



Public accounting reforms in the Western Balkans and European Neighbourhood

SIGMA Paper No.65

Guidance for SIGMA Partners

“Perfection is the enemy of the good” – *Voltaire*

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List of abbreviations

CdC	<i>Cour des Comptes</i> (France)
CIPFA	Chartered Institute for Public Finance and Accountancy
CNOCP	<i>Conseil de normalisation des comptes publics</i> (France) Public Sector Accounting Standards Council
DGFIP	<i>Direction générale des finances publiques</i> (France)
EC	European Commission
EDP	excessive debt procedure
EPSAS	European Public Sector Accounting Standards
ERP	enterprise resource planning
ESA	European System of Accounts
EU	European Union
Eurostat	statistical office of the European Union
GAAS	Generally Accepted Accounting Principles (USA)
GDP	gross domestic product
GFS	government financial statistics
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
IFAC	International Federation of Accountants
IFMIS	integrated financial management information system
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IPSAS	International Public Sector Accounting Standards
IPSASB	International Public Sector Accounting Standards Board
IT	information technology
FMC	financial management and control
MGDD	Manual on Government Deficit and Debt
MoF	Ministry of Finance
NPM	new public management
PARSP	Public Administration Reform Support Programme (Morocco)
PFM	public financial management
PFMRP	Public Financial Management Reform Programme
PIC	Public Interest Committee
PSC	Public Sector Committee
PSND	public sector net debt
PULSAR	Public Sector Accounting and Reporting Programme (World Bank)
SAI	Supreme Audit Institution
SAO	State Audit Office (Georgia)
TFEU	Treaty on the Functioning of the European Union
TGR	<i>Trésorerie Générale du Royaume</i> (Morocco)
WEF	World Economic Forum
WGA	whole of government accounts
WB	World Bank

Executive Summary

SIGMA's mandate is to support European Union (EU) candidate countries and potential candidates and EU Neighbourhood countries with implementation of public administration reforms, including public financial management (PFM). SIGMA partners include the Western Balkans, Türkiye and the European Neighbourhood East and South. They face a number of competing priorities for public sector reform and constraints in human and financial resources and information technology (IT) capacity.

Many SIGMA partners have included accounting reforms on their agenda for PFM reforms. In most cases, the reforms are designed to implement an accrual-based accounting system that meets the requirements of International Public Sector Accounting Standards (IPSAS). The partner administrations are attracted by the broad promises of accrual accounting, including increased transparency, better decision making and higher accountability. Their interest is also encouraged by international organisations, the need for legitimacy in adhering to an international standard and promises of donor support.

These reforms potentially require significant capacity and resources. They not only involve the ministry of finance, but must be rolled out to all central government entities and, in some cases, lower levels of government. In this report, SIGMA argues that its partners have a choice. While an increasing number of EU Member States have established accrual accounting systems, some have deliberately not adopted accrual standards for central government and the European Public Sector Accounting Standards have not been made mandatory by the European Commission.

This report draws lessons from accrual accounting reforms using a review of the (academic) literature on the topic and the practical experience of EU Member States. Based on its findings, this report recommends that decision makers should carefully consider any reforms towards a full accrual accounting system. The conclusions of this report do not, on balance, advocate that moving to full accrual accounting become a short- or medium-term priority for its partners.

This recommendation is based on a detailed analysis of the costs and benefits of the reform towards full accrual accounting. While by comparison with pure cash accounting, the superiority of full accrual accounting and the corresponding IPSAS standards can be easily defended, it has much less ground for recommendation by comparison with modified versions of cash accounting. This report shows that modified forms of cash accounting are able to recognise and report on the most useful accrual information, such as commitments, payables and receivables. They can also include balance sheets to present the government's financial assets and liabilities. Modified cash accounting forms support budget execution reports and fiscal indicators, such as budget deficit and net borrowing, that are easier for parliamentarians to understand. Finally, asset management can be controlled through adequate internal control measures, whereas instruments such as fiscal councils, fiscal forecasting, sustainability analysis, costing of sector strategies, medium-term expenditure frameworks, debt management tools and multi-year commitments in budget planning systems should provide sufficient checks and balances to avoid problematic long-term liabilities.

Financial statements based on IPSAS provide more extensive and standardised information and do, in this respect, justify claims of increased transparency and accountability. However, the higher complexity of accrual-based financial statements and the recognition that most users without a specialised background in accounting do not understand them detracts from such claims.

Implementing a full accrual accounting system is not without costs. It carries a greater administrative burden in the reporting and certification of balance sheets of assets (financial and non-financial) and liabilities (short- and long-term). In addition, they may require government-wide modifications to financial information systems. Although it is not possible to offer a general figure on the costs of the reforms, since this depends on various contextual conditions, the consensus is that for most transition countries, these costs are not trivial.

The costs of reforms towards full accrual could be justified if the information is used for better decision making. However, this report finds insufficient evidence to support this claim. Either the more complex accrual information is barely used or, in cases where accrual information can make a difference in decision making, it can also be provided by modified versions of cash or accrual systems. Another option is to apply full accruals only to a selected group of government entities for which the additional information is clearly beneficial.

The report bases this conclusion on detailed reviews of the use of full accrual information by four main stakeholders: legislative bodies (parliaments), executive public managers, citizens and international entities responsible for fiscal surveillance:

- As for the use of accrual information by parliaments, the study shows that parliaments hardly make use of the information offered by complete government balance sheets, either for budget planning or for accountability purposes. Parliaments prefer cash-based financial reports that are linked to traditional performance indicators such as budget deficit and net borrowing. On the one hand, this is due to the greater complexity of accrual information, including the underlying assumptions for determining the value of assets and liabilities. On the other hand, this is a result of the differing characteristics of the public and private sector. While balance sheets and the recognition of asset use (depreciation) and future liabilities is crucial in the private sector, in order to understand profitability and a corporation's financial position, this information is less relevant to the debate on governments' primary task: to deliver public services in a fiscally sustainable manner.
- The use of the accrual information by public managers to cost their activities and for seeking efficiencies is also open to question. A government-wide transformation towards accrual accounting is too broad a measure for this purpose. Also, general accounting systems need to be complemented with more specific cost accounting software tailored to the entity, before yielding the benefits of costing information. A more focused implementation of full accrual accounting to selected government entities is another option. This would recognise that most government entities are engaged in policy development, and that only a small number, such as agencies, are engaged in public service delivery where costing is pre-eminent.
- With regard to accruals use by citizens, there is consensus that the information from IPSAS-based financial statements is more complex to understand for those who do not have a specialist accounting background. Academic research shows little evidence that citizens appreciate the information. Based on a comparison between countries that adopted accrual accounting early on and countries that operate on a modified cash accounting basis, this study finds a positive relation between accrual accounting and citizens' trust in government not plausible.
- For the purpose of fiscal surveillance, there is no strict link between the quality of fiscal statistics and the type of accounting system. EU Member States working on a modified cash accounting basis are able to provide accrual-based fiscal statistics that comply with the Government Financial Statistics (GFS) of the International Monetary Fund (IMF) or Eurostat's European System of Accounts (ESA) requirements.

This study also analysed the design of accounting reforms by four SIGMA partners, Georgia, Montenegro, Morocco and Serbia. The reforms in these countries appear to be driven by a desire to

adhere to an international standard, rather than by a desire to improve specific shortcomings in the existing accounting and reporting systems or to improve financial decision making by managers and/or parliament. Parliaments, who are supposed to be the main user of the financial statements, are hardly involved in the reform. The adoption of IPSAS is treated as an isolated, technical reform implemented by the treasury and the accounting cadre.

The desire of SIGMA partners to adhere to an international standard is totally legitimate, as it increases the credibility of the governance of the country. However, given that the EU has not reached consensus on the need to adopt full accrual accounting and the associated standards, SIGMA partners should carefully consider the costs and the benefits of the reform before they engage in such a fundamental reform. The case studies show that such cost-benefit analyses are generally not conducted. In the case of Serbia, which did conduct a form of cost-benefit analysis, the country toned down its ambitions and decided to aspire to adopt the Cash Basis IPSAS standard, adding accrual information only gradually, on a needs basis. In light of the findings of this report, this decision appears to have been appropriate.

The findings of this report do not support the prioritisation of transformation to full accrual accounting standards in the short and medium term. If there is such an ambition, it would be advisable to base any reform decisions on a cost-benefit analysis that includes alternative mechanisms to improve the information base for PFM decisions. For international development partners and international accounting bodies, the report makes a plea to promote the development of (an) international standard(s) and/or guidance for accounting systems that operate in between the two extremes of the basic cash and the full accrual spectrum. Neither of these two current standards appear to be adequate for the public sector, at least not in the context of governments in transition.

Introduction

Background

SIGMA's mandate is to support EU candidate countries and potential candidates and EU Neighbourhood countries with implementation of public administration reforms including PFM. SIGMA partners include the Western Balkans and the European Neighbourhood East and South. Most receive financial support from the EU, which requires them to formulate a reform programme to improve the management of public finances¹.

Many SIGMA partners have included accounting reforms on the agenda for PFM reforms. In most cases, the reforms aim to implement an accrual-based accounting system that meets the requirements of IPSAS. This reform is in line with a global trend that started in the 1990s with the introduction of the principles of New Public Management (NPM). Several Anglo-Saxon countries were front-runners and implemented accrual accounting as a basis for their public accounting systems². International institutions including the IMF, the World Bank (WB) and international accounting bodies, such as the International Federation of Accountants (IFAC) and the Chartered Institute for Public Finance and Accountancy (CIPFA) propagated the reforms³. The World Bank has set up a specific programme to promote (accrual) accounting reforms covering the Western Balkans and European Neighbourhood⁴.

Such reforms potentially require considerable capacity and resources. The reform of the accounting system involves not only the ministry of finance, but must be rolled out to all central government entities. In some cases, it may also involve lower levels of government.

An increasing number of EU Member States are considering accrual accounting reforms, and the European Commission (EC) has been inspired by IPSAS as a reference for harmonised European Public Sector Accounting Standards (EPSAS). At the same time, the implementation of EPSAS was not made mandatory by the EC and certain Member States with a reputation for prudent financial

¹ A PFM reform programme is a requirement under the "fundamentals cluster" of the enlargement methodology, and its existence and implementation is stipulated as an eligibility criterion for the aid modality "budget support".

² Australia, Canada, New Zealand, United Kingdom and the United States.

³ IMF (2001), *Manual on Fiscal Transparency*, IMF, Washington, DC. The IFAC has set up the International Public Sector Accounting Standards (IPSAS) Board, whose mission is strengthening public financial management (PFM) globally, through increasing adoption of accrual-based IPSAS.

⁴ The Public Sector Accounting and Reporting Programme (PULSAR) of the World Bank, funded by the governments of Switzerland and Austria, is dedicated to supporting the development of public sector accounting and financial reporting frameworks in line with international standards and good practice in the Western Balkans and the European Neighbourhood (www.pulsar.org). In 2022, it published *Benefits of Accrual Accounting in the Public Sector* (PULSAR, 2022_[37]) See also Annex 5.

management (including the Netherlands and Germany) have deliberately not adopted accrual standards for central government⁵.

About this study

Purpose and objective

In view of the existing international variety in the appreciation of reforms in accounting systems, the purpose of this report is to provide decision makers in SIGMA partner administrations with guidance on the choice of accounting system. Before engaging in comprehensive accounting reforms, decision makers should be aware of the costs and benefits of the reforms. SIGMA is well-positioned to review the experience of EU Member States and its own partners to draw lessons for wider use.

The objective of this study is, therefore, to provide SIGMA partners with lessons learned on the costs and benefits of accrual accounting reforms, based on the practical experience of EU Member States.

Research questions

The study answers the following questions:

1. What costs and benefits can SIGMA partners expect by moving from cash accounting or a modified form to accrual-based accounting standards?
2. What are the dominant features of accounting reform design among SIGMA partners?
3. What are the recommended steps for those SIGMA partners that have ambitions to improve their accounting and reporting frameworks?

Methodology

The scope of the analysis in the study is confined to the central government and does not cover public enterprises and local government. Furthermore, the study focuses on the implication of reforms in the domain of accounting and financial reporting and will not focus on linked reforms in the area of budget planning.

To answer the first research question, data on the costs and benefits were collected in various ways. First, existing studies from international organisations, academics and professional accountants were reviewed. Second, five case studies of EU Member States were conducted. Two of them (Germany and the Netherlands) apply a modified cash accounting framework; three others (Bulgaria, Estonia and France) have reformed towards accrual accounting in the period since 2003. These five countries provide a cross section of the practice in the EU. In addition, in some instances, evidence of the United Kingdom (UK) and other Anglo-Saxon countries, making use of their status as early adopters, is presented.

⁵ EU Directive 2011/85/EU, Article 31, stipulates that “As concerns national systems of public accounting, Member States shall have in place public accounting systems comprehensively and consistently covering all sub-sectors of general government and containing the information needed to generate accrual data with a view to preparing data based on the ESA 95 standard.” Given that ESA 95 and ESA 2010 applies accrual accounting principles, this Directive is sometimes misinterpreted as saying that the EU Member States and accession countries need to adopt a full accrual-based accounting system. The Directive only holds indeed that Member States need to submit fiscal statistics in line with the ESA standards. However, the ability to do this is not conditional on the accounting system (see also section 2.1).

The second research question is answered by reviewing accounting reforms of four SIGMA partners: Montenegro and Serbia in the Western Balkans and Georgia and Morocco in the European Neighbourhood.

The case studies are included in Annex 6. It is acknowledged that the method of the case studies does not allow for causal relations or correlations. Instead, the methodology aims to derive general claims based on the in-depth study of the design and impact of accounting reforms within its actual, real-world context. (Yin, 2014^[1]).

The third research question is answered by bringing together the conclusions on the first and second questions. Recommendations were validated by a workshop involving internal and external experts and peer reviews by technical experts⁶.

Report structure

Chapter 1 will clarify the distinction between the different accounting systems and illustrate the international trend towards accrual-based accounting systems.

Chapter 2 reflects on the cost and benefits of moving to an accrual-based accounting system. It presents evidence of academic research, applied studies done by professional bodies and the case studies conducted by SIGMA.

Chapter 3 presents summaries of the reform experience in the four SIGMA partners included in the study.

Finally, Chapter 4 brings the results together and provides recommendations for SIGMA partners that are currently considering accounting reforms.

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⁶ Peer reviews were conducted by Prof. Dr. Désirée Christofzik (German, Speyer University), Marc Raffinot (French, Emeritus Professor, Dauphine University), Bernhard Schatz (Austrian, Member of the International Public Sector Accounting Standards Board) and Khalid Hamid (United Kingdom, International Director, CIPFA).

Last but not least, the team would like to express its sincere gratitude to the administrations of the case study countries. The information that they shared is the basis of this report.

1. Public accounting and reporting: Core concepts and trends

1.1. General purpose of accounting and reporting and key models

In the public financial management cycle, accounting is the process of recording financial transactions following the approval of the budget and preceding their audit. Financial reporting is the act of consolidating these records into information that is relevant to the decision-making and accountability needs of interested parties.

With the overall purpose to inform decision making and support accountability, a government accounting system is required to serve two distinct objectives. First, the system must compile a formal/legal financial report of the government's position in the form and content prescribed by statute and amenable to external audit. Second, the accounting records of primary financial transactions must form a comprehensive database capable of providing accurate and appropriate management reports required by (financial) managers in the government departments, including central departments in the ministry of finance (MoF), to monitor and control the government's fiscal situation.

The "basis of accounting" refers to the body of accounting principles that determines which events should be recognised for financial reporting purposes and when. The variety in different accounting bases is limited and revolves around two main systems at two ends of a spectrum: cash accounting and accrual accounting. Adjustments to the principles of the two systems have resulted in two additional categories: modified cash and modified accrual accounting.

Cash accounting

If a government's accounting system captures revenues only at the moment of cash receipts and expenses only at the moment of cash payments, it uses the cash basis of accounting. Strict application of the cash principle provides an overview by the end of the fiscal year of the net change in the government's cash position in that fiscal year. Government reporting focuses on the overview of receipts and payments in comparison to the approved budget appropriations in documents that are often called "budget execution reports".

Modified cash accounting

Applying a purely cash basis of accounting limits the information that can be retrieved from the accounting books. The expenditure process comprises five stages, namely: (i) appropriation; (ii) obligation incurred/commitment; (iii) verification of supply of goods/services; (iv) obligation due for liquidation (invoice received); and (v) obligation liquidated (i.e. cash payment).

A pure cash-based system only recognises the final stage (v), with controls placed on ensuring that cash payments do not exceed the levels indicated in the first stage (appropriation). One path of upgrading pure cash accounting aims to capture all stages of the expenditure process. This modification

recognizes that problems of overspending and payment arrears arises when controls are placed solely on cash spending and that there can be no fiscal discipline without controlling commitments made (stage ii).

Similarly, the government may also have outstanding tax returns. A pure cash-based system does not recognise them, but governments with outstanding claims may find it useful to record and to disclose them to have more complete information on their fiscal position.

Thus, typical amendments introduced to pure cash reporting in a *modified cash accounting system* include the provision of information on commitments, payment and tax arrears, giving a better indication of the budgetary leeway available to government.

1.1.1. Accrual accounting

On the other side of the continuum of accounting systems is the accrual basis of accounting. This approach considers that tracking the different stages of spending is not enough. For a comprehensive approach to budget management, there is also a need to show the effects of economic events on the *government's financial position*. As in the private sector, governments monitor their financial position by comparing total assets to total liabilities in the government's balance sheet.

Therefore, the accrual accounting system focuses on economic events that change the government's stock of assets and liabilities in the balance sheet. Revenues are recognised as increases in assets or decreases in liabilities. Expenses are defined as the consumption of financial and material assets and incurrance of liabilities. In cases where the cash flow is equal to the change in the asset and liability position, there is no difference between the cash and accrual accounting system. However, in many cases, the economic event is disassociated from the cash transfer and the cash and accrual accounting system will record and report different amounts.

A clear example is investment in physical road infrastructure through a contractor. The cash transaction is made when the invoice of the contractor is paid at the end of the construction process. The economic event, the use of the road by the country's citizens, extends over a number of years. While the cash accounting system would record the cash payment as a one-off expenditure in the year of purchase, the accrual accounting system would record the annual depreciation as a charge or expense to each fiscal year across the lifespan of the road. The value of the road (minus the sum of previous depreciations) will be recorded as an asset on the balance sheet.

A second example relates to public sector pensions. Under a cash system, recorded pension expenses are measured by the payments made to beneficiaries during the relevant accounting period (usually a year). However, under an accrual system, recorded pension expenses are measured by the change in estimated pension liabilities. Thus, all other things being equal, if the government changes a pension policy, which will result in higher pension payments in the future, the estimated discounted sum of those additional payments is recorded as a pension expense in the period when the policy was revised and the liability incurred.

More examples of the different treatment of economic events in the accounting books between cash and accrual are shown in Annex 1. These examples show that accrual accounting records more events and provide a more complete and accurate reflection of a government's financial position.

Modified accrual

The application of accrual accounting varies. Mostly, these variations link with the range of assets and liabilities that are recognised and included in the balance sheet as part of the measurement focus. The measurement focus for assets could be as narrow as cash in the treasury, or so broad as to include public airwave spectrum for auction to the telecommunication industry. The measurement focus for liabilities could be as narrow as wages in arrears or so broad as to include government insurance coverage and guarantees issued to public enterprises. Full accrual accounting systems include all

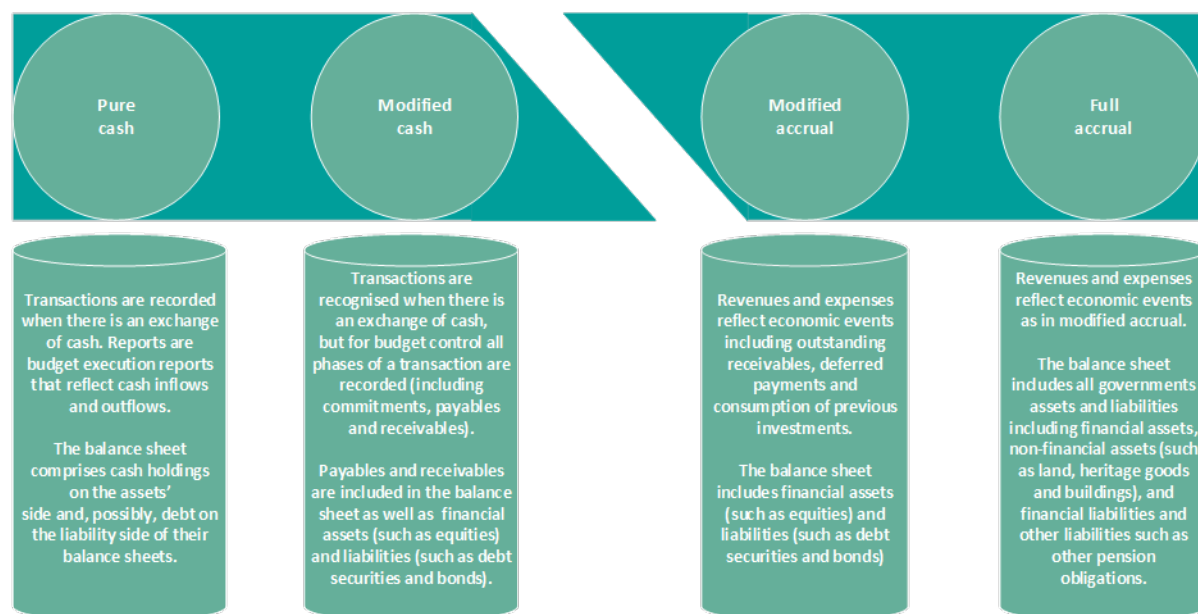
assets and liabilities, whether financial, non-financial (tangible or intangible), current (short) or long term. Modified accrual accounting systems limit the range of assets and liabilities in the balance sheet and typically exclude non-financial assets such as infrastructure and heritage goods.

