



## ACCOUNTING CHANGES IN THE PUBLIC SECTOR IN ESTONIA

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**Abstract.** This paper reviews the implementation of the accrual accounting in the entities of the Estonian public sector. It gives a brief overview of the historical development of governmental accounting theories and examines the introduction of theory-based accounting policy. It explains main problems and risks to face in connection with the accounting system change process and offers solutions. This study attempts to answer the following research question: how to gain full benefit from accounting information in public sector entities. As general scientific research methods, mainly comparative analysis and description were used. This study reveals as follows. Firstly, approach to accrual accounting leads to financial information that fulfils needs for true and fair accounting data for decision making purposes. Secondly, reform of public sector financial accounting can improve the quality and the quantity of services provided to the citizens. Thirdly, the Estonian accounting regulation has recently succeeded a remarkable evolution. Fourthly, considerable problems that need to be solved have arisen from the process of the transition to the accrual basis accounting. The given study does not touch upon the development of budgeting systems for public sector entities. Hopefully, this study will contribute to further optimization of accounting systems and management tools for public sector entities in Estonia. Therefore, it will contribute to economic growth and development of business environment. Studies carried out by independent researchers on the move to accrual based accounting in public sector entities are relatively scarce.

**Keywords:** accrual accounting, cash based accounting, government accounting systems, Estonia.

## APSKAITOS POKYČIAI ESTIJOS VIEŠAJAME SEKTORIUJE

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**Santrauka.** Apžvelgiamas kaupimo principu pagrįstos apskaitos taikymas Estijos valstybiniame sektoriuje, atskleidžiama viešojo sektoriaus apskaitos teorijos raida, nagrinėjamas teorija pagrįstos apskaitos politikos įdiegimas. Straipsnyje atskleidžiamos pagrindinės problemos ir pavojai, su kuriais susiduriama keičiant apskaitos sistemą, siūlomi sprendimai. Šiuo tyrimu ieškoma atsakymo į tokį klausimą – kaip kuo veiksmingiau naudoti apskaitos informaciją viešajame sektoriuje. Tyrime taikoma lyginamoji analizė ir aprašymas kaip bendri mokslinio tyrimo metodai. Šis tyrimas atskleidžia, pirma, kaip kaupimo principo požiūriu taikymas leidžia gauti finansinę informaciją, tenkinančią reikalavimus tikros ir teisingos apskaitos duomenų, reikalingų sprendimams priimti. Antra, viešojo sektoriaus apskaitos reforma gali pagerinti piliečiams teikiamų paslaugų kokybę ir kiekybę. Trečia, Estijos apskaitos reglamentavimas? Ketvirta, nemažai problemų, kurias reikia išspręsti, kilo pereinant prie kaupimo principu pagrįstos

apskaitos. Tyrimas nesiejamas su viešojo sektoriaus subjektų biudžeto sistemų plėtra. Tikimės, kad šis tyrimas padės gerinti apskaitos sistemas ir jų valdymo priemones Estijos viešajame sektoriuje. Tyrimo rezultatai naudingi siekiant plėtoti ekonomiką ir verslo aplinką. Tyrimai, atlikti nepriklausomų mokslininkų, skatinančių pereiti prie kaupimo principu pagrįstos apskaitos viešajame sektoriuje, yra gana menki.

**Reikšminiai žodžiai:** kaupimo principu grįsta apskaita, grynųjų pinigų principu grįsta apskaita, valdymo apskaitos sistemos, Estija.

## 1. Introduction

Over the last decades, much time and effort is being spent to move from cameralistic accounting towards accrual accounting in order to increase transparency of the public accounting data. This movement can be considered as a part of an almost world-wide public sector reform. Estonia is no exception to the rule. During the recent dramatic changes in business environment, Estonia has successfully passed a financial and a management reform.

The transition to market economy started in Estonia similarly to other Central and Eastern European countries in the late 1980ies. The legal reform in accounting that took place at the same time required the preparation and implementation of new legal acts, which would lay foundations for the accounting system characteristic of a market economy. The first step here was the Regulation of Accounting, which laid foundations for the implementation of financial accounting in accordance with the International Financial Reporting Standards under the conditions of market economy (Järve 2006). A further development was the Accounting Act that came into force on January 1, 1995. The Act was prepared by the members of the Estonian Accounting Standards Board; three members out of seven were expatriate Estonians who had international working experience in Sweden, Canada and Great Britain. The contribution of the specialists having international experience in market economies was crucial in order to prevent several mistakes and problems (Haldma 2006).

