

Measurement in Public Sector Financial Reporting

EMERALD STUDIES IN PUBLIC SERVICE ACCOUNTING AND ACCOUNTABILITY

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Recent research has shown that there is a growing gap between academia and practice in public sector accounting, accountability, and auditing. This is a particularly important issue in the context of public services and policies, where a number of emerging issues and trends, such as fiscal sustainability, global climate change, demographic changes, equity and inclusive growth, government transparency, citizen participation and engagement, political polarisation and fragmentation, the growth of false information in social media, and new forms of public–private–non-profit partnership, as well as technological advancements, such as big data, block-chain, and digital transformation, bring about new challenges and require innovative, timely and effective solutions.

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EMERALD STUDIES IN PUBLIC
SERVICE ACCOUNTING AND
ACCOUNTABILITY

**Measurement in Public
Sector Financial Reporting:
Theoretical Basis and
Empirical Evidence**

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Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2023

Editorial matter and selection © 2023 Josette Caruana, Marco Bisogno and
Mariafrancesca Sicilia.

Individual chapters © 2023 The Authors.

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British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-80117-162-5 (Print)

ISBN: 978-1-80117-161-8 (Online)

ISBN: 978-1-80117-163-2 (Epub)



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List of Abbreviations

AASB	Australian Accounting Standards Board
AIMS	Asset Information Management System
AMAF	Asset Management Accountability Framework
ARCONET	Commission for the Accounting Harmonization of Italian Subnational Governments
ASB	Accounting Standards Board
BDAP	Banca Dati Amministrazioni Pubbliche
CF	Conceptual framework
CFM	Cantonal Finance Ministers
CFS	Consolidated financial statements
CIC	Capitalised investment costs
CIPFA	Chartered Institute of Public Finance Accountants
CL	Comment letter
COFOG	Classification of the functions of government
COV	Current operational value
CP	Consultation Paper
DAK	Specific Asset Registration
DPA	Asset Premise Registration
DRC	Depreciated replacement cost
EC	European Commission
ED	Exposure Draft
EPSAS	European Public Sector Accounting Standard
ESA	European System of National and Regional Accounts
eTapp	Land database
EU	European Union
FASAB	Federal Accounting Standards Advisory Board
FGAB	Finnish Government Accounting Standards Board
FMAP	Financial Management Act of Parliament
FRS	Financial Reporting Standard
GAAP	Generally Accepted Accounting Principles
GASB	Government Accounting Standards Board
GFS	Government Finance Statistics
GPFS	General purpose financial statements
HA	Heritage asset
HAM 2	Harmonised Accounting Model — 2nd Generation
HAM 1	Harmonised Accounting Model

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IAS	International Accounting Standard
IFAC	International Federation of Accountants
IFMIS	Integrated Financial Management Information System
IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
IPSAS	International Public Sector Accounting Standard
IPSASB	International Public Sector Accounting Standards Board
IRD	Inland Revenue Department
ITAS	National accounting standards for the Italian public sector
IVR	Interventionist research
IVS	International Valuation Standards
LG	Local government
MGDD	Manual of Government Deficit and Debts
MoF	Ministry of Finance
NFP	Not-for-Profit
NPISHs	Non-profit institutions serving households
NZ	New Zealand
NZASB	New Zealand Accounting Standards Board
NZAuASB	New Zealand Auditing & Assurance Standards Board
OAG	Office of the Auditor-General
OCI	Other Comprehensive Income
OECD	Organisation for Economic Co-operation and Development
OIC	Organismo Italiano di Contabilità
PPE	Property, plant and equipment
PSE	Public sector entity
PVNR	Present value of the future net returns
QC	Qualitative characteristic
RQ	Research question
SFS	Separate financial statements
SMC	Specific matter for comment
SNA	System of National Accounts
SPA	Moveable Asset Management System
SPPII	Project Management System
SSB	Standard Setting Board
TPATA	Immovable Asset Management Procedure
VAT	Value Added Tax
VDAS	Victorian Digital Asset Strategy
XRБ	External Reporting Board

About the Contributors

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Foreword

Accounting is often technical and it can easily become dull. Still, accounting can be provocative, provide food for thought, and challenge ideas that are taken for granted. This book falls in the second category. It is a book about trying to understand and rationalise the ‘whys’ and ‘what ifs’ behind the routine accounting process that is related to measurement.