Recap of accounting systems

While the terminology suggests a dichotomy between cash and accrual systems, in practice the differences are gradual, with increasing use of accrual concepts moving further on the spectrum towards full accrual. The dividing line between pure cash and modified cash hinges on the recognition of commitments, payables and receivables. Similarly, the dividing line between modified accrual and full accrual is clear and relates primarily to the treatment of non-financial assets in the balance sheet. While full accrual captures all assets, modified forms are selective. The dividing line between modified cash and modified accrual is more principled and lingers on the question of whether economic events that are not linked to a cash transaction, such as the consumption of assets (depreciation), should be recognised as an expense.

Figure 1 depicts the various accounting systems in a continuum, with pure cash and full accrual as the poles. Annex 2 provides further details.

Figure 1. Main variations in accounting systems in the public sector



Traditionally, the (modified) cash accounting system has been prevalent in the public sector, whereas the private sector applies the (full) accrual system. This division reflects the differences between the public and private sector and the main concerns of the principal users of the financial information. Profitability is a key indicator in the private sector, and for a proper calculation, it is entirely legitimate to apply only the depreciation of assets and not to write off the full cash amount of an investment. Profitability is not an objective of governments, and public accountability focuses on the sustainability of public finances in the medium term in relation to the expectations on service delivery. Traditional indicators for judging fiscal management of governments, such as the budget deficit and the relative debt stock are closely linked to this aim. The emphasis on budget allocation decisions in the public sector is a further reflection of how the public sector differs from the private sector that focuses on the financial results reflected in the financial statements.

Based on the principal distinction between the public and private sector, some authors propose that the principles underlying full accrual are not suitable for the public sector, and that applying them in the public sector involves significant risks for limited benefit.

“...the support for adoption of accrual accounting in the public sector is by no means universal. Opponents express a number of concerns. Some commentators wonder whether private sector-based accrual accounting, in which the main focus is financial performance, is appropriate for the public sector, whose main focus is democratic accountability. Others question whether the sophisticated judgments regarding valuation that accrual accounting demands actually broaden the scope for political manipulation. Finally, some express doubt that the cost of moving to the more technically demanding accrual system is justified by the benefits it brings over traditional cash accounting.” (Boothe, 2007^[2])

Standard setters for the accrual-based IPSAS indeed seek alignment with the private International Financial Reporting Standards (IFRS) standards. However, they have also made efforts to adjust IPSAS to meet the specific circumstances of the public sector (see section 1.3).

Notwithstanding the reservations relating to the specificity of the public sector, full accrual accounting has increasingly been considered a superior method for government accounting. Inspired by the efficiency and effectiveness of the private sector, adherents of the New Public Management (NPM) school propagated the introduction of business-like concepts to the management of the public sector (Chan and Zhang, 2013^[3]). Like performance management and the split between policy making and policy implementation, accrual accounting was considered to be a crucial element in the toolbox of an efficiently run public sector. Front runners in NPM, such as New Zealand, Australia, United Kingdom, Canada and the United States, embraced the recommendations in the 1990s. In Europe, the concept is now being applied by many governments to various degrees (see section 1.4). Given the increasing number adopting accrual accounting, international comparability has become an additional argument for its adoption. Furthermore, international donors have given ample support to projects in transition and developing countries aiming to introduce accounting reforms towards full accrual accounting⁷.

The spread of accrual accounting systems in the last two decades makes it possible to conduct an *ex post* analysis of the relative costs and benefits of reforming towards an accrual accounting system. Such an analysis can be used to the benefit of governments that are now in the process of deciding on a desired accounting system.

1.2. Users of accounting information

Collecting accounting information and financial reporting are not ends in themselves. Their objectives are determined by reference to their users' need for information.

“Dependent on the identity of the primary users of financial reports and their information needs, different components of the overriding objective of the financial reporting may be relevant for reporting entities. The relative importance of these components can influence the basis of accounting and the reporting model considered appropriate for particular types of public sector entities, and therefore, the financial information which they disclose” (Chan and Zhang, 2013^[3]).

In order to judge the benefits of different accounting systems, it is therefore important to distinguish among different users of the reported accounting information. Following IPSAS, this study distinguishes four main users of accounting information (International Public Sector Accounting Standards Board [IPSASB] 2014):

⁷ An additional argument for accrual made by proponents is the greater transparency and better protection against manipulation of financial figures e.g. (Ball, 2012^[15]). Section 2.1.4 analyses this argument in more detail.

i. Legislative bodies for budget authorisation and accountability

National legislative bodies (hereinafter-called parliaments) use accounting information to carry out their constitutional role. Parliaments are sovereign in determining their role and the financial reporting standards that facilitate this role. However, in the vast majority of nations, parliaments usually authorise government expenditure and are supported by a system of audited annual reports and accounts to hold the executive accountable. Accounting and reporting reforms should thus facilitate the parliaments' role in this budget and accountability cycle. Auditors of the annual reports are typically Supreme Audit Institutions (SAI). SAIs are considered stakeholders, but not users.

ii. Public sector managers for financial management and control

A second category of users of accounting records is those involved in the management of public entities (including elected officials and administrative staff). The financial information should support them to make adequate decisions and to run public sector entities efficiently and effectively.

iii. Citizens and the wider public for transparency on financial management to citizens

Interested citizens should have access to information on the use of public resources by their governments. The amount and detail of disclosures of financial operations are indicative of a government's transparency towards the wider public.

iv. Supra-national bodies for fiscal supervision

In order to avoid imbalances in the international financial system, relevant supranational bodies such as the IMF and the EC monitor the fiscal performance of countries under their mandate. Accounting systems present the source data for the fiscal statistics.

Conflicts can arise between the different needs of users. A legislature's need for summary information, for example, is difficult to balance with managers' need for detailed transactional data. The conceptual frameworks for IFRS and IPSAS both state that the needs of primary users should always take precedence. The IPSAS framework identifies as primary users the service recipients and resource providers (citizens and taxpayers) and their representatives (the legislature)⁸.

1.3. Accounting standards

To ensure the quality and consistency of governments' inputs and outputs, accounting is regulated by rules enshrined in accounting standards and accounting policies⁹. The standards have either national or international origins.

National standards

Historically, the standards to guide the accounting and reporting process were drafted nationally, usually on a cash basis, by ministries of finance, subject to approval by the legislature.

In order to avoid conflicts of interest between the government and the framework that governs its accountability, governments and legislatures rely increasingly upon (more) independently developed

⁸ IPSAS (2014), *Conceptual Framework*, paragraph 2.3.

⁹ In brief, standards are "rules for government" and policies are "rules of a government".

financial reporting frameworks. In France, for example, the standard-setting function used to be performed by the General Directorate of Public Finance in the Ministry of Finance, until it was moved to the Public Sector Accounting Standards Council (CNOCP) in 2008.

International standards

International collaboration on setting accounting standards has a history going back nearly 50 years. Driven by globalisation in capital markets and the need for consistency in financial reporting by (multinational) companies, international accounting standards were first developed for the private sector.

Initially, the US-based Generally Accepted Accounting Principles (GAAP) were the main benchmark of a reliable accounting and credible financial reporting system. Currently, the IFRS, first issued in 2003 by the International Accounting Standards Board (IASB), are predominant: IFRS accounting standards are now required for the private sector in more than 140 jurisdictions worldwide, including throughout the EU¹⁰.

For the public sector, the Public Sector Committee (PSC) of the IFAC initiated a programme to develop and disseminate IPSAS. At the conclusion of the first phase of the programme in 2002, the PSC promulgated 20 IPSAS. The PSC was succeeded by the IPSAS Board (IPSASB) in 2004¹¹. Its mission is “strengthening PFM globally through increasing adoption of accrual-based IPSAS”.

The IASB and IPSASB work closely together and aim to ensure that their respective standards are as closely aligned as possible. The IPSAS accrual accounting standards are therefore largely similar to the IFRS, but some deviations aim to take into account the different needs of the users in the private and public sector¹². To date, the IPSASB has issued 37 standards (see Annex 3) and is conducting an ongoing work programme to extend, improve and disseminate them.

Although the IPSASB supports a cash-based model, it is primarily focused on promulgating its accruals-based accounting framework¹³. Accordingly, for both poles of the accounting systems, the IPSASB has published international standards for the public sector: IPSAS (accrual) and Cash Basis IPSAS. There are no international standards for modified cash or modified accrual accounting systems. Until 2000, the IFAC PSC had acknowledged that governments used four bases of accounting: cash basis, modified cash basis, modified accrual basis and accrual basis. As the PSC noted: *“There are multiple points along the spectrum between cash accounting and accrual accounting and considerable diversity in the practices of governments”* (IFAC Public Sector Committee, 2000). Nevertheless, based on

¹⁰ The IASC was formed in 1973 through an agreement made by professional accountancy bodies from Australia, Canada, France, Germany, Japan, Mexico, the Netherlands, the UK and Ireland, and the US. Additional sponsoring members were added in subsequent years, and in 1982, the sponsoring members of the IASC comprised all the professional accountancy bodies that were members of the IFAC.

¹¹ The work of the IPSASB is monitored by a Public Interest Committee (PIC). The PIC is currently comprised of individuals from the International Monetary Fund, International Organization of Supreme Audit Institutions, the OECD and the World Bank Group (see www.ipsas.org).

¹² For example, IPSAS 1 on the “Components of the Financial Statements”, adds an element to reflect the importance of budget execution reporting in the public sector. According to IPSAS, *“When the entity makes publicly available its approved budget, a complete set of financial statements should also comprise “a comparison of budget and actual amounts either as a separate additional financial statement or as a budget column in the financial statements”*. Another example is the adoption of IPSAS 42, which addresses how the liabilities for social benefits need to be recognised.

¹³ The Cash Basis IPSAS has been developed as an intermediate step to assist in the transition to the accrual basis of financial reporting and adoption of accrual IPSAS. It is not intended as an end in itself.

responses to an exposure draft, the IPSASB decided to set standards on only the pure cash basis and the full accrual basis.

Box 1. IPSASB rationale on not developing standards for modified forms of accounting

When first initiated, the IPSAS development programme encompassed the development of standards for financial reporting under the modified cash and modified accrual bases of accounting, as well as under the pure cash and full accrual bases. However, most respondents to early exposure drafts of the proposed IPSASs and an Invitation to Comment, “The Development of International Public Sector Accounting Standards – Which Bases of Accounting” (issued in 1999), argued that it was not appropriate or desirable to develop standards for the modified cash and modified accrual bases. They were of the view that while use of a modified cash or modified accrual basis for financial reporting reflected a desire to be more accountable and transparent than was possible under a “pure” cash basis, the modifications were not necessarily underpinned by any general principles, but responded to the circumstances and capacities of each jurisdiction, i.e they reflected the practical realities of what was achievable at a particular time in a particular jurisdiction. The nature of the modifications in place could thus well differ from jurisdiction to jurisdiction, and attempts to standardise modifications across all jurisdictions could act as a disincentive to ongoing developments in financial reporting. As a consequence, the standards development programme was refocused to develop IPSASs on only the cash and accrual bases¹⁴.

IPSASs issued by the IPSASB are not mandatory. Governments that decide to implement IPSAS have the choice between unaltered adoption, partial adoption (i.e. not adopting all standards) or adaptation of certain standards. In practice, the IPSAS are implemented heterogeneously, and a range of diverse reasons exists for decisions not to implement certain standards and/or to adapt standards¹⁵.

European standards

The Budgetary Frameworks Directive of 2011 called for the EC to assess the suitability of IPSAS for the Member States¹⁶. In response, in 2013, the EC issued its report “*Towards implementing harmonised public sector accounting standards in Member States: The suitability of IPSAS for the Member States*” to the Council and the European Parliament. This report concluded that IPSAS could not be simply implemented in the Member States, but that it represented a starting reference for future harmonised EPSAS (European Public Sector Accounting Standards).

In 2015, the EPSAS Working Group was established under the authority of Eurostat. It has served as a forum for Member States to provide advice and expertise in the preparation of EPSAS, but this has not yet resulted in a common perspective on accounting reforms. Although an increasing number of EU Member States adopt accrual accounting in some form, certain countries with a strong reputation for prudent fiscal management (the Netherlands, Germany) have deliberately not adopted full accrual

¹⁴ IPSASB (2010), Review of the Cash Basis IPSAS, “Financial Reporting Under the Cash Basis of Accounting”, Report of the Task Force, 29 May 2010, https://www.ipsasb.org/system/files/meetings/files/5595_0.pdf.

¹⁵ Tobias Polzer, Giuseppe Grossi and Christoph Reichard (2021), “Implementation of the international public sector accounting standards in Europe: Variations on a global theme”, published online on 11 May 2021. The authors conclude that this undermines the comparability of financial reporting as one of the central objectives of setting international standards.

¹⁶ Council Directive 2011/85/EU of 8 November 2011, on requirements for budgetary frameworks of the Member States.

standards for central government, arguing that the benefits do not outweigh the costs¹⁷. The German Supreme Audit Institution, the *Bundesrechnungshof*, has even argued strongly against EPSAS as a mandatory standard in its special report on EPSAS¹⁸ (September 2017). It warned against high implementation costs and questioned whether implementation would achieve the intended benefits.

In the absence of consensus among the Member States, the EC currently follows a 2-phase approach. Phase 1: Continuing support to implementing accruals/IPSAS in public accounting in Member States upon their request and in parallel developing EPSAS. A future phase 2 is to implement EPSAS, should the EC decide to propose a move to phase 2.

1.4. International trends in accounting standards

Global trends

Increasingly, countries that have adopted accruals accounting have opted to use the IPSAS framework as the core of their financial reporting model for the public sector. A small number have opted to use the IFRS framework (for example, the UK). Some countries have recognised a need to adapt and interpret the framework to suit national and public sector circumstances¹⁹.

The following figure summarises the global shift from cash to accrual measured by the International Public Sector Financial Accountability Index of 2021²⁰. The figure shows that 30% of the jurisdictions reported on accrual in their 2020 published financial statements, compared to 24% for 2018. This increase coincides with a drop in the number of countries (from 45% to 40%) that use partly cash in their financial reports. The share of countries that report on a cash basis was stable between 2018 and 2020 (around 30 %). The forecast indicates that the upward trend in jurisdictions reporting on accrual will continue.

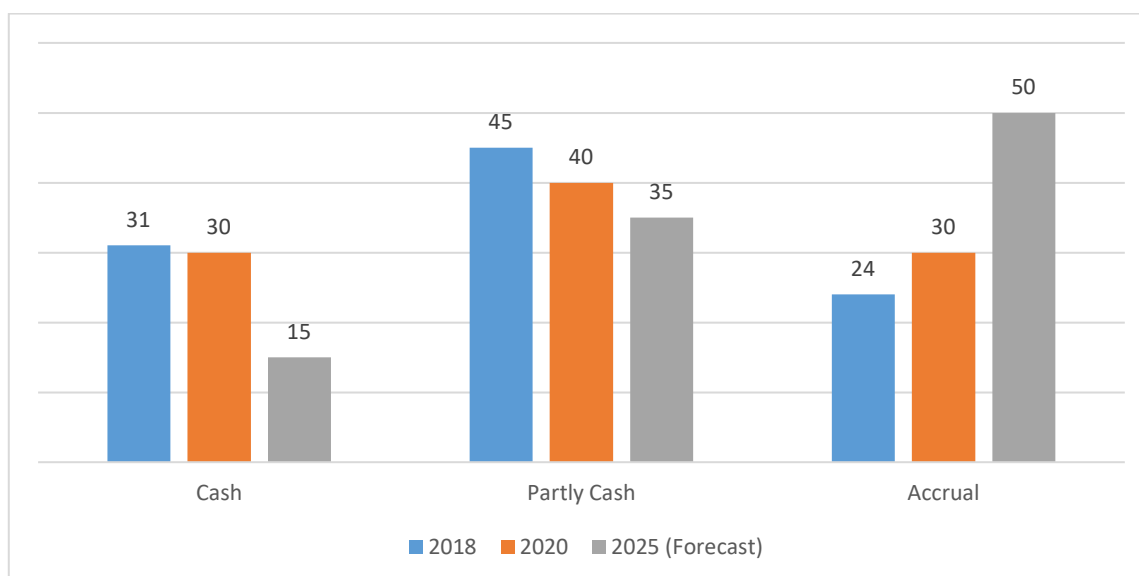
¹⁷ EC staff working document, "Reporting on the progress as regards the European Public Sector Accounting Standards (EPSAS)", Brussels, 5 June 2019.

¹⁸ <https://www.bundesrechnungshof.de/SharedDocs/Downloads/DE/Berichte/2017/epsas-harmonisierte-rechnungsfuehrungsgrundsaeetze-volltext.html>

¹⁹ The countries apply either as "IPSAS modified for the local context" or "national standards with reference to IPSAS".

²⁰ Issued by the IFAC and the CIPFA.

Figure 2. Continuing shift from cash to accrual measured by International Public Sector Financial Accountability Index (in % out of 165 jurisdictions)



Source: IFAC/CIPFA, (2021), *International Public Sector Financial Accountability Index: 2021 Status Report*
<https://www.ifac.org/publications/international-public-sector-financial-accountability-index-2021-status-report>

The International Public Sector Financial Accountability Index observes furthermore that out of the 49 jurisdictions reporting on accrual, 57% (28) made use of IPSAS, compared with 51% (19) in 2018. These jurisdictions use IPSAS in one of the three ways: 4 jurisdictions adopted IPSAS with no modifications, 8 modified IPSAS for the local context and 16 referred to IPSAS to develop their own national standards.

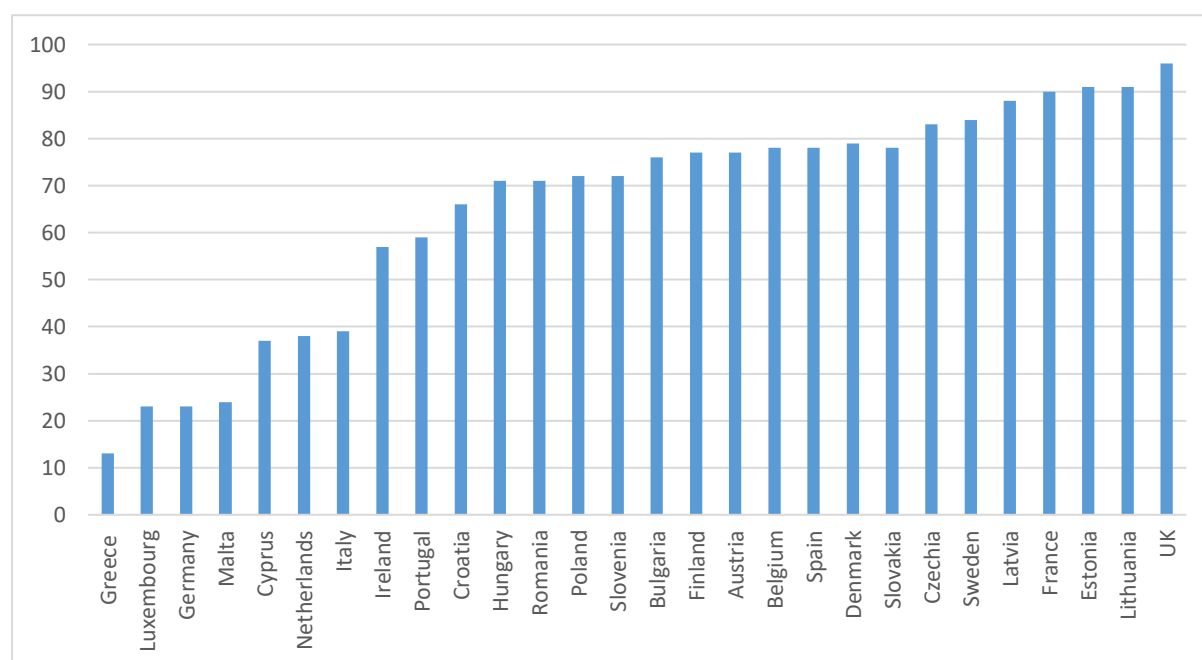
Trend in the European Union

The global trend is also reflected in the EU. Studies on the adoption of EPSAS commissioned by Eurostat show an increasing number of countries adopting accrual-based accounting systems²¹. The studies make use of the concept of accounting maturity to measure how far the accounting system captures various cash and accrual elements²². Accounting maturity increased from 51% in 2013 to 65% in 2018, showing that various governments in the EU27 + UK are on the path to reform towards full accrual accounting. The report expects “accounting maturity scores” to increase further between 2018 and 2025.