The Accounting Act, which was really progressive at that time, had its drawback in the determination of the framework that could be implemented in the public sector only to a limited extent. Although the generally accepted accounting principles and concepts apply both to the business and public sector, financial accounting and its administration are characterized by certain peculiarities due to the different, and in some aspects also contradictory, purposes of business entities and public sector entities, which had not been fully taken into account by the act.

The purpose of this paper is to investigate the implementation of the accrual accounting in the entities of the Estonian public sector. In that connection a brief overview of the historical development of governmental accounting theories and examination of the introduction of theory-based accounting policy are given. Main problems and risks in the accounting system change process have brought up and solutions offered.

This study attempts to answer the following research question: how to gain full benefit from accounting information in public sector entities.

The paper is organised into three sections. The first section introduces the historical development of the different accounting systems for public sector and sets a theoretical framework for the public sector reforms. The following section gives an overview of the modernisation of Estonian financial accounting and reporting process for public sector. The next section identifies the major problems to be paid attention. Finally the concluding remarks are presented.

## 2. Theoretical framework

### 2.1. The historical development of the government accounting systems

While taking a closer look into the historical development of the government accounting systems one can distinguish between two opinions (Sevim *et al.* 2008: 2466):

1. Classical Government Accounting
2. Modern Government Accounting

The classical opinion can be viewed as Cameral and Schneider Accounting Systems, and the modern opinion can be separated into Constante and Logismography Accounting Systems.

According to Monsen (2008), cameral accounting was developed as early as the 16th century onwards in order to contribute to increased control of public money. It was applied in Austria in 1768 for the first time. Most of the literature dealing with cameral accounting is published in German, and it seems to be known only to a small extent beyond the German speaking countries.

The cameral accounting system only consists of the income and expense estimations included in the budget, and the results of the budget applications on special tables and columns. "Cameral accounting has developed a special account for use in cameral single-entry bookkeeping" (Monsen 2008: 55).

In this system, only monitoring the cash flow is possible. The receivables and payables of the State, as well as its assets are excluded from the scope of the system. The cameral accounting system was accepted as a benchmark for Central Europe. Throughout its historical development, the cameral accounting system appeared in two types as, Simple

Cameral accounting system and New Cameral accounting system. The most important innovation brought with the New Cameral accounting system was the inclusion of the accrual basis into the system (Sevim *et al.* 2008). The New Cameral accounting system is sometimes referred to as “enterprise cameralistics” or “commercial cameralistics”.

Monsen (2008) presents cameral accounting as an alternative to accrual accounting. He appears to rely on Wynne (2007) for support. Monsen (2008) stresses the cash focused accounting as a benefit for governmental entities and concludes as follows. “A better strategy would be to continue using cameralistics and by adding enterprise cameralistics. By so doing we can continue to prepare cash information as the basic information for the government and we can add accrual accounting information for those government units where such information would be of interest” (Monsen 2008: 59).

The Schneider accounting system follows the cameral accounting system. It was introduced in the middle of the nineteenth century. In this system, in addition to the cash flows and budget transactions; settlement transactions and off budget receivables and payables accounts are also included. The system enables issuing a balance sheet through making the profit-loss calculations. In the Schneider accounting system, the records are kept according to double entry system. “In common with the double account system, therefore, Schneider&Co.’s record keeping system enables the preparation of two financial statements that can be combined to produce what would today be regarded as the conventional balance sheet, but there the similarity ends” (Edwards 1999: 175). The cash book which was kept in the cameral system is not included in this system. The journal, which was used in this system for the first time, consists of the daily income and expense records. The income and expense book is kept in order to carry out the audit required by the budget (Edwards 1999).

The Constante Accounting System was founded in the end of the nineteenth century by F. Hügli and applied in the Swiss Canton of Berne. In this system, in addition to the budget calculations, the asset calculations are also included. All transactions are recorded according to the double entry system, and the system is capable of showing the profit and loss statuses at the end of the fiscal year (Sevim *et al.* 2008).

