Negative effects of the adoption of accrual accounting in the public sector: a systematic literature review and future prospects

Elisa Bonollo

Department of Economics and Business Studies, University of Genoa, Genoa, Italy

Abstract

Purpose – Since the 1980s, governments worldwide have been implementing the move from cash to accrual accounting. Scholars initially considered the appropriateness of this accounting reform to be self-evident, but later they have expressed critical views. This paper systematises the existing literature intending to reflect on the adverse effects of adopting accrual accounting in the public sector and identify implications for future research.

Design/methodology/approach – The present study builds on a systematic literature review of 106 academic articles published between 1980 and 2021. It is based on the “preferred reporting items for systematic reviews and meta-analyses” (PRISMA) method. Synthesising research through a transparent, rigorous and replicable process makes it possible to identify and discuss the adverse effects of adopting public sector accrual accounting.

Findings – Significant issues are linked to organisational impacts and accountability. Resistance to change is the main negative consequence and is more likely in countries that have chosen to adopt accrual accounting without maintaining cash accounting. The new accounting rules make accounting information more complex and arbitrary for citizens and politicians. How these criticalities should be addressed deserves further investigation.

Originality/value – This paper offers a comprehensive literature review on the drawbacks of adopting accrual accounting in the public sector. It could provide a general lesson to be applied to policymakers of other jurisdictions currently considering this transition to prevent the adverse effects and act proactively.

Keywords Public sector, Accrual accounting, Systematic literature review, New public management

Paper type Literature review

1. Introduction

Over the last decades, New Public Management reforms have been implemented worldwide (Brusca et al., 2015; Pollitt and Bouckaert, 2011). These reforms often include changes in the public sector accounting information system, specifically, the adoption of accrual accounting to accompany or replace cash accounting (Hodges and Mellett, 2003). The implementation experience has differed significantly among jurisdictions. Carlin (2005) classified them into jurisdictions using “full accrual” (largely similar to typical commercial practice), “modified accrual” (mainly reflecting commercial practice but with less emphasis on comprehensive statements of financial position) or “cash with accrual” (where cash accounting and cash-based reporting framework are maintained but supplemented by additional accrual accounting and accrual disclosures).
At the beginning of New Public Management, accrual accounting (in all versions mentioned above) was trustily welcomed by both governments and academics based on managerial benefits, albeit often without any actual evidence (Hyndman and Connolly, 2011; Jacobs, 1997, 1998; Likierman et al., 1995). Conversely, especially in recent years, some persistent concerns have received closer attention from scholars. As the debate about reform in the public sector has developed since the 1980s, public sector accounting research has been reviewed extensively both with a general view (e.g. Bracci et al., 2019; Broadbent and Guthrie, 1992, 2008; Goddard, 2010; Van Helden, 2005; Van der Kolk, 2019) and a focus on specific topics, such as performance measurement and management (Kroll, 2015; Modell, 2009; Van Helden et al., 2008), public budgeting (Anessi Pessina et al., 2016; Mauro et al., 2016) and management accounting (Van Helden, 2005; Van Helden and Uddin, 2016). Alternatively, there has been a focus on specific settings (e.g. healthcare and higher education) (Grossi et al., 2020; Malmmose, 2019; Oppi et al., 2019; Schmidt and Gunther, 2016).

Nevertheless, until now, not enough attention has been given to reviewing and systematising in-depth empirical and theoretical knowledge regarding the negative effects of adopting accrual accounting in the public sector. This study aims to fill this gap through a systematic literature review by answering the question, “What are the negative effects of adopting accrual accounting in public organisations?” and reflecting on future research issues. In such a way, this article aims to offer a specific contribution to critical issues concerning the adoption of accrual accounting at all levels of government. Specifically, this research includes articles published in high-ranking international academic journals covering the period from 1980 to 2021 and is concerned with all kinds of public sector organisations (local governments, public healthcare organisations, public universities, central government, etc.). Therefore, it will not include private not-for-profit organisations, such as charities and churches (similar to Van Helden, 2005).

This review can be regarded as a complement to Caruana et al. (2019), Polzer et al. (2021) and SchmidtHuber et al. (2022) focusing on public sector accounting standards and a more in-depth analysis of Azhar et al. (2022). The latter has a broader research objective, dealing with antecedents, implementation, effects and critiques of accrual accounting at various levels of government worldwide from 1997 to 2020. The literature review of this article intends to adopt a more critical approach. It focuses only on the adverse effects of adopting accrual accounting at all levels of government and crosses these effects with specific attributes (e.g. the decade of publication, research method, geographic area, type of public organisation and accounting information system).

For this systematic literature review, the term “accrual accounting” is an umbrella term that includes all versions assumed by the adoption of accrual accounting in the public sector, and the “negative effects” are the negative consequences affecting public managers, policymakers, users, citizens and stakeholders in general, after the adoption of accrual accounting within the public organisation.

The main contribution of this study is synthesising and structuring the existing literature, thus identifying what has been well investigated and highlighting directions for future research. Furthermore, this study provides support for public managers, practitioners and policymakers by identifying the drawbacks of implementing accrual accounting in the public sector, thus enabling them to manage the accounting reform process more effectively and proactively.

Moreover, the study findings are relevant to the debate on the sustainability of the European Public Sector Accounting Standards (EPSAS) within the countries of the European Union (as well as the candidate countries for EU membership; Vasicek and Roje, 2019) and of the International Public Sector Accounting Standards (IPSAS) in developing countries (Polzer et al., 2021). In the first case, the European Commission considers the move to accrual
accounting and the convergence towards the EPSAS as a necessary step for the accounting harmonisation within the EU, even if the debate continues regarding how to proceed (Rossi et al., 2016). Conversely, in the second case, over the past decades, there have been strong political pressures from donor or lender countries and international organisations (e.g. the World Bank, the International Monetary Fund) on developing countries to converge towards accrual accounting and IPSAS to facilitate auditing and fight corruption by improving accountability (Polzer et al., 2021).