²¹ Price Waterhouse Coopers (PWC) prepared two reports on behalf of Eurostat on accounting maturities of EU governments and EPSAS implementation costs on behalf of Eurostat. A first, baseline study was published in 2014 (PWC on behalf of Eurostat, 2014_[18]) and an update in 2020 (PWC on behalf of Eurostat, 2020_[4]).

²² The term “accounting maturity” may suggest a value judgement on the part of the authors that accrual accounting is superior. A more neutral term would be “accounting coverage”, conveying the extent to which the accounting system captures different aspects of government operations.

Figure 3. Accounting maturity of Central Government for EU-27 + UK



Note: (PWC on behalf of Eurostat, 2020^[4]) also gives an overview of the average accounting maturity score per accounting area across the EU27 governments and the UK. It highlights the areas more closely aligned with IPSAS requirements. The same observations as in 2014 are reported: accounting for inventories reached the highest score, on average, while employee benefits accounting had the lowest accounting maturity, since few governments apply the IPSAS 39 principles for defined-benefit accounting schemes.

Source: PricewaterhouseCoopers (2020), *Updated accounting maturities of EU governments and EPSAS implementation cost*.

1.5. Conclusions

This chapter analyses the ongoing trend towards accrual accounting in the public sector. Since the spread of the prescriptions of New Public Management theories in the 1990s, accrual accounting and the corresponding IPSAS standards have widely come to be regarded as superior to cash accounting. Accrual accounting derives this claim of superiority from a broader measurement focus than cash-based systems, including non-financial assets and a conceptual framework that recognises the consumption of those assets, providing more accurate figures on the costs of government programmes than cash-based systems. Especially for investment-rich public services, the accrual accounting base provides a more realistic insight into their costs, because it includes depreciation on the assets used in the service delivery.

In addition, full accrual accounting requires the preparation of balance sheets that offer, as part of the consolidated financial statements, insight into the government's financial position based on a complete overview of its financial and non-financial assets and liabilities. Given that the financial statements need to be certified by an external auditor, this provides a strong incentive for better recording of assets and better monitoring of liabilities. The expectation that this will enhance decision making in the public sector is an additional benefit claimed by proponents of accrual accounting.

On the other side of the debate is the concern that implementing full accrual accounting is costly and that the benefits claimed by its proponents are exaggerated. These claims find their theoretical basis in the difference between the public and private sector. While accrual accounting and complete balance sheets are indispensable for private sector companies to provide accurate information on their profitability and financial position to shareholders, governments serve citizens, and their financial

position is not an objective in and of itself. For monitoring the performance of governments, financial indicators that inform on the government's fiscal sustainability, such as the fiscal deficit and relative debt stock, are useful. Additional non-financial information is helpful to understand government's performance on service delivery.

Furthermore, critics of full accrual accounting do not argue that cash accounting is without flaws. They agree that pure cash-based accounting is not adequate for budgetary control. However, they claim that weaknesses of cash accounting can be addressed within the paradigm of cash accounting by adding accrual information on commitments, outstanding payables, receivables and public debt. Similarly, critics of full accrual accounting in the public sector do not question the need for government to control assets and to monitor liabilities. They only question the value added of the balance sheet in this matter, as the quality of asset management depends more on financial management and control procedures than on the accounting system. Similarly, monitoring of liabilities is a continuous task of budget management, and accrual accounting will not inherently provide sufficient incentives to improve this aspect of public financial management. Even worse, critics argue that the valuation of assets and liabilities depends heavily on assumptions. Although international standards aim to give a consistent and uniform underpinning of these assumptions, in practice, professional judgement will be called for. Cash-based financial reports appear more straightforward to prepare and understand.

The debate over cash and accrual accounting methods has been ongoing since the late 1990s. In 2022, the academic community and public accounting profession had more than 20 years' experience, with the implications of applying accrual accounting in the public sector. Chapter 3 will take stock of this debate, using empirical information from EU Member States and recent academic research.

2. Analysis of costs and benefits

Internationally, a trend towards accrual-based accounting systems is evident. This chapter summarises the costs and benefits of moving from a cash-based system to an accrual-based system that adopting governments can expect. Theoretical costs and benefits from the academic and professional literature are confirmed or “challenged”, using the empirical evidence from the case studies of EU Member States and academic studies. Sections 3.1 and 3.2 are mostly informed by case studies of five EU Member States and applied research reports. Three case studies (of France, Bulgaria and Estonia) reflect governments that have embraced accrual accounting reforms to different degrees. Two case studies reflect others that have modified a cash accounting system but have not adopted accrual accounting (the Netherlands and Germany). Section 3.3 offers a review of academic literature on the topic.

2.1. Analysis of benefits

Using the four key users of accounting and reporting information, as stipulated in Section 1.2, this section considers empirical evidence on the claimed benefits of reforms towards accrual accounting:

- Benefits for fiscal surveillance
- Benefits for the role of parliament
- Benefits for public managers
- Benefits for the wider public.

Benefits for fiscal surveillance

Following the Maastricht Treaty, signed in 1992, an Excessive Debt Procedure (EDP) was agreed upon in the 2012 consolidated version of the Treaty on the Functioning of the European Union (TFEU). The TFEU obliges EU Member States to comply with budgetary discipline by respecting two criteria: a deficit-to-GDP ratio and a debt-to-GDP ratio not exceeding reference values of 3% and 60%, respectively, as defined in the Protocol on the EDP annexed to the TFEU. It requires that EU Member States report EDP-related data to Eurostat twice per year at the end of March and the end of September. The data are reported in harmonised tables, the so-called EDP Notification Tables. The reference values for government deficit and debt are based on concepts defined in the European System of Accounts (ESA). Like the IMF’s GFS (GFS 2001), ESA 2010 is based on an accrual conceptualisation of government finance. That is, transactions are recorded when the economic activity takes place, rather than when the cash is paid.

Some authors state that governments are unlikely to be able to comply with the international requirements for fiscal statistics without adopting an accrual basis in the government’s accounting system: “(...) *at the same time, it is difficult to see how the full GFS 2001 statistical reports can be derived from an accounting system which is not on an accrual basis*” (Diamond, 2002^[5]). Also, the EC seems to indicate a direct link between compliance with the ESA and the accounting framework. The EU Directive 2011/85/EU, Article 31, states that “As concerns national systems of public accounting, Member States shall have in place public accounting systems comprehensively and consistently

covering all sub-sectors of general government and containing the information needed to generate accrual data with a view to preparing data based on the ESA 95 standard”.

In practice, this linkage is not so tight. The quality of the fiscal statistics for GFS and ESA may improve with comprehensive, audited accrual-based data from financial statements, but the GFS Manual admits that since GFS is a statistical reporting system, it can differ in important respects from the underlying accounting system from which GFS statistics are derived²³. In addition, both GFS and ESA allow for cash data in the absence of accrual data. Eurostat’s perspective is that accrual accounting is preferable for analytical purposes²⁴. Nevertheless, from the case studies of Germany and the Netherlands, it can be inferred that high-quality fiscal statistical data are also compiled by the Dutch and German national statistical offices without excessive additional costs (see Box 2).

Box 2. Submission of EDP fiscal statistics to Eurostat

Eurostat conducts regular EDP dialogue missions to EU Member States to review the compliance of the EDP and Government Finance Statistics data with the accounting rules of the European System of Accounts (ESA 2010) and with the existing guidance set out in the Manual on Government Deficit and Debt – Implementation of ESA 2010 (MGDD). The published findings of the recent visits to the Netherlands and Germany indicate that their accounting bases do not pose fundamental problems for the quality of their fiscal statistics²⁵.

Benefits for the role of Parliament

Parliaments are recognised as the key user of government financial reports by IPSAS. One would thus expect that the adoption of accrual accounting would have clear benefits for the role of parliaments in the budgetary cycle. Below, the issue of comparability of the financial report to the budget is discussed first. The second part presents evidence on parliament’s use of accrual information in budget authorisation, followed by parliament’s role in holding the executive branch accountable.

Comparability of the budget and the financial report

In principle, reforms to adopt accrual accounting impact only budget execution and reporting practices. They have no automatic bearing on the budget authorisation right of parliaments. However, comparability is compromised if budget appropriations are approved on a cash basis and reporting of budget execution on an accrual basis, and parliament will have difficulty holding the executive accountable. To ensure that the budget documents and the accounts are comparable, governments have two reform options to consider.

A first option is to extend the accrual accounting reform to the methodology for preparing the budget. This option is referred to as “accrual budgeting”. With this option, the appropriations reflect not the

²³ IMF (2001), *Government Finance Statistics Manual 2001*, p. 5, paragraph 1.32.

²⁴ See concluding remarks by F. Lequiller to the Conference “Towards implementing European Public Sector Accounting Standards”, 29-30 May 2013. <https://ec.europa.eu/eurostat/documents/1001617/1012817/Concluding-remarks-EPAS-Conference-Francois-Lequiller.pdf>

²⁵ Eurostat (2021), *Final findings, EDP dialogue visit to Germany, 18-19 May 2021*, Eurostat <https://ec.europa.eu/eurostat/documents/1015035/12938158/DE+DV+2021+-+Final+findings.pdf>, and Eurostat (2021), *Final findings, EDP dialogue visit to the Netherlands, 30 November -1 December 2020*, Eurostat https://ec.europa.eu/eurostat/documents/1015035/11446479/NL_+Annex_EDP_DV-30-Nov-1-Dec-2020-Final_findings.pdf/28876574-fe38-ca83-8e95-57314975ba55?t=1625127368660.

anticipated cash transactions but their economic use. An investment will not be budgeted at the full investment amount, and only the annual depreciation reflecting its economic use in that year will need to be included in the budget estimates (and to be continued for the fiscal years covering the asset's economic lifespan). The accrual budgeting methodology has various advantages and disadvantages. While this budgeting methodology may avoid the bias in favor of operational expenditures compared to capital expenditures, it requires more assumptions than cash estimates do about the depreciation and the asset's economic lifespan. This makes the budget potentially less transparent for parliament. The cost-benefit analysis conducted by the Ministry of Finance of the Netherlands on implementation of accrual budgeting states that it would result in the "decentralisation of power": *"Power will reside more and more at the executive branch and financial experts. Power will shift from the 'political domain' to the administrative domain"*²⁶.

Most OECD Members seem hesitant to accompany accrual accounting with accrual budgeting. (OECD/IFAC, 2017^[6]) reports that 73% of OECD countries identify their annual financial reports as being based on accrual accounting, but only 38% use the accrual basis for preparing the budget and appropriations. Of this last group, most countries apply a mix:

"Among the countries that use accrual budgeting, two (New Zealand and the United Kingdom) use full accrual appropriations. Eleven other countries within that group mix accrual and cash appropriations (...). This would suggest that countries may be wary of the volatility and discretion in accruals valuations (in particular with regard to provisions and depreciations), and believe that cash appropriations allow a better control over resources spent by ministries and departments" (OECD/IFAC, 2017^[6]).

Box 3. Evidence from case studies

Of the three case studies of EU Members that adopted accrual accounting, France and Bulgaria did not move towards accrual budgeting and do not have plans to do so. Estonia adopted accrual budgeting in 2016. In its audit report in 2018, the National Audit Office found that the change from a cash to an accrual-based budget went smoothly. The move to an activity-based budget in 2021 came in for more criticism, because parliament lacked information to authorise the expenditures. The Ministry of Finance plans to include cash-based information for investments.

(Blöndal, 2003^[7]) already notes the risks of applying accruals only to the reporting documents: *"The problem, however, with applying accruals only to financial reporting and not to the budget is that it risks not being taken seriously. The budget is the key management document in the public sector and accountability is based on implementing the budget as approved by the legislature. If the budget is on a cash basis, that is going to be the dominant basis on which politicians and senior civil servants work. Financial reporting on a different basis risks becoming a purely technical accounting exercise in these cases"*.

A second way of ensuring that the budget and accounts remain comparable is to restrict the reform to the accounting and reporting domain and to continue to authorise the budget on a cash basis. In order to maintain comparability, the accrual-based financial statements will be complemented by cash-based reports on budget execution. IPSAS has recognised this specific need of the public sector and added the requirement to make a comparison of the budget and actuals among the mandatory disclosures.²⁷

²⁶ Letter of the Ministry of Finance to the Parliament, 10 June 2010, (TK 31 865, Nr. 24).

²⁷ See also footnote 12.

In this second option, parliament is presented accountability information in two different forms. If this information is used, a more complete set of data represents a value added. If it is not used, the reform adds an additional burden to the accounting and reporting system without significant gains. It is an empirical question what type of accountability information is used in practice by parliaments. The case studies in our study indicate that parliaments tend to use the more straightforward cash-based budget execution information in the accountability debate with government. Both France and Bulgaria prepare cash-based budget execution reports as part of the end-of-year closure for this purpose.

Parliament's role in budget authorisation

Accrual accounting could benefit the parliament in its mandate to approve the budget appropriations in four ways:

- Information on short-term liabilities
- Balance sheet information
- Allowing for provisions
- Modified incentives.

First, accrual accounting supports parliaments in the budget planning process by supplying information on commitments and payment arrears. Such accrual information would indicate to parliament the decision-making room to amend the budget. Such information is indeed highly relevant for budget authorisation, but as noted in Chapter 2, the benefit cannot be attributed exclusively to full accrual accounting. Although information on commitments is not “cash”, as stated in Section 1.1, a cash accounting system can be modified to record commitments and payables. This is demonstrated in the Netherlands, where the budget proposal to the parliament for each policy programme presents the share of the appropriation that is not yet committed.

Second, accrual accounting enriches parliament's information base prior to voting the budget law with the balance sheet. In practice, the benefit of the balance sheet for budget planning purposes is not much in evidence. The case studies of France, Estonia and Bulgaria do not provide evidence that balance sheet information has been used by parliament in the budget discussions. This seems to be a general observation. In the United Kingdom, which has among the longest experience of reforming the accounting system towards accruals, the use of the balance sheet information for decision making on budget appropriations remains a work in progress. The following citation highlights challenges in timeliness and the design of relevant indicators:²⁸

“The Treasury has made progress in improving the Whole of Government Accounts (WGA) but the time it takes to produce, and the limited information included in some areas, continue to restrict its use as a tool for decision making and accountability (...) The Treasury published the 2015–16 accounts 16 months after the financial year-end, despite its goal to publish within a year. To produce the WGA more quickly, the Treasury will need to address bottlenecks in the consolidation process. (...) While the Treasury is increasingly using the WGA to analyse trends and long-term risks to the public finances, it must rely on other, more timely information to make decisions in the short term. For example, alongside public sector net debt (PSND) and its fiscal targets, the Treasury has begun using a further statistical

²⁸ The citation illustrates the challenges in the timeliness of the Whole of Government Accounts (WGA) in the UK. Currently, there are no challenges in the timeliness of departmental accounts, which are presented to parliament within six months of the fiscal year's end. Although the departmental accounts contain valuable information, the consolidated accounts are more relevant for parliament's debate with the government and, therefore, the timeliness of the WGA matters.

*measure, public sector net financial liabilities, to assess the impact of decisions on government's balance sheet*²⁹.

A third aspect of budget planning linked to the accounting system concerns the management of future fiscal risks or contingent liabilities. While a (modified) cash system reports on cash movements in a fiscal year, an accrual system records and reports decisions that do not necessarily have a basis in cash movements. The accrual system offers an option to make provisions for future spending in accrual accounts; while cash-based accounts do not. For future fiscal risks (e.g. linked to disasters, climate change or outstanding guarantees), parliament could decide to include a provision in the budget to fund the potential future costs. In a cash-based system, such provisions are not possible. In such a context, the government can decide to set aside money on an annual basis or to establish an extra-budgetary fund to fund future expenditures for a specific purpose. While provisions in an accrual-based system are disclosed as part of the annual budget and accountability cycle, the government needs to make specific regulation to ensure the transparency of extra-budgetary funds³⁰.

Finally, proponents of accruals suggest that an accrual-based accounting system can inform better budget decisions by modifying the incentives. For example, it would disincentivise the undesirable practice of selling assets (one-off receipts) to fund structural expenses. In the cash system, the sale of assets will only feature in the form of increased revenues. In the accrual system, the financial position as reflected in the balance sheet will deteriorate, as the stock of assets will decrease. Parliamentarians can use this information to hold the government accountable for the sale of assets to fund structural deficits. Indeed, a study of German municipalities confirms this hypothesis, but also observed a reduction of investment expenditure (see Box 4).

Box 4. Impact of accrual accounting on the sale of assets

A study of German municipalities that have introduced accrual accounting gradually and partially since 2000, found a robust and statistically significant effect on decreased revenues from sales of non-financial assets after introduction (Christofzik, 2019^[8]). The study explains this effect by referring to the use of incidental revenues to balance their budget by municipalities before the switch to accrual. In addition, the study found another significant effect on the structure of the budget under the accrual system: recurrent municipal expenditures on goods and services as well as higher personnel expenditure were balanced by lower investment expenditures and less spending on transfers. No impact on the overall financial balance or debt was observed.

Parliament's role in holding the executive branch accountable

Accrual accounting requires the preparation of a balance sheet including a full account of assets and liabilities as part of the financial statement at the end of the fiscal year. Such balance sheets consolidate the assets and liabilities across all controlled entities and inform the entity's financial position. Governments can decide to consolidate the balance sheet of all central government entities. Some countries, including the UK, have moved consolidation a step further and are preparing a whole of government account including regional and local government assets and liabilities. Parliaments could

²⁹ House of Commons, Committee of Public Accounts Government borrowing and the Whole of Government Accounts, Sixteenth Report of Session 2017–19.

³⁰ In its report *Begrotingsreserves* (Budget Reserves), published in 2016, the Netherlands Court of Audit argued that provisions in the accrual-based accounting system are more transparent than making reservations in the cash-based system via, among other things, budget reserves and extra-budgetary funds. It used this argument to recommend the use of an accrual-based accounting system.

make use of this information to hold the executive branch accountable for changes in the government's financial position.

The preparation of whole-of-government balance sheets and the determination of governments' financial position has been challenged on both theoretical and technical grounds. Theoretically, the criticism focuses on the different nature of the public sector. Unlike the private sector, the public sector does not have a profit objective, but to deliver public services to its citizens within a fiscally sustainable budget constraint. Fiscal indicators on financial performance, such as budget deficit and net borrowing, are more informative than indicators on the government's financial position.

Conclusions on the government's financial position using the balance sheet are also complicated by the treatment of tax revenues. In the absence of tax revenues, the balance sheet does provide a picture from one year to the next on whether the government's assets have increased or decreased compared to its liabilities, but can only offer limited conclusions on the sustainability of public finances (see Box 5).

Box 5. Treatment of government's right to tax in balance sheets

Another key difference between the public and private sector reflected in the preparation of the balance sheets is the treatment of future taxation revenue. Following IFRS for the private sector, IPSAS rules do not allow governments to include the net present value of future taxes in the balance sheet. Whereas in the private sector this makes sense, as future revenue streams are intrinsically insecure and investors are interested in the balance between saleable assets and corporate liabilities, the right of taxation is a constitutional power and one of governments' main assets in the public sector.

In France, leaving out the net current value of future taxes is defended by reference to the difference between "sovereign powers" and "rights and obligations of reporting entities": "*The commitments of the sovereign power are not recognised in the accounts, because it is not a reporting entity*" and "*The power to levy tax is an attribute of the sovereign power, it cannot be included in the assets of an entity*" (Calmel, 2017^[9]).

Technically, the valuation of a large range of public assets is subject to assumptions. Accounting standards such as IPSAS help make the assumptions uniform, objective and prudent. However, they continue to be more contentious than in the private sector, since they may not have income streams or markets to offer objective valuations. This applies, for example, to the valuation of heritage assets (museums, national monuments and so on), military assets; and public infrastructure (such as roads and railways and health care facilities). The fundamental difference between the public and private sectors also becomes obvious in attempting to estimate accrued costs of social programmes such as public sector pensions, which require many assumptions about payments far into the future and for which the value of such payments is under the control of the policy maker (Boothe, 2007^[2]).

