Beyond Public Debt
The Hidden Rapid Erosion of EU Government Balance Sheets is a Financial Threat to Society
How to stop it

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Abstract
The EU is built on the promise of peace, economic prosperity and – since the Maastricht Treaty – also fiscal responsibility. The absence in several member states of a culture promoting responsible public financial management, however, has led to excessive public indebtedness, which negatively affects today’s economy and weighs heavily on the shoulders of future generations. Against this background, this paper argues that the introduction of modern Public Financial Management (PFM) systems – which not only take into account public debt but also non-debt liabilities and non-financial assets – can contribute to coupling economic growth with responsible fiscal policy. The tools exist and can provide the essential elements for stability and growth for member states and the EU as a whole. Changing the public management culture and reforming government accounts to reflect economic reality are essential steps Europe must take before it can reap the full benefits, and thereby create the necessary fiscal space and deliver better services to European citizens.
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Preface

The promise of peace and prosperity for all European citizens has been at the heart of the European integration project since its earliest days. Peace has undeniably been achieved, but what about stable economic prosperity?

Since the launch of Economic and Monetary Union (EMU), member states have remained in agreement that economic growth should not be fuelled by debt, making the integration of the EU economies largely dependent upon the exercise of fiscal responsibility at the national level. The debt and deficit criteria in the Maastricht Treaty as well as the ‘no bail-out’ clause in the Lisbon Treaty reflect this principle of fiscal prudence and concerns about ‘moral hazard’.

Today, however, it is arguable that the condition of fiscal prudence has not been respected, as attested by the rising debt levels of most EU countries before and following the financial crisis. Lacking a proper public financial management culture, many EU economies have in fact mortgaged future consumption and growth and shifted the burden of debt to future generations.

The crisis had a strong impact on public accounts. The banking crisis compelled governments to pump money into financially distressed credit institutions and – in the absence of fully operational national central banks – governments had little control over spiralling debt dynamics.

Against this background and in the context of a weak political union, with no supranational fiscal capacity and mutual mistrust, quantitative easing and fiscal austerity were the only solutions the EU was able to propose or, in some cases, to impose. For the sake of saving the incomplete architecture of the euro area, several governments were forced to make massive corrections, that in certain countries have severely undermined social cohesion.

Applying a methodology presented in this paper, we estimate that the total financial and non-financial assets of governments in all EU member states today amount to €15 trillion, while financial and non-financial liabilities amount to €29 trillion. This means that for each European citizen there are €29,600 in public assets and €58,200 in liabilities, or a negative net worth of €28,100.

As a result, citizens began to experience a deterioration of public services while taxation and the weight of public debt increased on their shoulders. Policymakers, journalists and even the general public started to focus on the debt dynamics in various EU countries.

Debt has also become a central topic of electoral campaigns. Some politicians call for member states to consolidate their government expenditure and reduce their level of debt. Others tend to blame the EU for insisting on unnecessarily onerous fiscal constraints and support the idea of sustaining economic growth by increasing government deficit and debt.

It should not however be forgotten that public debt is only an item on a government’s balance sheet. On its own, debt is not representative of the state of public accounts. Financial assets and liabilities, indeed, represent only 30% of public sector balance sheets.
Even if government financial statistics are deeply rooted in historical practices, they often do not represent the economic reality of a country. Most EU governments, for instance, do not publish consolidated financial statements based on internationally comparable standards. Non-financial assets and liabilities are often either not accurately reported or completely missing from the picture, including items such as public-sector pension liabilities. Most government accounts do not report non-financial assets, such as land, buildings and natural resources, leading to their mismanagement and creating costs rather than generating value. The failure of several governments to put in place proper accounting systems and effective asset management strategies has led to this predicament.

Nevertheless, Europe does not have to reinvent the wheel. Modern techniques of public financial management – based on accrual accounting and budgeting – do exist and can bring significant improvements to a government’s financial position. It is worth noting that the accounts of the EU budget use international accounting standards, reporting assets and liabilities in full – requested by member states that do not use these standards. The introduction of these standards has been accompanied by a rapid improvement in efficiency and a quality of financial management that are widely underappreciated.

This paper argues that it is possible to reconcile sustained economic growth and responsible fiscal policy if governments adopt modern Public Financial Management systems and start extracting value from public assets and effectively managing their liabilities.
Executive summary

Eleven years after the outbreak of the financial crisis, several countries are still crawling out of the economic damages. While the subprime crisis and its impacts were certainly significant, not enough attention has been paid to the reasons why governments were so unprepared in responding to it. In fact, it appears member states that benefitted from Cohesion Policy support to develop their economies for decades were the first to rapidly collapse overnight, putting the effectiveness of EU policies into question. Without minimising the severity of the crisis, this report seeks to understand the role of weak public accounting practices and their link to weak public financial management. Observed dysfunctions in government accounts can lead to significant potential risks and missed opportunities for creating value through the proper stewardship of public financial and non-financial assets.

Public accounting standards are overwhelmingly substandard and negatively affect economic performance and financial sustainability

It is possible to observe that countries with advanced public accounting standards achieve superior economic performance. It is certainly true that accounting standards are not sufficient without a strong culture of public financial (and asset) management, but the lack of reliable and complete information on public assets and liabilities can lead to significant inefficiencies in government interventions and fiscal policy. Very few member states follow international public financial accounting standards, which require the full disclosure of liabilities and assets, particularly non-debt liabilities and non-financial assets that often fall outside the scope of government public accounts reporting. This issue is not addressed with the urgency it deserves, because while the government accounts for close to half of annual GDP, it also has assets and liabilities with a market value often well above GDP. Two thirds of assets and liabilities are generally not reported and little information is provided on how an estimated €45 trillion in public assets is managed.

The present situation undermines the mutual trust necessary for the functioning of the eurozone

A look at the performance of EU and non-EU countries alike reveals that whenever government accounts fail to be comprehensive, published in good time and actually used in decision making, the management of public finances risks being suboptimal. Furthermore, lack of timely and accurate information makes it difficult to monitor the performance of government behaviour. This in turn is worrying in the case of the eurozone, where knowing the state of public accounts is critical for solid macroeconomic governance based on mutual trust.

Whereas the outbreak of the crisis led EU institutions to intervene and impose more stringent reporting provisions, for instance on explicit contingent liabilities, other issues were overlooked. This is, for instance, the case of public sector unfunded pension liabilities and non-financial assets. Yet, considering their size, these items cannot be neglected and their amounts should instead be disclosed and monitored appropriately. On the contrary, figures are often not disclosed or not readily available. Applying the so-called Freiburg Model, Müller et al (2009) show that pension liabilities of ten euro area member states in 2006 amounted on average to
349% of national GDP. On the contrary, non-financial assets in France, UK and Czech Republic in 2016 amounted respectively to 87.5%, 49% and 274% of their national GDPs. According to IMF estimates (2014), non-financial assets in Portugal in 2012 were equal to 72.6% of GDP.

Unravelling this knot is fundamental for member states, as the absence of appropriate and comprehensive data can contribute to considerable economic and social losses and may reinforce structural inefficiencies in the management of public resources. Yet, it is also a compelling issue for the EU and especially for the eurozone, where – as demonstrated by the sovereign debt crisis – situations of financial hardship can trigger a widespread contagion spiral and threaten the existence of the currency union.

That poor public accounts and budgetary rules hinder effective fiscal governance in the eurozone was belatedly recognised by the EU Council as an essential issue to address for the stability and governance of the single currency. Consequently, it asked the European Commission as part of the “Six-Pack” legislative package in November 2011 to launch an assessment of the suitability of International Public-Sector Accounting Standards (IPSAS) for EU member states by the end of 2012. IPSAS are internationally recognised accounting standards that offer a more detailed and fair picture of the state of government finances if applied comprehensively. A few member states have now adopted IPSAS standards, but only partially (most do not report on all assets and liabilities). It is fair to note that the European Commission has adopted IPSAS for the EU budget balance sheet. The adoption of such standards Europe-wide (in a consolidated fashion as EPSAS – European IPSAS) is being developed, but there is a lack of urgency among member states.

The lack of information on non-debt liabilities and non-financial assets has also led to gross public debt being used as a proxy for the state of government finances. This can lead to a misrepresentation of government accounts, which in turn has a bearing on assessments of the level of sustainable debt and also the credit rating of a country. Against this background, this paper proposes the adoption of comprehensive accrual accounting practices based on internationally comparable standards that provide the necessary detail for independent professionals to vet the numbers, and are audited according to the strictest international practice.

**Good accounting and public financial management can create value for society**

While this would create greater transparency, there is a considerable benefit beyond that of fuller reporting: the potential for significantly improving the performance of governments in creating value for society through the use of good Public Financial Management systems.

As accrual accounting systems require governments to monitor all public assets – including non-financial assets – modern public financial management systems incentivise governments to design and implement effective public asset management strategies. In fact, even assuming a

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1 Austria, Germany, Spain, Finland, France, Greece, Italy, Malta, the Netherlands and Portugal
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low level of returns, well-managed non-financial assets would generate fresh resources that governments could dedicate to public investments or debt reduction strategies.

**Government net worth indicators are also indicators of good governance**

A key indicator for governments is ‘net worth’ and annual changes in its value. The change in net worth represents shifts in the value of the assets and liabilities under the stewardship of the government. If governments fail to manage the financial and non-financial assets well, net worth deteriorates over time. This may be, for example, due to the lack of maintenance of public assets leading to their deterioration, loss of value and higher replacement costs or increases in debt not investment in ways to generate a positive economic impact and ultimately higher government revenues.

Modern public financial management systems linked to accurate public accounts can help governments i) produce better and more reliable data, ii) enhance their strategic fiscal decision making, iii) improve their ability to extract value from public assets, through the implementation of an effective public asset management strategy, iv) increase long-term GDP potential and thereby living standards, v) improve transparency, accountability and democratic scrutiny.

**New Zealand paved the way, Portugal now adopting full standards**

A prime example of the potential power of a comprehensive accrual based accounting system coupled to an advanced public financial management culture is present in New Zealand, which has been creating the first comprehensive accruals-based accounting standards to support policy making based on sound public financial management since the 1980s. The accounting standards of New Zealand are the basis of today’s IPSAS standards.