Consequently, a literature review to systematise the drawbacks of adopting accrual accounting provides a general lesson for policymakers of other jurisdictions currently considering transitioning to accrual accounting to prevent the negative effects and act proactively.

The rest of the study is organised as follows: Section 2 describes the systematic literature review process. Section 3 presents a descriptive analysis of the selected literature. Section 4 provides a conceptual analysis of the topic. Section 5 concludes, and Section 6 identifies limitations and suggestions for future research.

2. Research design
This study develops a systematic literature review based on the PRIMA guideline (Preferred Reporting Items for Systematic Review and Meta-Analysis; Liberati et al., 2009; Moher et al., 2009) to identify and select eligible articles. Even if the PRISMA approach is not fully compatible with social science research, the protocol followed it as much as possible since its systematic nature can ensure rigour and replicability. Moreover, it has already been applied to public management and public sector accounting research (Cinar et al., 2019; Giacomelli, 2020; Polzer et al., 2021). The steps of the procedure are illustrated in the flow chart diagram (Figure 1).

The search strategy includes articles published in international academic journals. To identify relevant peer-reviewed and English language studies, the author conducted a preliminary search on the databases powered by Proquest (ABI INFORM) Complete, EBSCOHost (Business Source Ultimate), Elsevier (Scopus) and Thomson Reuters (ISI-Web of Science). Studies from the dataset were included in the review if they met all the following research criteria:

1. Timeframe: The review included articles published from the beginning of 1980 to the end of 2021. The year 1980 was selected as the starting point since scholars generally date the advent of the New Public Management back to the 1980s (Hood, 1995; Hughes, 1998), while December 2021 was the arbitrary cut-off point to have a whole final year to analyse.

2. Topic: At least one of the following keywords was required to be in the article’s title, abstract or keywords: “accrual accounting” or “resource accounting” combined with “public”; “public sector” combined with accounting; “accounting reform” or “accounting change” combined with “public” or “government” or “local” or “health” or “higher education” or “university”. These words conformed to the research topic in an extended view. The choice of titles and abstracts as an analysis sample was made because their concise nature requires authors to select words more carefully to capture their readers’ interest. Thus, it is assumed that the words in titles and abstracts are a representative image of the studies in their entirety.

3. Source: The review considered only articles published in high-ranking peer-reviewed academic journals in the field of accounting, public sector and business history. The selection of journals was conducted using the rating system of the Chartered
Association of Business School “Academic Journal Guide 2021” (AJG). Thus, to guarantee a high-quality assessment of the articles, the author selected only the journal with 4*, 4, 3 and 2 ratings.

(4) Relevance: All articles’ titles and abstracts were read to remove irrelevant articles. For an article to be retained, its title or abstract had to indicate a theoretical or empirical study on the negative consequences (intended as explained in the Introduction) of adopting accrual accounting. This criterion was applied conservatively; when in doubt, the article was kept and read in full.

The timeframe and topic criteria produced a list of 13,178 articles to be screened. Moreover, based on citation tracking (Rashman et al., 2009), 18 articles that did not show up previously in the literature search were added to the dataset. A large number of articles were excluded due to duplicates (no. 4,535), articles rated lower than 2 or not included in the fields previously cited (AJG 2021) (no. 5,672), and irrelevance to the research question focused on the negative effects of adopting accrual accounting (no. 2,778 excluded after reading the title and abstract). The screening and eligibility phases led to selecting 211 articles to be read in full, and then...
other 105 articles were excluded after reading the full text. Apart from the elimination of duplicates, other steps of the research protocol were performed manually by the author. The full-text reading resulted in 106 articles that met all the criteria (see Appendix). They were included in the following qualitative analysis.

3. Descriptive analysis
The descriptive analysis of the selected studies is presented in the following sub-sections. A research protocol was used to codify the characteristics of each study. Specifically, the following aspects were considered: year of publication, theoretical framework, research method, research setting and the country investigated. Similar types of categorisation have been used in other reviews (such as Anessi Pessina et al., 2016; Goddard, 2010; Mauro et al., 2016; Van Helden, 2005; Van Helden and Uddin, 2016), thus highlighting the classification of academic knowledge accounting to particular viewpoints.

3.1 Evolution over time
The articles published between 1980 and 2021 were included in the dataset to define a comprehensive and updated picture of the review topic.

According to Figure 2, the first study mentioning the negative effects of adopting accrual accounting was published only in 1992, probably because the 1980s was characterised by an enthusiastic consensus towards New Public Management reforms and it was too early to observe the impact of the move to accrual accounting. In the following years, the number of studies concerning the drawbacks of adopting accrual accounting passed from 13 in the 1990–99 decade to 45 in the 2000–09 decade and finally to 48 in the last years under investigation (2010–21). The publication of articles has been steady, even if quite irregular from year to year, thereby signalling the emerging or persistent issues associated with adopting accrual accounting.

3.2 Theoretical framework
Regarding the theoretical framework, Figure 3 shows the distinction between theoretically based studies (67) and those with no explicit theory mentioned by the authors (39). Regarding other studies, the majority adopted an alternative accounting approach, following institutional (22), Habermas (1), Foucault (2) and Latour (2) theories or other alternative accounting studies (9). Few studies mentioned organisational (5) or sociological theories (2).
The predominance of theories other than positive accounting (with the latter adopted by only ten studies) is not surprising. These theories interpret the accounting information system as a social practice that can also negatively affect organisations’ and individuals’ behaviours and interests.

Finally, only five studies proposed a multi-theoretical framework.