Nevertheless, countries that have adopted accrual accounting have moved forward and are preparing balance sheets as part of their annual financial statements, and these statements are audited by the SAI. The question then arises to what extent these statements, and especially the balance sheet, are used by the parliament and contribute to an accountability debate between the executive and parliament.

Evidence from various sources fails to confirm that parliament makes active use of the balance sheet information. A first indication that the balance sheet is not actively used is the quality. (OECD/IFAC, 2017^[6]) suggests that many technical issues for inventorying and measuring assets have been overcome. However, it found remaining challenges in quality in the relatively large number of financial

statements that received a qualified audit opinion due to issues with the reporting of fixed assets. Box 6 reflects this experience in France³¹.

Box 6. Ongoing qualifications on the balance sheet by the external auditor

The case study of France in Annex 6 shows that 14 years after the introduction of the first central government's balance sheet in 2006, it still receives a qualified opinion from the *Cour des Comptes*. Although the number of reservations or qualifications has decreased, the Court does still not provide a clean opinion.

	2006	2010	2013	2016	2020
Number of reservations made by the Court	13	7	5	4	4
Anomalies or uncertainties likely to affect the reliability of the accounts	58	71	51	26	22

(OECD/IFAC, 2017^[6]) also found that policy makers have limited interest in accrual financial information. One obvious explanation for this is that, in many cases, the cash budget balance and net lending are still the key fiscal figures or targets and, consequently, the focus of political debate.

The case studies of Bulgaria, Estonia and France confirm the limited use of balance sheet information by parliaments. Almost two decades after introducing accrual accounting in Bulgaria, the government did not find value added in consolidating entity statements in a single balance sheet. Balance sheets are only prepared by separate budget entities. However, these documents are rarely the object of debate between the parliament and the executive.

Box 7. Use of accruals in the accountability debate in France

In 2016, the *Cour des Comptes* (CdC) of France reviewed the implementation of the *Loi Organique des Lois de Finances*, that introduced accrual accounting ten years after its adoption (*Cour des Comptes*, 2016^[10]). The report concluded that the accrual basis of accounting is little used and recommended promoting its use. However, since the CdC report of 2016, no notable changes in the information provided and its use by stakeholders have been instituted.

Note: See Annex 6 of this paper for the case study of the Netherlands

Benefits for public sector managers

This category is broken down into two aspects associated with the broader information base offered by accrual accounting: better monitoring of assets and liabilities and more complete cost information.

³¹ Similar observations apply to Georgia, where ministries have prepared financial statements since 2014. Although the opinions of the State Audit Office are mostly adverse or qualified, the parliament does not express major concerns.

Better information on assets and liabilities

Given the requirement to prepare complete balance sheets as part of annual financial statements and their audit arrangements, it can be assumed that accrual-based accounting and reporting systems will ensure a better overview of assets and liabilities. This information can be used for better decision making on maintenance and/or replacement of assets and policy decisions on future liabilities.

This argument has been made by proponents of accrual-based accounting systems in the Netherlands (see Box 8).

Box 8. The issue of asset management in debate on accrual accounting in the Netherlands

The debate on the adoption of accrual-based accounting systems dates from the early 2000s. In this debate, the main proponent in favor of accruals is the Supreme Audit Institution (*Algemene Rekenkamer*). In 2021, it published a report criticising the government for failing to produce a complete overview of its assets and recommended the adoption of IPSAS-based accrual accounting.

In response, the Ministry of Finance, on behalf of the Dutch government, rejected the contention that it does not have an overview of its assets. The Government, it argued, does not present the overview in a balance sheet as part of its annual financial reports. However, based on government-wide regulations, each line ministry is obliged to establish internal controls to manage its assets in line with applicable standards of good asset management. Internal and external auditors audit compliance with such controls.

The audit report did not persuade the Government to adopt accrual accounting government-wide. However, in following up on the audit report, it committed to putting more effort into life-cycle management of assets and to disseminating good practices in asset management among its line ministries.

Note: See Annex 6 of this paper for the case study of the Netherlands.

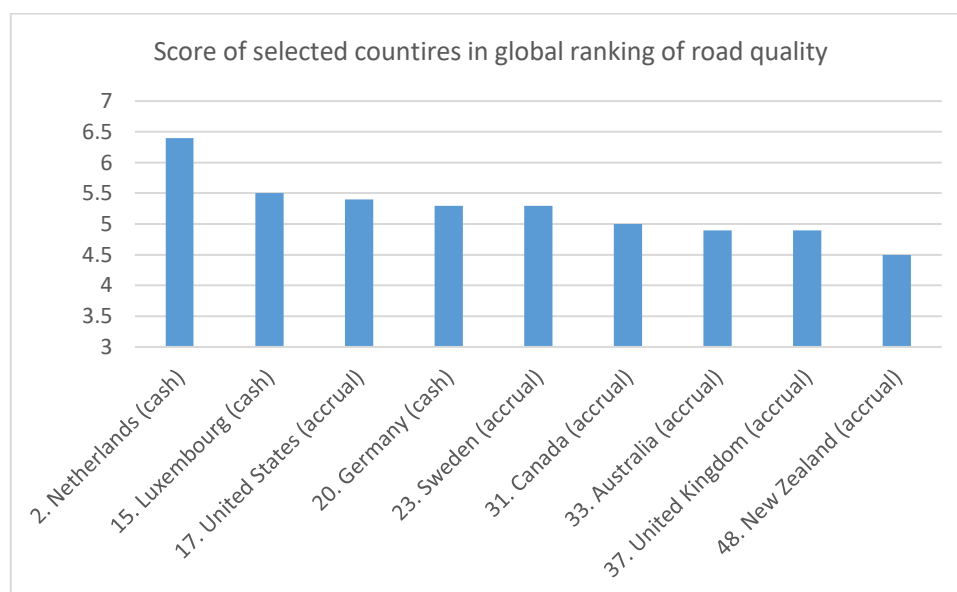
Source: Algemene Rekenkamer, *Zicht op rijksbezit*, December 2021.

<https://www.rekenkamer.nl/publicaties/rapporten/2021/12/01/zicht-op-rijksbezit>

The debate in the Netherlands shows a consensus on the need to manage public assets well, but disagreement over what good asset management and accountability should involve. The debate is over the value added of accrual accounting and presenting assets annually in a balance sheet format with the requirements of valuation and financial audit. The Ministry of Finance considers having asset management policies, internal controls and the audit of compliance by internal and external audit sufficient for its purposes.

Empirical research on the relationship between accounting systems and the quality of asset management is not available. Figure 4 attempts to link the two variables by comparing governments with similar GDP levels but different accounting traditions. Based on this figure alone, no conclusions can be reached on the superiority of any accounting system. However, the figure does suggest that accrual accounting is not a decisive requirement for adequate asset management.

Figure 4. Comparison of the quality of roads across countries with different accounting systems³²



Source: World Economic Forum [WEF], (2019), *The Global Competitiveness Report 2019*, WEF https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

A similar debate exists over monitoring future liabilities. Accrual accounting requires that liabilities be disclosed in the balance sheet, so they are assumed to be better monitored, and policy makers can take this information into account when making decisions. The key liabilities relevant for financial decision making are:

- Short-term liabilities, for example commitments that are incurred
- Long-term liabilities, for example social benefits and debt
- Contingent liabilities, for example potential lawsuits and (loan) guarantees to state-owned enterprises.

The benefits of recording commitments by government accounting systems are obvious. If commitments are not systematically recorded and controlled up to the level of the appropriated ceiling, fiscal discipline is challenged and governments may run into payment arrears. Adopting full accrual accounting standards is not required to reap the benefits. By extending a pure cash-based accounting system to all stages in a cash transaction, including commitments and payables, a modified cash accounting system offers similar benefits. Of our case studies, both the Netherlands and Germany have modified their cash accounting systems to include commitments.

As for long-term liabilities, accrual accounting can show imbalances in the balance sheet, helping governments to realise at an early stage that certain programmes are not affordable and need adjustment. An accrual accounting system makes it possible to provide for future liabilities. Governments in a (modified) cash system do not have such tools and will need to rely on other checks and balances to manage future liabilities. Fortunately, many alternative instruments exist for budget preparation. Among the alternative instruments are: fiscal councils, fiscal forecasting and sustainability analysis, costing of sector strategies, medium-term expenditure frameworks, debt management tools

³² The road quality indicator (1 = low, 7 = high) is one of the components of the Global Competitiveness Index published annually by the World Economic Forum (WEF). Data is from 2019.

and multi-year commitments in budget planning systems. A key player here is the budget department of the ministry of finance, which needs to act as countervailing power to spending ministries to maintain long-term sustainability in public finances. A full accrual system brings in external audit as an independent actor to scrutinise the liabilities based on standards. However, it is hard to conceive that a well-functioning Ministry of Finance with sufficient economic planning capacity will overlook unsustainable sector policies and that auditors are needed to provide early warning messages on the medium-term budgetary outlook. Similarly, it is hard to conceive that the government's consolidated balance sheet will trigger unwelcome reforms in unsustainable social programmes in countries with little respect for fiscal discipline.

An important government liability is the future eligibility of citizens for state pensions. Policy-making decisions on pensions have crucial impact on the sustainability of government's public finances. Box 9 shows how Germany includes this liability in an overall analysis of the sustainability of its public finances. This practice suggests that the sustainability of government finance is primarily guaranteed by economic analyses informing the budget and corrective decisions, if existing policies appear to be unsustainable in the medium to long term. A balance sheet may add value as a check and balance on budgetary policy government policies subsequently, but the primary instrument of government to finance its liabilities are economic analyses informing budget decisions.

Box 9. Treatment of long-term pension liabilities in Germany

Government pension schemes represent one of their largest liabilities. They include the future pensions for civil servants as well as state-funded pensions for the elderly. Germany, which operates on a modified cash basis, includes provisions for pensions, allowances and similar obligations for federal civil servants in its statement of financial position. In addition, the Ministry of Finance prepares a comprehensive study on the sustainability of its public finances every four to five years, for the whole public sector including social insurance, over a term of 40 years (German Federal Ministry of Finance, 2020^[11]). In this study, the government's pension liabilities play an important role. The study has a high profile in the Parliament and the quality and independence of the study is guaranteed by outsourcing the preparation to a credible economic institute.

Note: See Annex 6 of this paper for the case study of Germany

Better information basis to calculate costs and improved resource allocation

Depreciation of capital goods constitutes a charge that has no equivalent in cash accounts. Accordingly, cash-based systems are criticised for not providing full information on the total costs of government programmes/activities. By capturing both cash transactions and non-cash flows (e.g. prior investments in assets) in accounting records, accrual-based accounting systems provide a more comprehensive view of the cost of government activities and provide better signals to managers. This information could be used to compare the costs of service delivery among different models. For example, it could support outsourcing of service delivery, in case the private sector can deliver better value for money. A precondition for reaping such benefits is that a broader appetite for reform exists within the public administration to ensure that managers act on the cost information.

“The introduction of accrual accounting and budgeting should be seen as part of a wide-ranging process of reform, and not ‘parachuted’ into a stable, unchanging management process. What this means is that the change to accrual accounting should be a part of the process of reform in the delivery of public services. Therefore, if a country has a policy of not changing public employees’ terms and conditions of service, or of not transferring services to the private sector or of not disposing of public assets, on ideological grounds, then this limits the benefits of switching to accrual accounting. There are other benefits to accrual accounting, such as a more accurate statement of the costs of resources consumed,

but unless there is a political or managerial willingness to follow up the better information that flows from its adoption with other reforms to the process of public sector management, there is little point in the advocates of a switch to accrual accounting pressing their case. Accrual accounting is not an end in itself.” (Hepsworth, 2003^[12])

The case of Estonia confirms that the adoption of accrual accounting fits better when it is part of a broader embrace of the New Public Management principles, including the introduction of accrual budgeting. It can be questioned whether this precondition applies in most of the Western Balkan and Neighbourhood administrations. SIGMA’s 2021 Monitoring Reports concerning public administration reform reveal that, among other things, progress on managerial accountability is stagnant and still at a low overall level³³. This indicates that the room for managers to make decisions is limited (Klaas, Marcinkowski and Lazarević, 2018^[13]).

With the caveat that proper preconditions should be in place, the previous paragraph provides arguments for applying accrual accounting to promote market-oriented service delivery by public entities. That this argument does not provide a compelling reason to adopt full accrual, government-wide, is reflected in the following observations.

The Netherlands case study shows that the government also accepts the argument that accrual accounting is a better basis to inform decision making on costs. In the country, full accrual accounting is adopted at the level of agencies that are supposed to deliver specific services and to minimise the costs. Nevertheless, the government has resisted adopting full accrual accounting for the line ministries (see Box 10).

Box 10. Applying accrual accounting by executing agencies in the Netherlands

The Netherlands has not adopted accrual accounting for central government and has no plans to do so. The Government feels that the benefits for government-wide implementation do not compensate for the high cost of implementation. However, the Dutch government has made an exception for the “agencies” established to implement government policies and to deliver specific government services. Agencies are obliged to apply accrual accounting and are expected to use the accrual information to determine cost prices and manage their operations more efficiently.

Financial statements of agencies are not consolidated into the parental line ministry financial report. The accrual-based financial statements of agencies are published as separate annexes of the cash-based ministry accounts. The public funds involved in the operations of the agencies are presented as cash-based transfers in the ministry accounts.

Note: See Annex 6 of this paper for the case study of the Netherlands.

The French case study in Annex 6, moreover, shows that introducing general accrual accounting software is not sufficient to reap the benefits for cost accounting. Detailed cost analysis requires that budget organisations purchase additional accounting software tailored to their needs. Like the Dutch Government, the French administration did not roll out such software government-wide and delegates this decision to individual public entities (see Box 11).

³³ <https://www.sigmaweb.org/publications/monitoring-reports.htm>.

Box 11. Cost accounting in relation to accrual accounting in France

France adopted accrual accounting for central government in 2006. The reform aimed to establish a triple accounting system consisting of:

- i. cash budgetary accounting
- ii. general accrual accounting
- iii. cost analysis accounting.

France implemented the first two systems, but not the third, government-wide. The Directorate General of Public Finance (DGFIP) encouraged ministries to develop internal control tools in order to help programme managers manage their actions, but it did not establish a government-wide system.

Note: See Annex 6 of this paper for the case study of France.

Finally, (Diamond, 2002^[5]) notes that there are other instruments to achieve similar benefits: *“there are other mechanisms, albeit not so comprehensive, that can be substituted at the agency level to send the correct signals to managers”*. In his view, this can be achieved through changes in cash budgeting and accounting systems without moving to an accrual-based system. One example is the introduction of a capital charge.

Box 12. Capital charge to enhance cost awareness in cash-based systems

A capital charge is an alternative method of making spending ministries aware of the cost of capital in delivering services. In traditional budget systems based on cash accounting, a typical weakness is poor asset management. A major change would be the consideration of the total investments in assets and the recognition that such investments have an opportunity cost that can be captured in management decision making by the introduction of a capital charge. Capital charging would thus aim at internalising the full costs of the delivery of goods and services and recognising the wider opportunity cost of the capital held by agencies (Diamond, 2002^[5]).

Benefits for citizens

The increase in fiscal transparency to the benefit of citizens is often cited as an important benefit of accrual accounting. A report of a private accountancy firm claims that 77% of respondents of one global survey consider citizens to be the main beneficiaries of accrual-based financial statements (PWC, 2013^[14]). The IPSAS framework identifies as primary users the service recipients and resource providers (citizens and taxpayers)³⁴.

Transparency is indeed increased in the sense that more information is available to the public. IPSAS accrual requires a larger amount of disclosures, comprising:

- a a statement of financial position (balance sheet)
- b a statement of financial performance (revenues and expenses)
- c a statement of changes in net assets/equity
- d a cash-flow statement

³⁴ IPSAS (2014), *Conceptual Framework*, paragraph 2.3.

- e when the entity makes its approved budget publicly available, a comparison of budget and actual amounts, either as a separate additional financial statement or as a budget column in the financial statements
- f notes, including a summary of significant accounting policies and other explanatory notes.

The provision of more information does not translate into higher transparency. The case of Estonia provides evidence that a full-fledged accrual accounting system is not necessarily transparent to the public.

Box 13. Fiscal transparency in Estonia

While the reform efforts of Estonia are generally considered to demonstrate that it is possible to create a functioning, IPSAS-based, public sector accounting system, a recent IMF report raised the problem of almost non-existent public participation in the budget process. The report noted that budget documents in Estonia are too complicated and inaccessible for ordinary citizens and the key government documents are only intended for an expert audience.

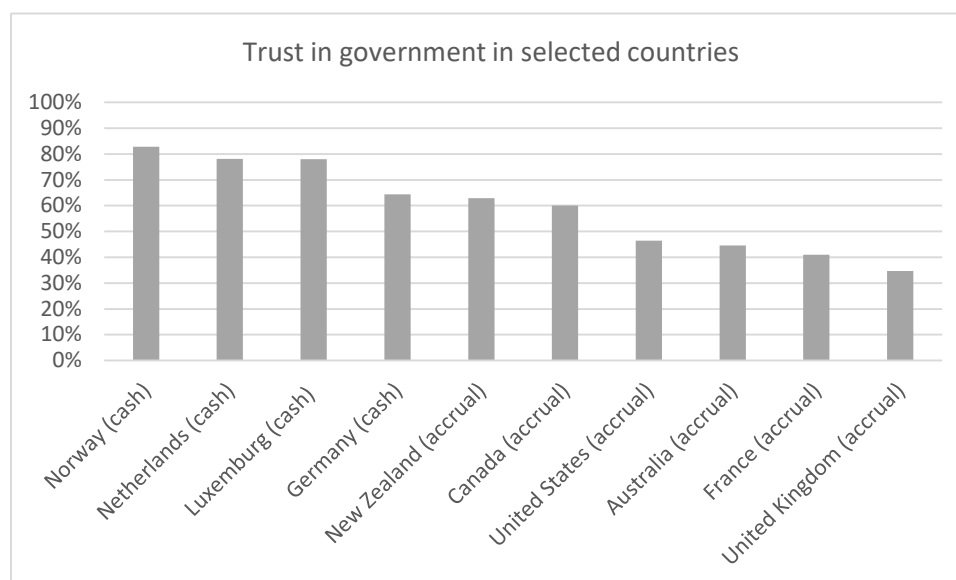
Note: See Annex 6 of this paper for the case study of Estonia.

Source: IMF (2021), *Republic Of Estonia, Technical Assistance Report—Fiscal Transparency Evaluation*. IMF Country Report No. 21/179 <https://www.imf.org/en/Publications/CR/Issues/2021/08/04/Republic-of-Estonia-Technical-Assistance-Report-Fiscal-Transparency-Evaluation-463376>

Rigorous empirical evidence on citizens' perception on the benefit of the information provided from full accrual accounting systems is lacking. Figure 5 provides evidence on the assertion that the increase in fiscal transparency and accountability will lead to increased trust in government financial reporting³⁵ It links OECD data on citizens' trust in government to early adopters of accrual accounting and governments that operate on a modified cash accounting basis. The figure shows that citizens' trust in governments with modified cash accounting is consistently higher. The methodology does not suggest any causal relationship between the accounting base and trust in government, but a positive relation between accrual accounting and citizens' trust in government does not seem plausible.

³⁵ See the chapter "Costs versus benefits of implementing accrual accounting in the public sector" in Thomas Müller-Marqués Berger (2018), *IPSAS Explained: A Summary of International Public Sector Accounting Standards*, third edition.

Figure 5. Relative trust in government in relation to accounting standards in use



Source: OECD (2022), Trust in government (indicator). doi: 10.1787/1de9675e-en (Accessed on 26 September 2022)

While accrual accounting information may be too technical to be grasped by citizens, it can be argued that financial markets will make use of the information. Based on the confidence that accrual accounts inspire in financial markets, (Ball, 2012^[15]) makes the claim that the sovereign debt crisis in 2010 would not have occurred if accrual accounting had been applied across the Eurozone countries³⁶. This claim assumes a positive impact on the credit ratings of countries that adopted accrual accounting systems. A report discussed by the EPSAS Working Group tends to confirm that EPSAS will improve the functioning of capital markets by reducing sovereign bond yields. The report further quantifies indirect benefits of EPSAS for growth, investments and employment in the European Union on the basis of lower sovereign bond yields. (EY on behalf of Eurostat, 2017^[16])

However, an OECD study did not find evidence for such a link: *“While budget transparency, in general, has been shown to be associated with better credit ratings, there is little academic research establishing there is a direct link between accrual-based accounting and better credit ratings”* (Moretti and Youngberry, 2018^[17])

2.2. Analysis of costs

Based on the literature, Table 1 presents the cost drivers of the implementation of accrual accounting. It distinguishes between incidental and recurrent costs.

