259	2.140588	.9359946	1	3
Department	1259	1.743447	.7374458	1	3
Age	1259	48.6108	7.91636	35	67
Tenure	1259	19.43606	9.875682	3	40
Gender	1259	.669579	.4705516	0	1
Accounting education	1259	.5123114	.500047	0	1
Private sector experience	1259	.2271644	.4191662	0	1

Table 3 – Ex-post (de)legitimation strategies and relative frequencies

	Absolute counts	Relative frequencies (over total)
RAT1	486	25.5%
RAT2	177	9.3%
AUT1	610	32.1%
AUT2	90	4.7%
NOR1	131	6.9%
NOR2	26	1.4%
PAT1	58	3.0%
PAT2	44	2.3%
MOR1	51	2.7%
MOR2	1	0.1%
NAR1	206	10.8%
NAR2	23	1.2%
Total strategies coded	1,903	100.0%

Table 4 – Results of the logistic regression models for radical, incremental and no change

Independent variables\ Model	Radical change	Incremental change	No change
RAT1	.5843074** (.1873568)	-.1147622 (.1434133)	-.819612 (.5029655)
RAT2	.0283457 (.3137375)	.1969133 (.1886001)	1.18143*** (.2340429)
AUT1	-.2392327** (.1182156)	-.3526384** (.1390643)	-.0099524 (.4664149)
AUT2	-.0718419 (.3237953)	-.7711083*** (.2852372)	1.1173*** (.4233219)
NOR1	.1215466 (.2080464)	-.4765792 (.308719)	-.5310789 (.6999041)
NOR2	-1.209569* (.7267232)	-.5583129 (.3487109)	1.685019*** (.4483461)
PAT1	-.1427366 (.4591344)	.2038881 (.3919369)	-.6139072 (.9732379)
PAT2	-.8282197 (.5600046)	.5327105 (.8315062)	1.583171** (.6567821)
MOR1	-.4801985 (.3976622)	.3950125 (.3112274)	.591689 (.7610659)
MOR2	omitted	omitted	omitted
NAR1	-.0962928 (.2585277)	.1323396 (.2434468)	.2775638 (.4563431)
NAR2	-.7791399 (.6446734)	1.675594** (.6871034)	.046276 (.9915372)
Financial accounting_1	-.1500887 (.2633392)	.1125063 (.194679)	.3208003 (.4749624)
Budgeting_1	.1942286 (.2478439)	-.449347** (.1765373)	.0001235 (.4331636)
Performance management_1	-.3867287 (.2563019)	.1788989 (.2550306)	.1196447 (.4610356)
Country_Italy_1	.7291601* (.429836)	1.257002*** (.4795995)	1.074221 (.7576377)
Country_Austria_1	.8943732*** (.2914973)	1.554991*** (.4168069)	1.55887** (.6474645)
Department_higher education_1	-.1083908	.2706795	-.1515683

	(.3149764)	(.273646)	(.6492558)
Department_finance_1	-.6044921 (.4490533)	.3071512 (.5335531)	.277022 (.7329287)
Age	-.0204342 (.0188288)	.0190979 (.0167437)	-.0626067* (.0333417)
Tenure	-.0131182 (.0211651)	.0175299 (.0132329)	.0030378 (.0308517)
Gender_male_1	.2737114 (.2072199)	-.9672183*** (.2610886)	-.098236 (.3965713)
Education in accounting_1	.3491214 (.248721)	.498051 (.3342491)	.1530921 (.5854137)
Private sector experience_1	-1.255591*** (.3761222)	.7635603* (.4347845)	-.6410893 (.6429876)
_cons	-.7380805 (.9981705)	-3.390938*** (1.181112)	-1.857331 (1.768391)
Pseudo R ²	0.0797	0.1170	0.1876

* p-value<0.10

** p-value<0.05

*** p-value<0.01

Robust standard error in brackets

Appendix: Frequencies and distribution of the outcomes of change

Outcome of change	Frequency	Percentage
Radical change		
0	1,019	80.9%
1	240	19.16%
Total	1,259	100.00%
Incremental change		
0	989	78.6%
1	270	21.4%
Total	1,259	100.00%
No change		
0	1,209	96.0%
1	50	4.0%
Total	1,259	100.00%
Change not mentioned (category not focus of analysis)		
0	560	44.5%
1	699	55.5%
Total	1,259	100.00%