Portugal is in the process of fully introducing IPSAS standards into its public accounts and seeks to emulate New Zealand in its approach to public financial management. Looking at Portuguese macroeconomic indicators, a number of serious risks are present in the country, such as potential increases in healthcare expenditure due to an ageing population, a high level of public indebtedness, as well as the persistent fragilities of the Portuguese banking system as the major source of risk for medium and long term sustainability of the country’s public finances. The reforms in progress are essential for the country to fully understand the magnitude and the real nature of the challenges ahead. Adopting modern approaches to public financial management requires, for example, eliminating current annual budgeting practices, which give no consideration to economic and social returns on investments.
Summary of messages to decision-makers

Observation 1.
Current national accounting systems and the budgetary monitoring activities of most EU countries neither reflect their economic reality nor guide the government decision-making process.

Observation 2.
Weak public accounting standards can result in poor public financial management. Lack of appropriate reporting also leads to weak monitoring capacity, which also has important connotations for the stability of the eurozone.

Policy recommendation 1.
Comprehensive accrual accounting practices based on internationally comparable standards should be adopted by member states, providing the necessary detail for independent professionals to vet the numbers, and be audited according to the strictest international practice.

Policy recommendation 2.
Governments should actively monitor their net worth, aiming at increasing the value of the government balance sheet and supporting positive impacts of government policy on the economy.

Policy recommendation 3.
Improving the performance of governments in creating value for society requires good Public Financial Management systems in addition to reporting.
Beyond Public Debt
The Hidden Rapid Erosion of EU Government Balance Sheets is a Financial Threat to Society

How to stop it
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1. Introduction

The EU as a whole has been experiencing a period of economic growth since 2016. However, performances vary significantly across countries and public finances in several member states (MSs) remain distinctly fragile. The crisis triggered a rapid increase in the average level of public debt, leaving many governments “less able to respond to macroeconomic shocks or enact policies that could boost long-term growth” (Irwin, 2015).

To counter the increasing pressure of capital markets and ensure the stability of the eurozone, the EU has significantly strengthened fiscal surveillance rules for euro area countries. The ultimate objective of these measures was to enforce fiscal responsibility so as to enhance macroeconomic stability both at national and EU level. Nevertheless, while actions have focused heavily on tightening fiscal constraints, improving the effectiveness of national fiscal policy and public investment decisions has been overlooked. The latter does not concern the size of public interventions, but rather regards the quality, the administration and the return on the investments undertaken with public money.

A first issue concerns government accounts and their report activities. By fuelling a surge in government deficits and public debt, the financial and sovereign debt crises have revealed the structural weaknesses of many fiscal management systems in many MSs. According to an ex post evaluation of the period 2000-13 conducted by the IMF (2016), forecasts by all EU MSs have systematically underestimated future public debt dynamics (except for Latvia).

This was mainly due to the fact that fiscal management systems failed in disclosing in advance multiple sources of fiscal risk for EU governments (Irwin, 2015). Reporting rules on government contingent liabilities, non-financial assets and liabilities have only been adopted since the crisis and only serve as an example showing how – before the crisis – systems of administration of public finances did not provide decision-makers with all the relevant financial information.

Since then, government accounting and reporting activities have significantly improved to the benefit of transparency and comparability. Nevertheless, while the effects of the banking crisis seem to have waned, governments should not underestimate or overlook a number of sources

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2 Two-pack and six-pack regulations.
3 Fiscal Risks are factors that may cause fiscal outcomes to deviate from expectations and forecasts (IMF 2016).
of fiscal risk that may impact government finances. A detailed analysis of the potential fiscal risks to public finances can be found in IMF (2016).

In addition, while there is a clear need to improve the efficiency of public expenditure and services in certain MSs, governments often underestimate the revenues and cost savings that can be generated through better management of public assets and liabilities. Against this background, this paper seeks to demonstrate that a comprehensive reform of the management of public finances can help in achieving significant economic and social benefits. More particularly, this paper develops the argument that adopting a modern public financial management (PFM) system based on accrual accounting and budgeting may contribute to improving the overall financial performance of a country.

By adopting internationally comparable accounting standards, for instance IPSAS (International Public Accounting Standards), governments can produce more extensive and reliable data. The latter would contribute to better investments, thereby generating higher economic and social returns. The consequent boost in economic growth would contribute to improving the country’s economic outlook and the government’s credit rating. This would contribute to reducing the cost of capital and help lower public debt. All in all, governments would be able to manage both public assets and liabilities more efficiently, creating new fiscal space and delivering better services to their citizens.

To transform data into better public investment, a financial management culture needs to be introduced in the public sector and accompanied by the necessary reforms in areas of public expenditure, such as public procurement. By acting on these and other channels, this paper argues that PFM models supported by a solid and comprehensive full accrual-based accounting system could significantly contribute to increasing Europe’s long-term GDP and living standards. Finally, proper reporting of public sector assets and liabilities would allow governments to produce comprehensive public sector balance sheets. The latter may offer important indicators for fiscal policymaking, as well as improving transparency and democratic accountability.

This paper argues that embracing modern PFM systems based on accrual accounting and budgeting is an essential move for Europe to reconcile fiscal responsibility and sustainable economic growth. This even more relevant for countries in the eurozone, where strong cyclical swings can destabilise politically the EU.

To illustrate the benefits of modern PFM models based on accrual accounting, this report first analyses two main issues affecting the quality of government reporting. It then assesses the New Zealand experience and the current developments in Portugal. The New Zealand government has been a pioneer in developing the fundamentals of PFM. This has brought remarkable improvements in government fiscal performance, which have been credited for the country’s outstanding economic performance. Taking the New Zealand experience since 1997 into account, the International Federation of Accountants (IFAC) has been working on an accurate and extensive set of full accrual accounting standards, namely the International Public-Sector Accounting Standards (IPSAS).
Recognising the benefits of full accrual accounting, the Council asked the European Commission as part of the “Six-Pack” legislative package in November 2011 to launch an assessment on the suitability of IPSAS for EU member states by the end of 2012. Eurostat is currently working on a European version of IPSAS – EPSAS – to respond to some stakeholder concerns and to agree on uniform indicators where IPSAS offer options.

While the EPSAS taskforce is still ongoing, the need for better data and improved management of public assets is increasingly being recognised. In this regard, an important step forward has been achieved by the Portuguese government. On 1 January 2018, Portugal became the first country in the EU to adopt IPSAS in full.

The rest of the paper is organised as follows. In section two, the paper explains the context and offers a definition of PFM, discusses the relevance of government accounts and sheds some light on the main issues affecting their quality, and concludes by proposing a reform of the management of public finances in Europe.

In section three, the paper assesses the debate around full accrual accounting in the public sector. It then discusses the concept and application of effective public asset management strategies and concludes by describing the broader advantages of modern PFM systems.

Section four discusses the building blocks of the New Zealand model of PFM and analyses the benefits of the latter by comparing the financial performance of several countries. Section five offers a case study on Portugal, with background observations on the conditions of the Portuguese economy. It then discusses the status of public management in the country and drafts an estimated government balance sheet, considering non-debt liabilities and NFAs. Section six draws the appropriate conclusions.

2. Public Financial Management

This section aims at laying the foundations for the analysis conducted throughout the paper. To fulfil this objective this section will i) explain the context and offer a definition of PFM, ii) discuss the relevance of government accounts and shed some light on the main issues affecting their quality, and iii) conclude by proposing a reform of the management of public finances in Europe.

2.1 Context and definition

The annual average public expenditure of member states (MSs) represents almost half of their GDP. Therefore, ensuring the quality of government fiscal policy is essential for optimising the allocation of public resources and to maximise government financial performance.\(^4\) As reported in

\(^4\) The latter refers to the impact that government public management and fiscal policy have on the overall financial position of the country.
Figure 1. EU member state total expenditures as percentage of GDP, 2015


Yet, while most of the public attention focuses on the amount of resources mobilised by the government, the debate on the methodology to underpin efficient public spending is insufficient. However, even with public expenditure per head being equal, government fiscal performances may vary greatly depending on the system of public financial management (PFM) adopted at national and subnational level.

As defined by the Chartered Institute of Public Finance and Accountancy (CIPFA), “Public Financial Management (PFM) is the system by which financial resources are planned, directed and controlled to enable and influence the efficient and effective delivery of public service goals” (CIPFA, 2010). As explained by Lawson (2015), PFM is the combination of “laws, rules and procedures used by sovereign nations and sub-national governments to mobilise revenues, allocate public funds, undertake public spending, and evaluate results”. Thus, PFM encompasses all aspects of generating and spending public resources.
Legal requirements, coherence across rules and procedures, coordination amongst different institutions, as well as accuracy of national accounts are key elements for efficient public spending. Yet, an efficient fiscal policy ultimately depends on the quality of public services and on the economic sustainability of the underlying activities. Losses of inefficient public services cannot be covered for ever without running substantial public deficits.

The efficiency of public services and the sustainability of public finances are therefore deeply intertwined. In addition, weak PFM systems do not only lead to loss of public resources, but they indirectly affect the performance of the entire economy. The impact on welfare and growth of weak education, health and transport infrastructures or industrial policies negatively affect the overall productivity of the national economy.

2.2 Government accounts: their relevance and the main issues affecting their quality

Many factors influence the management of public resources, but access to reliable and complete information is an important factor for policymakers and public managers. Government accounts serve this purpose only if they provide a fair and comprehensive representation of government finances.

In particular, government accounts should fulfil three main functions:

1. Supporting government policy and operational decision-making process by offering reliable data on the state of the national economy and government finances;
2. Providing accurate indicators about financial and non-financial assets and liabilities held by the government;
3. Providing early warnings in the case of fiscal risks that may eventually threaten the stability of public finances.

Whenever government accounting systems fail to fulfil these three objectives, the management of public finances is at risk of being suboptimal. Performance gaps emerge, and, as a consequence, the government’s financial position and fiscal performance are negatively affected. In such a context, persistent mismanagement of public resources may weaken the country’s economic performance and resilience, leading not only to lower potential GDP, but also to a larger economic contraction in times of crisis.

Considering the average size of the public sector in European economies, misreporting and/or mismanagement of public assets and liabilities could entail substantial risks. As demonstrated in Greece, the discovery that tens of billions of Euros in liabilities had not been reported in the national accounts in effect triggered the euro area crisis. Since then, the overall architecture of the eurozone has substantially improved together with the accuracy and the transparency of government accounts.

Tracing back the sources of dysfunctionality, two main issues have significantly affected the quality of government accounts in the intervening years of the financial and sovereign crisis, namely the lack of or under reporting of non-debt liabilities (particularly government contingent liabilities and unfunded pension obligations) and non-financial assets.
Before the crisis, non-debt liabilities were overlooked almost everywhere and in several EU countries, information was either not readily available or poorly recorded. According to the IMF definition (2007), non-debt liabilities include government guarantees, unfunded pension obligations, arrears and other contractual obligations.