3.3 Research method
Figure 4 presents a categorisation according to the methodological approaches used.

Based on previous studies with small adaptations (Guthrie et al., 2012; Van Helden and Uddin, 2016), a list of five research methods were compiled: the qualitative research methods of “case/field study/interviews” and “content analysis/documentary analysis/historical analysis”; the quantitative research method of “survey/official data-based analysis”; and theoretical studies of “commentary/normative policy” and “literature review”. Most of the categories are self-explanatory. However, “case/field study/interviews” refers to research using (often multiple) qualitative data collection methods, such as interviews and document analyses. “Survey/official data-based analysis” refers to studies mainly focused on developing a statistical analysis of data gathered from a questionnaire or an official dataset. The theoretical studies category relates to studies primarily concerned with developing or opposing theories or reviewing existing studies for further research. The list also includes “mixed methods” when authors combine more than one method.

The research methods adopted were classified according to the statements of the author(s). Almost all the selected studies adopted an empirical but qualitative research method (96). This trend is likely due to the great variety in implementing accrual accounting in public organisations, which can be better explored with in-depth qualitative studies. Indeed, researchers were the most inclined to use case/field study/interviews
(59%), followed by commentary/normative policy (19%). Another 8% of the studies adopted a content, documentary or historical analysis, and only 10% used a survey/official data-based analysis. Finally, 2% of the studies used a literature review and another 2% adopted mixed methods.

3.4 Geographical area of analysis

Countries display different administrative traditions with distinct combinations of institutional and cultural characteristics (Kuhlmann and Bouckaert, 2016). This means that New Public Management reforms and, more specifically, the adoption of accrual accounting will meet different contexts and consequently different challenges, issues and adverse effects when implemented (Ongaro and Van Thiel, 2018).

In this literature review, regarding the investigated national context (see Table 1), the UK represented the origin of the analysed data in 25 cases. Australia and New Zealand followed with 15 and 12 cases, respectively. North America (the US and Canada), African and Asian countries were under-represented, even if recently there has been an increasing interest in emerging economies and low-income countries. In addition to the Republic of Ireland (1), the remaining European countries represented were Italy (10), Germany (6), Finland (5), Belgium (3), Portugal (2), Russia (2), Austria (2) and France (2). Greece, Malta and the Netherlands each had a single case.

Greater attention was paid to Anglophone countries, probably because they were the first countries to implement the New Public Management reforms; thus, the impact of the adoption of accrual accounting could already be observed before others. The UK has been the first European country to experiment with New Public Management reforms during the 1980 and 1990s. Later, UK scholars have also pioneered the analyses of accounting changes with a critical stance and advocated for New Public Management approaches (Ongaro and Van Thiel, 2018).

Conversely, a minor interest was devoted to countries with Max Weber’s bureaucracy model (Germany, Austria, the Netherlands) and a Napoleonic administrative tradition (Belgium, France, Greece, Portugal). Apart from the Netherlands, in the other mentioned countries, public management reforms were implemented later than in the Anglophone countries. This situation could be the reason for these countries were latecomers to the debate on the negative effects of adopting accrual accounting in the public sector. Italy was an
exception: it is a Napoleonic administrative tradition country and a slow mover towards New Public Management reforms, but ten articles dealt with the effect of applying accrual accounting in the Italian context. This attention may be due to the scholars’ interest in the effects of repeated regulatory interventions in different kinds of public organisations since the 1990s.

Furthermore, only 13 studies covered more than one country, meaning in-depth analyses were preferred over comparative studies.
3.5 Research settings

The effects of the accounting reform may be affected by research settings since, especially in decentralised states, different public organisations are likely to take their direction and incur specific adverse effects after adopting accrual accounting (Pollitt and Bouckaert, 2017). The main issue in this classification was that some services could be located at various government levels in different countries. Therefore, a broad classification was used, based mainly on the level of government but allowing for the separate identification of some services, such as healthcare and higher education.

According to Figure 5, 27 studies concerned the public sector, highlighting the negative consequences of adopting accrual accounting for all public organisations.

In 31, 20 and 17 cases, the focus of the study was the central government, local governments and healthcare, respectively. Perhaps, they received special attention because they were often the first to experiment with accounting innovations. For example, accrual accounting was first adopted in the public healthcare sector in Italy. In other countries, such as New Zealand and Australia, the accounting change began with the central government. Other public organisations, such as higher education and public utilities, were covered in a few studies.

In summary, no single concentration of studies in a specific type of public organisation was found, perhaps due to the pervasiveness of public sector accounting reforms at different levels.

4. Main findings and discussion

In the sample investigated, some studies highlighted the benefits of adopting the accrual accounting system in public organisations and only mentioned that some minor negative effects may occur, essentially due to the shortcomings of the implementation phase. Following positive accounting theories, these authors viewed accrual accounting as a neutral technology that can improve efficiency in the hands of rational public managers. Other scholars consider the accounting information system as a potential vehicle for introducing practices of the private context determined in the political sphere rather than by technical or managerial arguments. They generally adopt a critical perspective towards mainstream

---

### Figure 5

Articles by the research settings

- **Public sector in general**: 27
- **Central government**: 31
- **Healthcare**: 17
- **Local government**: 20
- **Higher education**: 5
- **Other settings (e.g. public utilities)**: 7

**Note(s):** The sum is higher than the final sample because some authors considered multiple research settings
positive accounting theories and highlight how adopting accrual accounting is not always a successful experience, as it can generate negative consequences inside or outside the public organisation.

These possible effects are discussed in the following sub-sections and summarised in Table 2.

