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## Developments in public sector financial management in Estonia

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Systems approach, contingency theory, modeling and interviewing are used to research whether the integration of the financial accounting and budget systems that are based on different accounting principles into a balanced overall system will increase the efficiency of financial management and will provide more ways of management in Estonian public organizations. The integration of the systems will create a semantically and organizationally interacting information system for a midterm period, which could be used at all managerial levels in all organizations in real time by developing the information technological infrastructure in Estonia. As feedback, control authorities impart information about the deviations between the objectives of the information and the attainments to the decision-makers, which will enable the decision-makers to make corrections and improve the quality of decisions.

JEL Classifications: M41, H72

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#### Introduction

In Estonia, public sector financial management has been an area of continuous development since the restoration of independence in 1991. Despite being at the forefront of reforming financial management among Central and Eastern Europe countries (Kraan et al., 2008), continuous maintaining a low level public debt and balanced budgets (Zapal and Schneider, 2006; Mulas-Granados et al., 2009; OECD, 2011), the Estonian authorities concluded, relying on analysis of the situation in field, that "public financial management does not in fact function as one complete cycle or system as it should" (Kraan et al., 2008, p.9). The Concept Paper, released in 2007 by the Ministry of Finance, proposes further remedies, including introducing accrual-based budgeting with turning financial reporting into a management instrument and linking it closely with planning.

Traditionally, public sector financial accounting used to be a mere record keeping of budget execution on a cash basis accounting (Bergmann, 2009). However, from the mid-1990s onward, Estonia is orientated to maintain the rules and regulations for financial accounting in conformity with the International Financial Reporting Standards. It was significant that at that time three out of seven members of the Estonian Accounting Standards Board were expatriate Estonians who had international working experience in Sweden, Canada and Great Britain. They laid foundations for the accounting system characteristic of a market economy. The contribution of the specialists having international experience in market economies was crucial in order to prevent several mistakes and problems. (Haldma, 2006).

The first 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 (Tikk, 2010). §16 of the new Accounting Act, which was enforced on 1 January 2003, set unified conceptual internationally accepted bases for Estonian organizations both in the business and public sector. According to the new Accounting

Act (§5 (3)) financial accounting in all public organizations became into accordance with the accrual-basis accounting principle as part of other regulations. The mentioned activities represent systematic development of a local financial accounting system to get ready for integration into the accounting system of the European Union (EU).

Since the 1990s, Estonia has been governed by coalitions of various political parties. The budget formulation process is based on the State Budget Act (the organic budget law), which has been thoroughly revised in 1999 and 2002, since it was first enforced on 1 January 1994. The main discussion arose of how active role the legislature should play in the budget process (Raudla, 2010). According to von Hagen (2006), budget process can be divided into four stages: the executive planning stage; the legislative approval stage; the executive implementation stage; the *ex-post* accountability stage. At the budget implementation stage we can distinguish between two basic approaches both having distinct enforcement mechanisms - delegation and contracts approach (von Hagen, 2005).

In Estonia, the delegation approach applied in the budget preparation phase has been gradually replaced by the contracts approach. The authority of the finance minister in the preparation phase of budget process has been weakened and the budgetary authority of the Cabinet as a whole has been strengthened (Raudla, 2010). From her research Raudla concludes *inter alia*, that "the Estonian case ... confirms the importance of the EU in shaping the evolution of fiscal governance institutions (as conjectured by the existing literature): The movement toward a contracts-type budget preparation phase, with its emphasis on multiannual fiscal targets, has been facilitated by the EU accession process and EU membership" (Raudla, 2010, p.478).

In Estonia, the budget formulation process starts one year prior to the beginning of the fiscal year. Since 2003, a four-year strategic planning process has been introduced. Each line ministry submits a development program with a financial plan which is based on previous year's State Budget Strategy. Some variations in the figures are negotiable. The Ministry of Finance consolidates submitted development programs into the State Budget Strategy. The State Budget Strategy is discussed and approved in an official Government Session in May. Approved strategy is published on the website of the Ministry of Finance. (Kraan et al., 2008).

The following step is the issuance of the budget decree by the Ministry of Finance with targets for each line ministry based on approved strategy.