This book comes at the right moment. Now that the International Public Sector Accounting Standards (IPSAS) are updating their conceptual framework and measurement methodologies. Now that European Public Sector Accounting Standards (EPSAS) are in the process of development. Now that national public sector regulators are drafting their national IPSAS-like accounting standards and gathering ideas and inspiration also from international practice. Now that many governments are in the process of preparing their first balance sheets; struggling with the preparation of a proper fixed assets register; and are puzzled about how to treat heritage assets. Now that governments face the challenge of preparing consolidated financial statements. Now that we scholars try to understand the similarities and the differences between the public and the private sector and draw an informed line.

It is therefore a timely book that can provide a useful means to answer a series of reasonable ‘whys’ in the minds of all those interested in understanding the multifaceted tool of measurement in the public sector. Those that clearly comprehend that valuation in the public sector is not synonymous for ‘public value’. Those that try to understand why different methodologies end up with different information content for decision-making and accountability. Why the prudence principle has become such a controversial issue in public sector standard setting. Why accrual accounting and national accounts diverge when it comes to measurement and provide different bottom lines. Why concluding on the value of public sector entities’ equity calls for diligence in the measurement of assets and liabilities. Why putting a value on heritage can be more than challenging. Why the use of the notion of assets for heritage items is not self-evident.

The book has been co-edited by my dear colleagues Josette Caruana, Marco Bisogno, and Mariafrancesca Sicilia, who are active contributors of important research works in the public sector accounting and financial accounting academic community. They have envisioned and successfully co-edited a book that takes a holistic stance on the topic of measurement in public sector accounting and reporting and includes a series of chapters written by well-known scholars that

envisage the topic from several fronts that go from theory to practice and cover not only assets but also liabilities, expenditures, and income.

The pluralism and heterogeneity both in content and structure are what make the book interesting and value-adding. The book chapters try to walk the reader through the different methodologies, implications, and information content that are related to measurement: from the traditional dipole of historical and current cost valuation, to the new current operational value; from the accounting standards to the national accounts; and from the typical fixed assets to heritage. The chapters are also different in structure. They adopt various research methodologies and include theoretical considerations, country cases, and empirical analyses. What they have in common is their critical stance on the topics analysed.

Thus, one could read this book from cover to cover or could focus only on a specific matter area (i.e. frameworks and methodologies, measuring and reporting for financial statements, and heritage-related measurement topics) and study the chapters that fall within. In any case, by using the IPSAS as a reference point in the majority of cases, the book becomes relevant to the international audience.

Different readers are, most likely, going to end up with different takeaway messages after reading the book. However, it is for sure that this book will have made them think about topics they have taken for granted for a long time; wonder about their own preferences when facing alternative options; and object to or coincide with views expressed. Some readers could use the book's ideas when implementing accrual accounting and need to proceed with measurement in a public sector entity. Others may get motivated to do research on measurement-related topics; to open provocative discussions with fellow professional accountants; and to have a broader and more receptive mind when concluding on accounting standards. Some others could just read the book and feel that accounting is not necessarily technical and dull.

Sandra Cohen
Professor of Accounting
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Preface

Josette Caruana, Marco Bisogno, and Mariafrancesca Sicila

This book deals with Measurement in Public Sector Financial Reporting. Literature on the subject is available, but it is dispersed throughout various academic journals, books, and professional publications. The book aims to consolidate and update the literature with empirical evidence from practice, thus making the contents useful for academics, researchers, policy-makers, public managers, international organisations, and standard setters, who are involved in or are responsible for the preparation of public sector financial reporting and related standards. While not designed as a textbook for students, the book can be included in reading lists for university courses and used as a library reference.