The negative effects, which are the adverse consequences on public managers, policymakers, users, citizens and stakeholders in general, are distinguished between those inside and outside the public organisations. Inside public organisations, adverse effects can be resistance to change, tensions among staff and higher costs. Precisely, the resistance to change can materialise in different nuances (Table 2) but is intended as a staff’s negative reaction after the adoption of accrual accounting (often imposed through a top-down mandatory reform), as a form of formal and informal absorption processes to counteract and mute the changes (Broadbent and Laughlin, 1998). Outside the public organisations, negative consequences of adopting accrual accounting can be the lack of reliability, comparability, transparency, accountability and inter-generational equity.

### 4.1 Negative effects inside public organisations

#### 4.1.1 Resistance to change and tensions in workplace relationships

Many studies (48) suggest that the adoption of accrual accounting provokes resistance to change among the staff of public organisations, which is especially true if the accounting change involves a clear break from the existing organisational culture.

Some authors talk about the “organisational hypocrisy” phenomenon, organisations’ well-known tendency to absorb any change while retaining their initial characteristics (Brunsson, 1989; Sharfman et al., 1988). Based on his study of medical professionals in the UK, Germany and Italy, Jacobs (2005) argues that a relatively low number of clinicians absorbed the consequences of the implementation of accrual accounting, developing a new speciality (the medical manager) while the majority continued medical activities, as usual, ignoring the accounting information (see also Broadbent and Laughlin, 1998; Fahlevi, 2016; Jones and Dewing, 1997; Kurunmaki et al., 2003).

Such an attitude was also observed by Liguori (2012), who reports the experiences of two municipalities (one Italian and the other Canadian), where accounting innovations were seen as only a formal requirement, and the old system and logic were re-proposed under different conditions.

<table>
<thead>
<tr>
<th>Negative effects inside public organisations</th>
<th>Resistance to change</th>
<th>Fear of cost-cutting</th>
<th>Fear of autonomy loss and increase in the control mechanism</th>
<th>Organisational hypocrisy</th>
<th>Criticisms of New Public Management values</th>
<th>Tensions in workplace relationships</th>
<th>Higher costs</th>
<th>Negative effects outside public organisations</th>
<th>Lack of reliability and less transparency</th>
<th>No comparability</th>
<th>Less democratic control and accountability</th>
<th>Inter-generational inequity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>13</td>
<td>29</td>
<td>5</td>
<td>6</td>
<td>9</td>
<td>34</td>
<td>5</td>
<td>5</td>
<td>19</td>
</tr>
</tbody>
</table>

Table 2.

Articles on negative consequences of the adoption of accrual accounting

**Note(s):** The sum is higher than the final sample because some studies highlighted more than one negative effect.
shapes, promoting a mere “cosmetic change” without implementing the necessary reform effectively (see also Adhikari et al., 2013; ter Bogt and van Helden, 2000; Irvine, 2011; Liguori and Steccolini, 2011; Yamamoto and Noguchi, 2013). This was also the case in Russia, where accountants were reluctant to unlearn old compliance and cash accounting norms, which remain strong (Antipova and Bourmistrov, 2013). The general climate of resistance and mistrust made public organisations change their language but not necessarily their decisions and actions, which were a façade for legitimation to avoid a threat to their routines (Adhikari and Jayasinghe, 2017; Antipova and Bourmistrov, 2013; Lapsley and Pallot, 2000; Richardson and Cullen, 2000).

This “organisational hypocrisy” is likely to occur in countries that have not abolished the traditional cash-based accounting information system, thereby introducing accrual accounting as a supplement, or have solely modified the accounting rules by moving to accrual accounting but without recognising the need for a broader change in the public sector, such as those related to the human resource management system (Harun et al., 2013; Oulasvirta, 2014).

The reform tends to be ceremonial to gain legitimacy at the institutional level (Adhikari et al., 2013; Goddard and Mkasiwa, 2016; Harun et al., 2012; Hopper et al., 2017; Lassou, 2017). It is also the case in developing countries that obtain financial help from international institutions (e.g. the World Bank) and strongly advocate adopting accrual accounting. The adoption of accrual accounting is often a façade for protecting the interests of these international institutions, which is more likely to create resistance among civil servants (Rahaman and Lawrence, 2001). The end-users were mostly engaged in “window dressing” (Adhikari and Mellemdvik, 2011; Tetteh et al., 2021), as they perceived accrual accounting as neo-colonialism and imposition of Western hegemony (Jayasinghe et al., 2021) that neglected the existing local good practices (Lassou et al., 2021).

The inertia behaviour factors within the personnel may be related to the protection of their interests within the organisation, the maintenance of the status quo (due to low tolerance for change or misunderstanding and lack of trust) and the lack of shared values underlying the changes (Agasisti et al., 2018).

Most authors highlight how the adoption of accrual accounting has increased among public managers the fear of autonomy loss and the increase in control mechanisms by the central government. This fear of losing the status quo creates uneasiness among the staff (comprising both accountants and middle managers). It can also be the leading cause of a failure in using information based on accrual accounting (Becker et al., 2014; Caccia and Steccolini, 2006; Humphrey et al., 1993; Ridder et al., 2005, 2006).

Furthermore, if a focus on effectiveness is announced by top managers or consultants and then neglected, the fear of cost-cutting and the resulting resistance to implementing accrual accounting are unavoidable (Humphrey, 1994). Venieris and Cohen (2004) consider the resistance from Greek university administrators due to the prospects for more restrictive control of their efficiency over resource spending by the central government. Similarly, Lowe and Doolin (1999) explain that adopting accrual accounting in hospitals has been perceived as an intrusion into professional autonomy and clinical freedom in New Zealand. Jones and Dewing (1997) also describe UK clinicians’ resistance as a strategy for opposing accounting as an obstructive control mechanism and preventing the intrusion of tasks perceived as anti-clinical freedom, unnecessary and antagonistic to the values of the medical profession (see also Bracci and Llewellyn, 2012; Jacobs, 2005). The lack of evidence of the immediate benefits of the adoption of accrual accounting and its potential use as a control mechanism for monitoring activities by the central government is also highlighted by Lawrence et al. (1994) and Humphrey (1994).