Traditionally, budgets have been input-based and cash-based. Under the New Public Financial Management reforms the focus has shifted to accrual based accounting and performance budgeting (Guthrie et al., 2005, p.40). Surprisingly, theoretical research in the scholarly literature about implementing accrual budgeting has been quite recent, although it is obvious that accrual budgeting ensures that the relevant information is considered in the most important financial decisions for public sector management. (Bergmann, 2009). From the discrepancy between application accrual accounting and cash-based budgeting a need arose to investigate opportunities for budgeting development with the intention to create an accrual-based integrated accounting and budget system.

The aim of this paper is to research whether the integration of the accounting and budget systems will create a holistic information system for a midterm period, which could be used at all managerial levels in all public sector organizations in real time.

In data collection and analysis the authors have used two ways of triangulation with the purpose of arriving at as multifaceted treatment as possible:

- 1. source data triangulation the authors investigated scholarly literature and statistical material (previous studies, reports, statements and other secondary data) and interviewed experts, politicians and entrepreneurs;
- 2. methodological triangulation the authors used different methods: systems approach, modelling, interviews, discussions, conversations, analysis of documents and earlier research.

Hopefully, this study will contribute to further developments in accounting and budget systems to bring financial management in Estonian public sector organizations to a qualitatively higher level.

### Integrated accounting and budgeting system in the financial management model of Estonian public organizations

Estonia, a member of the OECD since December 9, 2010, is the OECD's second smallest economy (OECD, 2011). The global financial crisis, now showing signs of abating, has taught us several important lessons, the primary one being the need for taking the global factors that call for a new quality in financial management into greater consideration. It is important to highlight that Estonia is a member of EU and NATO since 2004, and on January 1, 2011 Estonia joined the Eurozone, having previously met the required criteria. A complex and extensive system of measures was applied to achieve the mentioned goal, where the financial accounting system and the budget system considering more the requirements of financial management were functioning as a regulatory basis. Moreover, Estonia was able to move rapidly out of recession (OECD, 2011).

In Estonia, a decision of principle about the transition to accrual-basis budgeting has been agreed at the level of the central government (OECD 2011, 41). However, one has to admit that any changes are complicated and time-consuming. No consensus has been reached in arguments for or against the reform for accrual-based budgeting in OECD countries. In the preparation of budgets the modified accrual-basis approach is used as an alternative for accrual-basis approach in those countries. (Kraan et al., 2008). The latest mission of the OECD in March 2011 recommended the Estonian authorities "...consider a phased implementation (of accrual budgeting) over the longer term and/or implementation of a combination of cash and accrual systems such as those operating in Canada, Denmark, Finland, Iceland, Italy, and the United States. However, given the size of the Estonian public administration and public budget, the implementation of an accrual budgeting system should not be a top reform priority" (OECD, 2011, p.41).

Despite strong support to move towards accrual based accounting, there are few countries in the world where full accrual-basis accounting principle is adopted for financial accounting in the public sector (Wynne, 2007), however a number of those involved acknowledge the advantages of an accrual-basis accounting increases constantly. Accrual accounting should not be considered separately, but as a part of New Public Management reforms (Guthrie et al., 2005). There were two driving factors for these reforms in Europe - the Maastricht Treaty on the formation of the EU, and a need to revise the "social contract" between public administrators and citizens because of increased dissatisfaction with public servises (Pollitt and Bouckaert, 2004). As mentioned above, Estonia, a member of the EU, has already implemented full accrual basis financial accounting for public sector organizations.

While preparing budgets and controlling their fulfillment at the level of the central government, the majority of countries all over the world use the cash-basis principle. Comparing to those who have implemented full accrual-basis principle for financial accounting in the public sector, there are even fewer countries who have implemented full accrual budgeting. Only four OECD countries (Australia, New Zealand, Switzerland and the United Kingdom) run both full accrual accounting and full accrual budgeting systems (OECD, 2011). It is believed that also the case of Enron has made governments cautious (Wynne, 2007).

Otley (1980) and Emmanuel et al. (1990) claim that there is no universal accounting system that would be suitable for all organizations. Therefore, contingency theory has been chosen for the theoretical framework for creating the integrated accounting and budget system for public sector organizations in Estonia. Contingency theory states that organizations are operating as open systems. They are influenced by external and internal variables. There is no one best way to operate, but any way is not equally effective.

Organizations whose internal features best match the demands of environments will adapt and survive. According to Otley (1980), contingent approach helps to link various aspects of an accounting system to certain circumstances. Therefore, the accounting system should meet the needs of society. At the same time, the shape of the accounting system should consider the type of organization. Properly designed accounting system provides valuable information for decision-makers to improve the quality of management decisions and accelerate their implementation.