Government contingent liabilities can be both explicit and implicit. These constitute respectively contractual and ‘moral’ obligations governments are bound or would be obliged to honour in practice if certain circumstances occur (Polackova H., 1998). For these reasons, contingent liabilities should be considered an important source of fiscal risk. Nevertheless, it was only after the outbreak of the financial crisis – when many governments had to step in and bail out several financially distressed credit institutions – that the EU required MSs firstly – in 2009 – to systematically report on the public interventions undertaken to support financial institutions and then – in 2011 – to “publish relevant information on contingent liabilities with potentially large impacts on public budgets” for all sub-sectors of general government (Article 14, Council Directive 2011/85). In this way, the quality and accuracy of government accounts have been significantly improved.

In January 2018, Eurostat statistics show that government guarantees in EU countries on average amount to 7.4% of the respective national GDPs, with the highest rates recorded in Finland (28.0% of GDP) and Austria (20.5%) followed by Germany (14.3%) (Eurostat data, 2018).

Whereas contingent liabilities have been the object of new reporting obligations, additional fiscal risks remain hidden. This is for instance the case of unfunded pension liabilities for public servants. As they constitute a contractual obligation governments are bound to honour, unfunded pension plans should be considered as implicit debt. Nevertheless, despite their importance, “there is no single methodology to estimate implicit pension liabilities” (Dabrowski, 2016). Applying the so-called Freiburg Model, Mueller et al (2013) found that pension liabilities of euro area member states in 2006 amounted on average to 349% of national GDP. Estimates are made by projecting “per capita future pension benefits based on today’s existing benefits”. However, it is important to note that the size of the liabilities is not an indicator of their fiscal sustainability, as future expected contributions are not taken into account.

Ponds et al (2011) focused instead on the net unfunded pension liabilities of public pensions by reviewing a representative sample of pension plans in several countries. They estimated that in 2008, net unfunded pension liabilities as a percentage of national GDP accounted for 91% in France, 77% in Finland, 63% in the UK, 58% in Germany. In other countries such as Sweden and the Netherlands, this share instead only amounted to 8% and 5% respectively. These percentages represent the gap between accrued pension rights and future available funding that, all things being equal, would be closed by additional public debt. On this issue, the authors

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5 Pension liabilities as percentage of GDP in 2006: France (362.2), Poland (361.1), Austria (359.9), Germany (338.6), Italy (323.1), Finland (298.3), Portugal (298.3), Sweden (284.5), Malta (269), Hungary (257.5), Netherlands (236.2), Greece (230.7), Slovakia (2010.5), Spain (204.2), Bulgaria (201.8), Czech Republic (201.4), Lithuania (179.9), Latvia (124.8), UK (91.2).
conclude stating that “the valuation and disclosure of [pensions] promises is all too often less than transparent, which may be hiding potentially huge fiscal liabilities that are being passed on to future generation of workers”.

**However, reporting problems do not concern only the liability side.** Public Non-Financial Assets (NFAs) are not accurately reported in government finance statistics. In Europe, accurate information is available for France, UK and Czech Republic, where NFAs in 2016 amounted respectively to €1.95 trillion, €1.18 trillion, and €483.7 billion, equal to 87.5%, 49% and 274% of national GDP respectively. According to IMF estimates (2014), NFAs in Portugal in 2012 were equal to 72.6% of GDP.

Public sector NFAs are mainly lands, buildings, barracks, infrastructures, ports and airports, forests and subsoil assets. Nevertheless, due to the fact that these are not reported or appropriately valued, policymakers and public managers are usually not aware of the opportunities of implementing effective asset management strategies. As a result, public assets are often neglected by public authorities for various reasons – leading, for example, to deteriorated public assets in many cities. Given the extent of NFAs, they cannot and should not be neglected.

### 2.3 Proposal for a new system of management of public finances

This section has demonstrated that indicators of gross public debt should not be taken as a representative of the state of government finances. This is the case for two main reasons:

- i) non-debt liabilities can add up to significant amounts, becoming a significant source of fiscal risk;
- ii) public non-financial assets are not accurately reported, although their value can be as much as or more than the total GDP of a country.

Governments should therefore aim at:

- i) improving monitoring and reporting activities for non-debt liabilities;
- ii) designing effective public asset management strategies in order to extract value from public assets.

So far, the attention of scholars and statistical agencies has been mostly directed towards the creation of financial net debt indicators. Eurostat (2014) proposed the creation of net government debt indicators where financial assets (the most liquid government assets) are deducted from the Maastricht Debt. Nevertheless, net debt indicators excluding NFAs, despite their relevance, fall short of recognising the broader importance of monitoring NFAs. In fact,

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6 Source: authors’ computation on OECD Data, Table ‘9B. Balance sheets for non-financial assets’.

7 Taking a broader view on this issue, recent estimations (Detter et al., 2015) suggest that, in 2013, the cumulative value of financial and non-financial public assets worldwide amounted cumulatively to USD 75 trillion, while world public debt in 2013 was equal to USD 54 trillion. Accordingly, in 2013, the value of world’s public assets exceeded the value of the world’s public debt by USD 21 trillion (approximately 30%).
whereas the latter should not be counted when analysing a country’s debt sustainability – as most of fixed assets are not liquid assets – monitoring NFAs is manifestly important for governments as an incentive to focus on increasing their value and thinking through revenues-generating models in line with the purpose of the asset.

Therefore, to achieve both the above-mentioned objectives, it is essential that EU governments reduce the significance of gross debt indicators. To do so, this paper argues that governments should embrace modern PFM systems, in which the first and fundamental step is the consolidation of government balance sheets according to internationally recognised accrual accounting standards. Government balance sheets would then provide a more accurate and comprehensive overview of government finance by presenting the stock of financial and non-financial assets and liabilities. Furthermore, they would permit the computation of different net measures such as net worth and a more accurate assessment of the overall financial position of the state and the country.

Government balance sheets would not substitute for but rather complement traditional indicators. It is also important to note that the EU’s annual financial accounts are produced on a full accrual basis, according to IPSAS. The 2017 balance sheet shows that EU total assets account for €166.2 billion while total liabilities amount to €236.5 billion, which results in a negative net worth of €70.4 billion (EU Commission, 2018). Assets and liabilities are divided into current and non-current, allowing a sound evaluation of the EU’s short and long term obligations. All in all, adopting balance sheets allows governments to rely on a holistic approach to assessing their financial position and the sustainability of their finances.

The transition towards full accrual accounts and the consolidation of the government balance sheet is only a prerequisite for embracing modern PFM models. In more general terms, PFM models would help European governments take advantage of the underestimated opportunities of an efficient management of public assets and liabilities. In this regard, an important element is designing asset management strategies, which can help create new fiscal space from existing public assets. In the following section the paper examines PFM models based on full accrual accounting in more detail and assesses their benefits.

3. Modern Public Financial Management models based on accrual accounting

The previous section sheds some light on the definition of PFM and the relationship between the accuracy of government accounts and the effectiveness of public expenditure. It also briefly analyses two often overlooked issues, namely non-debt liabilities and non-financial assets. It argues that the failure of government accounts to disclose these items may contribute to a significantly suboptimal management of public resources. It suggests that government accounts should adopt modern PFM models and – in this context – proceed to the consolidation of government balance sheets in accordance with international accrual accounting standards, such as IPSAS.
The present section explains how embracing modern PFM models based on accrual accounting can benefit the management of government finances. The main argument is that **modern PFM models incentivise governments to focus on value for money and value creation.** To demonstrate this, this section will focus on *i)* the debate around the adoption of accrual accounting in the public sector, *ii)* the concept and the application of effective public asset management strategies and *iii)* the broader advantages of modern PFM systems.

### 3.1 Debate around accrual accounting systems

In the EU, the main characteristics of national accounts are set according to the European System of Accounts (ESA). Nevertheless, as emerged from the comparative analysis conducted by Ernst&Young (2012) for Eurostat, there are significant differences in accounting practices between MSs. Although the 2010 revision of the ESA has introduced many elements of accrual accounting, most EU governments adopt different types of modified-cash accounting systems, and usually do not disclose information on non-financial assets and certain types of non-debt liabilities.\(^8\) Concerns about costs, the administrative burden and, last but not least, the political cost of improving the transparency of government accounts constitute the main reasons for the reluctance of some governments.

**Box 1. Cash or accrual accounting in brief**

Cash accounting systems are designed to deal with the financial flows involved in government annual revenues and expenditures. Therefore, while cash accounts give prominence to government cash balances and gross levels of debt, they offer a very partial picture of the overall financial position.

Accrual accounts, by including all assets and liabilities, make it possible to keep track of the entire stock of public financial and non-financial assets and liabilities. In other words, full accrual accounting provides a more complete picture of the state of public finances, allowing governments, for instance, to monitor the status of depreciation of public assets and even monitor their value creation. In addition, it allows them to produce financial statements, such as cash-flow, operating statement and balance sheet. These documents offer important information and provide key indicators, which can then feed into the government’s decision-making process in order to maximise the performance of public expenditure.

A more comprehensive description can be found in Annex B.

The adoption of accrual accounting has been recognised – not without critics – as beneficial for the management of public finances. As argued by Khan and Mayes (2009), “accrual accounting provides a broader measure of the burden of government financial commitments [...]” and is

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\(^8\) In “Government Finance Statistics” N. 1/2017 Eurostat stresses the importance of recording the stock of non-financial assets.
therefore “essential to systematically determine the full costs of a government’s activities”. Interestingly, performing an extensive literature review, Hassan (2013) found that the opinions of accounting practitioners and scholars in the available literature tend to diverge when evaluating the suitability of accrual accounting for the public sector.

Accounting practitioners are in favour of accrual accounting because it:

i) provides better financial information and enhances government accountability;
ii) is harder to manipulate;
iii) improves transparency both internally and externally;
iv) increases efficiency, improves resource allocation and overall performance.

Scholars, instead, tend to be more sceptical arguing that:

i) as the public sector does not make a profit, accounting systems designed with the private sector in mind are not appropriate;
ii) governments have to deal with assets that do not generate revenue, such as infrastructure, military and heritage assets;
iii) the matching principle (according to which revenues should always match the costs of a transaction) does not hold for governments;
iv) implementation is costly and outweighs the benefits;
v) the lines between politics and management become blurred.

Over the years, the criticisms above have been taken into consideration and in some cases are fully addressed.

The International Federation of Accountants (IFAC) has been working on the International Public Section Accounting Standards to ensure the suitability of accrual accounting for governments. The European Commission’s report on IPSAS in 2013 recommended developing a European version of IPSAS, namely EPSAS, to agree on uniform indicators where IPSAS offers options. Regulators and public officials are making efforts to align the principles of accrual accounting to the needs of the public sector.