³⁶ <https://blog-pfm.imf.org/pfmblog/2012/02/accrual-accounting-essential-for-government-transparency-and-accountability.html>.

Table 1. Categories with cost implications of accrual implementation

Category	Incidental reform costs	Recurrent costs after reform
a. Reform process costs	The design of the reform needs at a minimum: <ol style="list-style-type: none"> 1. awareness-raising events 2. consultation with stakeholders 3. drafting of strategy and implementation plans. 	
b. Modifying the accounting framework	Accrual accounting requires revision of the accounting framework, including: <ol style="list-style-type: none"> 1. new accounting standards and policy 2. accounting manuals 3. chart of accounts. 	
c. Human resources	For current staff: <ol style="list-style-type: none"> 1. certification of financial management 2. training of accountancy staff 3. training of users of the new Financial Statements. 	Additional quantitative capacity ³⁷
d. IT costs	Implementation of new financial management software	Licenses and maintenance
e. Costs to prepare the Financial Statements	Preparation of the trial balance, including initial valuation of assets	In addition to the budget execution report, IPSAS 1 prescribes four additional documents: <ol style="list-style-type: none"> 1. a statement of financial position (balance sheet requiring periodical valuation of assets)³⁸ 2. a statement of financial performance (revenues and expenses) 3. a statement of changes in net assets/equity 4. a cash-flow statement.
f. Costs to consolidate	- All budget organisations will be required to consolidate the statements in line with their administrative hierarchy.	

³⁷ "To be successfully implemented and operated, the reform requires an increase in the number of financial managers (who may be qualified accountants) employed by government and an acceptance of their contribution to the efficient and effective management of the public services. There also needs to be a willingness to meet the financial management education and training requirements of the public sector, either directly by the accountancy profession or through other institutions" (IMF Technical note, 2016).

³⁸ IPSAS 17: Property, Plant, and Equipment defines the value of a non-cash generating asset as the present value of the asset's remaining service potential.

	- The Ministry of Finance will need to consolidate for central government or whole of government ³⁹ .	
g. Audit costs	Training	Costs of the audit teams that are engaged in the certification of financial statements

Information on the costs of implementing accrual accounting is scarce. For various reasons, measurement is complicated, and formal estimates may over- or underestimate the real costs.

First, the reform costs are conditional upon the government's starting conditions in relation to its human resources and information systems. Those with a well-trained accounting professional cadre and the ability to attract private sector accountants may require less resources for recruitment and training. Similarly, those that have modern IT accounting systems will incur less costs than those that have to adopt completely new IT systems.

Second, the reform may coincide with other reforms. For example, in France, the reform coincided with the acquisition of an SAP-based enterprise resource planning (ERP) system, for a total of EUR 700 million. However, since the application of the system is broader than accrual accounting alone, it would be incorrect to attribute the full costs of the software to the introduction of accruals.

Third, adopting accrual accounting reforms will affect all entities in the public sector. Activities to implement the reform are unlikely to be codified within each entity. Nevertheless, they absorb the capacity of government staff and should be costed as reform costs. A focus on formalised reform project costs alone is likely to underestimate the real costs of reform.

Fourth, measuring the opportunity costs of the reform is tedious, if not impossible. Opportunity costs refer to the fact that funds and resources invested in the shift towards accrual accounting are not dedicated to other reforms or activities in public financial management. Such alternative activities may bring higher benefits to the management of public finances. For example, Supreme Audit Institutions will need to allocate resources to certify the Financial Statements and check the true and fair presentation of the balance sheet, including issues of valuation. Resources spent on financial audit cannot be allocated to compliance and/or performance audit, activities that could potentially have a higher impact.

Fifth, even more tedious is to quantify the calculation of unexpected consequences of the reform. Such unexpected consequences could include wrongful manipulation of results. This risk may be higher in countries with less developed public governance systems: *"For countries with governance problems, the complexity of accrual can be readily employed to hide and distort. Accrual accounting lends itself to creative accounting even more than cash-based systems. For many of these countries, it must be recognised that their administrative capacity may not be a sufficiently high level either to undertake the major reforms implied or apply the required skills to make them work"* (Diamond, 2002^[5]).

Notwithstanding the above qualifications in measuring the costs of reforming towards accrual accounting, some estimates are available.

First, commissioned by Eurostat, PWC has developed a comprehensive approach to estimate the costs for EU Member States of applying the accrual-based European Public Sector Accounting Standards (EPSAS). The study, conducted in 2014 and updated in 2020 (PWC on behalf of Eurostat, 2014^[18]), showed that a significant share of the expected total costs depends on the need to modernise financial IT systems. (PWC on behalf of Eurostat, 2014^[18]) suggested a cost for the total implementation of binding EPSAS standards ranging from EUR 1.2 billion to EUR 6.9 billion for the EU, depending notably

³⁹ Whole of government accounts consolidation is only required by IPSAS for governments where layers of government exercise control over each other.

on the need for new IT systems (see Table 2). This is a total figure for the EU. To estimate the costs per country, the report presents average costs as a percentage of GDP (ranging from 0.009% to 0.053% of GDP) or EUR 2.35 to EUR 13.58 per inhabitant.

The updated study (PWC on behalf of Eurostat, 2020^[41]) showed slightly reduced figures representing the achieved progress towards accrual accounting in several Member States.

Table 2. Cost estimates to implement EPSAS-compliant accounting systems across the EU, in million EUR

Scenario	Variant ⁴⁰	2014	2020	
1	Assumes that all governments have an IT infrastructure in place that is sophisticated enough to be capable of supporting an accrual-based accounting environment.	A	1.192,062	862,042
		B	2.113,795	1,821,526
2	Assumes that it would be difficult for entities with a low accounting maturity and low IT maturity (below 40 %) to implement EPSAS without investing in a new system implementation.	A	1,818,321	1,513,686
		B	6,885,472	6,055,405

Another detailed cost estimate for the implementation of accrual accounting is derived from the case study of the Netherlands. Since the early 2000s, the Dutch government has been considering the adoption of accrual accounting, and in 2010, it presented a cost calculation to apply an accrual-based budget and accounting system government-wide. Incidental investment costs were estimated to be between EUR 129 million and EUR 261 million. Additional recurrent costs were estimated between EUR 13 million and EUR 28 million (see Table 3).⁴¹

⁴⁰ Variant A is based on the estimated costs in Denmark, as benchmark and variant B is based on the estimated costs of Austria, Switzerland and Essen as benchmarks.

⁴¹ (PWC on behalf of Eurostat, 2014^[18]) compares the results of its own calculations with the estimate of the Government of the Netherlands. It concludes that the estimates of the government with system adaptation for the IT environment approximates the estimated costs for the central government under scenario 1B (EUR 119 million). The cost estimate of the government for implementation of a new ERP system come in between the costs calculated under scenario 2A (EUR 114 million) and cost estimates obtained under scenario 2b (EUR 518 million).

Table 3. Estimation of the costs of a transition from modified cash to accruals in the budget and reporting system in the Netherlands

	Lowest estimate (in million EUR)	Highest estimate (in million EUR)
Incidental costs		
IT systems	30	71
Staffing	16	25
Valuation of assets	11	22
Change management	72	143
Total incidental costs	129	261
Recurrent costs		
Staffing	6	14
IT maintenance	2	4
Valuation of assets	5	11
Total recurrent costs	13	29

2.3. Findings from academic literature

The 1990s and early 2000s saw ample academic and professional debate on the value added of accrual accounting and whether the benefits would justify the costs. In the literature, proponents and opponents exchanged arguments, but given the novelty of the reform, empirical evidence could not yet determine which side was correct. Lapsley writes: *“At present we have a clear picture of what reformers have attempted (albeit in a fragmented and uneven pattern); indications of organisations and accounting impacts; but limited information on evaluations and in particular, studies which demonstrate the existence or otherwise of substantive efficiency gains arising from the adoption of NPM techniques. The debate continues”* (Lapsley, 1999^[19]).

In 2022, the academic community and public accounting profession now has more than 20 years of additional experience as a basis for empirical research. In the context of this study, SIGMA conducted a literature review on recent academic literature on the costs and benefits of accrual reforms. Quantitative empirical evidence of the benefits and costs of accrual accounting reforms is still scarce. This is partly because accounting reforms are often accompanied by other reform elements. The effects of the individual reform components are then difficult to isolate and a causal interpretation of obtained results may be questionable. This can explain why most of the existing studies rely on qualitative approaches or focus on the subnational level, where the shift to accrual accounting has often been imposed by a higher level of government. Despite these challenges, it is remarkable that the number of studies analysing at least partial aspects of the benefits and costs is comparatively small – considering the magnitude of the reform and the clear recommendations to implement accrual accounting in the public sector that are sometimes made.

(Azhar et al, 2021^[20]) offer a recent and comprehensive literature review based on 136 studies published in peer-reviewed journals between 1997 and 2020. They consider papers that examine experiences of different levels of governments and public entities such as hospitals or universities worldwide in adopting accrual accounting. In total, 42 studies provide empirical evidence on the effects of adopting accrual accounting – on very different variables and in very different institutional settings. The majority of studies use a qualitative approach, only 11 studies choose a quantitative or mixed approach. (Azhar et al, 2021^[20]) conclude that *“there is no conclusive evidence suggesting that PSAA [public sector accrual accounting] has brought significant benefits to both governments and citizens”*. They further state that many issues remain unanswered and *“the most apparent gap in the literature is [...] the lack*

of high-quality case studies providing empirical evidence of the monetary benefits of PSAA to the various levels of government”.

Another recent systematic review of research on accrual accounting is conducted by (Schmidhuber, Hilgers and Hofmann, 2020^[21]). It concludes that the “*available paper-based literature depicts a very heterogeneous view of pros and cons*” and see one of the research gaps in applying more advanced statistical techniques to link causes to effects.

In addition to the review studies mentioned, some papers published after 2010 have examined different aspects of the costs and benefits of reform. Annex 4 summarises the main findings of studies that examine the effects of the transition to accrual accounting.

Estimates of *implementation costs* and permanent operating cost differences are particularly hard to come by. For their sample of German counties, (Dorn, Gaebler and Roesel, 2021^[22]) find that the operating costs of administration increase under accrual accounting. Also, (Hyndman and Connolly, 2011^[23]) describe significant cost increases at implementation and in use. For their case study of Indonesian local government, (Mir, Harun and Sutiyono, 2019^[24]) underline significant cost increases as well as institutional difficulties.

Most studies that focused on *the use of the additional accrual information* in full accrual systems find a rather limited use of accruals. (Cohen et al, 2019^[25]) base themselves on a study of 11 European countries and found that the information was too complex and, therefore, did not lead to demonstrably better decisions. (Hyndman and Connolly, 2011^[23]) come to a similar conclusion for Ireland. The conclusion extends to local government. (Arnaboldi and Lapsley, 2009^[26]) conclude that the intended aim of enhancing local authority accountability by improving the accounting information available to users has not materialised in the United Kingdom. (Alijarde and Julve, 2014^[27]) refer to the dual system (where the budget is still prepared in cash) in local entities in Spain to explain why politicians are not interested in the accrual-based information presented in the financial statements. (Kobayashi, Yamamoto and Ishikawa, 2016^[28]) show that although accrual information was used less for budgeting, evaluation, asset management or debt management, it was found useful for performance management in Japan. Also in Indonesia, little use of accrual reports for decision making was observed by (Mir, Harun and Sutiyono, 2019^[24]).

Some of the studies focus on the *manipulation of information*. (Muraina and Dandago, 2020^[29]) observe that the quality of financial reporting in Nigeria has improved after the adoption of IPSAS. (Adhikari et al, 2019^[30]). They find no evidence of improvement in public management resulting from public accounting reforms in Egypt, Nepal and Sri Lanka. Instead, internal conflicts and unintended consequences, such as falsification of results, occurred. (Pilcher and Zahn, 2010^[31]) identify manipulations of the financial performance via discretionary accruals in local governments in New South Wales (Australia). (Nogueira and Jorge, 2017^[32]) found that information brokers in Portuguese central government might introduce bias as a result of their knowledge and preferences. (Vinnari and Näsi, 2008^[33]) find that the use of accrual accounting by Finnish municipalities misleads rather than helps the users of financial accounting information. On the other hand, both (Cuadrado-Ballesteros, Citro and Bisogno, 2020^[34]) and (Tawiah, 2021^[35]) found a decline in corruption in countries that transitioned towards IPSAS. However, the risk of reverse causality cannot be ruled out given the multi-country methodology carried out for this purpose.

Research has also focused on the question of the effect of the reform of the accounting system on *fiscal policy* actors. (Dorn, Gaebler and Roesel, 2021^[22]) find neither an effect on government efficiency nor on expenditures, public debt or voter turnout. Similarly, (Christofzik, 2019^[8]) detects no effect on public debt or the overall financial balance. The structure of the budget is adjusted as less revenues from the sales of non-financial assets are generated after implementation of accrual systems.

Finally, given that a positive impact of IPSAS on government performance is not obvious, some authors analysed the factors and conditions influencing the adoption, adaptation of or failure to adopt IPSAS in different jurisdictions. (Rincón-Soto and Gómez-Villegas, 2020^[36]) analysed case studies of 14 countries and concluded that the adoption of IPSAS is driven by various institutional factors that lead governments to follow isomorphic behavior.⁴² The risk of adopting this accounting model under isomorphic institutional pressures, they say, is a “*potential decoupling between the reality that the information claims to represent under the IPSAS regulatory framework and what really needs representing in the public-sector economy*”.

2.4. Conclusions

This chapter analyses evidence from case studies from EU members, applied research reports and academic papers, to draw conclusions on the relative costs and benefits of central governments in adopting accrual-based accounting systems, using IPSAS or other standards.

Overall, the conclusion is that there is no convincing evidence that the benefits of accrual accounting systems outweigh the costs. In contrast, while data confirm that the costs of implementation are substantial, the benefits are not obvious.

This conclusion is based on following key observations from the case studies:

- Total costs of EPSAS implementation for the EU are estimated to be EUR 0.86 billion to EUR 6.05 billion.
- Countries that operate on a modified cash basis (the Netherlands and Germany) are able to submit fiscal statistics in line with the ESA 2010 standards to Eurostat without significant additional efforts by the national statistical offices.
- Accrual information on short-term liabilities such as commitment and payables can be integrated into a modified cash framework without adopting full accrual accounting reforms.
- Parliaments scarcely make use of accrual information in their role to hold the government accountable. They continue to rely more on cash-based budget execution reports.
- Although accrual accounting offers incentives to improve asset management and the monitoring of liabilities, accrual accounting systems are not needed to manage both processes effectively.
 - Asset management should primarily be controlled using adequate procedures for financial management control (FMC) and effective internal and external audit to ensure compliance with these procedures.
 - For the management of future liabilities, governments have a number of alternative instruments to ensure that liabilities are not overlooked, including: fiscal councils, fiscal forecasting and sustainability analysis, costing of sector strategies, medium-term expenditure frameworks, debt management tools and multi-year commitments in budget planning systems.
- Information on the government’s financial position by comparing total assets and total liabilities through complete and consolidated full balance sheets is hardly used for fiscal planning or for

⁴² Institutional isomorphism refers to the process that organisations adopt systems or processes to resemble leading entities due to environmental pressure. In the case of adopting accrual accounting systems, (Rincón-Soto and Gómez-Villegas, 2020^[36]) observe ‘coercive isomorphism’ by international donor or funding organisations, ‘mimetic isomorphism’ where adoption is legitimised by referring to other countries that have implemented such standards, and ‘normative isomorphism’ where adoption is pushed by professional groups.

the purposes of accountability. Fiscal indicators based on cash, including budget deficit and net borrowing, are still the primary indicators used by policy makers and Parliaments.

- Accrual-based accounting systems support the costing of public services. However, general-purpose accrual accounting systems are not sufficient for detailed cost accounting and need to be complemented by specialised cost-accounting software. Such software is not conditional upon the general accounting system that is used and can be implemented by public entities if there is value added in applying such costing.

This conclusion also applies in response to the *Benefits of Accrual Accounting in the Public Sector* published by the Public Sector Accounting and Reporting Programme (PULSAR) of the World Bank in 2022 (PULSAR, 2022^[37]). In addition to the commonly used benefits of transparency, accountability and quality in financial decision making, the report cites four practical examples to illustrate the benefits. Annex 5 reviews the four examples and validates the conclusion that information on some accruals is of critical importance, but that IPSAS accounting is not a necessary ingredient to record and use the information.

While IPSAS acknowledges citizens and their representatives in parliament as primary users, there is little evidence from academic studies that these users appreciate the information that is produced under the standards. The most comprehensive review of academic research on the topic concludes that there is no conclusive evidence suggesting that public sector accrual accounting has resulted in significant benefits for both governments and citizens.

3. Approaches to accounting reform among SIGMA partners

The previous chapter did not offer clear evidence that the benefits of accrual accounting exceed the cost in EU Member States. Nevertheless, many SIGMA partners have started implementation of accounting reforms towards accrual accounting, or are considering it.

This chapter reviews the experience of four partners: Georgia, Montenegro, Morocco and Serbia. The chapter will review the reform approach taken in each case and outline the objectives and the drivers of the reform and its perceived benefits.

3.1. Georgia

The transition of Georgia's public sector accounting system from a cash to an accrual basis was launched in 2009, in the context of the first wider public financial management reform strategy (PFMRS) for the period 2009-2013 adopted by the Government of Georgia. The loan and budget support agreements with, respectively, the IMF and the EU contained the Government's commitment to the implementation of IPSAS. It aspired to implement full IPSAS by 2020.

The reform documentation contained few arguments for the transition towards an accrual basis of accounting. Although the Public Financial Management Reform Strategy (PFMRS) refers to general benefits such as "improved transparency" and "trust in public financial management", the impetus appears to have been a desire to be able to refer to compliance with international standards using a common, internationally accepted, "financial language". There is no evidence that the Ministry of Finance wished to improve on specific weaknesses in the financial management system and considered the adoption of accrual accounting as the best option to address these weaknesses, by comparison with alternative solutions. In other words, rather than an instrument to improve certain aspects of public sector management, the implementation of the IPSAS standards was the ultimate goal. Although the PFMRS also includes initiatives to improve managerial accountability, there has been no attempt to link them to accrual accounting reforms in a broader perspective on public administration reform.

The Ministry of Finance, and in particular the methodology department of the Treasury, has been the main driver of the reform. Parliament was informed of the reform through the PFMRS and the loan and budget support arrangements with the IMF and EU. However, in the absence of a relevant parliamentary resolution or any other formally documented decision, there is no evidence that Parliament was engaged in the decision to undertake the reform, either at the initiation phase or during the implementation of the reform. The IPSAS reform is considered to be too technical and too specific for active engagement of the Parliament. Another reason for the lack of parliamentary engagement is that the Government does not foresee a change either in the budgeting methodology or the financial accountability towards Parliament. The budgeting system will remain on a cash basis and the main accountability document will remain the Consolidated Budget Execution Report. To date, there have been no plans to change the Budget Code to give the consolidated financial statements a central role in the accountability cycle.

Neither a cost-benefit analysis of the reform nor a full cost calculation of the reform was prepared. Some cost estimates are included in the successive PFM reform strategies on which the total costs of transition to accrual accounting can be calculated as approximately EUR 3.2 million.⁴³ This amount is considered to be an underestimate of the total costs, for the following reasons:

- The cost information captures only a portion of activities over the last six years, while other implementation activities related to capacity building and IT systems begun in 2012.
- Information on the actual costs incurred throughout the reform is not available and annual progress reports do not include these costs.
- Human resource capacity devoted to the design of the reform and the implementation by public entities in central and local government are not costed.
- The reform is not yet complete and the costs of future interventions, including investments in the IT systems to complete the transition, have not yet been identified.

Engagement with national stakeholders in the process, such as line ministries and the State Audit Office (SAO), has remained limited throughout the reform process. To date, public managers of line ministries have not been trained in making use of the accrual information included in balance sheets of their entities. The SAO is considering conducting a financial audit of the consolidated financial statements in the future, even though it is not yet legally mandated and there are no plans to make it a mandatory task of the SAO.

In contrast, co-operation with international donors on standards, policies and implementation was intense. The Fiscal Affairs Department of the IMF has been particularly involved in the process, but the EU and the World Bank have also supported the process by funding international consultants and domestic training events.

The efforts of the Ministry of Finance and international partners has resulted in the gradual implementation of 24 IPSAS standards since 2014. These standards and are currently mandatory for line ministries in preparing their entity financial statements. The consolidation of ministerial financial statements into a central government financial statement has been under way since 2012 under various standards. Presently, a whole of government financial statement based on the application of 24 IPSAS standards has not yet been realised, owing to inadequate software. The consolidation was originally planned for 2020, but then postponed until 2022. Originally, local government was anticipated to be included in the consolidation, but this plan has been delayed until 2023. There are no plans to consolidate state-owned enterprises in the financial statements. Some important elements of the financial statements are still accounted for on a cash basis due to system limitations (i.e. tax revenues).