Another reason for resistance to change is the radical criticism of adopting accrual accounting due to the opposing action to New Public Management values. Lawrence et al. (1994)
and Lawrence (1999) view these accounting reforms as a Trojan horse that is a part of a socio-political movement intended to replace the traditional method of management with new managerialism and market-based activities (Guthrie, 1998). In other words, accrual accounting was introduced not to solve specific problems but to express ideological commitment, generating a “colonisation” of the lifeworld by the instrumentalism of business; it also aims at curtailing the size of the public sector (Lawrence, 1999; Newberry, 2009). New Public Management accounting reforms were perceived to have disregarded the main differences between public and private sectors and, especially in the healthcare settings, signalled, in a certain way, a downgrading of the fundamental status of personnel, even threatening their values, autonomy and ability to practice ethically (Bracci and Llewellyn, 2012; Heald and Georgiou, 1995; Hyndman et al., 2017).

All of this can also cause conflicts among personnel, creating tensions in workplace relationships. During the accounting reform process, accountants were often viewed negatively—as people whose approval had to be obtained before financial resources could be spent—and if they were perceived as change agents but without real interactions with the people working in the organisation, they were likely to be isolated (Caccia and Steccolini, 2006; Lapsley and Pallot, 2000).

Thus, Nor-Aziah and Scapens (2007) discuss the tensions built up in the workplace relationships between the accountants and the operations managers in a Malaysian public utility. The operations managers aimed to maintain the status quo since they considered their financial dependency on accountants a threat. Consequently, the operations managers often ignored the financial rules provoking tensions and conflicts between accountants and non-accountants (see also Adhikari and Jayasinghe, 2017; Irvine, 2011).

These negative connotations of the implementation of accrual accounting can be significantly reduced if the reforms are clearly communicated in a way that is easy to understand advantages, as occurred in Australia (Mir and Rahaman, 2007) and Ghana (Tetteh et al., 2021). The crucial point is how individuals see themselves as in control of or being controlled by the new public sector accounting information system. Also, a participative management style and a team approach with the cooperation between the top and middle managers can be helpful as they strengthen cultural change in public organisations (Mir and Rahaman, 2006; Ridder et al., 2006). Hence, adopting accrual accounting should consider cultural conditioning and socio-political feasibility (Hopper et al., 2017; Lassou et al., 2021).

4.1.2 Higher costs. The transition to accrual accounting in public organisations is not cost-neutral; instead, it leads to higher costs that are not offset by savings due to using accrual accounting information (Connolly and Hyndman, 2006; Edwards, 2021). Specifically, accounting change is a continuous process involving initial and ongoing costs.

In the initial phase, additional costs are due to the identification and valuation of public organisations’ property and other assets, the determination of their carrying amount, the retraining of the staff and the setting up of specific software (Caperchione, 2000). A substantial cost increase in the following implementation phase is often related to further investments in information systems, the growing request for professionally qualified accountants and consultancy, and even audit fees (Redmayne and Laswad, 2013).

These costs often divert money from front-line services to the administration budget, thus the benefit of accrual accounting is not immediate, nor can it be taken for granted (Adhikari and Garseth-Nesbakk, 2016; Christiaens and Rommel, 2008; Humphrey et al., 1993; Hyndman and Connolly, 2011; Olson et al., 2001). The scholars do not explain how they quantified the costs. Their evidence is anecdotal and referred mainly to the public sector in general.

Furthermore, since huge investments are required for the successful implementation of accrual accounting (Timoshenko and Adhikari, 2010), a series of preconditions should be created before this transition (Hepworth, 2003), especially in less developed and developing
countries where high levels of corruption often weaken the institutional capacity of implementing reforms (e.g. Mimba et al., 2007).

4.2 Negative effects outside public organisations

4.2.1 Lack of reliability, transparency and comparability. Some scholars observe that accrual accounting has introduced a greater degree of discretion—enough to undermine the reliability of financial reporting and the organisation’s transparency.

On the one hand, the absence in the cash accounting of generally available financial information about assets and consumption of services justified the adoption of accrual accounting. On the other hand, both the non-inclusion of all assets and the inclusion of certain assets, such as heritage, meant that the new financial report was unable to reflect the public organisation’s financial position, just as had occurred in the past (Bandy, 2015; Barton, 2007, 2009; Biondi and Lapsley, 2014; Carvalho et al., 2006; Christiaens, 2004; Marty et al., 2006; Stanton and Stanton, 1998). West and Carnegie (2010) provided the example of university libraries, whose essential character is not financial; thus, trying to express their value in monetary terms is an activity inevitably accompanied by uncertainty and subjectivity (see also Mellett et al., 2009). The reported results lack reliability and create “accounting fictions” (Carnegie and West, 2003; Potter, 2002). Nevertheless, these results have financial management consequences (Ellwood, 2008; Lapsley et al., 2009).

The lack of reliability and low transparency of accrual accounting raises doubts about the usefulness of accrual accounting for presenting, assessing and comparing performances of public organisations (Anessi Pessina and Cantù, 2016; Barton, 2007; Connolly and Hyndman, 2006; Hodges and Mellett, 2003; Jones et al., 2013; Van Peursem and Pratt, 1998). Due to the subjective judgments it requires (e.g. the definition of depreciation), accrual accounting may produce confusing financial statements with a consequent lack of consistency and reliability (Ballantine et al., 2008; Gigli et al., 2018; Jorge et al., 2007; Mellett, 2002; Newberry, 2011; Pilcher, 2011b). It may also lead to manipulations of accounting and “creative” solutions (Adhikari and Jayasinghe, 2017; Guthrie, 1998; Olson et al., 2001; Vinnari and Nasi, 2008). Especially when it comes to reporting on achieved results, public managers may manage discretionary accruals to deflate financial performance (Greenwood et al., 2017; Pilcher and Van der Zahn, 2010), or may hide inefficiency by shifting the recognition of revenues and expenses to different periods, thus affecting the deficits for those periods (Garcia, 2014; Stalebrink and Sacco, 2003).