Accrual accounting requires the collection of information on NFAs (which can be both revenue generating and non-revenue generating assets). On this point, the main added value of accrual accounting is making information available for policymakers. By monitoring NFAs, accrual accounting can contribute to better investment decisions (this point is analysed further when the concept of effective public asset management strategies is introduced in section 3.2).

It is true that the matching principle does not systematically hold for governments, as their operations are mostly financed through taxes rather than delivered in exchange for payment. Yet this makes it even more compelling for governments to monitor key fiscal aggregates, such

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9 In the same paper, the authors give two compelling examples of how cash accounting can distort the evaluation of the fiscal sustainability of a policy. Rises in pension entitlements or purchases with deferred payments usually have little impact on the current budget, but they can entail large costs in the future.
as the level of financial commitments, which is the sum of current and non-current liabilities. In this regard, by focusing on the stock of liabilities (and not simply on the flow as it would be under cash accounting), accrual accounting provides a better framework for ensuring the financial sustainability of public sector activities and operations. In other words, working with totals can help in overcoming the short-termism of annual budgets and embracing a long-term perspective.

This paper argues that the benefit of implementing accrual accounting is expected to outweigh the cost when the latter is coupled with accrual budgeting. Accrual budgeting can be defined as “the specification of budgetary expenditure authorisation and revenue estimates in terms of accrual accounting measures” (Robinson, 2009). To explain this, the fourth section of this paper analyses in depth the case of New Zealand, which introduced accrual accounting and accrual budgeting in the context of PFM reforms and since then has achieved significant improvements in financial performance.

Overall benefits of introducing a modern PFM system (which encompasses accrual accounting and budgeting) are expected to outweigh the cost because:

i) whereas introducing accrual accounting entails a large initial cost, the benefits are spread over a longer period of time;

ii) effective public asset management strategies can create new sources of fiscal revenues for governments (see section 3.2);

iii) improvements in transparency and control are likely to produce positive spillover effects on factors that are difficult to measure, such as control of corruption, quality of governance, and accountability.

3.2 Effective public asset management strategy

The transition from cash or modified cash accounting to full accrual accounting, according to international comparable standards, such as IPSAS, does not automatically improve the way a government manages its public finances. Accrual accounting is not an objective in itself, but a means to achieving better government financial performance when applied in the context of a broader change in the way public money is administrated and spent. The information should not be collected for the sake of reporting, but rather should serve policymakers engaged in fiscal policymaking procedures in taking better investment decisions. In particular, public managers should take stock of this information and work on both sides of the government balance sheet – assets and liabilities – to increase the value of the former and reduce the level of the latter, thereby increasing the net worth of the government.

The implementation of an effective public asset management strategy for NFAs, even assuming a low level of returns, would enable governments to generate fresh resources or achieve significant cost savings. Detter and Foelster (2015) describe the untapped opportunities for governments, giving practical examples on how to create value for government and improve service for citizens. In the same vein, recognising the strategic importance of NFAs as a source of additional government revenues, the IMF argues that rather than disposing of existing NFAs,
governments should focus on managing them and creating new ones (particularly building and structures) (Bova et al. 2013, p. 38).

NFA revenues could, indeed, be employed by governments for new public investments or in debt reduction strategies. Both options would have a positive impact on the long-term economic outlook. Public investments would have a positive impact on short-term GDP growth and potentially a long-term impact on productivity growth. Conversely, employing returns on NFAs for debt reduction strategy would have a positive effect on the country’s credit rating, costs of borrowing and the long-term sustainability of public finance. Taking into consideration both macroeconomic fundamentals and political drivers, government and public asset managers could combine different strategies to maximise the impact of public asset management.

### 3.3 Advantages of modern PFM systems

This paper therefore argues that a modern PFM system that combines accrual accounting and budgeting (taking NFAs and non-debt liabilities into consideration) can contribute to:

1. producing better and more reliable data;
2. enhancing strategic fiscal decision making;
3. improving a government’s ability to extract value from public assets, through the implementation of an effective public asset management strategy;
4. increasing long-term GDP potential and therefore living standards;
5. improving transparency, accountability and democratic scrutiny.

Nevertheless, at present only a few governments in the world have adopted PFM based on full accrual accounting systems. As reported by IFM and OECD (IMF, 2016b), only 21% of countries in the world use full accrual accounting systems, while 25% have adopted either modified cash or modified accrual accounting systems. 57% of countries still rely on pure cash accounting.

This behaviour exposes a paradox in governance. Governments ask public listed companies (PLCs) to prepare and publish their accounts according to rigorous international standards in order to protect financial investors. However, similar international accounting standards and reporting obligations are not considered applicable when it comes to public finances, to the detriment of taxpayers.

As can be seen from the considerations raised in this section, this subject should not be seen as a mere accounting issue. Indeed, budgetary reporting requirements and procedures define

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10 International Financial Reporting Standards (IFRS) or the International Public-Sector Accounting Standards (IPSAS). Both IFRS and IPSAS are accrual-based internationally agreed standards, issued respectively by the International Accounting Standards Board (IASB) and the International Federation of Accountants (IFAC).

11 Technical Note and Manuals 16/06.
incentives and constraints that can effectively support achieving national fiscal objectives and contribute to a more investment-friendly environment and thereby to long-term GDP growth.

### 3.4 The costs of introducing PFM

One objection raised to the introduction of an accrual accounting PFM system is the set-up costs, in particular that of introducing internationally comparable accounting standards.\(^\text{12}\)

A recent study commissioned by Eurostat (Price Waterhouse Coopers, 2014) estimated that moving to accrual accounting for the EU as whole would cost between 1.2 and 6.9 billion euros, which represents 0.009 to 0.053% of EU GDP or an annual cost per inhabitant ranging from €2.35 to €13.58. While the bill may seem high, the benefits of using balance sheets based on information produced under international accounting standards are likely to be substantial and greatly outweigh these costs. A full PFM system based on accurate accounts has the potential to increase government revenues and raise GDP substantially in the long term.

This is backed by a submission to the authors from Ian Ball (2018), Chairman of the Chartered Institute of Public Finance and Accountancy (CIPFA), on the issue of cost within a framework based on the characteristics of the country and its system of government, and on the desired end-state of its PFM system.

According to Ball, the costs associated with collecting information consistent with IPSAS are related to the following elements:

- the size of the government;
- the constitutional arrangements (whether centralised or decentralised);
- the quality of the information systems to which a government currently has access;
- and the desired end-state of the government’s PFM system.

And to a lesser extent to:

- the quality of the implementation strategy and of its execution;
- the quality of procurement processes;
- the strength of the accountancy profession and capacity constraints.

Ball’s note indicates that very few countries apply IPSAS to support a complete PFM system, despite the benefits of such an approach. The standards are applied for financial reporting and auditing only, which means many of the benefits from accurate information in decision-making are lost. He estimates the cost increases compared to the losses generated by not implementing the whole PFM system.

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\(^{12}\) Authorities of member states have raised costs as a reason to resist the adoption of standards consistent with IPSAS according to the 2012 European Commission’s Public consultation on the suitability of the International Public Sector Accounting Standards for the member states.
Having information and using it for timely decision making is important for managing fixed assets. High quality information leads to reduced costs by avoiding costly upgrades due to lack of attention to asset depreciation and thus inadequate maintenance budgets. Similarly, this information can point towards the revenue generation potential of the assets.

Changes in the accounting framework would need to be accompanied by reforms in procurement rules, which often do not consider the lifecycle of the assets being developed. Thus, cheaper projects may be selected even when they have high operational costs, which can lead to a loss during the lifetime of the asset.

Ball criticises the resistance of countries to adopting PFM and internationally compatible accounting standards as apparently arising from an unwillingness of governments to lose full control of the rules governing financial and non-financial assets. Lack of transparency gives governments the possibility to ‘massage’ numbers and establish more flattering reports, even if these do not reflect economic reality.

According to Ball’s note, the benefits of introducing international standards to obtain information greatly outweigh the costs of introducing a full PFM. He warns, however, that only introducing international accounting standards for reporting purposes will not lead to marked improvements.

4. The New Zealand model of Public Financial Management

The third section of this paper describes the benefits of a modern PFM system based on accrual accounting, and concludes that PFM based on accrual accounting produces better data, more relevant indicators and incentivises a better management of public wealth.

This section looks at New Zealand’s PFM model and analyses its public sector financial performance. As New Zealand was the first of very few countries to establish fiscal policy and make public investment decisions using a PFM system based on full accrual accounting, their experience provides a useful benchmark.

The following sections will i) discuss the building blocks of the New Zealand model of PFM, ii) analyse the benefits of the latter by comparing the financial performance of several countries.

4.1 Building blocks of the New Zealand PFM model

The New Zealand government was among the first to acknowledge the limitations of a cash-based accounting system and to recognise the importance of implementing a more comprehensive approach to PFM. The 1989 Public Finance Act required the state to follow the national generally accepted accounting practice (GAAP), which in turn insists on the application of accrual accounting. In 1994, with the Fiscal Responsibility Act, New Zealand introduced a set of principles, which form the basis of today’s PFM system. The main objectives of this reform
were to improve government fiscal management and promote financial performance while strengthening transparency in public spending.\textsuperscript{13}

The underlying idea was to \textit{reshape the model of public management in order to improve “the efficiency and effectiveness of public institutions”} (Boston et al., 1996). For this reason, the ‘New Zealand model’ of PFM should not be understood as a mere reorganisation of public accounting systems, but rather as a structural reform aiming at improving overall government performance and the country’s financial position. Accordingly, the structure of the New Zealand model of PFM was designed to deal with all aspects of resource mobilisation and expenditure management.

As shown in Figure 2, the New Zealand model of PFM stands upon six essential pillars which govern the country’s budget cycle:

\begin{itemize}
  \item \textbf{Budgetary Process}: adoption of an accrual basis accounting system, under the IPSAS accounting regime, which provides a comprehensive set of information on the financial position of the country and relevant indicators, such as the government’s net worth.
  \item \textbf{Fiscal Objectives}: appropriate fiscal objectives are set by the government, against which the competent authorities and public opinion can assess the performance of the fiscal policy carried out by the government in charge.
\end{itemize}

\textsuperscript{13} Though the adoption of the 1994 Fiscal Responsibility Act, which was incorporated in the 1989 Public Finance Act and then amended in 2004.
➢ **Decision-Making:** policymakers, at the national and subnational levels, adapt decision-making according to the fiscal objectives defined by the central government.