In the Logismography Accounting System, the budget accounts and asset accounts are seen together, similar to the Constante accounting system. In this system, arising from the understanding that the assets from the state have an owner and an administrator, two separate accounts are held as the owner (state) account and the attendant (public servants) account. The Logismography system covers an important place among the government accounting systems as it is a technique able to show both the budget and asset accounts at any time, and takes into account the cost

of government transactions. This system is similar to the American Accounting System as it simultaneously records the transactions both according to their dates and subjects (Nikitin 2001).

## 2.2. The Basis of New Public Management and New Public Financial Management

The necessity for public institutions to work more efficiently is under discussion in almost all developed countries. The most wide-spread reform strategy in the given field is New Public Management (NPM) whose main idea is use the action model of the private sector for the public one (Barzelay 2001; Christensen&Lægred 2001, 2007).

Madise (2000) referring to papers by Mastronardi and Schröter&Wollmann summarises the contents of NPM as follows:

- a) transition to management by results (“orientation to outcome” instead of “orientation to input”);
- b) orientation to clients’ (service philosophy and “clients” satisfaction as the criterion of legitimacy of public administration);
- c) “cost orientation” of administrative performance (introduction of shared responsibility for providing a “service” and the related costs incurred);
- d) “service” or “product orientation” (treatment of all the state’s activities, both medical care and giving residence or pollution permits as services (products)).

To achieve the mentioned goals, according to NPM the following means have to be applied:

- a) replacement of legal rules and superior orders by tasks and contracts, on the basis of which it would be possible to choose freely the ways of fulfilling the task;
- b) separation of strategic management (setting objectives) and operational management (meeting objectives);
- c) adoption of the principles of business management in the management of public institutions (according to some authors also in controlling the whole state);
- d) “splitting” monolithic administration into decentralized, autonomous parts, which work on the contractual basis;
- e) setting circumscribed objectives for institutions and officials as well as criteria for performance appraisal;
- f) providing officials with more freedom and consequent responsibility to make use of their personal creativity and activity;
- g) abandonment of detailed budgets (i.e. delegation of responsibility to the “front line”);
- h) working out methods to increase officials’ initiative;
- i) implementation of competitive elements in public administration under the consideration that competition will ensure higher quality of labour and more economical exploitation of resources.

For the majority of developed countries and various international institutions the main reason for enacting public sector reform was the need to increase transparency of public recourse management. Moreover, there is a growing need for non-political civil service. According to the NPM literature referred by Grossi (2009), two main factors account for these reforms. First, the Maastricht Treaty limits public spending and debt. Second, due to the imbalance in the cost-quality ratio of public services provided there is a need to renegotiate the “social contract” between public administration and citizens (Grossi 2009:212).

The complexity of the problems arising from public administration reforms is subject to several discussions. Public administration is not a circumscribed phenomenon existing in an isolated environment, but part of the state and society.

Administrative reforms have given rise to a controversy both in Estonia and all over the world. Laar (2000) finds the challenges faced by the Republic of Estonia to be similar to those faced by developed countries. The need for reforms is caused by citizens' dissatisfaction with the quality of the services provided, too high expenses of the public sector, the pressure arising from globalization and competition between countries, which compels the administrative system to work more efficiently to support economic development.

Guthrie *et al.* (2005) find that public administrative reforms have financial dimensions, i.e. it is necessary to have access to qualitative and up-to-date financial information in order to administer the public sector in an effective way. They claim that the reformation of the public sector will give rise to the reformation of the financial accounting system of the public sector at least in five key areas „...including changes to financial reporting systems, the development of commercially based, market-oriented management systems and structures to deal with the pricing and provision of public services, the development of a performance measurement approach; the devolution of, or delegation of, budgets; changes to internal and external public sector audits...” (Guthrie *et al.* 2005: 2). They are stating that the move to accrual based accounting is generally part of New Public Management reform strategy – New Public Financial Management. Over the last two decades there have been strong supporters for the transition to accrual accounting by governments (Hughes 2007). However, the use of accrual based accounting is not a new idea and the discussion for and against its use by public sector has been held for centuries (Wynne 2007).