This phenomenon—already measured by some scholars in UK governmental agencies (Pina et al., 2012)—diminishes the reliability and transparency of financial reporting as well as the comparability among annual reports of public organisations, with the risk of making accrual accounting information ineffective (Carlin, 2005; Christiaens and De Wielmaker, 2003; Pilcher, 2011a; Vinnari and Nasi, 2008).

Finally, since many countries have adopted some form of accrual accounting but without following the same accounting standards (often with different legislative requirements within different levels of government), a negative effect of this reform is highly heterogeneous accounting information systems in the international (and, in some case, even, national) context with extremely poor or impossible comparability (Christiaens, 2000; Jones et al., 2013; Mann and Lorson, 2021; Pilcher, 2011a).

4.2.2 Less democratic control and accountability. Several authors consider a low level of democratic control and accountability as one of the adverse effects of adopting accrual accounting. These severe shortcomings in information usefulness sound somewhat strange because one of the benefits traditionally associated with accrual accounting is complete information on public organisations’ costs, assets and liabilities. Nevertheless, this accounting information system innovation is often not trustworthy. The balance between the scientific rigour of the system and the usefulness of information has not often been
weighed carefully, and the understanding by stakeholders has not had the highest priority (Hyndman, 2016; Newberry, 2014). The complexity of the information and the lack of understanding by potential users prevent accrual accounting from promoting the participation of citizens in political life, democratic control and accountability (Connolly and Hyndman, 2006; Ellwood, 2009; Harun et al., 2015; Nasi and Steccolini, 2008; Pilcher, 2011a).

Based on an empirical study of UK hospitals, Ellwood (2009) observes that the disclosure notes provide information such as depreciation and audit fees but no indications of costs or expenditures on healthcare activity. This mismatch between the reporting model of accrual accounting and the interest of the local communities is an example of the lack of accountability towards citizens.

Politicians are another category of stakeholders for whom annual accounting reports should play a crucial role as an accountability tool. The additional information provided by accrual accounting often does not satisfy politicians’ information needs (Caruana and Zammit, 2019; Christiaens and Rommel, 2008; Adhikari and Garseth-Nesbakk, 2016). Furthermore, politicians have difficulty understanding accrual accounting information. Consequently, they do not use it in their decision-making, relying instead on their knowledge of the budget as it is easier to understand a budget than a financial statement (Ezzamel et al., 2005, 2014; Groot and Budding, 2008; Newberry and Pallot, 2005; van Helden et al., 2021). Political decision-makers prefer to use information from traditional cash accounting, which focuses on expenditures.

Thus, accrual accounting seems to reduce democratic accountability as it undermines politicians’ ability to engage in deliberations and exercise democratic control over the use of public resources (Christiaens and Van Peteghem, 2007; Marty et al., 2006; Newberry, 2002). Politicians should be educated in accrual accounting matters to understand and appreciate their significance in the democratic process (Newberry and Pallot, 2006).

4.2.3 Inter-generational inequity. Other stakeholders affected by the adoption of accrual accounting may be those of the next generation. Intergenerational equity, considered essential to the assessment of the financial sustainability of public organisations, is defined as the ability of the income generated in any one year to cover the costs of delivering the services to be provided (Bolivar et al., 2014).

Accrual accounting is expected to provide useful information for the long-term assessment of public policies’ financial sustainability (Grossi and Soverchia, 2011) and play a fundamental role, especially regarding the income statement.

Nevertheless, studies have highlighted serious weaknesses (e.g. application of depreciation) concerning revealing or hindering inter-generational inequities by ensuring that each generation only consumes the resources that it generates without burdening future generations of taxpayers with excessive borrowing (Aiken and McCrae, 1996; Bolivar et al., 2014; Klumpes, 2001; Pollanen and Louelle-Lapointe, 2012; Vinnari and Nasi, 2008).

Consequently, the issue of finding the appropriate balance between the short-term pursuit of efficiency and long-term maintenance of capacity remains unresolved (Pallot, 2001).

4.3 Negative effects and article categorisation

To improve the understanding of this analysis, the collected studies were grouped according to the adverse effects authors outlined and the categories of the decade of publication, geographical area, research method, research setting and type of accrual accounting implemented (full accrual, modified accrual, cash with accrual), respectively. For an outline of these combinations, see Tables 3 and 4.