➢ **Appropriations:** stringent provisions apply to budgetary appropriations.

➢ **Financial Reporting:** reporting rules set strict requirements to be followed by all reporting entities (i.e. government departments and local authorities) with regard to information to be disclosed in official government reports.

➢ **External Auditing:** an independent authority for external auditing is created to ensure that rules and procedures have been strictly followed.

Overall, the adoption and the integration of the above-mentioned pillars into a structured system allowed the New Zealand government to build up an output-oriented and transparent PFM model. As outlined below, this has contributed to improving the state of New Zealand’s public finances as well as the country’s overall financial position.

### 4.2 The benefits of the New Zealand model

The implementation by the New Zealand government of this innovative PFM model effectively enhanced government financial performance and improved the overall management of public resources. Statistics can provide solid evidence of the benefits that such a model of fiscal decision-making brought to the country’s financial position, so this section looks at i) the relation between accrual accounting and quality of governance in countries, ii) the correlation between quality of governance and credit ratings, and finally this section will narrow the analysis iii) by comparing the performance achieved by New Zealand, France and the UK.14

As Figure 3 illustrates, countries where national PFM models are based on accrual accounting, under IPSAS or IFRS regimes tend to occupy higher positions in the World Prosperity Index.15 Amongst other variables, the index measures indicators of governance by monitoring four different factors, namely government performance, government integrity, rule of law and political participation. The first of these indicators, government performance, tracks differences in “perceived ability of government to formulate and implement good policy, perceived quality and independence of public and civil services, citizens’ confidence in national government” (Legatum Institute Foundation, 2017). Interestingly, out 149 countries, New Zealand ranks third in quality of governance, while the other six countries applying accrual accounting systems rank near the top.16

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14 As explained throughout the paper, New Zealand, France and the UK adopt full accrual accounting systems. However, only in New Zealand is the PFM system designed in order to maximise the opportunities offered.


16 Switzerland 5th, Canada 9th, the UK 10th, Australia 14th, Israel 19th, US 20th, France 23rd.
In addition, as reported in Figure 4, in a sample of 65 countries, it is interesting to notice that their ranking in government performance is strongly correlated with their sovereign credit ratings. The existence of a positive slope indicates that the higher a country’s ranking in the quality of governance pillar of the index, the better the rating granted by credit agencies. It is therefore arguable that since countries that rely on accrual accounting systems tend to occupy the highest positions in the governance index, accrual accounting contributes to better government performance and in turn to better credit ratings.

By showing this correlation, this paper does not seek to demonstrate the causality between the two variables. Isolating the effect of modern PFM models on credit rating is beyond the scope of this paper, as much because the ability to test this hypothesis is largely limited by the fact that data are poor. For this reason, this topic could be subject of further research.

17 Ratings from Fitch.
The final step in this analysis involves comparing the financial performances of countries in detail. Indeed, the analysis of five compelling indicators clearly shows that the New Zealand model of PFM stands out from the rest of the countries observed. These indicators, summarised in Figure 5 for New Zealand, the UK and France, suggest that New Zealand has consistently achieved the best financial performance from 2006 to 2015. Over the last 10 years,

- New Zealand GDP value created/lost ratio increased by 27%, while in the UK and in France it dropped by 36% and 25% respectively.
- Returns on British and French public assets decreased respectively by 11% and 17%, while increasing by 2% in New Zealand.
- Since 2006, New Zealand net worth expanded on average by 7% annually. On the contrary, the net worth of both British and French governments has contracted annually on average by 13% and 7% respectively. This testifies to the impressive resilience of national public finances under the New Zealand model of PFM. In the last ten years, the impact of the long-lasting global crisis has negatively affected the net worth of all countries analysed. However, while New Zealand’s net worth as a percentage of national GDP has decreased by 11%, in the UK and in France, it has dropped by 34% and 47% respectively.
Regarding the burden of debt, in the aftermath of the crisis the New Zealand government effectively managed to curtail self-reinforcing debt dynamics, achieving the smallest increase of public net debt across the countries analysed.

**Figure 5 Government fiscal performance in New Zealand, the UK and France.**

The innovations offered by the adoption of a modern and integrated PFM system in New Zealand have benefitted all the stakeholders involved, namely the government, financial investors, supervisory bodies, and citizens. Enhanced fiscal policy decision-making has improved overall government financial performance. Indeed, under the IPSAS regime, the accuracy of information on public financial and non-financial assets and liabilities has allowed the government to use it to maximise returns on public assets. In the same vein, accessibility of reliable and extensive accounting data has enabled financial investors and rating agencies to develop a deep understanding of the governments’ financial position and to accurately assess the sustainability of the New Zealand public debt and the associated probability of default. Finally, it has increased the quality of democratic scrutiny.

All in all, the analysis conducted in this section suggests that full accrual accounting contributes to achieving better governance indicators and better credit ratings. However, when comparing government financial performance, it is apparent that New Zealand has achieved consistently better results across all performance indicators. Accordingly, the data presented suggest that good results in government financial performance can be achieved only if combined with quality PFM, such as in the New Zealand model, particularly in periods of economic downturn.
5. The benefits of implementing a modern PFM system, the case of Portugal

The previous section reviewed the main features of the New Zealand model of PFM implemented by the government in the 1980s, and presented the benefits brought by a more comprehensive system of management of public finances, based on accrual accounting and budgeting. As Portugal is currently moving towards accrual accounting, this section analyses the management of the Portuguese public finances through the lens of the New Zealand PFM model.

This section is organised as follows: i) background observations on the conditions of the Portuguese economy, ii) status of Public Management in Portugal, iii) a draft of the government balance sheet, considering non-debt liabilities and NFAs, and iv) concluding remarks on the Portuguese case study.

5.1 Background observations on the state of the Portuguese economy

The long-lasting economic recession that followed the outbreak of the financial and sovereign debt crisis has severely hit the Portuguese economy and produced significant social welfare losses. Between 2008 and 2013, the GDP of Portugal contracted by 7.9% in real terms. Over the same period, the total lending granted by credit institutions to households and non-financial corporations dropped by 15.4% in real terms. The housing credit market decreased by 6.5% in real terms while the total lending to non-financial corporations shrank by 20.8%. Similarly, the Portuguese stock market collapsed well below its pre-crisis level and its expected recovery still plods along.

The response from the Portuguese government took the form of countercyclical fiscal policy: running large primary deficit. In 2015, Portugal’s deficits had exceeded its fiscal targets by a wide margin hitting 4.4% of GDP. Accordingly, following the Council decision of 12 July 2016 establishing that Portugal did not take effective action under the Excessive Deficit Procedure, the Commission should have proposed a fine to be levied on the country (and for the same reason on Spain). Yet, the European Commission decided not to impose a sanction recognising that “overall fiscal adjustment from 2010 to 2014 was very sizable”. Moreover, the EC recalled that “high private and public debt levels” as well as the “high unemployment [rate]” hampered economic growth and the adjustment programme.

At present, as business cycles start reversing, Portugal is consolidating a positive economic trend. Real GDP has recovered to its pre-crisis level and the European Council abrogated the

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excessive deficit procedure in September 2017. However, despite the positive outlook, Portugal faces consistently higher costs of borrowing compared to other European countries. As of June 2018, the interest rate for a 10-year Portuguese government bond hovered around 2%. While the interest rate on Portuguese bonds has decreased by around 1% since last year, the cost of borrowing for the Portuguese government is amongst the highest in the eurozone.

This is mainly due to investor concerns about the sustainability of Portuguese debt. Indeed, between 2006 and 2017 general government gross debt (as defined by Eurostat) increased from 69.2% to 125.7% in terms of national GDP. Until September 2017, when the efforts of the country were recognised by Moody’s changing its rating to positive, international credit rating agencies listed Portuguese sovereign bonds amongst “non-investment grade” securities. Nevertheless, the elements that justified the low grade assigned to Portuguese bonds are still present and they are summarised in Table 1.

**Table 1. Credit Rating Agency reports on Portugal**

<table>
<thead>
<tr>
<th><strong>DBRS (20 April 2018) – BBB</strong></th>
<th><strong>Moody’s (24 April 2018) - Ba1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>High level of public debt</td>
<td>Very high government and private sector debt</td>
</tr>
<tr>
<td>Potential growth remains relatively low</td>
<td>Moderate economic growth given high private-sector leverage</td>
</tr>
<tr>
<td>Corporate sector debt and NPLs remain high</td>
<td>Weak banking sector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>S&amp;P (16 March 2018) – BBB-</strong></th>
<th><strong>Fitch (17 December 2017) – BBB</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>High public and private sector debt</td>
<td>High public debt</td>
</tr>
<tr>
<td>High level of nonperforming assets in the banking sector</td>
<td>High private debt</td>
</tr>
<tr>
<td></td>
<td>Debt will decline slowly</td>
</tr>
</tbody>
</table>

Source: KCPFM analysis of DBRS, Moody’s, S&P and Fitch reports.

Shifting the focus of the analysis towards the current system of public finance management, the rest of this section aims at identifying four key structural weaknesses. Firstly, as is the case for most EU MSs, the Portuguese government has long employed a modified cash accounting system. The latter incentivises policymakers, investors, and civil society to focus on the gross value of debt and the primary balance rather than the overall level of government financial commitments. Secondly, as the stock of non-financial assets is not reported in official statistics, the risk of suboptimal management of public sector wealth is significant. Apart from these structural elements, debate about the potential opportunities of a more strategic management of public assets and liabilities has been inadequate. Nevertheless, since the outbreak of the crisis and the intervention of the IMF, the government of Portugal has achieved remarkable improvements in its fiscal activities, culminating with the decision to adopt accrual accounting.

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In conclusion, while before the crisis the Portuguese system of public management lacked transparency, a significant effort was made by public authorities and political parties to win the confidence of stakeholders, above all citizens and financial investors.\textsuperscript{24}

The level of the Portuguese debt remains particularly high and this puts the country’s public finances in great danger. Indeed, as already seen in the Greek case, uncertainty over the government’s ability to honour financial commitments could severely affect access to capital markets and thereby bring the country to the brink of default if a severe internal or external shock were to hit.

In response to investor concerns, the Portuguese government is taking advantage of this positive economic momentum to carry out a comprehensive reform of its public finances and should continue to do so. If the economic turnaround of Portugal started with the implementation of a PFM supported by accrual accounting and budgeting, the system will no doubt greatly contribute to improving the government’s fiscal performance and the financial position of the country in the medium and long terms. By improving the management of public assets and liabilities and focusing on value for money and value creation, the Portuguese government could effectively stimulate economic growth, whilst ensuring a better management of public resources and providing better services to citizens.