The impact of the reforms is not evident. Although line ministries have been preparing accrual-based financial statements since 2014, no evidence has yet emerged of clear advantages or benefits in terms of better decision making. The Ministry of Finance considers it is too soon and the reform is not yet completed, and only expects managerial benefits once the system is fully implemented. The ministerial accounting and reporting practices are not yet up to these standards, as indicated by the audit opinions of the SAO. In the 2020 financial year, five ministries out of the eight audited received an adverse opinion. For parliamentary decision making, the reform is not relevant. Financial statements and audit opinions are shared with Parliament, but they are not actively reviewed. The working group of the Finance and Budget Committee dedicated to the review of the audit report deliberated on all Financial Statements and related audit reports as one agenda item about one year after the closure of the fiscal year.

Budgetary control has not changed under the accounting reform. Budget execution is still done on a cash basis, and no commitment control system has been added to the accounting system. Government

⁴³ GEL 10.888 million (in Georgian lari).

commitments are monitored through other management information systems, under contract management processes. Long-term government commitments are reflected in the mid-term expenditure framework, which is annexed to the annual budget approved by the Parliament. In this way, Parliament is able to estimate future expenditures of the long-term contracts. This mechanism is not related to any specific basis of accounting.

3.2. Montenegro

Budget accounting in Montenegro is done on a cash basis, with inflows and outflows recorded on a cash basis. Assets and liabilities are supposed to be recorded on an accrual basis, but a state asset registry has not yet been established, even though it was made mandatory under the 2010 Law on State Property. Apart from the quarterly and annual reports on arrears, no information on assets and liabilities is in the financial reports. The State Audit Institution's opinion on the reliability of the data presented in the year-end financial reports has been positive (unqualified for financial audit) for five years in a row.⁴⁴ Except for the reliability of the data on arrears, there are no major material concerns about the accuracy of cash-based information included in the financial reports.

In 2015, the Government adopted the "Strategy for transition of the public sector to accrual accounting".⁴⁵ Key pillars of the reform were: training of accountants in the public sector, adoption of the law on public sector accounting and improvement of the accounting IT system for new accounting methodology.

The Law on Public Sector Accounting was adopted in 2019 as the legal basis for introducing accrual accounting in the public sector.⁴⁶ Several bylaws and rulebooks are in development but have still not been adopted. The chief rationale for introducing changes to the public sector's accounting system, as noted in the Law on Public Sector Accounting, concerns the information requirements of external users, primarily international financial institutions. This relates specifically to the fiscal statistical data required by the IMF and Eurostat, which is based on an accrual concept of expenditures and revenues. The cash basis of the accounting system was deemed insufficient to deliver on those requirements. Other reasons include better information for better public sector management in line with modern management concepts, the development of cost and managerial accounting and improved quality of asset, liability and cost management. Accrual accounting is also expected to increase transparency in the use of public funds. The new law does not make explicit reference to the IPSAS standards.

The draft Public Financial Management Reform Programme (PFMRP) 2022-2025 confirmed the commitment of the Ministry of Finance to transition towards full accrual-based accounting. The PFMRP links the reform with asset registry development and a multi-annual arrears registry. However, the original deadline for accrual accounting to enter into force (2021) was extended to 2024. This was intended to provide more time for the design and implementation of a software solution for the new accounting methods. In addition, further training and certification on accrual accounting of the public sector accountants is planned. The cost of these two preparatory activities is estimated at EUR 1.2 million, which is expected (at least partially) to be funded by donors.

⁴⁴ The audit of the 2021 Year-end budget report has an adverse opinion on both compliance and financial audit, which is mainly a consequence of the implementation of interim financing mechanisms during the first six months of 2021 at the central level, for the first time, published in October 2022, http://www.dri.co.me/1/index.php?option=com_k2&view=item&id=987:objavljen-izvještaj-o-reviziji-predloga-zakona-o-završnom-računu-budžeta-crne-gore-za-2021-godinu&lang=sr&Itemid=0

⁴⁵ Strategy is available at: <https://www.gov.me/dokumenta/28ecb9b5-3aa1-4f3e-958d-0fe26f75305d>

⁴⁶ Version in Montenegrin available at: <https://www.gov.me/dokumenta/2f5c9509-26da-42e8-b2f5-239acbf29f21>

The target group identified for capacity-building support was public sector accountants (financial staff). Since the adoption of the Strategy in 2015, about 120 public accountants have completed training on accrual accounting. The training was provided by national and international organisations and funded by a donor-supported programme. To increase staff retention, contracts establishing a mandatory three-year period in the public administration were signed with all the trainees. Because the deadline for legislation entering into force was delayed until 2024, it is likely that the requirement to remain in the administration for staff who have been trained will be expired at the time accrual accounting is introduced.

There is no evidence that training programmes on accrual accounting have been organised for the managerial staff, nor that information on the benefits of the new system for the decision-making process has been shared with them. Presently, programme budgeting is still in its initial phase, and budget programmes are not directly linked to responsible managers. Managerial accountability and the delegation of authority is not developed⁴⁷.

In the development of the Law on Public Sector Accounting, the Ministry of Finance received support from several development partners, especially the United Nations Development Programme, the World Bank and the IMF. The Law went through a public consultation process that only included the Union of Municipalities and the Institute of Certified Accountants. Most comments were not accepted.

There appears to be a low level of understanding and awareness of this reform process by the other stakeholders, including the Parliament. The main engagement of the Parliament in the process was the adoption of the original law on public sector accounting (2019) and its subsequent amendments (2021). The legal adoption process did not inspire a lot of debate. Except for three technical amendments filed by a single member of parliament, no further involvement of the Parliament was recorded. Additionally, neither members of parliament nor the parliamentary staff appear to have received any training on accrual accounting and what it might imply for their role. More experienced members of parliament in the Budget Committee have registered a level of caution, expressing concern that the information they will receive on spending may be more obscure, rather than more transparent.

On the other hand, the State Audit Institution has been gradually increasing its own capacity in accrual accounting, but it is not actively engaged in the reform to maintain its independent position. However, it has recommended related reforms, such as the completion of the asset registry and the disclosure of arrears in the financial statements.

3.3. Morocco

Morocco aims to publish its first Annual Financial Statements on a full accrual accounting basis for the fiscal year 2022. Reforms began in 2005 at the impetus of the Ministry of Finance and the *Trésorerie Générale du Royaume* (TGR) and were implemented through four consecutive cycles of the Public Administration Reform Support Programme (PARSP I-IV). The main objectives were to (i) improve budget management and efficiency of the public administration, (ii) strengthen human resource management, (iii) control the Wage Bill, and (iv) simplify administrative formalities and procedures.

The PARSP design was informed by a similar reform in France that adopted a new organic Finance Law in 2006. It focused largely on budget management, with a view to converting the budget to a Programmatic Budget Based system providing for reporting on (i) performance information and (ii) an accrual basis of accounting compatible with IPSAS standards. Initial reforms have resulted in the

⁴⁷ OECD (2021), *SIGMA Monitoring Report: Montenegro*, OECD, Paris <https://www.sigmaxweb.org/publications/Monitoring-Report-2021-Montenegro.pdf> rated managerial accountability at 1 on a scale from 0 (lowest) to 7 (highest).

passing of the new Organic Law of Finances (*Loi Organique relative à la loi de Finances*) that established both principles in the legal framework in 2015.

Morocco was admitted to the International Public Sector Accounting Standards Board (IPSAS Board) in January 2012. The admission to this international body, in charge of accounting and financial issues, makes Morocco the first Arab country and the third African country after South Africa and Kenya to join the Board.

Before the reform, Morocco used a modified cash basis of accounting that covered non-cash items such as multi-year commitments, contingent liabilities (social benefits, pensions), payables and arrears and receivables. However, it excluded accounting for fixed assets and debt liabilities. The systems also enabled comparison of actual receipts and expenditures, and commitments against (approved) budget appropriation.

In order to implement the reform strategy, the new accounting standards (based on IPSAS providing for the accrual basis of accounting) were formally adopted through the Organic Law of Finances, 2015. Though legislative approval was required, no information is available on whether any analysis of costs and benefits were presented to Parliament.

On the basis of the new Law, further work was focused on designing operational procedures and internal controls, formulating a new chart of accounts, aligning the integrated financial management information system (IFMIS), introducing programme-based budgeting, the design of the contents and format of the annual financial statements and training of finance and accounting staff. However, to date, the final version of the financial statements, such as the balance sheet and performance reports, has not yet been concluded.

The various cycles of the PARSP were well supported by the donor community (including the African Development Bank, the EU and the World Bank). Recently, the TGR obtained further EU support for a twinning project in which France's Ministry of Finance supports the transition to a full accrual basis of accounting.

To date, that transition has been led by the TGR, and training has been limited to TGR staff across the country. The reform and transition still needs to take root with users. It has, however, been limited by a lack of understanding in all government ministries, departments and agencies other than the TGR, due to the lack of knowledge and the training of a wider user group.

External audit by the Court of Auditors is provided for in the Organic Law on Finances. The Moroccan Court of Auditors avoided involvement in designing the reform to protect its independence as external auditor. The financial audit of the Financial Statements will require a change in the staffing profile and new audit procedures as the Court of Auditors has mainly conducted compliance-based auditing and performance auditing. The Court is preparing its audit strategy based on the expectation that the first set of accounts prepared on the basis of accrual accounting will be presented for the 2022 financial year.

3.4. Serbia

In Serbia, a cash-based system is applied for financial reporting and accounting in the public sector. The coverage of the current accounting and reporting system includes cash-based budget execution reporting and cash-flow statements. The final account includes a balance sheet, and a set of other reports, but does not include complete data on assets and liabilities.

The Ministry of Finance has now made it a priority to strengthen cash-basis accounting and harmonise it with international standards (Cash Basis IPSAS). This goal is included in the latest Public Financial

Management Reform Programme (PFMRP) for 2021-2025 and represents a departure from earlier intentions for moving towards accrual standards laid out in the PFMRP 2015-2020.

The Government eventually decided to adopt less ambitious reforms and to improve existing practices instead. It was argued that this approach would allow time to prepare for the adoption of accrual standards. The decision to strengthen the cash basis was informed by a cost benefit analysis and an international comparative analysis of accounting reforms in the Western Balkans.

The absence of an accrual accounting system does not prevent Serbia from reporting its fiscal statistics to the IMF and Eurostat in line with international standards (the IMF's General Finance Statistics Manual, or GFSM, and the European System of Accounts, or ESA). Guided by a co-operation agreement between the Ministry of Finance (with subordinate bodies), the National Bank and the Statistical Office, the three institutions share responsibilities for fiscal data collection and reporting. In the absence of accrual accounting standards, they have established an alternative methodological approach for compiling cash-based data in the required ESA and GFSM formats.

Other domestic stakeholders in the PFM system are not pushing the Government to reform towards IPSAS. The Fiscal Council has no formal position on public sector accounting reforms, but unofficially, it believes that the benefits of adopting accrual standards are limited. The Supreme Audit Institution refrains from taking a position on accounting reforms to safeguard its independent position in future financial audits. Finally, the National Assembly or its finance committee has not given an opinion on the direction or costs and benefits of accounting reform. The finance committee, which is represented in the PFM Reform Programme steering board, intends to monitor this subject closely after submission of first reports by the Commission for the Application of IPSAS, newly established by the Ministry of Finance.

The reforms to improve the current cash-based system include plans to replace Serbia's budget execution information system (ISIB), by another information system, SPIRI, in 2023. The new system will integrate budget preparation, execution, accounting and reporting. The system should also modify the current system by adding commitments and payables. Currently, two electronic registers – RINO, for settling monetary obligations, and CRF, for registering payment requests to public sector entities, are in place to monitor obligations, including arrears. No system yet allows for capturing and managing all overdue payments and other commitments, including multi-year ones.

Further requirements are also necessary for the inventory of all assets and liabilities. The State Audit Institution regularly reports on issues with inventorying and managing assets and liabilities and recommends legal adjustments. The management of (non)-financial assets and monitoring of liabilities is often hampered by budget users' faulty data management. The asset registry of the Public Property Directorate is populated based on budget users' data on fixed assets, but there are issues with the accuracy and completeness of its data.

3.5. Conclusions

This chapter provided insight on the approach to accounting reform in four of SIGMA's partners. The case studies reveal some common characteristics of their approach to the reform:

- The expectations of the reform are primarily driven by a desire to adhere to an international standard rather than by the need to improve on specific shortcomings in the applied accounting and reporting systems. The importance of abiding by an international standard is fueled by the need to gain international credibility (Georgia, Serbia), the ambition to adhere to the same standards as peers (Morocco) and the perception that the reform is required to comply with international fiscal statistics (Montenegro).

- As the reforms are not driven by analysing the shortcomings of the applied accounting systems, no review has been conducted of alternative ways to address the problem in more economic or effective ways. Adherence to the IPSAS standard is the goal of the reform.
- In most countries, the goal is not informed by a cost-benefit analysis. Serbia alone carried out a cost-benefit analysis inquiring into the benefits of the reform in a comparable context. As a result, it scaled back its ambitions. Adherence to an international standard remains the objective, but it was shifted from the IPSAS accrual to the Cash Basis IPSAS standard.
- The emphasis on implementing IPSAS as a goal in itself explains the limited interlinkage with other reforms focused on enhancing managerial accountability. In all instances, the IPSAS reform is part of a broader PFM reform strategy that includes activities to enhance managerial accountability. However, the linkage between both reforms is never made explicit, with no expectation that public managers will make use of the enhanced information base for costing public service delivery. Training programmes accompanying the accrual reforms are exclusively focused on finance and accounting staff and never reach out to public managers.
- Parliaments are not involved in the accounting reforms. Although they are made aware of the reform intentions in determining PFM reform strategies, they are not explicitly asked to approve the reform. The accrual accounting reform and adoption of IPSAS are treated as a technical reform implemented by the Treasury and the accounting cadre. This lack of parliamentary involvement reduces discussion and may speed up the reform process. However, it also ensures that the parliament is not the main user of financial statements, as explicitly recognised by IPSAS. Parliament's lack of interest helps explain why none of the case studies contemplate changing their budgeting methodology to accruals and why the cash-based budget execution report is expected to remain the government's main accountability document to the parliament.
- International development partners are closely involved and have provided ample support for the reforms. Reforms towards accrual accounting do not appear to have been imposed, although their inclusion as performance benchmarks in EU budget support operations in Georgia provided a strong signal. In most cases, international partners make suggestions for the reform and provide support once beneficiary countries have committed to the reform.

4. Overall conclusions and recommendations

4.1. Overall conclusions

This report discusses the costs and benefits of the transition from cash to accrual accounting in the public sector for SIGMA's partners in the Western Balkans and the European Neighbourhood. Because they are primarily low middle-income, they are confronted with a variety of challenges in public administration and PFM. Nevertheless, the countries are attracted by the promises of accrual accounting, an interest that is reinforced by international organisations, the need for international legitimation, promises of donor support and the periodic need to draft PFM strategies with new reform initiatives in order to be eligible for financial support from the EU.

Their attraction towards accrual accounting fits in with a long-term trend in the public sector since the proliferation of the New Public Management theories in the 1990s. Accrual accounting and the corresponding IPSAS standards are widely promoted as superior to cash accounting. This is often expressed in general statements about the benefits of the reform, such as increased transparency and accountability, better-informed decision making and improved internal processes, control and risk management.

Although these claims can be easily defended against basic cash accounting, a full accrual accounting system is less clearly superior by comparison with modified versions of cash accounting. This report shows that modified forms of cash accounting can incorporate the benefits of recording and reporting on commitments, payables and receivables. They can also include balance sheets to present the government's financial assets and liabilities. In addition, such forms of modified cash accounting keep a clear focus on cash transactions for budgetary and accountability purposes, supporting easy-to-understand fiscal indicators, such as budget deficit and net borrowing. Finally, asset management can be optimised through adequate internal control measures, while a well-developed medium-term budget planning methodology should provide information on future liabilities.

IPSAS financial statements provide more information. However, they also carry the administrative burden of reporting and certifying a full balance sheet of assets (financial and non-financial) and liabilities (both short- and long-term). In addition, they may require government-wide adaptation or adjustment of the financial information systems. This type of burden can be justified if the additional information is used by stakeholders to improve financial decision making. This report, however, could not establish that this was the case. In contrast, the accrual information is difficult to understand for parliamentarians and increases the leverage of the administration controlling the technical details. Evidence that the information is used by public managers to cost their activities and for seeking efficiencies is also scarce. Finally, the delivery of accrual-based fiscal statistics is not dependent on the accounting system, but can be prepared by national statistical offices using other methods.

No authoritative academic study on the costs and benefits of accrual accounting, demonstrating unambiguously, with empirical evidence, the superiority of accrual accounting for the public sector is

available. In contrast, evidence from academic studies predominantly do not observe benefits of accrual-based accounting systems in the public sector. This may be a result of difficulties in measurement. Given the large number of interlinkages and lack of quantification of key concepts, correlations between accounting reforms and improved PFM practice are difficult to demonstrate. However, case studies, both in the academic literature and the studies of Bulgaria, France and Estonia included in this report, do not provide evidence of plausible relations between the accounting reform and the actual use of information.

This partly results from the observation that the benefits of accrual accounting are not as great in practice as promised by its proponents. The balance sheet is not used either for accountability or for budget planning purposes. The use of the accrual accounting information for cost accounting requires additional software and cannot be derived from the general accrual accounting systems. Partly this follows from the observation that many shortcomings of cash accounting can be addressed within a modified cash accounting framework and with financial management measures outside the accounting system.

Possibly, these conclusions are a result of the half-completed reform. Some proponents of accrual accounting claim that the real benefits of accruals will only emerge if they are used for budget planning too. Others claim that results depend on the implementation of broader New Public Management reforms. There may be some truth in these claims advocating for even more fundamental reforms. However, case studies of SIGMA's partners show little interest in the application of accruals in budgeting or in linking the accounting reforms to other public administration reforms, such as managerial accountability or performance management.

The lack of interest in accrual budgeting is linked to SIGMA partners' main objective for adopting accrual accounting. The case studies show that the reforms are driven by a desire to adhere to an international standard, rather than a need to improve specific shortcomings in the existing accounting and reporting systems. This desire is totally legitimate, since adhering to an international standard increases the government's credibility. However, given that the EU cannot reach consensus on the benefits of accrual accounting and that fiscally prudent Member States, such as Germany and the Netherlands, oppose mandatory implementation of accrual-based EPSAS standards, SIGMA partners should carefully consider the costs and the benefits of the reform before they engage in such fundamental reform. Such cost-benefit analyses are generally not performed, with the exception of Serbia. Serbia's cost-benefit analysis, meanwhile, led the country to tone down its ambitions and to aspire to adopt Cash Basis IPSAS standard.

4.2. Recommendations

SIGMA partners face a number of unique challenges. These include the large number of competing priorities for public sector reform and serious constraints in the area of human and financial resources and information technology (IT) capacity. They operate in environments where even traditional cash accounting is not always well established. Finally, they often struggle to overcome weak governance regimes and combat corruption.

In this context, moving to full accrual accounting should not be considered a short- or medium-term priority. It would be advisable for SIGMA partners to follow these steps before including such a reform in the government's PFM reform agenda:

- Seek compliance with Cash Basis IPSAS standards and modify (over time) the purely cash-based system, by recognising all parts of the transaction, especially commitments, payables, receivables, payment and tax arrears, and disclose this accrual information in financial reports.
- Prepare a balance sheet for current financial assets and liabilities, including the debt stock.

- To improve accountability and transparency, invest reform capacity in higher-quality, non-financial performance information and budget transparency via open budget tools.
- Elaborate and integrate asset management into the applicable financial management and control (FMC) guidelines. This should include, at a minimum, actual asset registers at each budget organisation. Ensure compliance via adequate internal and external audit mechanisms.
- Also, prepare medium-term maintenance plans of assets to optimise their economic lifespan and ensure that the estimates are incorporated in the medium-term budget projections.
- Strengthen budget preparation by identifying and calculating both long-term liabilities and contingent liabilities and reflecting them in the medium-term budget framework. Periodically, extend the period of the prognosis to increase understanding of the sustainability of the government's financial situation in the medium to long term.
- Ensure that debt management is guided by rolling, annual debt management strategies and debt management reports. Include also an overview of guarantees given to state-owned enterprises in the reports.
- Consider options to make public managers cost efficient within the framework of a modified cash accounting system. Possible options could be regular spending reviews, introduction of a capital charge, annual cost-efficiency targets, and installing costing software in entities that deliver services directly to citizens.
- For Supreme Audit Institutions, focus financial audit on the Consolidated Budget Execution Report, the application of commitment controls and records of payment arrears. Complement the financial audit with system-based compliance audit on asset management (in addition to compliance audit on other high-risk topics such as public procurement).