The idea for this book arose from the Measurement Project of the International Public Sector Accounting Standards Board (IPSASB). Due to this project, the IPSASB launched a series of consultation papers for public comment. We (the editors of this book) currently co-chair the Academic Task Force on Public Sector Financial Management and Reporting, representing three research networks on public sector accounting, namely, IRSPM PSAAG, CIGAR, and EGPA PSG XII. The main objective of the Task Force is to analyse consultation papers related to public sector accounting (as those issued by the IPSASB) and prepare responses.

The first Consultation Paper tackled by the Task Force was on *Financial Reporting for Heritage in the Public Sector* in September 2017. The process taken to prepare the response sparked interesting and cohesive debates on the issue, even though the 17 members of the Task Force hail from different jurisdictions. The drafting of this first response laid down the foundations for future responses to more consultation papers. To mention a few, these comprised: *Accounting for Revenue and Non-Exchange Expenses* in January 2018, *Collective and Individual Services and Emergency Relief (Amendments to IPSAS 19)* in May 2019, *Measurement* in October 2019, and *Revenue with and without performance obligations and transfer expenses* in October 2020. The latter exposure drafts (ED) and responses were the actual trigger for this book.

The IPSASB has kept the Task Force very busy indeed. In April 2021, three very relevant EDs were launched by the IPSASB, namely, the Proposed update of IPSAS 17 Property, Plant and Equipment; the Proposed IPSAS on Measurement; and the Conceptual Framework Update of Chapter 7, Measurement of Assets and Liabilities in Financial Statements. Needless to say, the authors of the chapters in this book had to be aware of these developments and take them into consideration where relevant.

This book adds to existing literature because it deals with a current topic about which an international debate is ongoing. The objective of this book is to present a constructive and thoughtful analysis of possible valuation methodologies for the public sector context. Every chapter seeks to provide a useful contribution to both theory and practice. The authors of the chapters represent a mix of practitioners and academics. The intention of book is to provide a holistic perspective on the subject. In line with the aim of this Book Series, the book attempts to develop discussions and consolidate connections between policy-makers, practitioners, and academics.

Introduction

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Chapter 1

Exploring the Measurement Dilemma in Public Sector Financial Reporting

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Abstract

This introductory chapter elaborates on the tricky issue of measurement in public sector financial reporting, which arises due to the particular features of the public sector when compared to the private sector. It provides a summary of the book chapters, highlighting the theoretical/practical frameworks used, methodologies and conclusions. Three themes are identified in the book, namely, (a) frameworks and methodologies; (b) measuring and reporting the elements in financial statements; and (c) heritage. This chapter identifies important avenues for further research.

Keywords: Accounting theory; measurement; public value; relevance; reliability; accounting harmonisation

1. Introduction

The application of accrual accounting for financial reporting in the public sector is widely supported for its potential advantages. Moving away from the cash basis presents challenges in order to measure and value revenue, expenditure, assets, liabilities and equity. This is why financial reporting standards and guidance are required. It is paramount that such standards and guidance take into consideration the particular characteristics of the public sector.

Assets are of fundamental concern in accounting generally (Pallo, 1992), and particularly so in public sector accounting. This is due to the fact that assets employed in the public sector very rarely are revenue-generating like private sector assets. Rather, they are held for their ‘service potential’, in other words, for

Measurement in Public Sector Financial Reporting:

Theoretical Basis and Empirical Evidence, 3–16

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doi:[10.1108/978-1-80117-161-820231001](https://doi.org/10.1108/978-1-80117-161-820231001)

their ability to assist an entity in the pursuit of its objectives. This distinctive feature of assets in public entities has led public sector standard setters to modify the definition of assets to accommodate the concept of service potential (Anessi-Pessina, Bisogno, & Lorson, 2022; Christiaens, 2022). This revision to the definition of assets has several important implications, as measurement bases adopted in the public sector should capture service potential. The exercise becomes particularly challenging when a financial value needs to be attributed to those assets, which are identified in the literature as community/trust capital items (Barton, 2005; Pallot, 1992) that governments have the duty to conserve and maintain and that embody a social and cultural value (Anthony, 1978; Mautz, 1981).