5.2 Portuguese public finances beyond debt, a draft balance sheet

In the absence of official data, this section attempts to collect the available data and establish an estimated balance sheet. This would take into account non-debt and contingent liabilities as well as NFAs and it is a first attempt – not intended to be exhaustive – to overcome the significance of gross debt indicators.

5.2.1 Financial assets and liabilities

Financial assets and liabilities are accurately reported in government accounts. The data presented is derived from Eurostat annual financial accounts.\textsuperscript{25} The latter are compiled in both flow and stock measures, in accordance with the ESA 2010 methodology and European Parliament and Council Regulation (EU) N° 549/2013.\textsuperscript{26} It is important to note that financial liabilities should be corrected for the concessionary terms Portugal received on the rescue, the Maastricht debt is €20 billion above its value according to IPSAS and does not reflect economic reality, thus the financial liabilities should be €251.9 billion.

Financial assets and liabilities of the Portuguese government are presented in Table 2, below.

\textsuperscript{24} For an accurate evaluation of the issues affecting the Portuguese government’s fiscal activities see IMF, 2014.
\textsuperscript{25} Eurostat table: gov_10a_ggfa.
Table 2. Financial assets and liabilities, Portugal, € billion and percentage, 2016

<table>
<thead>
<tr>
<th>Financial Accounts</th>
<th>Amount</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Assets</td>
<td>79.2</td>
<td>42.7 %</td>
</tr>
<tr>
<td>Financial Liabilities* (based on IPSAS methodology)</td>
<td>(273.8)</td>
<td>(147.6) %</td>
</tr>
<tr>
<td>Of which Maastricht Debt**</td>
<td>(240.9)</td>
<td>(129.9) %</td>
</tr>
<tr>
<td>IPSAS methodology***</td>
<td>(219)</td>
<td>(117.4) %</td>
</tr>
<tr>
<td>Contingent Liabilities ****</td>
<td>(19.1)</td>
<td>(10.3) %</td>
</tr>
</tbody>
</table>

Source: Eurostat (accessed 18 July 2018) and authors’ calculation; Financial assets and liabilities (gov_10a_ggfa), Maastricht Debt (gov_10dd_tdept1); contingent liabilities (gov_cl).

Notes: *Eurostat does not provide estimates for the following item: Pension entitlements (AF.63), claims of pension funds on pension managers (AF.64) and entitlements to non-pension benefits (AF.65).
** The gross government debt – also called Maastricht debt – is defined as the total consolidated gross debt at nominal value at the end of the year in the following categories of government liabilities (as defined in ESA 2010): currency and deposits (AF.2), debt securities (AF.3) and loans (AF.4).
*** The authors note that the Maastricht debt of €240.9 billion does not reflect the concessionary terms on the rescue loans Portugal received, which would be the case under IPSAS, and thus the ‘correct’ figure should be €219 billion to reflect economic reality.

Financial assets held by the Portuguese government in 2016 amounted to €79.2 billion, some 42.7% of national GDP. Conversely, financial liabilities amounted to €273.8 billion, or 147.6% of GDP. Following the Eurostat classification, the breakdown for the main financial instruments is provided in Table 3. If we corrected for IPSAS standards, debt securities would have to be reduced for their real value by close to €22 billion, as stated above.

Table 3. If we corrected for IPSAS standards, debt securities would have to be reduced for their real value by close to €22 billion, as stated above.

Table 3. Financial assets and liabilities, € billion, 2016

<table>
<thead>
<tr>
<th>Financial instruments</th>
<th>Breakdown</th>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Eurostat</td>
<td></td>
</tr>
<tr>
<td>Monetary gold and special drawing rights (AF.1)</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Currency and deposits (AF.2)</td>
<td></td>
<td>22,500.2</td>
<td>(27,283.7)</td>
</tr>
<tr>
<td>Of which currency (AF.21)</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Debt securities (AF.3)</td>
<td></td>
<td>3,386.8</td>
<td>(140,093.5)</td>
</tr>
<tr>
<td>Of which Short-term (AF.31)</td>
<td></td>
<td>317.2</td>
<td>(14,955.1)</td>
</tr>
<tr>
<td>long-term (AF.32)</td>
<td></td>
<td>3,069.6</td>
<td>(125,138.4)</td>
</tr>
</tbody>
</table>
Loans (AF.4)

<table>
<thead>
<tr>
<th>Of which</th>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term loans (AF.41)</td>
<td>5,196.9</td>
<td>(87,758.0)</td>
</tr>
<tr>
<td>Long-term loans (AF.42)</td>
<td>4,712.8</td>
<td>(84,979.5)</td>
</tr>
</tbody>
</table>

Equity and investment fund shares or units (AF.5)

<table>
<thead>
<tr>
<th>Of which</th>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity (AF.51)</td>
<td>33,670.4</td>
<td>(1,586.3)</td>
</tr>
<tr>
<td>Investment fund shares or units (AF.52)</td>
<td>30,868.3</td>
<td>(1,586.3)</td>
</tr>
</tbody>
</table>

Equity (AF.51)

<table>
<thead>
<tr>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,868.3</td>
<td>(1,586.3)</td>
</tr>
</tbody>
</table>

Insurance, pension and standardised guarantees schemes (AF.6)

<table>
<thead>
<tr>
<th>Of which</th>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-life insurance technical reserves (AF.61), Pension entitlements, claims of pension funds on pension managers and entitlements to non-pension benefits (AF.63_AF.64_AF.65), Provisions for calls under standardised guarantees (AF.66)</td>
<td>59.0</td>
<td>0</td>
</tr>
</tbody>
</table>

Financial derivatives and employee stock options (AF.7)

<table>
<thead>
<tr>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,193.8</td>
<td>(1,214.5)</td>
</tr>
</tbody>
</table>

And other accounts receivable/payable (AF.8)

<table>
<thead>
<tr>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,180.6</td>
<td>(15,819.9)</td>
</tr>
</tbody>
</table>

Total Financial Assets/Liabilities

<table>
<thead>
<tr>
<th>Amount (billion €)</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>79,169.7</td>
<td>(273,755.9)</td>
</tr>
</tbody>
</table>

**Source:** Eurostat, gov_10a_ggfa.

**Note:** Eurostat data is in transaction value and thus diverges from the Maastricht methodology that consolidates figures in face value.

In addition, the Portuguese government held €19.1 billion in contingent liabilities. This amount represents the contingent liabilities and potential obligations (according to Council Directive 2011/85) that the government of Portugal is bound to honour if certain circumstances occur. It represented 10.3% of GDP in 2016. The breakdown is presented in Table 4.

**Table 4. Contingent liabilities, 2016**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount billion €</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted capital value of off-balance private-public partnerships (PPPs)</td>
<td>(10.4)</td>
<td>(5.6)</td>
</tr>
<tr>
<td>Liabilities of government controlled entities classified outside general government (gov_cl_liab)</td>
<td>(5.9)</td>
<td>(3.2)</td>
</tr>
<tr>
<td>Non-performing loans of government</td>
<td>n.a</td>
<td>n.a</td>
</tr>
<tr>
<td>Total Contingent Liabilities</td>
<td>(19.1)</td>
<td>(10.3)</td>
</tr>
</tbody>
</table>

**Source:** Eurostat (accessed 18 July 2018).
5.2.2 Non-financial assets and pension liabilities

As described in section 2.2, NFAs and unfunded pension liabilities held by the government are often not accurately reported in government accounts. Indeed, Eurostat tables on financial accounts do not provide statistics on the total stock of both elements. Yet, as these items can sum up to significant amounts, inadequate monitoring and reporting activities can result in a suboptimal management of public sector wealth in the case of NFAs or conceal important sources of fiscal risk in the case of unfunded pension liabilities.

Yet, the literature tends to converge towards two methodologies for the estimating the above-mentioned items, namely the Perpetual Inventory Method (PIM) and the Freiburg Model. Results are presented in Table 5.

Regarding NFAs, applying the Perpetual Inventory Method, one may estimate the amounts of NFAs based on the flow of net fixed capital formation. This methodology is applied by both the IMF in its Fiscal Transparency Evaluation (see for instance IMF, 2014) and the OECD. Accordingly, the OECD dataset reports that total NFAs held by the Portuguese government in 2014 (last year available) amounted to €137.8 billion, which represent 74.3% of national GDP.

Regarding unfunded pension liabilities, the IMF reports estimates according to the Freiburg Model and published in the country’s Fiscal Transparency Evaluation. According to the IMF, unfunded pension liabilities in Portugal amounted to 134% of GDP in 2012.

Therefore, this paper estimates that a cumulative value of €386 billion in assets and liabilities, equal to 208 % of the GDP, lies outside of the perimeter of the current system of government accounting and reporting activities.

Table 5. Non-financial assets and liabilities, Portugal, € billion and percentage, 2016 or last available year

<table>
<thead>
<tr>
<th>Non-Financial Accounts</th>
<th>Amount</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Financial Assets (+)</td>
<td>137.8*</td>
<td>74.3</td>
</tr>
<tr>
<td>Unfunded Pension Liabilities (-)</td>
<td>(248.6) **</td>
<td>(134)</td>
</tr>
</tbody>
</table>


Notes: * Figures on NFAs refer to 2014 and exclude non produced non-financial assets.
** Figures on unfunded pension liabilities refer to 2012, as reported by IMF, 2012.

27 See Almeida et al, 2013 for the estimate on pension liabilities of Portugal; see Mueller et al, 2013 for the Freiburg methodology.
5.2.3 Portuguese public financial overview

Taking stock of the statistics on financial assets and liabilities as well as the estimates for NFAs and unfunded pension liabilities, this section draws an estimate balance sheet for the Portuguese government. Table 6, below, summarises the results and presents the sources used.

Table 6. Draft Portuguese government balance sheet, 2016 or last available year

<table>
<thead>
<tr>
<th>Balance sheet Item</th>
<th>Amount</th>
<th>% of GDP (2016)</th>
<th>Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Assets</td>
<td>79.2</td>
<td>42.7</td>
<td>2016</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Non-Financial Assets</td>
<td>137.8*</td>
<td>74.3</td>
<td>2014</td>
<td>OECD</td>
</tr>
<tr>
<td>Total Assets</td>
<td>217</td>
<td>117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Liabilities</td>
<td>(273.8)</td>
<td>(147.6)</td>
<td>2016</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Unfunded Pension Liabilities</td>
<td>(248.4)</td>
<td>(133.9)</td>
<td>2012</td>
<td>IMF</td>
</tr>
<tr>
<td>Contingent Liabilities</td>
<td>(19.1)</td>
<td>(10.3)</td>
<td>2016</td>
<td>Eurostat</td>
</tr>
<tr>
<td>Total Liabilities</td>
<td>(-541.3)</td>
<td>(-291.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated Net Worth</td>
<td>(324.3)</td>
<td>(174.8)</td>
<td></td>
<td>Source: Authors.</td>
</tr>
</tbody>
</table>

The assets owned by the Portuguese government in 2016 amounted to €217 billion, equal to 117% of GDP. Liabilities, instead, accounted for €541.3 billion, equal to 291.8% of GDP. Therefore, by netting total assets and liabilities, the estimated negative net worth of the Portuguese government is €324.3 billion, equal to 174.8% of GDP.