Based on the experience in the reformation of the financial accounting system in the public sector performed within the framework of administrative reforms carried out or those still in process in OECD countries, Diamond (2006) discusses the universalism of the paradigm, the possibilities

of transferring the strategies to non-OECD countries and the question whether all countries possess the management potential required for the reformation of the accounting system.

Randma and Annus (2000) warn us against simplified solutions and insist on prudence while transferring Western European models into Estonia, emphasizing the qualitative and cultural differences of the environment of the administrative reform. It is important to bear in mind that not in every country the NPM strategy has been successful.

### 2.3. Discussion of the government accounting systems in use nowadays

Today the accounting systems in use are the developed versions of the four basic models presented in the first section of this paper. According to the Government Financial Reporting Accounting Issues and Practices (2000), four specific bases of accounting have been implemented by governments of different countries: the cash basis, modified cash basis, modified accrual basis and accrual basis accounting.

Under the cash basis method, transactions and events are recognised when cash is received or paid. One main financial report – the Statement of Cash Flows - is presented. It is a simple and cheap approach with long historical stems. There are strong supporters of cash basis accounting all over the world. For example Monsen (2008) finds cash information to be the basic information for the government and accrual accounting information should be presented for those government units where such information would be of interest. However, due to the cash basis recording and recognising the transactions, traditional accounting systems are not able to provide adequate information of assets, liabilities, revenues and expenses. There is no attempt to match revenues and expenses in measuring profit under cash basis approach. In fact, profit is not a goal for public sector entities. The most important issue is the proper determination of all expenses for each and every public sector service to decide whether or not to finance the service. Cash basis accounting is not the best option because under that approach expense is not associated with service cost.

Modified cash basis approach concentrates in public sector entities on the measurement of current financial resources and changes in those resources. There is some information on receivables and payables. Although these are not recognised as assets and liabilities, the collection of information on the amounts and types of near-cash equivalents will allow the reporting entity to better control these amounts. This approach allows amounts appropriated for a particular financial year (usually around one month after year end) to be recognised as a payment of that year. Here

we distinguish commercial modified cash basis approach, which includes some elements from accrual basis accounting such as inventory and property capitalisation.

Modified accrual basis approach is defined as method under which revenues are recognized in the period they become available and measurable, and expenditures are recognized in the period the associated liability is incurred. In other words, it has some exceptions to the accrual basis accounting. Generally, variations include recognising revenues on a cash basis, expensing certain classes of assets and liabilities at the time of acquisition or construction. For example – all assets apart from infrastructure, defense and cultural/heritage assets are recognised. The latter are expensed when they occur. Sometimes the terms “modified cash basis” and “modified accrual basis” are mistakenly considered to be synonyms.

Modified cash basis and modified accrual basis approaches have identical drawbacks to cash basis approach – expenses are not clearly allocated to the services, assets and liabilities could be undervalued.

Accrual basis accounting is defined as accounting, which recognises the impact of a business event as it occurs, regardless of whether the transaction affected cash. Even though cash is not received or paid in a credit transaction, they are recorded because they are consequential in the future income and cash flow of the entity. Accrual basis accounting gives the most accurate picture of the financial position of the company. By posting all transactions as they occur, there is always a full and complete record of finances to access. Accrual basis accounting will enhance the quality and transparency of public sector financial reporting by providing better information for public sector financial management and decision making.

While speaking about the accrual accounting at the state level, the full implementation will mean the usage of both the accrual basis accounting system and the accrual basis budgetary system. In spite of strong support by the International Public Sector Accounting Standards (IPSAS)

Board, the use of accrual accounting by public sector is still rare. Table below presents governments of the OECD countries having adopted accrual accounting at the state level as of year 2007.

To date, all the member countries of the European Union, Japan, Russia, and Switzerland have been added to the countries shown in Table. There are probably more countries in the process of adopting the accrual based IPSASs than those listed here, but there is no agency responsible for gathering this information together.

The accounting system of the public sector accounting entities of above mentioned countries can be characterised as a gradual transformation from cash to accrual accounting basis. The European Commission has included the IPSASs for accrual accounting basis into its accounting system. Some former member countries of the EU practically have concluded the process of implementation accrual accounting, some new member countries have barely started.