If the government has the ambition to implement full accrual accounting and apply IPSAS accrual, it would be advisable for SIGMA partners to take the following steps:

- Carry out a cost-benefit analysis based on a clear understanding of the public financial management weaknesses linked to the accounting system. The starting point should be the information needs of the primary users.
- Consider in the cost-benefit analysis the adoption of accrual budgeting as a reform option and the link with wider public administration reforms, because these complementary reforms may enhance the impact of an IPSAS-based accounting system.
- Involve key stakeholders in the discussion of the reform objectives. Parliament, since it is the primary user of the government's financial reports, must be engaged and support the transformation. Involve the external auditor in the process from the outset. The reform may require that the organisation, career structure and training of auditors be significantly changed as well as the audit approach and mandate.
- Consider a phased approach and start the implementation of accrual accounting at agency level, where most of the benefits of the New Public Management theories are expected. After reporting positive experiences and a good understanding of the system, consider the reform for general government. Consolidation into a whole-of-government balance sheet should be a last step.
- Do not restrict training to accountants in the accounting units, but incorporate a comprehensive management training programme for public managers in using accrual accounting information for more effective management.

Annex 1. Simple examples that explain the difference between cash and accrual accounting

Four examples of different economic events are given below, to show the different principles underlying cash and accrual accounting⁴⁸.

1. Employment expense

If the public service salary includes a cash payment of 25 and another 10 to be paid later as a pension, the cash accounts records only the cash payment of 25, while the accrual accounts record the whole 35 as an expense in that fiscal year.

2. Asset sale

If an asset (building) is sold for 20, with the payment received in cash, the balance in the bank account is increased by 20, so the cash position improves. In accrual accounting, the net worth of the government is unchanged, as one asset, cash, goes up, while another asset goes down by an equal amount of 20.

3. Environmental liability

If the courts issue a judgement requiring the government to clean up some contaminated sites at a cost of 50, the cash accounts show no change in the government's position. On an accrual basis, the accounts recognise an expense and a liability, and net worth declines by 50.

4. Investment in infrastructure

If an investment is externally procured for an amount of 100, cash accounting records the payment of the contractor's invoice contractor for that amount. The expense in accrual is determined based on the annual depreciation across the economic lifespan of the investment. If the economic lifespan is 20 years, this would be 5 in a given fiscal year. The value of the infrastructure (minus the sum of previous depreciations) is recorded as an asset in the balance sheet.

The accounting book in the cash accounting system will provide the following picture of a government's net position.

⁴⁸ The first, second and third example are reproduced from Ian Ball, John Crompton and Dag Detter (Ball, Crompton and Detter, 2022^[38]), "Public financial management 2.0", in *Public Finance Focus*, 23 June.

<https://www.publicfinancefocus.org/viewpoints/2022/06/public-financial-management-20>.

Transaction	Budget execution report		Balance sheet	
	Revenues	Expenditures	Assets	Liabilities
1. Employment expense	-	25	-/- 25	-
2. Asset sale	20	-	+ 20	-
3. Environmental liability	-	-	0	-
4. Infrastructure investment	-	100	-/- 100	-
Surplus deficit	+20	-125	-/- 105	0

In the accrual accounting system, the accounting book will provide the following picture of the government's net position.

Economic event	Operating statement		Balance sheet			Net worth
	Revenues	Expenses	Assets		Liabilities	
			Cash	Other		
1. Employment expense	-	35	-/-25	-	10	-/-35
2. Asset sale	20	-	+ 20	-/-20	-	0
3. Environmental liability	-	50	0	-	50	-/- 50
4. Infra-investment	-	5	-/- 100	+ 95	-	-/- 5
Surplus/deficit	+20	-90	-/- 30		60	-/- 90

Annex 2. Main differences among accounting systems

Accounting issues	Cash basis	Modified cash basis	Modified accruals	Accruals
Basic principles	The cash basis of accounting recognises transactions and events only when cash has been received or paid.	<p>Under the most common modification to the cash basis, the books are held open for a specified period after year end (e.g. around one month).</p> <p>As well as adopting modifications to the cash basis, governments may also provide additional disclosure of certain items normally recognised under accrual accounting. The disclosure of particular items will vary from jurisdiction to jurisdiction.</p> <p>In addition to the items disclosed under the cash basis, there may be separate disclosure of the near-cash balances represented by receivables and payables subsequently received or paid</p>	<p>A common modification at the accrual end of the spectrum is to exclude physical assets from the financial statements. Those statements will therefore highlight future funding requirements by reporting liabilities and financial assets.</p> <p>Modified accrual accounting follows the cash-basis method to record short-term events.</p> <p>It follows the accrual method to record long-term events.</p> <p>The non-recognition of certain classes of assets or liabilities is one of the most common variations on accrual accounting.</p>	The full accrual basis of accounting is geared towards recognising the financial effects of transactions and events in the periods in which they occur, irrespective of whether or not cash has been received or paid.

		during the specified period, and various financial assets and liabilities (IFAC, 2000) ⁴⁹ .		
Revenues recognised⁵⁰	Recognised when cash is received	Recognised when it is likely that cash will be received within x days	Recognised when underlying transaction or event occurs.	
Expenditure/expense recognised	Cash expenditures	Expenditures to be made within x days	Expenditures	Expenses including depreciation on all assets
Elements of financial statement	<ul style="list-style-type: none"> • Cash balances (and changes therein): <ul style="list-style-type: none"> - Cash receipts - Cash disbursements - Cash balances <p>The financial statement reporting model associated with the cash basis of accounting is a Statement of Receipts and Payments or Cash-Flow Statement that reconciles opening and closing cash balances.</p>	<ul style="list-style-type: none"> • Current financial resources (and changes therein): <ul style="list-style-type: none"> - Cash receipts plus receivables - Cash disbursements plus payables - Cash and near cash balances • The additional statements or note disclosures could include: • items recognised under accrual accounting: 	<ul style="list-style-type: none"> • Total financial resources (and changes therein): <ul style="list-style-type: none"> - revenues - expenditures - financial assets - liabilities - net financial resources • Assets available to meet liabilities as they fall due (financial assets) • Expenditures on the acquisition of the assets for 	<ul style="list-style-type: none"> • Economic resources (and changes therein): <ul style="list-style-type: none"> - revenues - expenses (including depreciation) - assets (financial and physical) - liabilities - net assets/equity

⁴⁹ IFAC (2000), *Government Financial Reporting, Accounting Issues and Practices*, Study 11.

⁵⁰ Includes items such as income tax, sales and property tax, fees, fines, donations, user charges, tolls, licenses, investment gains, lease revenues, sales of capital assets, transfer payments from other governments, dividends.

		<ul style="list-style-type: none"> - resources (lists of physical assets and investments) - borrowings • items normally disclosed under accrual accounting: <ul style="list-style-type: none"> - commitments - contingencies (guarantees, indemnities and securities) • other items: <ul style="list-style-type: none"> - unappropriated payments - tax expenditures - forecast information⁵¹. 	<p>use in the provision of goods and services⁵²</p> <ul style="list-style-type: none"> • Almost all the income statement items as recorded in cash-basis accounting • Modified accrual accounting recognises revenues when they are available and can be reasonably estimated. Revenues are available when they can finance the current expenditures within 60 days. • Expenditures are reported in the same way as accrual accounting. They are recognised in the period when they are incurred, regardless of when the cash payments take place⁵³. 	
Assets reported⁵⁴	• Cash balances	• Cash balances	• Cash balances	• Cash Balances

⁵¹ IFAC (2000), *Government Financial Reporting, Accounting Issues and Practices*, Study 11.

⁵² IFAC (1993), *Elements of the Financial Statements of the National Governments*, Study 2, paragraph 034.

⁵³ <https://corporatefinanceinstitute.com/resources/knowledge/accounting/modified-accrual-accounting/>.

⁵⁴ IFAC (1993), *Elements of the Financial Statements of the National Governments*, Study 2.

		<ul style="list-style-type: none"> • Accounts receivable within x days 	<ul style="list-style-type: none"> • Financial assets: <ul style="list-style-type: none"> - investments - inventories for sale - loans outstanding - revenues receivable - other receivables 	<ul style="list-style-type: none"> • Financial assets: <ul style="list-style-type: none"> - investments - inventories for sale - loans outstanding - revenues receivable - other receivables • Physical assets <ul style="list-style-type: none"> - inventories for use - land and buildings - plant and equipment - infrastructure assets - other assets
Liabilities reported	<ul style="list-style-type: none"> • Under pure cash basis, liabilities are not recognised in the financial statements. • However, separate schedules of borrowings are frequently prepared and published. 	<ul style="list-style-type: none"> • Accounts payable within a specified number of days⁵⁵ • Transfer payments payable within a specified number of days • Borrowings 	<ul style="list-style-type: none"> • Accounts payable • Transfer payments payable • Borrowings • Accrued liabilities (e.g. employee pension obligations and accrued interests) 	<ul style="list-style-type: none"> • Accounts payable • Transfer payments payable • Borrowings • Accrued liabilities (e.g. employee pension obligations and accrued interest)

⁵⁵ The specified number of days will be extended, as the basis of accounting moves from the modified cash towards the modified accrual and full accrual basis.

Annex 3. List of IPSAS Standards

Standard	Topic	Short description
-	Financial Reporting Under the Cash Basis of Accounting	<p>The purpose of this Standard is to prescribe the manner in which general-purpose financial statements are to be presented under the cash basis of accounting.</p> <p>The Cash Basis IPSAS was developed as an intermediate step to assist in the transition to the accrual basis of financial reporting and adoption of accrual IPSAS. It is not intended as an end in itself.</p>
IPSAS 1	Presentation of Financial Statements	<p>Standard prescribes the manner in which general-purpose financial statements should be presented, to ensure comparability both with the entity's financial statements of previous periods and with the financial statements of other entities.</p> <p>Standard sets out overall considerations for the presentation of financial statements, guidance for their structure, and minimum requirements for the content of financial statements prepared under the accrual basis of accounting.</p>
IPSAS 2	Cash-Flow Statements	<p>Standard requires the provision of information about the historical changes in cash and cash equivalents of an entity by means of a cash-flow statement that classifies cash flows during the period from operating, investing and financing activities.</p> <p>Cash-flow information allows users to ascertain how a public sector entity raised the cash it required to fund its activities, and the manner in which that cash was used.</p>

IPSAS 3	Accounting Policies, Changes in Accounting Estimates and Errors	Standard prescribes the criteria for selecting and changing accounting policies, together with the accounting treatment and disclosure of changes in accounting policies, changes in accounting estimates and the correction of errors.
IPSAS 4	The Effects of Changes in Foreign Exchange Rates	<p>The objective of this Standard is to prescribe how to include foreign currency transactions and foreign operations in the financial statements of an entity, and how to translate financial statements into a presentation currency.</p> <p>The principal issues are:</p> <ul style="list-style-type: none"> - which exchange rate(s) to use - how to report the effects of changes in exchange rates in the financial statements.
IPSAS 5	Borrowing Costs	<p>This Standard prescribes the accounting treatment for borrowing costs. This Standard generally requires the immediate expensing of borrowing costs.</p> <p>However, the Standard permits, as an allowed alternative treatment, the capitalisation of borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset.</p>
IPSAS 6	Consolidated and Separate Financial Statements	This Standard has been superseded by IPSAS 34, Separate Financial Statements and IPSAS 35, Consolidated Financial Statements.
IPSAS 7	Investments in Associates	This Standard has been superseded by IPSAS 36, Investments in Associates and Joint Ventures.
IPSAS 8	Interests in Joint Ventures	This Standard has been superseded by IPSAS 37, Joint Arrangements.
IPSAS 9	Revenue From Exchange Transactions	<p>This Standard prescribes the accounting treatment of revenue arising from exchange transactions and events.</p> <p>The primary issue in accounting for revenue is determining when to recognise revenue.</p> <p>Revenue is recognised when it is probable that:</p> <ul style="list-style-type: none"> - future economic benefits or service potential will flow to the entity

		<ul style="list-style-type: none"> - these benefits can be measured reliably. <p>This Standard identifies the circumstances in which these criteria will be met and, therefore, revenue will be recognised.</p>
IPSAS 10	Financial Reporting Hyperinflationary Economies	<p>The objective of this Standard is to prescribe the accounting treatment in the consolidated and individual financial statements of an entity whose functional currency is the currency of a hyperinflationary economy. The Standard also specifies the accounting treatment where the economy ceases to be hyperinflationary.</p>
IPSAS 11	Construction Contracts	<p>The Standard prescribes the accounting treatment of costs and revenue associated with construction contracts.</p> <p>The Standard:</p> <ul style="list-style-type: none"> - identifies the arrangements that are to be classified as construction contracts - provides guidance on the types of construction contracts that can arise in the public sector - specifies the basis for recognition and disclosure of contract expenses and, if relevant, contract revenues. <p>Primary issue in accounting for construction contracts is:</p> <ul style="list-style-type: none"> - the allocation of construction costs to the reporting period in which the construction work is performed - the recognition of related expenses.
IPSAS 12	Inventories	<p>The Standard defines the accounting treatment for inventories.</p> <p>A primary issue in accounting for inventories is the amount of cost to be recognised as an asset and carried forward until the related revenues are recognised.</p> <p>This Standard provides guidance on the determination of cost and its subsequent recognition as an expense, including any write-down to net realisable value.</p>

IPSAS 13	Leases	The objective of this Standard is to prescribe, for lessees and lessors, the appropriate accounting policies and disclosures to apply in relation to finance and operating leases.
IPSAS 14	Events After the Reporting Date	The objective of this Standard is to prescribe: <ul style="list-style-type: none"> - when an entity should adjust its financial statements for events after the reporting date; - the disclosures that an entity should give about the date when the financial statements were authorised for issue, and about events after the reporting date.
IPSAS 15	Financial Instruments: Disclosure and Presentation	This Standard has been superseded by IPSAS 28, Financial Instruments: Presentation; IPSAS 29, Financial Instruments: Recognition and Measurement; and IPSAS 30, Financial Instruments: Disclosures.
IPSAS 16	Investment Property	The Standard prescribes the accounting treatment for investment property and related disclosure requirements.
IPSAS 17	Property, Plant and Equipment	The objective of this Standard is to prescribe the accounting treatment for property, plant and equipment, so that users of financial statements can discern information about an entity's investment in its property, plant and equipment and the changes in such investment. The principal issues in accounting for property, plant and equipment are <ul style="list-style-type: none"> - the recognition of the assets - the determination of their carrying amounts - the depreciation charges and impairment losses to be recognised in relation to them.
IPSAS 18	Segment Reporting	The Standard establishes principles for reporting financial information by segments. The disclosure of this information will: <ul style="list-style-type: none"> - help users of the financial statements to better understand the entity's past performance, and to identify the resources allocated to support the major activities of the entity;

		<ul style="list-style-type: none"> - enhance the transparency of financial reporting and enable the entity to better discharge its accountability obligations.
IPSAS 19	Provisions, Contingent Liabilities and Contingent Assets	<p>The objective of this Standard is to:</p> <ul style="list-style-type: none"> - define provisions, contingent liabilities and contingent assets - identify the circumstances in which provisions should be recognised, how they should be measured, and the disclosures that should be made about them. <p>The Standard requires that certain information be disclosed about contingent liabilities and contingent assets in the notes to the financial statements, to enable users to understand their nature, timing and amount.</p>
IPSAS 20	Related-party Disclosures	<p>This Standard requires the disclosure of the existence of related party relationships where control exists, and the disclosure of information about transactions between the entity and its related parties in certain circumstances.</p> <p>This information is required for accountability purposes, and to facilitate a better understanding of the financial position and performance of the reporting entity.</p> <p>The principal issues in disclosing information about related parties are:</p> <ul style="list-style-type: none"> - identifying which parties control or significantly influence the reporting entity; - determining what information should be disclosed about transactions with those parties.
IPSAS 21	Impairment of Non-cash-generating Assets	<p>This Standard prescribes the procedures that an entity applies to determine whether a non-cash-generating asset is impaired, and to ensure that impairment losses are recognised.</p> <p>This Standard specifies when an entity would reverse an impairment loss, and prescribes disclosures.</p>
IPSAS 22	Disclosure of Financial Information About the General Government Sector	<p>The objective of this Standard is to prescribe disclosure requirements for governments that elect to present information about the general government sector (GGS) in their consolidated financial statements.</p>

		The disclosure of appropriate information about the GGS of a government can enhance the transparency of financial reports, and provide for a better understanding of the relationship between the market and non-market activities of the government and between financial statements and statistical bases of financial reporting.
IPSAS 23	Revenue From Non-exchange Transactions (Taxes and Transfers)	This Standard prescribes requirements for the financial reporting of revenue arising from non-exchange transactions, other than non-exchange transactions that give rise to a public sector combination.
IPSAS 24	Presentation of Budget Information in Financial Statements	This Standard requires a comparison of budget amounts and the actual amounts arising from execution of the budget to be included in the financial statements of entities that are required to, or elect to, make publicly available their approved budget(s), and for which they are, therefore, held publicly accountable.
IPSAS 25	Employee Benefits	This Standard has been superseded by IPSAS 39, Employee Benefits.
IPSAS 26	Impairment of Cash-Generating Assets	The objective of this Standard is to prescribe the procedures that an entity applies to determine whether a cash-generating asset is impaired, and to ensure that impairment losses are recognised.
IPSAS 27	Agriculture	This Standard prescribes the accounting treatment and disclosures for agricultural activity.
IPSAS 28	Financial Instruments: Presentation	This Standard establishes principles for presenting financial instruments as liabilities or net assets/equity and for offsetting financial assets and financial liabilities.
IPSAS 29	Financial Instruments: Recognition and Measurement	Have to define, formally deleted.
IPSAS 30	Financial Instruments: Disclosures	The Standard requires entities to provide disclosures in their financial statements that enable users to evaluate: <ul style="list-style-type: none"> - the significance of financial instruments for the entity's financial position and performance - the nature and extent of risks arising from financial instruments to which the entity is exposed during the period and at the end of the reporting period, and how the entity manages those risks.

IPSAS 31	Intangible Assets	<p>The Standard prescribes the accounting treatment for intangible assets.</p> <p>This Standard requires an entity to recognise an intangible asset if, and only if, specified criteria are met.</p> <p>The Standard specifies how to measure the carrying amount of intangible assets, and requires specified disclosures about intangible assets.</p>
IPSAS 32	Service Concession Arrangements: Grantor	The objective of this Standard is to prescribe the accounting for service concession arrangements by the grantor, a public sector entity.
IPSAS 33	First-time Adoption of Accrual Basis International Public Sector Accounting Standards (IPSASs)	<p>This Standard provides guidance to a first-time adopter that prepares and presents financial statements following the adoption of accrual-basis IPSASs, in order to present high-quality information:</p> <ul style="list-style-type: none"> - that provides transparent reporting about a first-time adopter's transition to accrual basis IPSASs; - that provides a suitable starting point for accounting in accordance with accrual basis IPSASs, irrespective of the basis of accounting the first-time adopter has used prior to the date of adoption; - where the benefits are expected to exceed the costs.
IPSAS 34	Separate Financial Statements	The Standard prescribes the accounting and disclosure requirements for investments in controlled entities, joint ventures and associates when an entity prepares separate financial statements.
IPSAS 35	Consolidated Financial Statements	This Standard establishes principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities.
IPSAS 36	Investments in Associates and Joint Ventures	This Standard prescribes the accounting for investments in associates and joint ventures and sets out the requirements for the application of the equity method when accounting for investments in associates and joint ventures.
IPSAS 37	Joint Arrangements	This Standard establishes principles for financial reporting by entities that have an interest in arrangements that are controlled jointly (i.e. joint arrangements).

IPSAS 38	Disclosure of Interests in Other Entities	<p>This Standard requires an entity to disclose information that enables users of its financial statements to evaluate:</p> <ul style="list-style-type: none"> - the nature of, and risks associated with, its interests in controlled entities, unconsolidated controlled entities, joint arrangements and associates, and structured entities that are not consolidated; - the effects of those interests on its financial position, financial performance and cash flows.
IPSAS 39	Employee Benefits	<p>This Standard prescribes the accounting and disclosure for employee benefits.</p> <p>The Standard requires an entity to recognise:</p> <ul style="list-style-type: none"> - a liability when an employee has provided service in exchange for employee benefits to be paid in the future; - an expense when the entity consumes the economic benefits or service potential arising from service provided by an employee in exchange for employee benefits.
IPSAS 40	Public Sector Combinations	<p>This Standard establishes principles and requirements for how:</p> <ul style="list-style-type: none"> - a reporting entity classifies a public sector combination as an amalgamation or an acquisition; - a resulting entity recognises and measures in its financial statements the identifiable assets received, the liabilities assumed and any non-controlling interest in an amalgamation; - a resulting entity recognises and measures components of net assets/equity and other adjustments recognised in an amalgamation; - an acquirer recognises and measures in its financial statements the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquired operation; - an acquirer recognises and measures the goodwill acquired in, or the gain or loss arising from, an acquisition; - a reporting entity determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of a public sector combination.