5.2.4 Gross vs. net level of debt

Debt sustainability is currently assessed in the eurozone based on gross debt. This is controversial and should be reassessed. Looking at the sustainability of Portugal's public debt, if the total financial liabilities reported in the balance sheet amount to €217 billion and financial assets account for €79.2 billion, the balance sheet net debt amounts to €137.8 billion or 74% of total Portuguese GDP. In comparison, with the indicator presently used to estimate the debt level, the future value of debt would amount to €241 billion, which accounts for 131% of Portuguese GDP. Therefore, according to the methodologies applied, a difference equal to 59 percentage points arises when looking at the amount of debt held by the government in terms of national GDP. Using the IPSAS methodology, the net debt would fall even further by an estimated 22 billion. According to KCPFM estimations, this would bring the figure down to an estimated €115 billion or 62% of Portuguese GDP, a gap of 69% with the Maastricht criteria.

This analysis shows the large discrepancy between the current system of debt accounting in the EU and the one based on the (more complete and accurate) application of international accruals accounting standards. This is important, as it distorts the picture of the financial sustainability of the public sector and this can lead to unjustified impacts on capital markets.
5.3 Portuguese public finances through the lens of the New Zealand PFM model

PFM based on accrual accounting, under IPSAS or other international standards, also offers an opportunity to compare the financial performance of governments. The present section will illustrate some important questions that arise from comparing the performance of the current Portuguese public finances management system through the lens of the New Zealand model using a methodology proposed by KCPFM.

As a way of introduction to financial performance analysis, it is useful at this stage to draw attention to two main indicators, namely the GDP value created/lost ratio and the return on public assets (see definition in Annex A).

Once the main indicators are defined, the objective of this section is to apply this methodology to the Portuguese public sector’s draft balance sheet. Between 2012 and 2015, it can be estimated that the GDP value created/lost ratio was equal to -11.9% per year. In the same vein, over the same period, returns on public assets amounted to -11.8% yearly.

\[ \text{GDP Value Created/Lost Ratio} = \frac{\text{Change in GDP}}{\text{GDP (Latest)}} \]

\[ \text{Return on Assets (ROA)} = \frac{\text{Change in Net Worth}}{\text{Total Assets (Latest)}} \]

The double-digit negative ROA in Portugal and the positive ROA for New Zealand raises similar questions to those posed by the wide difference in the value created/loss ratio. The most logical question is, “what is the source of underperformance in Portugal and/or the good performance in New Zealand?” With both ratios, the change in net worth is a main explanatory factor in the formula. The net worth changes embrace the changes in the assets and liabilities under the stewardship of the government. Both are and should be measured using standards that report economic reality, are internationally comparable, provide the necessary detail for independent professionals to vet the numbers, and are audited using the strictest international guidelines. The analysis leads us to understand how Portugal and New Zealand both measure and manage specific classes of assets and liabilities.
While more detailed research is necessary to understand the specific causes for the difference in performance, what is both not surprising and fair to say is that Portugal does neither measure nor manage very large portions of its balance sheet. Therefore, it is not at all surprising that the outputs/outcome reflect two of the most well-known quotes by Peter Drucker: “If you can’t measure it, you can’t improve it” and “what gets measured, gets managed”. There are two lessons that can be drawn from the case of Portugal vs. New Zealand. In the absence of a collection of appropriate data, management of assets and liabilities is not possible, but if the data are available governments are pushed into taking them into account. Nevertheless, the absence of good management practices will almost certainly result in under performance even if data are available. The lack of data in Portugal and consequent inability to take decisions may at least partially explain the large discrepancy in performance when compared to New Zealand.

If the financial indicators of the Portuguese government’s performance are compared with those coming from the official report of New Zealand’s government, the extent of the performance gaps between the two systems becomes clear. Regarding the GDP value created/lost ratio and return on assets, the performance gaps dividing the Portuguese and the New Zealand government are equal respectively to 17% and 16% (Figure 7. Performance gap Portugal vs. New Zealand). Of course, critics could respond that comparing the two economies is questionable, given their different economic structures and trading partners. Nevertheless, for Portugal a generally lower performance in GDP growth since 1990 is evident. Also, while debt levels have fallen for New Zealand from approximately 50% to 25% of GDP, they have been rapidly increasing in Portugal from a similar level to 125%, and the gap in the real per-capita GDP levels has widened over the years, particularly in the last decade.

Figure 7. Performance gap Portugal vs. New Zealand, 2012-2015 in € billion

<table>
<thead>
<tr>
<th>SN</th>
<th>Balance Sheet Item</th>
<th>GDP Value Created/Lost Ratio</th>
<th>Return on Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Ratio NW Increase GDP Increase Value Created/Lost</td>
<td>Ratio Net Worth Change</td>
</tr>
<tr>
<td>1</td>
<td>Portugal (Estimated)</td>
<td>-11.9% -€25 €4 -€21</td>
<td>-11.8% -€25</td>
</tr>
<tr>
<td>2</td>
<td>Portugal at New Zealand Benchmark</td>
<td>5% €9 2% €4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Performance Gap</td>
<td>17% €30 14% €29</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>GDP (2015)</td>
<td>€179 €179</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Performance GAP % of GDP</td>
<td>17% 16%</td>
<td></td>
</tr>
</tbody>
</table>

Source: KCPFM.
6. **Summary and conclusions**

This report seeks to trace the contribution of weak government accounting and public financial management standards to the poor economic performance of some EU member states. It highlights untapped opportunities as well as significant potential risks arising from suboptimal monitoring and management of public finances.

The second section of this paper investigates the relationship between the accuracy of government accounts and effectiveness of public expenditure. Regarding this aspect, while the paper argues that government accounts providing reliable and complete information are essential for ensuring effective government policies, these are not sufficient. It is true that when government accounts fail to fulfil these prerequisites, the risk of public finances management being suboptimal is greater. However, without a well-developed, modern and efficient public financial management system in place, the benefits of comprehensive and accurate accrual-based accounting is largely lost.

On accounting standards, the paper focuses on the quality, the comprehensiveness and the adequacy of government accounts. The paper notes that two main elements often fall outside of the scope of government reporting activities, namely non-debt liabilities and non-financial assets. These are the largest share of government assets and liabilities, and not reporting them can mean neglecting assets and liabilities worth more than the GDP of the countries concerned. Mismanagement of those assets and liabilities has potentially very significant impacts on the economy.

Whereas the outbreak of the crisis led EU institutions to intervene and impose more stringent reporting provisions, for instance on explicit contingent liabilities, other issues were overlooked. This is, for instance, the case of public sector unfunded pension liabilities and non-financial assets. Yet, considering their size, these items cannot be neglected and their amounts should be instead disclosed and monitored appropriately. On the contrary, figures are often not disclosed or not readily available.

Unravelling this knot is fundamental for member states, as the absence of appropriate and comprehensive data contributes to considerable economic and social losses and may reinforce structural inefficiencies in the management of public resources. Yet, it is also a compelling issue for the EU and especially for the eurozone, where – as demonstrated by the sovereign crisis – situations of financial hardship can trigger a wide spread contagion spiral and threaten the existence of the currency union.

All in all, by analysing non-debt liabilities and non-financial assets, the second section of this paper demonstrates that figures for gross public debt should not be taken as representative indicators of the state of government finances. Against this background, this paper proposes the adoption of modern Public Financial Management systems, based on full accrual accounting and budgeting.

Following the argument developed in section two, the third section of the paper demonstrates that modern PFM models based on accrual accounting and budgeting can effectively incentivise...
government to focus on value for money and value creation. For this purpose, the paper briefly describes the debate around the applicability and suitability of accrual accounting at government level and demonstrates why accrual accounting provides governments with essential tools to assess the long term sustainability of their activities.

Beyond enabling more accurate monitoring of government financial commitments in the short and long terms, modern PFM systems can contribute to creating new fiscal space. Indeed, as accrual accounting systems require governments to monitor all public assets – including the non-financial ones – modern PFM systems incentivise governments to design and implement effective public assets management strategies. In fact, even assuming a low level of returns, well-managed non-financial assets would generate fresh resources that governments could dedicate to public investments or debt reduction strategies.

From the above, the paper concludes that modern PFM models can help governments i) produce better and more reliable data, ii) enhance their strategic fiscal decision-making, iii) improve their ability to extract value from public assets, through the implementation of an effective public asset management strategy, iv) increase long-term GDP potential and thereby living standards, v) improve transparency, accountability and democratic scrutiny.

An insightful case study is New Zealand’s very efficient PFM based on accrual accounting and budgeting. The New Zealand government was, indeed, amongst the first to acknowledge the limitations of cash accounting and to recognise the importance of implementing a more comprehensive approach to PFM.

By analysing the relation between accrual accounting and the quality of governance in countries, the correlation between quality of governance and credit rating and comparing the performance achieved by New Zealand, France and the UK, section three concludes that a PFM model based on full accrual accounting contributes to achieving better governance indicators and better credit ratings. However, when comparing government financial performance, it is apparent that New Zealand – with its main characteristic of applying accrual budgeting – achieves consistently better results across all performance indicators. This demonstrates that the transition from cash or modified cash accounting to full accrual accounting, according to international comparable standards, such as IPSAS, does not automatically improve the way governments manage public finances. Accrual accounting is not an objective in itself, but a means to achieving better government financial performance when applied in the context of a broader change in the way public money is administrated and spent.

Portugal is an important case study, as the country is currently moving towards a modern PFM system based on accrual accounting. In reviewing the development of Portuguese macroeconomic indicators, the paper highlights the prospective increase in healthcare expenditure due to the ageing population, the high level of public indebtedness, as well as the persistent fragilities of the Portuguese banking system as the major sources of risk for the sustainability of the country’s public finances in the medium and long terms.
Drawing on these considerations, this paper collects the available information regarding non-debt liabilities and non-financial assets and attempts to consolidate a draft balance sheet for Portugal’s public finances. Total assets, including financial and non-financial, amount to 117% of GDP. Conversely, total liabilities, including financial and contingent liabilities as well as unfunded pension liabilities add up to 291.8% of GDP. Therefore, the estimated net worth of the Portuguese government is equal to 174.8% of GDP. The fact that its negative net worth is higher than the gross level of debt as a percentage of GDP should not prevent the government from embracing the underlying approach. Monitoring and disclosing figures would result in a better management of public finances.