Estonia, a member of the EU, has also adopted accrual basis accounting for public sector. The first consolidated balance sheet in Estonia was prepared as of December 31, 2004, and the first consolidated income statement for the year 2005. The new general rules for organization of the accounting and financial reporting of the state and the state accounting entities that became effective from January 1, 2004 were already based on the accrual based IPSASs. However, in Estonia a cash basis budgeting is being used.

Transition to full accrual basis accounting is a long process. The leaders of French and UK reforms think that a thorough analysis can be carried out only after the new system has been in use for several years (Wynne 2007). The benefit from improved quality and better resource management will be clear even later.

Unfortunately, there are almost no studies carried out by independent researchers on the actual cost benefit effect on the move to accrual accounting.

Table. The use of accrual accounting by countries (Wynne 2007: 26)

Country	Adopted by central government	Accrual budgeting used
Spain	1989	No
New Zealand	1993	Yes
Sweden	1993	Yes
Australia	1994	Yes
USA	1998	No
UK	2002	Yes
Canada	2003	No
Finland	2005	No
France	2006	No

### 3. Regulation of accounting for public sector entities in Estonia

#### 3.1. Modernisation of governmental accounting in Estonia

According to Haldma (2004), during the process of improving Estonian financial accounting and reporting regulation, one can distinguish between three stages:

1. the introductory stage (1990–1994);
2. the system building stage (1995–2002) and
3. the system improvement stage (since 2003)

In the introductory stage of the development of accounting the main emphasis was laid on the regulation of accounting in business entities.

The regulation of accounting in public institutions was under serious focus only in the system building stage. The situation was analysed by the Ministry of Finance and the conclusion was that the existing regulations did not meet the expectations set for the public accounting system both from the aspect of internal and external users. The Accounting Act almost did not touch upon the regulation of accounting in the public sector. However, the given field was regulated by the regulation of accounting for public institutions and decrees by the Minister of Finance.

The accounting methods used were a mixture of cash-basis and accrual-basis accounting, and therefore the outcome was unsystematic both in content and in form. The lack of systematic methods also casts doubt upon the reliability of the data. Thus, we can claim that the state did not have a true overview about its assets, liabilities, accrual revenues and expenses. There were two parallel accounting and reporting systems – bookkeeping and fulfillment of the budget, whereas the latter was considered of primary importance. The mentioned systems did not have any logical connection. It was not possible to consolidate the data. Consistent information was available only in accounting for money earned and spent (Jansen 2004). The regulation of accounting in Estonia in those days is comparable to the UK model, where the issuance of standard documents was the responsibility of the respective ministries (Currstine 2007: 33).

The system improvement stage saw a breakthrough in the regulation of accounting in public sector entities. The harmonisation of the legal acts regulating financial accounting with the International Financial Reporting Standards fell into the same time period with the reformation project of public sector accounting. A new accounting act was worked out, which was enforced on January 1, 2003 and it also applied to the public sector with a few exceptions. Accounting in the public sector was converted into accrual basis accounting and harmonised with the International Accounting Standards. The new general regulations of public sector accounting were already based on the International

Public Sector Accounting Standards (IPSAS). Nowadays, the new general rules for organization of the accounting and financial reporting of the state and the state accounting entities (*riigi raamatupidamise üldeeskiri*) that became effective from January 1, 2004 are in use as the Estonian equivalent to the IPSASs. The new general regulations as they apply to public sector entities, are very similar to the IPSASs.

In the given stage the accounting principles in the public and private sector were harmonised. The regulation of accounting in the mentioned period can be compared to the Canadian model, where standard documents are issued by both the state and the respective ministry (Currstine 2007).

The reformation of accounting in the public sector was characterised by the top-down implementation approach. The leading role in the reformation process was taken by the Ministry of Finance. Currstine (2007: 33) emphasizes better co-ordination, decision-makers' sufficient access to information and pressure to carry out the reform as the positive aspects of such an approach. Negative aspects are seen, for instance, in limited flexibility, lack of motivation in subdivisions and possible distortion of the situation, as subdivisions might want to present data that are expected instead of the actual data.