Equally relevant, although less debated in the existing public sector accounting literature, is the correct representation of equity and liabilities. Liabilities are among the aspects of greatest interest to the recipients of the financial statements, because they affect the solvency of a public entity and its ability to continue to perform the functions assigned to it. In fact, the reporting of liabilities by governments is one of the reasons for the introduction of the accrual accounting in Europe. However, liabilities take a different meaning in the public sector because borrowing is done mainly for re-financing of debt (Biondi, 2018).

With reference to liabilities, a particularly critical issue is that relating to non-legally binding obligations, since politicians tend to make public announcements that are not always realistic. Legal obligations also take on a particular meaning, given the hierarchical and authoritative powers that some public institutions enjoy, including that of repealing and amending laws.

A further critical aspect in the context of public sector organisations is the presence of non-exchange transactions, that is, exchanges in which an indirect consideration in the form of taxes is envisaged for the provision of goods and services. These can be directly collected by the body providing the service or by higher institutional level bodies and then transferred. Both for tax income and for income from current transfers (i.e. transfers intended to finance management costs) the problem arises to identify the criterion to be used as the basis for proceeding with their recognition and measurement.

It may also be risky to look at private sector accounting practices because of the danger that public value is not properly considered (Steccolini, 2019). Needless to say, public value can be addressed by different documents; however, financial reporting is an attempt to capture such value by attempting to measure it and express it in monetary terms. Rather than focusing on the worth of an entity, wider approaches could be used to value public assets and liabilities, because these merit a wider perspective. Public value is not based solely on financial value. For example, governments may be the custodians of valuable historical and cultural assets that represent huge wealth – not necessarily financial (Ellwood & Greenwood, 2016). Various dimensions of value need to be explored in order to reveal methods that would provide a more comprehensive public sector view – a view that takes into consideration the particular characteristics of the public sector that make it uniquely different from the private sector.

Measurement in accounting is a difficult topic, which becomes more complicated in the public sector context. One example is the debate on historical cost

versus fair value. On the one hand, historical cost accounting is deemed to be irrelevant (Penman, 2011). On the other hand, fair value accounting has been accused to be misleading, as it relies on several assumptions about the future, many of which are not verifiable (Dechow, Myers, & Shakespeare, 2010), with the risk of compromising the reliability of financial reporting (Watts, 2003). To date, this debate has primarily focused on the private sector. However, in the public sector context, the argument becomes a sensitive issue, heightening the tension between relevance and reliability that asset and liability measurement bases represent (Laux & Leuz, 2009).

The objective of this book is to present a constructive and thoughtful analysis of possible valuation methodologies for the public sector context. In line with the aim of this Book Series on Public Service Accounting and Accountability, the book chapters attempt to develop discussions and consolidate connections between policy-makers, practitioners and academics. The book adds to existing literature because it deals with a current topic about an ongoing international debate. This book, therefore, could be of interest to academics, researchers, policy-makers, public managers, international organisations and standard setters, who are involved in, or are responsible for, the preparation of public sector financial reporting and related standards.

2. The Scope of the Book

The chapters in this book touch upon different features, investigating measurement issues from different perspectives, while referring to all the elements in financial statements. Besides assets and liabilities, the book chapters also deal with revenue, expenditure and equity/net assets.

The book starts by tackling a fundamental aspect of measurement in practice, namely, the setting up of an asset information framework. The identification of the assets that need to be captured and reported in the accounting system is a challenge which precedes that of actual measurement and valuation. Most public sector entities become entangled in this initial hurdle, holding them back from proceeding with the implementation of an accrual accounting system.

The second topic is a long-standing argument (both in academic circles and among practitioners) concerning the applicability of the balance sheet approach for public sector entities. Given that the IPSASB Conceptual Framework fundamentally takes this approach, then the reporting entity has to choose between the historical cost model and current value models that are being proposed by the public sector accounting standard setters.