With the tax base reaching its limits in many countries, it is time for taxpayers’ money to be managed with the respect and transparency expected by advanced democratic nations. Furthermore, the stabilisation of the eurozone is essential and of the highest importance – member states that drag their feet are just creating an extra liability the European Union could do without.

We can conclude that current national accounting systems and the budgetary monitoring activities of most EU countries neither reflect their economic reality nor guide the government’s decision-making process. Weak public accounting standards can result in poor public financial management. Lack of appropriate reporting also leads to a weak monitoring capacity, which also has also important connotations for the stability of the eurozone.

It is therefore recommended that comprehensive accrual accounting practices based on internationally comparable standards are adopted by member states, providing the necessary detail for independent professionals to vet the numbers, and audited using the strictest international guidelines. Governments should actively monitor their net worth, aiming at increasing the value of the government balance sheet and supporting positive impacts of government policy on the economy. Improving the performance of the governments in creating value for society requires good PFM systems in addition to reporting.
References


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IMF (2016), Technical Note and Manuals 16/06.


Müller, C., Raffelhüschen, B., Weddige O. (2009), “Pension obligations of government employer pension schemes and social security pension schemes established in EU countries ”, Research Center for Generational Contracts, Freiburg University, and University of Bergen, Norway.


Annex A. The GDP value created/lost ratio

The GDP value created/lost ratio is computed by adding the changes registered in nominal values of net worth and GDP across the years of reference and dividing the sum by the nominal GDP. This can be further divided by the number of years under consideration to compute the annualised GDP value created/lost ratio. This indicator aims to eliminate under- or overestimations of GDP growth rates caused by decisions about the management of public assets. If GDP growth has been increased by a government’s action that de facto reduces the value of the public assets, this becomes visible.

In other words, the value creation/loss ratio is formulated to measure the cost of GDP growth, with the cost defined as the change in the net worth (assets less liabilities) that is under the stewardship of the government. This formula is overly generous to government stewards in assuming all GDP growth was created through the government stewardship of its balance sheet, but as long as the formula is consistently applied among governments, the ratio is highly relevant for comparisons. With the remarkable exception of New Zealand, all the governments for which data is available reported declines in government net worth. The importance of the ratio resides in its meaningfulness in reporting the cost to the tax payer of the much-revered GDP growth. Not all GDP growth is the same, and the corresponding cost to taxpayers is unquestionably an essential analytical insight.

The return on assets (ROA), instead, is computed by dividing the change in the nominal value of net worth across the years in reference to the nominal amount of total assets in the final year. This can then be divided by the number of years to obtain an annualised return on assets, which is a good indicator of the quality of public asset management by the government.
Annex B. Beginners guide to national accounting systems: basic differences and impact on the overall PFM system of cash vs. accrual accounting

Meaningful discrepancies arise when comparing cash- and accrual-based accounting systems in terms of the information and potential incentives the two systems provide to policy-makers, monitoring authorities, financial investors, and public opinion. This annex outlines five relevant methodological differences characterising the two systems, and analyses their potential impact on public resource management. Table 8 provides an overview of the differences.

*Table 7. Technical differences and (dis)incentives of cash and accrual accounting systems*

<table>
<thead>
<tr>
<th>Technical Differences</th>
<th>Cash Accounting</th>
<th>Accrual Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flows, Reporting Transactions</td>
<td>Transactions are registered only when payments occur.</td>
<td>Transactions are registered when service is provided regardless of the exchange in cash.</td>
</tr>
<tr>
<td></td>
<td>o Incentivises governments to delay public administration payments and thus can lead to generating arrears</td>
<td>✓ Incentivises the timely payment of public sector invoices and bills</td>
</tr>
<tr>
<td>Stock, Reporting Assets and Liabilities</td>
<td>Omits the stock value of public non-financial assets, contingent and prospective liabilities.</td>
<td>Includes public non-financial assets, contingent and prospective liabilities. Gives better insights into the state of the national economy.</td>
</tr>
<tr>
<td></td>
<td>o Increases the pressure to sell public assets to meet short-term cash balance and debt objectives</td>
<td>✓ Incentivises profitable management of public assets</td>
</tr>
<tr>
<td>Indicators</td>
<td>Cash balance and gross value of debt.</td>
<td>Government net worth or taxpayers’ equity.</td>
</tr>
<tr>
<td></td>
<td>o Short-termism</td>
<td>✓ Improves the effectiveness of public financial management</td>
</tr>
<tr>
<td>Reporting Different Types of Expenses</td>
<td>Asset purchases deteriorate cash balance.</td>
<td>The effect of asset purchases on the government’s net worth is nil (at least in the first year).</td>
</tr>
<tr>
<td></td>
<td>o Incentivises current expenditure and consumption and less capital expenditure and investments</td>
<td>✓ Incentivises investments and effective public asset management</td>
</tr>
<tr>
<td>Account Reliability</td>
<td>Single-entry cash accounting system.</td>
<td>Double entry with independent ledgers.</td>
</tr>
<tr>
<td></td>
<td>o Makes the “massaging” of numbers in accounting practices easier</td>
<td>✓ Improves overall reliability of national accounts</td>
</tr>
</tbody>
</table>

*Source: Authors.*

*Flow measures: reporting transactions*

In cash accounting systems, transactions are recorded when an actual exchange in cash occurs. By contrast, accrual accounting requires that transactions are reported when the service is provided, regardless of when payment occurs. Timing is not just a technical issue. By considering
only cash transactions, cash accounting systems incentivise governments to delay payments due from the public administration to its suppliers, as a way of diluting the impact on the public budget over time (Irwin, 2015, p.15). This practice, which undoubtedly has a negative impact on economic growth, is without effect on national accounts in accrual accounting systems.

**Stock measures: reporting assets and liabilities**

As cash accounting systems deal with annual financial flows, reporting the entire stock of public assets and liabilities lies outside the scope of national accounts. However, in modified cash accounting systems, such as the SNA 2008 and ESA 2010, financial assets and liabilities are reported in both stock and flow measures. However, this is not the case for public non-financial assets and liabilities, which are only reported in flow measures. This asymmetry causes two major problems. Firstly, concerning non-financial assets, from the moment that a considerable amount of public wealth is not reported in national budget, PFM systems based on cash accounting incentivise the mismanagement of those assets, while increasing the pressure to sell public assets as a way to meet short-term debt and cash balance objectives. Secondly, regarding non-financial liabilities, as cash basis accounts do not report the entire stock of liabilities, budgetary reports do not disclose a government’s total fiscal exposure. For the same reason, PFM systems based on cash accounting tend to lack medium- and long-term strategies.

On the contrary, accrual accounting systems in accordance with IPSAS or IFRS standards require recording both flows and stocks of financial and non-financial assets, as well as contingent and prospective liabilities. Furthermore, they demand governments disclose this information in a consolidated public-sector balance sheet. As a result, accrual accounting systems reveal long-term liabilities held by the government, such as unfunded pension benefits, disclose untapped opportunities and incentivise the government to maximise the value of and returns on public assets through an effective system of public management.

**Main indicators for Public Financial Management depending on accounting systems**

As cash accounting systems are designed to deal solely with government transactions, PFM models relying on cash accounts revolve mainly around two indicators: the government cash balance and the gross level of public debt. By contrast, in accrual accounting systems, PFM models are based on a different set of indicators, which can be derived directly from the government’s balance sheet, namely the government’s net worth, return on public assets, and net level of debt.

Particular attention should be paid to the first of the above-mentioned indicators. The government’s net worth is computed by netting the stock of public assets and liabilities and it is one of the most relevant indicators that can be used as a basis for responsible fiscal policy. It

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29 Currency and deposits, etc. (see Eurostat definition).
30 Non-financial assets include, for instance, infrastructure, land, real estate, or intangible assets.
makes it possible to evaluate the impact of government fiscal decisions and public management on the overall value of the balance sheet. All in all, shifting policy-makers’ attention away from debt and cash balances to total government net worth reduces short-termism in public management, thereby improving the effectiveness of national PFM system.

Net worth indicators can (and should) be subdivided into social, financial and commercial net worth, helping to identify which assets are contributing the final net worth and whether any of them are deteriorating.

**Dealing with different types of expenses**

Public resources used by governments to acquire assets should be considered differently from those mobilised to provide a service. This is mainly due to the fact that cash disbursements have a different impact on the public balance sheet, depending on the purpose for which resources are mobilised. In cash basis national accounts, the cost of acquiring an asset would be reported as a simple current expenditure, impacting negatively a government’s cash balance and the gross level of public debt. For this reason, cash accounting systems incentivise current expenditure and consumption, which usually promote economic growth in the short term, over capital expenditures and investments, of which benefits are felt over a longer time span.

Conversely, in accrual accounting systems, disbursements made by governments to acquire an asset would still impact the government’s cash balance, but their effect on the net worth of the government would be nil (in the first year). The acquisition will be reported on the liability side as a government disbursement, while the value of the asset acquired will be written to the government’s capital account. For this reason, accrual accounting systems provide a better framework for public investments and effective management of public assets.

**Reliability of the accounting system: single vs. double entry**

The cash basis is a single-entry accounting system and simply consists in recording revenues earned and expenses incurred by the government. As argued above, this system draws most of the attention to the level of debt and cash balance, which are two of the most easily manipulated financial numbers. By contrast, the accrual basis is a double-entry accounting system, according to which the value of each transaction is written twice, both on the credit and debit accounts, so that credit always equals debit. This allows accountants and auditors to identify potential reporting errors, improving thereby the quality of the bookkeeping and the reliability of the national accounts.

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31 Social net worth includes: highways, social housing, conservation estates, hospitals, other public properties without commercial use; the financial net worth covers the financial assets and liabilities of the state including pension liabilities; the commercial net worth contains the public listed companies, other companies, the national promotional bank, the rail company, etc.

32 For instance, in regard to the so-called Bad Banks – special purpose vehicles (SPV) sponsored by the government to recapitalise the banking sector – Eurostat’s rules state that the nature of the ownership determines whether those financial vehicles have to be reported in the national accounts, regardless of the fact that the financial securities issued by the SPV are guaranteed by the government.