It is obvious that cameral accounting as an information system is not a satisfactory management tool for decision makers. As it was revealed in part 2.3, the major drawback of the traditional accounting is the inability to provide complete data of assets (especially claims and fixed assets), liabilities (especially long-term liabilities), revenues and expenses. Under the accrual accounting basis the transactions and events are recorded and recognised in the statements when they occur. Therefore, financial statements prepared in accordance with the rules of the accrual based accounting represent true and fair information of the assets, liabilities, revenues and expenses over the reporting periods. At the same time, the public sector entities have introduced the accounting approach for the business sector which leads to increased transparency and improved performance measurement.

#### 3.2. The problems in introducing accrual based accounting in the public sector

Due to the modernisation of the accounting policy in the public sector certain problems have arisen that need to be solved. They can be categorised as follows:

1. Problems arising from the development of the structure of the governmental accounting system – at present there are 227 municipal authorities, as a result of the reform their number is seen as 20. The decrease in the number of municipal authorities in the process of the administrative reform will bring along a change in the number of

accounting entities and in the structure of the accounting system.

2. Consolidation of statements – problems arising from the complexity of administrative structure(s). In accordance with accrual-basis accounting a true and fair collection of information about all assets, liabilities, revenues and expenses is of great significance at the level of both an individual organisation and the whole system.

3. Qualification training for specialists and the quality of financial statements. Accrual accounting is much more complex than cash basis accounting. At present we can feel that accountants do not have enough theoretical knowledge. It means that practical ways of accounting are passed on and the same mistakes or misinterpretations recur “from generation to generation“. Financial accounting for the public sector is taught at few universities or in a very limited scope. In addition, staff of ministries, the auditors, the government, members of Parliament – they all need continuous training in this field.

4. Sociological and psychological problems – the reform has been slower in the public than in the business sector. Also academic circles have been passive in reforming accounting in the public sector. Sometimes general resistance to innovations has been noticed. Additionally, the author would like to point out the increased need for non-political civil service.

5. Departmental conservatism – reforms in the public sector began later and progressed at a lower speed than in the business sector. Therefore the public sector was an impediment to the economic development of the country (the country developed fast due to the rapid development of the business sector).

6. Problems arising from internationalisation - the implementation and amendment of equivalents of the international public sector accounting standards. Ensuring the transparency and understanding of the statements. Increased complexity of financial control.

### 3.3. Findings

We have to remember that these are just preliminary results from vast data. Present analysis reveals that accrual based accounting offers information not only for internal managerial reasons but also for citizens to assess the quality of achieved services. At the early stage of this research, there is some evidence to believe that approach to accrual accounting leads to financial information that fulfils needs for true and fair accounting data for decision making purposes. Moreover, reform of public sector financial accounting can improve the quality and the quantity of services provided to the citizens. It is obvious that the main attention should be paid to the quality and transparency of the accounting data. The Estonian accounting regulation has recently succeeded a remarkable evolution. However, considerable problems

that need to be solved have arisen from the process of the transition to the accrual basis accounting.

The next steps in the research project are: First, it is vital to design appropriate administrative structure which would be optimal for true and fair collection and reporting of information. Second, we must create a model for harmonising government accounting and budgeting systems. A valid mathematical description can explain the relative importance of different components of a system, can explain what happens when parts of the system are changed, and can lead to predictions about what a system will do. It also helps to decrease or eliminate errors in system.

### 4. Conclusions

This paper reviews the implementation of the accrual accounting in the entities of the Estonian public sector. It gives a brief overview of the historical development of governmental accounting theories and examines the introduction of theory-based accounting policy. It explains main problems and risks to face in connection with the accounting system change process.

This study attempts to answer the following research question: how to gain full benefit from accounting information in public sector entities.

A lot has been done in Estonia to create contemporary accounting system in the public sector. A reliable foundation has been laid for the transition to full accrual-basis accounting, which is also supported by developed IT-systems. Nevertheless, it is evident that both the administrative and the accounting system need further regulation. The reformation of the public sector, including the reformation of accounting, will bring along improved quality of services, including information. However, it will be a long-term and expensive process, the benefit of which can be seen to full extent only after decades.

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