The principle of prudence has been a controversial subject even in private sector accounting. The IASB had initially considered prudence as an important qualitative characteristic of financial information. The concept was removed from the private sector conceptual framework some years ago, only to be recently re-introduced in the practitioners' discourse. It seems natural to assume that government accounting applies a substantial degree of prudence. The question is how the principle of prudence is applied in by governments in practice.

Current operational value is a new term for a measurement basis introduced by the IPSASB's consultations on measurement (namely, Exposure Draft (ED) 76 and ED 77). Therefore, it is opportune that one of the chapters delves into this measurement basis, and analyses the implications of the proposed definition(s) and underlying measurement techniques.

Three chapters focus on specifically measuring the elements of financial statements. Starting with income and expenditure – the measurement methods applied in the IPSASB's framework are compared with those in the European statistical framework, that is, the ESA 2010. The measurement of liabilities is then explored, particularly how this is effected on consolidation and the results reported in consolidated financial statements at local government level. Another element examined is equity/net assets; analysing how it is valued and investigating its significance – what does this quantity purport to mean? What is its purpose?

Of course, a book on measurement in Public Sector Financial Reporting cannot fail to mention the burgeoning issue of heritage. Heritage is unique in the public sector context. Private sector entities are not concerned with such social and cultural assets that can prove to be very expensive to maintain indeed, and are so totally not profitable. Various arguments have arisen on the pros and cons of representing heritage on the balance sheet; even more fundamental is the argument of whether heritage items should be called assets at all.

Three chapters in the book touch upon this delicate and debated issue of heritage. The first chapter on this topic takes us to New Zealand, which is considered a leader in accrual financial reporting. Steps have been taken to identify heritage as assets, measure them and include them on the balance sheet of the reporting entity. The chapter provides valuable insights from this practice. The next chapter transports us to Italy, illustrating the creative capabilities of practitioners to arrive at a valuation of a heritage item at all costs; focusing more on economic aspects of value rather than general accepted accounting principles; considering the end more important than the means. Finally, a study is presented that considers the extent that accounting for heritage in the public sector and in private non-for-profit sector could overlap.

This introductory chapter is organised as follows. First, the theoretical frameworks and the methodological approaches used throughout the chapters are explored. The following section synthesises the contributions of the chapters and the implications for public sector accounting. The concluding section refers to the overall aim of the book and highlights the topics which could be the subject for further research,

3. Theoretical Frameworks and Methodological Approaches

Measurement has a primarily practical application. This is evident in the chapters, since the majority refers to frameworks used in public sector reporting practices, for example, the IPSASB Conceptual Framework and the ESA 2010. The chapters illustrate how mimicking or uncritically adopting theoretical frameworks frequently utilised in the private sector is not always advisable ([Ellwood & Newbury, 2006](#); [Steccolini, 2019](#)).

Chapter 2 (Mohamed Salah and Marco Bisogno) roots on the conceptual primacy that assets have in the public sector context (Mautz, 1988; Pallot, 1992), taking into account the need to consider both the ‘public’ and ‘management’ components of public management of assets. Accordingly, the chapter starts by pointing out a conceptual distinction between ‘which assets should be measured’ and ‘how assets could be measured’, avoiding the so-called ‘measurement without theory’ trap (Koopmans, 1947). This means that the asset information system is considered a prerequisite of the valuation process. Accordingly, Salah and Bisogno investigate the process of implementing an asset information framework for the valuation and management of fixed assets. The aim is to clarify the relationship between asset inventory and asset register by examining the objectives and characteristics of asset information systems. From a methodological perspective, the chapter uses an inductive approach, developing an in-depth analysis of four case studies (Malaysia, South Africa, Switzerland and the Australia-State of Victoria). For each case, the main features of an asset information system are depicted, focusing on asset inventory and asset register stages. The selection of these countries was based on their different maturity levels, as classified by the International Public Sector Financial Accountability Index.