IPSAS 41	Financial Instruments	The objective of this Standard is to establish principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows.
IPSAS 42	Social Benefits	This Standard establishes principles and requirements for: <ul style="list-style-type: none">- recognising expenses and liabilities for social benefits- measuring expenses and liabilities for social benefits- presenting information about social benefits in the financial statements- determining what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of the social benefits provided by the reporting entity.

Annex 4. Academic literature review

Year	Reference	Country	Level	Method	Abstract	Results
2019	Adhikari, P. et al. (2019), "Unintended consequences in implementing public sector accounting reforms in emerging economies: Evidence from Egypt, Nepal and Sri Lanka", <i>International Review of Administrative Sciences</i> , 87 (4), pp. 870-887.	Egypt, Sri Lanka, Nepal	Central	Qualitative (case studies, semi-structured interviews)	This study investigates the implementation of public sector accounting reforms in Egypt, Nepal and Sri Lanka. Data for the article are derived from document analysis and semi-structured interviews with public administrators, government accountants and members of professional accountancy bodies. The article outlines the factors that have either individually or collectively hampered the diffusion of public sector accounting reforms in Egypt, Nepal and Sri Lanka at the implementation phase, including the bundling process, pro-innovation biases, informal and interpersonal networks, a boundary-spanning process,	No evidence for improvement of public management, but instead: internal conflicts and unintended consequences, including the fabrication of results, without any evidence of yielding better results for public sector governance and accountability. Includes references to other studies for emerging economies.

					organisational communication, power disparity and dominance.	
2014	Aljarde, I. and Julve, V. 2014, "Accrual Financial Reporting in the Public Sector: Is it a Reality?", <i>Innovar</i> , 24 (54): 107–20.	Spain	Local	Quantitative	Consequently, cash-based and accrual based financial information coexist in Spain. This paper analyses the differences in practice between the results disclosed in financial and budgetary statements under both bases of accounting in order to identify to what extent accrual accounting has been implemented and to verify whether budgetary and accrual-based financial figures are significantly different.	The research findings show that there is a high correlation between the current budgetary result and the economic result and, therefore, that in practice the accrual principle has not been implemented effectively. In practice, the coexistence of the two criteria leads to the predominance of the budgetary criterion, both in budgetary and in financial accounting. Therefore, despite accounting standards regulations providing for the application of the accrual principle, Spanish local entities prepare accrual financial statements that do not in fact apply accrual in many items, such as depreciation.

2019	Christofzik, D.I. (2019), "Does accrual accounting alter fiscal policy decisions? Evidence from Germany", <i>European Journal of Political Economy</i> , 60 (C).	Germany	Subnational, municipalities in Germany, data aggregated on state level	Quantitative	Following rules laid down by the federal states, municipalities in Germany have adopted accrual-based accounting systems gradually. The author exploits variations over time and across states to analyse the impact of adopting accrual-based accounting systems on fiscal decisions by federal states and municipalities.	The author finds no evidence for an impact on the overall financial balance. However, the study's findings suggest that accrual accounting has altered the structure of the budget. Revenues from the sales of non-financial assets have decreased significantly. This supports the hypothesis that municipalities had used these one-off measures before to meet fiscal constraints. Using data on entities controlled by the municipalities, the analysis provides no evidence for repercussions on these public funds, institutions or enterprises.
2019	Cohen, S. et al. (2019), "Local government administration systems and local government accounting information needs: Is there a mismatch?", <i>International Review of Administrative Sciences</i> , 85 (4), pp. 708-725.	11 European countries	Central	Mixed	Based on previous literature and data collected through a questionnaire, the article describes an exploratory study on the relations between local government administrative systems and local government accounting information needs in a sample of European countries characterised by a legalistic orientation.	The results reveal that there is a frequent mismatch between the needed accounting and performance measurement information for internal and external purposes assessed on the basis of the administrative system in place and the accounting information and performance measurement information required by the law

						for decision making and accountability. Moreover, as the results reveal, legislation in European local governments only sporadically stipulates the information suitable to satisfy the information needs created by the different levels of financial and organisational autonomy of local government administration systems to be available.
2020	Cuadrado-Ballesteros, B., F. Citro and M. Bisogno (2020), "The role of public-sector accounting in controlling corruption: An assessment of Organisation for Economic Co-operation and Development countries", <i>International Review of Administrative Sciences</i> , 86 (4), pp. 729-748.	33 OECD countries	Central	Quantitative	This study adds new insights to the academic debate on the effectiveness of both accrual-basis systems and the adoption of harmonised accounting rules at the international level by considering an additional perspective: their effect on corruption. This study investigates a sample of 33 OECD countries for the period 2010–2014, creating a panel data set that allows for an international comparative approach.	The results indicate that corruption is reduced as governments advance in public-sector accounting reforms, adopting International Public Sector Accounting Standards, or implementing accrual-basis systems.

2021	Dorn, F., S. Gaebler and F. Roesel (2021), "Ineffective fiscal rules? The effect of public sector accounting standards on budgets, efficiency, and accountability", <i>Public Choice</i> , 186 (3), pp. 387-412.	Germany	Subnational, counties in the German state of Bavaria	Quantitative	The study uses a quasi-experimental setting to evaluate whether changing public sector accounting standards is justified. Some local governments in the German federal state of Bavaria introduced accrual accounting, while others retained cash-based accounting. Difference-in-differences and event-study results do not show that (capital) expenditures, public debt, voter turnout, or government efficiency developed differently after changes in accounting standards. Operating costs of administration, however, increase under accrual accounting.	No effect on (capital) expenditures, public debt, voter turnout, or government efficiency. Operating costs of administration increase under accrual accounting.
2011	Hyndman, N. and C. Connolly (2011), "Accruals accounting in the public sector: A road not always taken", <i>Management Accounting Research</i> , 22 (1), pp. 36-45.	UK, Ireland	Central	Qualitative (interviews with key actors)	The transition from cash to accruals accounting for UK central government departments was announced in the early 1990s and was embedded within approximately ten years. At that time there were clear indications that analogous changes, following a similar timeline, would occur in the Republic of Ireland (RoI). In reality, the changes were significantly less extensive.	Significant cost increases (at implementation and in use). Accounting information is complex, few managers understand it, and there is limited conviction that its provision has resulted in improved decision making.

					Utilising document analysis and interviews with key actors, this paper considers why a functioning accruals system was established in the UK, whereas in the RoI the change to accruals accounting was a “road not taken” and explains why it may have been the wisest choice.	
2016	Kobayashi, M., K. Yamamoto and K. Ishikawa (2016), “The usefulness of accrual information in non-mandatory environments: The case of Japanese local government”, Australian Accounting Review, 26 (2), pp 153-61.	Japan	Subnational	Quantitative (survey)	This study investigates how accrual accounting is used in a system in which it co-exists with cash accounting. It uses a survey methodology to explore the factors that influence the extent to which accrual information is useful for decision making, when used in a dual system..	The results show that although accrual information was used less for budgeting, evaluation, asset management or debt management, officials found accrual information useful for performance management. Moreover, neither experience nor leadership significantly contributed to decision-making effectiveness. The study also found that the central government was the most influential promoter of accrual accounting in Japan. Of particular interest is the link between performance measurement and accrual information

2015	Lampe, H., D. Hilgers and C. Ihl (2015), "Does accrual accounting improve municipalities' efficiency? Evidence from Germany", <i>Applied Economics</i> , 47 (41), pp. 4 349-4 363.	Germany	Subnational, municipalities in the German state of North Rhine-Westphalia	Quantitative	As one core element in the New Public Management shift, Germany, like many other countries, has experienced significant reforms in public sector accounting and reporting in the last decade. We analyse the effect of new accounting and budgeting regimes. We therefore analyse the cost efficiency of German local governments in the state of North Rhine-Westphalia over three years, using a stochastic frontier approach. This study presents evidence for increased efficiency amongst municipalities due to the adoption of accrual accounting.	Positive impact on cost efficiency in the very short term.
2015	Laswad, F. and N. Redmayne (2015), "IPSAS and IFRS as the framework for public sector financial reporting? New Zealand preparers' perspectives", <i>Australian Accounting Review</i> , 25 (2), pp. 175-184.	New Zealand	Central	Quantitative (survey-based)	In New Zealand (NZ), the for-profit sector will continue to follow IFRS, but reporting standards for the public sector will be based on IPSAS. In this period of change, the study sought out the views of preparers of public sector financial reports on the users of such reports and their preferences for the public sector reporting framework. The study also sought the views of the	The findings indicate support for maintaining IFRS as a basis for reporting in the NZ public sector. However, IPSAS modified to NZ conditions is also perceived as an acceptable option by respondents in this study. The income statement is, in the opinion of the respondents in this study, the most useful statement, while cash flows appear to hold little

					preparers on the usefulness of each financial statement for users, and on whether the benefits of reporting by their organisations exceeds the costs.	value. A high proportion of respondents believe that the benefits of reporting exceed the costs, which contradicts the view that such reports are mainly compliance documents that provide little value.
2019	Mir, M., H. Harun and W. Sutyono (2019), "Evaluating the implementation of a mandatory dual reporting system: The case of the Indonesian local government", <i>Australian Accounting Review</i> , 29 (1), pp. 80–94.	Indonesia	Subnational	Qualitative (multiple case study approach)	Indonesia has reformed its public sector accounting, reporting and accountability systems by implementing a dual reporting system known as "cash towards accrual", following similar reforms in developed countries. This study draws on the experience of five local governments (districts) in Indonesia.	This study finds that the implementation of the dual reporting system has helped local governments to produce transparent and informative reports. However, the accrual-based contents of the dual reports produced by the new reporting system are underused for decision making. In addition, there has been a significant increase in costs associated with the implementation of the new accounting regime in the jurisdictions studied. The study also finds that the ability of the users to use information generated by the new accounting system is more important than a legal and mandatory requirement to use the new system.

2020	Muraina, S. and K. Dandago (2020). "Effects of implementation of International Public Sector Accounting Standards on Nigeria's financial reporting quality", <i>International Journal of Public Sector Management</i> , 33 (2/3): pp. 323–38.	Nigeria	Central	Quantitative	The purpose of this paper is to examine the effects of the implementation of the IPSAS on Nigeria's financial reporting quality. The study employed a survey research design to determine the effects of the implementation of the IPSAS on Nigeria's financial reporting quality. Partial Least Square 3(SmartPLS 3) technique of analysis was applied to achieve the research objective. The study only explored two explanatory variables, whereas other variables, such as transparency, corruption minimisation, comparability and faithful representation were not considered in this study.	The study found that IPSAS has improved the level of accountability, which in turn improved Nigeria's financial reporting quality.
2010	Pilcher, R. and M. van der Zahn (2010). "Local governments, unexpected depreciation and financial performance adjustment", <i>Financial Accountability & Management</i> , 26 (3), pp. 299-324.	Australia	Subnational	Quantitative	Prior management and manipulation of financial accounting information research has overwhelmingly been focused within a private sector setting. This study adopts a public sector focus in empirically examining the use of a specific discretionary accrual (i.e. depreciation) to adjust the financial performance	Findings indicate a significant positive association between absolute unexpected depreciation and absolute local government income before capital contributions, and a significant positive association between absolute unexpected depreciation and capital contributions.

					of local governments in New South Wales (Australia).	
2020	Rincón-Soto, C. and M. Gómez-Villegas (2020), "Institutional isomorphism in IPSAS adoption", <i>Cuadernos de Administración</i> , 36 (68), pp. 204-218.	14 countries	Central	Case studies	The paper identifies and compares the factors and conditions that influence the adoption, adaptation or non-adoption of IPSAS in different jurisdictions, from the institutional isomorphism perspective, by using the systematic literature review methodology. Our findings account for the factors and conditions that isomorphically influenced IPSAS adoption or adaptation processes in various jurisdictions. Coercive isomorphism has been mostly driven by international institutions, while mimetic isomorphism is linked to governments' search for trust. On the other hand, normative isomorphism has been related to the actions of political groups, public officials or professional institutions.	The adoption of IPSAS is driven by various institutional factors that lead organisations to follow isomorphic behavior. The risk of adopting this accounting model under isomorphic institutional pressures is potential decoupling between the information claims to represent under the IPSAS regulatory framework and the user's needs.

2021	Tawiah, V. (2021), "The impact of IPSAS adoption on corruption in developing countries", <i>Financial Accountability & Management</i> , 2021;1–22	77 developing countries	Central	Quantitative	This paper investigates whether IPSAS is a potential enabler or constrainer of corruption in developing countries. We employ the System Generalised Method of Moments on a sample of 77 developing countries between 2005 and 2017.	We find that IPSAS is negatively and significantly associated with corruption, suggesting that the adoption of IPSAS helps control corruption in developing countries. The results still hold after accounting for IPSAS experience and the adoption of other international accounting standards. However, in further analyses, we find that negative impact of IPSAS on corruption is more pronounced for countries that have fully adopted the accrual-based IPSAS. This study, therefore, provides evidence to policy makers on why developing countries should adopt IPSAS, especially in the fight against corruption.
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Annex 5. Analysis of acclaimed benefits of accrual accounting

The Public Sector Accounting and Reporting Programme (PULSAR), launched in 2017, is a regional and country level programme in 13 beneficiary countries of Europe and Central Asia funded by Austria, Switzerland and implemented by the World Bank. PULSAR's objective is to support the enhancement of public sector accounting and financial reporting frameworks in line with international standards.

In 2022, it published "The Benefits of Accrual Accounting in the Public Sector". In addition to the more general benefits such as increased accountability and better decision making in financial management, it provided four practical examples to demonstrate these benefits. Below, these benefits are reproduced and commented on.

Acclaimed benefits of accrual accounting based on (PULSAR, 2022 ^[37])	Assessment of the argumentation
School infrastructure information for decision-making (Cyprus)⁵⁶	
Part of the procedures undertaken to make the transition to accruals accounting was to identify, register, and measure the value of all public buildings, including offices, schools, and other public buildings. The	Accrual accounting requires an up-to date asset management system. However, there is no pertinent reason why the Ministry of Education did not modernise its asset register independent of the choice of the accounting

⁵⁶ Note by the Republic of Türkiye

The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

<p>Ministry of Education has been able to scrap the old and incomplete registers it used for the school infrastructure and put in place the new one developed under the accruals accounting transition. The new fixed assets register is an electronic one, which includes exact location, full specifications, year of construction, size, even photos of the assets involved. The Ministry is hoping to use the new Register in their everyday management of the schools, including:</p> <ul style="list-style-type: none"> a. Identifying maintenance needs (current and projected) of the buildings. b. Improving projections of the equipment needed in each school. c. More efficient use of areas within schools not being fully utilised. d. More efficient allocation of students to different schools that might be over or under loaded. e. Better use of school buildings, especially those with only a few students in rural areas. It has already been examined whether some buildings can be used as museums, or local authority's offices, or even as cultural centres. 	<p>method. Assets are public resources resulting from previous public investments. Governments are expected to ensure adequate maintenance to maximise the lifespan of the assets and their adequate utilization irrespective of the accounting system. An asset register is a tool that can be implemented independent of the accounting software. Its implementation should be part of internal regulations with compliance audited by internal and external audit.</p> <p>Specific for full accrual accounting and, generally, not done in cash accounting systems, is that the depreciation costs are added to the expenses of the Ministry of Education in the financial statements. Although the inclusion of depreciation in the total expenses to school buildings in a fiscal year gives a more complete picture of costs (as it includes depreciation on investments made in previous years), parliaments are generally more interested in the annual cash budget that has been spent on school buildings in a given fiscal year.</p> <p>Full accrual accounting also reports on the total value of the school's real estate value in the balance sheet. As stated below, the balance sheet is generally not used for financial decision making.</p>
<p>Registration and follow up of grants provided for specific purpose (Cyprus)</p>	
<p>Under the new accounting policy adopted on grants, if the government provides a grant to an entity or an individual for a specific purpose, we keep these entities or individuals under our "Receivables" in the Balance Sheet, until they fulfil their performance obligation, i.e. we verify that they spend the money for the purpose it was provided. In this way, we keep real time accounting records on whether government's policies are actually implemented through these grants; otherwise, the government will ask the money back from the entities or individuals failing to fulfil their performance obligations. Thus, we make sure that</p>	<p>The requirement to monitor compliance with subsidy arrangements is a basic requirement of the implementation of government policies irrespective of the accounting system. Public officers in a government that operate on a cash-basis are also expected to make sure that the subsidised entity has used the subsidy in accordance with government policies.</p> <p>In terms of registration in the accounting system, accrual information indeed deviates from cash information as cash transfers related to subsidies are decoupled from subsidy decisions. For the subsidising entity, it is crucial to record the subsidy as 'commitment'; for the subsidised entity, it is crucial to</p>

<p>there is an appropriate and effective way of using public resources (in this case the grants), in accordance with the government's policies</p>	<p>record the subsidy as 'receivable'. As noted in this report, a modified cash accounting systems will meet this requirement similar to an accrual accounting system.</p>
<p>Accrued liabilities for long term loans for accountability and planning purposes (Greece)</p>	
<p>Under the Master Financial Assistance Facility agreement (2012) between the European Financial Stability Facility (EFSF) and the Hellenic Republic as beneficiary Member State, that was part of the second package of financial assistance for Greece, EFSF disbursed 10-year loan tranches to Greece. The majority of these loan tranches had interest, which was due at the end of the repayment of the loan tranches. Through the accrual accounting we were recognising our accumulative liability every year (accumulative interest would be differed and paid with the amortisation at the end of the loans), helping us in accurate reporting and supporting us for accountability purposes. If we didn't have accounting in accrual basis we wouldn't have any information about this liability and suddenly at the end of the life of the financial instrument we would face a liability and probably our plans would be derailed.</p>	<p>The payment for future interest is a liability that needs to be taken into account for budgeting purposes in forthcoming years. In most countries (irrespective of the accounting systems), the management of debt and interest liabilities on debt are recorded by designated debt management systems managed by debt management departments in the Ministry of Finance or agencies under its control. Future debt liabilities are a basic input for the preparation of medium term fiscal frameworks. In terms of transparency, debt management reports are commonly added to the budget documentation and modified accounting systems even report on debt in their balance sheets. In case governments apply the existing tools, an accrual accounting system will add another control mechanism, but it will not be necessary tool to inform financial decisions and/or demonstrate accountability.</p>
<p>Impairment of receivables to reflect recoverable amount (Greece)</p>	
<p>Receivables of nominal value of EUR 105 billion had to be measured at the recoverable amount, i.e. the amount that is reasonably expected to be collected, for financial reporting purposes under accrual accounting. At the reporting date, impairment was calculated on the accounts receivable, so that they would be adjusted to the amount that would be reasonably expected to be collected. To assess the recoverable amount, a new policy was applied so as the impairment for these claims to be calculated on the basis of the floating average of the collection rates of the last five reporting periods. The result of applying this policy was a</p>	<p>IPSAS accrual accounting has standardised rules for the valuation of assets and liabilities in the balance sheet. Indeed, this allows users of the balance sheet to get assurance on the true and fair value of the items included in the balance sheet. However, for various reasons mentioned in this report, the use of the balance sheet in decision-making in public finance is very limited. The budget is the most important tool for financial decision-making in the public sector. For a credible budget, the recoverable part of outstanding receivables need to be annually assessed to make realistic (medium term) revenue estimates. The inclusion a true and fair disclosure on receivables in a financial</p>

huge amount of impairment, EUR 101 billion. Thus, accrual accounting principles helped to disclose the true and fair value of receivables in our financial reports.

statement is valuable for transparency and accountability, but the relevant decisions linked to it should have been made two years earlier in the budget to which that financial statement relates.

Annex 6. Case studies

Nine case studies informed the narrative of this report.

EU MEMBER STATES

1. **Bulgaria**
2. **Estonia**
3. **France**
4. **Germany**
5. **The Netherlands**

SIGMA PARTNERS

6. **Georgia**
7. **Montenegro**
8. **Morocco**
9. **Serbia**

The detailed case studies can be read at the following link:

<https://www.sigmaweb.org/publications/SIGMA-Paper-No-65-Annex-6-case-studies.pdf>

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6. public financial management, public procurement and external audit.

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- reform strategies and action plans
- progress in reform implementation.

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