The literature database shows a tendency to identify negative effects inside public organisations in the 1992–2002 period, with studies highlighting the fear of public managers
<table>
<thead>
<tr>
<th>Negative effects inside the organisations</th>
<th>Resistance to change</th>
<th>Fear of cost cutting</th>
<th>Fear of autonomy loss and increase in control mechanism</th>
<th>Organisational hypocrisy</th>
<th>Criticism of New Public Management values</th>
<th>Tensions in workplace relationships</th>
<th>Higher costs</th>
<th>Lack of reliability and low transparency</th>
<th>No comparability</th>
<th>Less democratic control and accountability</th>
<th>Inter-generational inequity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative effects inside the organisations</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fear of cost cutting</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fear of autonomy loss and increase in control mechanism</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>18</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Organisational hypocrisy</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Criticism of New Public Management values</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Tensions in workplace relationships</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Higher costs</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Lack of reliability and low transparency</td>
<td>0</td>
<td>3</td>
<td>18</td>
<td>13</td>
<td>8</td>
<td>7</td>
<td>0</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>No comparability</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Less democratic control and accountability</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Inter-generational inequity</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Note(s): *The sum is higher than the final sample because some studies considered more than one negative effect
**The sum is higher than the final sample because some studies considered more than one country
***Only for articles dealing with a specific country and level of government
<table>
<thead>
<tr>
<th>Negative effects inside the organisations</th>
<th>Resistance to change</th>
<th>Fear of cost cutting</th>
<th>Fear of autonomy loss and increase in control mechanism</th>
<th>Organisational hypocrisy</th>
<th>Criticism of New Public Management values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature review</td>
<td>Commentaries/ normative policy</td>
<td>Survey/ official data-based analysis</td>
<td>Content analysis/ documentary analysis/ historical analysis</td>
<td>Case/field study/ interviews</td>
<td>Mixed method</td>
</tr>
<tr>
<td>Negative effects</td>
<td>Resistance to change</td>
<td>Fear of cost cutting</td>
<td>Fear of autonomy loss and increase in control mechanism</td>
<td>Organisational hypocrisy</td>
<td>Criticism of New Public Management values</td>
</tr>
<tr>
<td>Literature review</td>
<td>Commentaries/ normative policy</td>
<td>Survey/ official data-based analysis</td>
<td>Content analysis/ documentary analysis/ historical analysis</td>
<td>Case/field study/ interviews</td>
<td>Mixed method</td>
</tr>
<tr>
<td>Tensions in workplace relationships</td>
<td>Higher costs</td>
<td>Lack of reliability and low transparency</td>
<td>No comparability</td>
<td>Less democratic control and accountability</td>
<td>Inter-generational inequity</td>
</tr>
<tr>
<td>Literature review</td>
<td>Commentaries/ normative policy</td>
<td>Survey/ official data-based analysis</td>
<td>Content analysis/ documentary analysis/ historical analysis</td>
<td>Case/field study/ interviews</td>
<td>Mixed method</td>
</tr>
</tbody>
</table>

**Note(s):**
*The sum is higher than the final sample because some studies considered more than one negative effect
**The sum is higher than the final sample because some studies considered more than one research setting and more than one negative effect
and staff losing autonomy and being subjected to additional and invasive controls with the attempt to sterilise changes by adopting an organisational hypocrisy approach. Subsequently, perhaps due to the emerging debate on transparency, accountability and accounting harmonisation, during the following years, the attention of many researchers has shifted to the negative effects on the external context (e.g. low level of reliability, transparency, democratic control and accountability). Moreover, mainly since 2011, the focus has returned to organisational hypocrisy, which is probably linked to the re-affirmation of the new-Weberian State (Pollitt and Bouckaert, 2011) and the introduction of accrual accounting due to external pressures in some African and Asian developing countries (Polzer et al., 2021; Van Helden and Uddin, 2016).

Intergenerational equity is a concern that mainly characterised the Anglophone countries’ central governments (e.g. Australia and New Zealand). These countries that have been implementing accrual accounting for many years are probably wondering about the capacity of their financial reports to represent the equity regarding future decisions or maintain levels of public services over time. Currently, this question is unsolved and open to additional research.

The concerns about transparency, reliability, accountability and democratic control are, again, typical of Anglophone countries (both European and not), regardless of the setting. Perhaps the reason is that they modelled their governments on the Westminster system, where New Public Management reforms have further weakened the parliament’s control over the executive (Newberry, 2014). Consequently, this weakness has been often debated among Anglophone scholars as it can affect the accountability of the government to parliament and the public for the stewardship of public funds. Thus, it can undermine democratic control.

Furthermore, the objective of greater clarity of accounting information prepared for users has not yet been achieved. Accrual accounting and its financial reporting appear to suffer from low reliability due to a lack of representational faithfulness. Many scholars express scepticism over both the inclusion of all assets within the annual accounts because of measurement difficulties and the discretion and arbitrariness inherent in accrual accounting. This lack of overall quality in financial reporting can lead to a shortage of information transparency, limiting the primary function of accounting in supporting the decision-making process of internal and external stakeholders.

Some studies highlighting financial statement manipulation stand out for adopting a quantitative research method based on annual reporting data. In the other cases, even when the higher costs associated with adopting accrual accounting are emphasised, qualitative research methods are used except for costs related to audit fees. In general, as already mentioned, the case study is the most widespread methodology in the articles of the sample.

Studies in continental Europe show the resistance to change due to fear of losing autonomy and additional control mechanisms as a considerable negative effect, often translating into an organisational hypocrisy attitude. This approach can be due to the persistence in public organisations of the legalistic tradition that sometimes is stronger than expected (Pollitt and Bouckaert, 2011). The same adverse effect can be found in many developing countries where adopting accrual accounting has become more a means to gain legitimacy rather than improve existing practices. Resistance to change is widespread in countries adopting full accrual accounting, whereas there are fewer adverse effects in countries that combine cash and accrual accounting.

The higher costs for adopting accrual accounting seem to be an issue perceived at all levels of governments (it is often cited by scholars dealing with the public sector as a whole) and by different types of countries. Anglophone countries that have greatly welcomed the New Public Management reforms, Napoleonic administrative tradition countries characterised by a more conservative approach to accrual accounting and other countries (such as Russia and Nepal) worried about facing further costs in times of crisis and austerity.
in public finance. Scholars merely report some anecdotal evidence without more information about the determination of costs. However, the costs depend on the existing maturity of accrual accounting systems at all levels of government in a country but are unavoidable for the modernisation of information accounting systems moving to accrual accounting.

No significant concentration of a specific adverse effect on one type of public organisation exists. However, it is possible to note that in the healthcare sector, the negative effects are essentially the fear of autonomy loss, organisational hypocrisy and data manipulation, perhaps due to medical professionals and the need to achieve pre-defined financial performance. Significant resistance to change can also be found in local governments, while the central government and the public sector generally focus on the lack of reliability and transparency.