Chapter 3 (Yuri Biondi and Lasse Oulasvirta) compares and contrasts two accounting models, namely, the current value and the historic cost model. The current value model is described as a static model because it focuses on the stock method of accounting as reflected on the balance sheet. The historical cost model is described as dynamic because it looks at the flows involved in the revenue-expense approach (Biondi, 2012). The authors’ preference for the latter model is based on the premise that it has been used as the basic reference model for many years in the public sector, and there were no changes that justify the rationale to replace it (Biondi et al., 2012). This old-fashioned tradition has tackled the specific needs of public sector entities relating to information and accountability. Putting the key needs of the more important stakeholders and users of public sector accounting at the core, the authors develop ‘a consistently designed conceptual framework for the accounting of public sector entities’, and then apply it on practical examples of typical public sector asset categories.

Chapter 4 (Berit Adam, Jens Heiling, and Tim Meglitsch) use documentary research to analyse documents that attempt to define prudence, including the IASB Conceptual Framework, the IPSASB Conceptual Framework, the EPSAS Conceptual Framework and the German Accounting Framework. The authors contrast cautious versus asymmetric prudence and offer an analysis of how these concepts are incorporated in the IPSAS. While cautious prudence is at the moment not included as a qualitative characteristic in its own right in the Conceptual Framework as it is considered insufficiently distinct from faithful representation, in the IPSAS, several requirements are identified that lead to asymmetric prudence with regard to the measurement of assets. On the basis of this contradiction, the authors recommend that the role and the importance of asymmetric prudence should be revisited on a conceptual level by specifying the situations in which asymmetric prudence leads to better faithful representation.

Chapter 5 (Kamira Sánchez and Fabrizio Mocavini) focuses on current operational value, a new measurement basis recently introduced by the IPSASB. In particular, the term appears in ED 76, *Conceptual Framework Update: Chapter 7, Measurement of Assets and Liabilities in Financial Statements*, and ED 77, *Measurement*. This new measurement basis has been developed to address some difficulties emerging in the application of fair value to the public sector: for example, assets are not given the highest and best use, or there is no observable market. The authors rely on their own participation on the IPSASB meetings and a desk analysis of the comment letters submitted in response to the public consultation of ED 76 and ED 77. The authors provide a picture of the main issues raised by the introduction of current operational value as a new measurement basis. In particular, the two definitions of the current operation value are assessed against the qualitative characteristics of the IPSASB Conceptual Framework. Comment letters overall analysed were 99, of which 44 were sent in response to ED 76 and 45 to ED 77. Particular attention was paid to those specific matters for comment related to the inclusion, definition and measurement techniques of the current operational value.

Chapter 6 (Giovanna Dabbicco and Josette Caruana) refers to the economic principles applied in National Accounts and the accounting practice underlying Public Accounts and IPSAS. More specifically, the objective of Chapter 6 is to compare and contrast these two financial reporting frameworks used by governments, focusing on the assessment of financial performance through the reports issued by the two frameworks. The objective was achieved through a qualitative methodology, namely, documentary research using academic literature and publications by practitioners on the subject. Different categories of elements in public sector financial statements relating to performance measurement were examined, comparing and contrasting the related measurement bases in each framework. The chapter focuses on selected items of income and expenditure that can be directly measured, for example, taxation and social transfers. It is observed that even though both frameworks tend to give importance to the balance sheet, differences between economic principles and accounting practice are reflected in the measurement and valuation of certain line items that have a ripple effect on the financial performance as reported. While both frameworks apply an accrual methodology, application in practice differs. The literature is rich with examples of such differences (see, e.g., [Dabbicco & D'Amore, 2016](#); [Lequiller, 2015](#); [IPSASB, 2014](#)). All these differences would result in different measurements of financial performance for a government, as represented in the bottom-line surplus/deficit figures reported by the two systems.

Chapter 7 (Cristian Carini and Claudio Teodori) focuses on the Italian context, although the international one is also considered by examining and comparing IPSAS and the Italian accounting standards on consolidated financial statements. The different approaches to consolidation, namely control and financial accountability, are critically discussed, taking into consideration the international scenario. Therefore – although the chapter focuses on the Italian context – international standards (i.e. IPSAS 35 and IFRS 10) are taken into account to depict the state of the art. The chapter deals with liabilities, discussing the role of