5. Conclusions
During the last several decades, many countries worldwide have changed their accounting systems at one or more levels of government due to the New Public Management and the trend towards international accounting harmonisation. At first, most scholars supported the move to accrual accounting, often considering this accounting system as a self-evident reform target and an unstoppable process to improve the efficiency and effectiveness of management practices and accountability in the public sector (Hyndman and Connolly, 2011). After some years, scholars have clearly noted significant drawbacks.

Although public sector accounting reforms have been studied for quite a long time, public sector accounting research has included little investigation of the negative consequences that the implementation of accrual accounting can generate (Azhar et al., 2022). This study contributes to the ongoing debate surrounding the topic of public sector accounting through a literature review.

The results consider 106 studies published from 1980 to 2021. Most studies adopt and consider alternative accounting theories as their theoretical framework.

Regarding the area investigated, special attention is paid to Anglophone countries, probably because they were the first to experiment with public sector accounting reform (Pollitt and Bouckaert, 2011). The public sector is the most common setting investigated by researchers, followed by the central government, probably due to the pervasiveness of accounting information system changes in that sector.

Regarding content, the negative consequences of adopting accrual accounting include adverse effects inside and outside public organisations. Resistance to change is the main negative consequence of the functioning of public organisations. It is more likely in countries that have chosen to immediately shift away from cash to accrual accounting rather than maintaining the existing cash accounting with accrual accounting as a supplement or adopting a simplified accrual accounting system. The reason is generally the barrier to the culture change necessary to move from a public organisation based on formal compliance and procedures to one focused on results and private sector practices (Pina et al., 2009).

Concerning the impact of the adoption of accrual accounting on external stakeholders of public organisations, the authors have highlighted consequences concerning lower degrees of reliability, comparability, transparency and accountability. For citizens, the new accounting rules make accounting information systems more complex and arbitrary, generating the opportunity for “earnings management.”

Furthermore, apart from the unsolved problem of inter-generational equity, several scholars claim that accrual accounting is not accountable to politicians. Adopting accrual accounting increases the amount of accounting information, but there are severe doubts about how political decision-makers can use it. According to various authors, ensuring responsibility and responsiveness on the part of politicians may be a more critical concern.
than efficiency. Hence, cash accounting seems more suitable for enabling a politically driven investigation of expenditures in the context of previously authorised budgets.

A general worry regards the increased costs due to the move to accrual accounting. Nevertheless, in implementing accounting reform, higher costs are not only undeniable but necessary for its success. If, at the same time, there are no investments in information and communication technology, no retraining of civil servants or other modernisation initiatives, the accounting reform risks being a useless effort.

Regarding how these criticalities should be addressed, scholars rarely propose initiatives. Few authors suggest addressing more effective communication to personnel, actively involving them in all phases of the implementation of accrual accounting and specific training activities. Only a broader public sector reform, including, for example, human resource management and a change of mindset, can ensure the proper functioning of the accrual accounting system and the actual use of its information for the decision-making process. In the absence of adequate comprehension and adaptation to the specific operational characteristics of any setting, this accounting reform is likely to fail.

A policy recommendation arising from this literature review is that countries that have proceeded more slowly with accrual accounting reforms should take a closer look at the implications of accounting reforms previously adopted in other countries; thus, they can learn from previous experience to better plan the adoption of accrual accounting (i.e. adequately resourced, with trained civil servants and an appropriate information system) and create preconditions for successful implementation of accrual accounting.

6. Limitations and suggestions for future research
The study is not free from limitations which also suggest a new room for further research on adopting accrual accounting in public organisations. First, the research question focuses only on the negative effects of the accounting change under investigation. Further research may include the benefits by conducting a literature review to be compared with the content of this article or carrying out empirical research to demonstrate these advantages.

Another limitation of this literature review is the consideration of high-ranking international academic journals, excluding other international and national journals, conference papers and other types of work (such as working papers and books). Furthermore, the decisions about the research criteria reflect the author’s personal view, and the literature review process and the analysis of the sample were conducted only by the author.

Future contributions could increase the type of studies and consider less restrictive research criteria to verify the findings of this review. Thus, since the descriptive analysis shows the predominance of the Anglophone experiences and since, more recently, other countries, especially developing countries, have introduced the accrual accounting system in the public sector, future research could investigate the effects of the adoption of accrual accounting in countries from continents other than West Europe and North America deeply.

Findings show that most articles rely on the alternative accounting theoretical framework but with various specific theories. Thus, future research could contribute significantly to the topic by linking different theories and adverse effects.

Moreover, since for years accountability, reliability and transparency have been priorities for many governments, a future research agenda could investigate them on measurement, reporting of public sector assets (e.g. heritage) and “creative accounting” practices made possible by accrual accounting.

Finally, the issue of identifying solutions for the highlighted negative effects, inside and outside the organisations, seemingly remains unsolved. As mentioned earlier, few researchers have now attempted to provide initiatives to overcome the negative
consequences of adopting accrual accounting. Thus, more attention should be paid to the ideas that have already been (or could be) implemented to solve the criticalities highlighted.

References


Appendix

Articles included in the sample


**About the author**

Elisa Bonollo is an Associate Professor in Business Administration at the University of Genoa. She has a PhD in Economics and Management of Public Organisations at the University of Siena. Her main research areas are in accounting information systems, performance measurement and management, accountability and social responsibility in public organisations. Elisa Bonollo can be contacted at: bonollo@economia.unige.it

---

For instructions on how to order reprints of this article, please visit our website:  
[www.emeraldgrouppublishing.com/licensing/reprints.htm](http://www.emeraldgrouppublishing.com/licensing/reprints.htm)  
Or contact us for further details: permissions@emeraldinsight.com