Accounting is a complex information generating system (Figure 1). In order to investigate complex systems, a model imitating the object under investigation is assumed to be created (Rozenfeld, 1975). The use of modelling as a widely implemented research method involves learning one object (the original) on the basis of another object (the model) and the model will replace another object that we consider of actual interest in the situation of cognition and will enable us to obtain data about the object in an indirect and mediated way.

Thus, we can rely on two ways:

- a contingency model oriented to the business sector (Emmanuel et al., 1990);
- a contingency model oriented to the public sector (Hussein, 1981; Lüder, 1994, Lüder, 2003).

We continue to investigate a contingency model oriented to the public sector.

Financial accounting

Cost accounting

Managerial accounting

Taxation

Financial analysis

FIGURE 1. ACCOUNTING AS A COMPLEX SYSTEM

Note: Created by the author.

Accounting system consists of certain components, elements, which are interrelated (see Figure 1). Accounting and budgeting are traditionally considered as separate systems but actually they consist of identical elements. A comparison between the elements reveals that all the elements of the accounting system also belong to the budgeting system. The task of financial accounting is to present and impart information that is useful for making managerial, investing and financing decisions to interior as well as exterior users. The budgeting system is dominated by taxation as an indicator of the fiscal policy and a system, which lays foundations for receiving the revenues required for supplying public goods. Connecting managerial accounting with budgeting is relatively recent in the practice of public organizations, dating back to the early 1990s; however, managerial

accounting plays a crucial role in each controlling cycle, including budgeting (Bergmann, 2009). Managerial accounting, which is related to the preparation of long-term and short-term budgets and use of resources, provides in addition to alternative activities also the best (optimal) version.

The outcome of both the accounting system and budgeting system is reports, the annual summary report of the state and the budgetary report. The budgeting system is part of the accounting system and the budgetary report is part of the annual summary report (Accounting Act §38 (1)). In financial accounting the annual report consists of statements prepared according to the accrual-basis accounting principles, which are expansions on certain parts of the balance sheet by their nature. The budgetary report is prepared on the cash-basis. That kind of report generates short-term lopsided information, which is based only on cash flows; revenues, expenses, claims and liabilities are not always reliably presented in statements prepared on the cash-basis (Kieso and Weygandt, 1998).

Furthermore, cash-basis accounting allows manipulate with the fulfillment of budgets. On the contrary, the accrual-basis accounting eliminates the manipulation because of the long - term perspective of transactions (Schick, 2007). It is crucial that accrual-basis budgeting takes into account all costs, so it is assumed that managers become responsible for the outcomes and outputs produced in long run. According to Schick (2007, p.132), the fact that financial reporting is based on accrual basis but budget itself and budgetary report is not, "...indicates a preference for treating information on assets and liabilities as aids to analysis rather than as categories for decision". Having the same basis for accounting and budgeting would reduce the complexity of the system claims Bergmann (2009). Budgeting for accruals "...turn the budget into a fiscal impact statement", says Schick (2007, p.133).

The annual report act as means for communication between organization and interested outside parties. The general public and decision-makers at all managerial levels are entitled to obtain and the organizations are obliged to impart clear and unbiased information about any position and transaction presented in a true and fair way. From the point of generating comprehensive, consistent and comparable information the transfer to unified approach is of crucial importance.

Accrual based accounting and budgeting is considered to be methodologically more complicated than cash accounting and budgeting (Wynne, 2007; Shick, 2007; Bergmann, 2009).

As mentioned before, in Estonia accrual accounting at the state level has been implemented, so hopefully this problem is overcome.

According to the survey carried out by the author in January 2011, 62% of the respondents were in favour of using accrual-basis accounting in Estonian public administration organizations, 4% were against and 34% were unable to give an answer.

The outcome of accounting and budgeting systems - reports - serve for the same purpose - to inform the public about the economic plans of a country, rural municipalities and towns or an organization, and about the fulfillment of those plans. In the words of Schick (2007, p.135): "When the government's fiscal condition is measured in cash, it is likely to be incomplete and subject to manipulation". We would like to remove this deficiency.

According to the Constitution of the Republic of Estonia the state budget can be treated as the state's economic plan for the coming year, as well as the Parliament's annual expression of confidence in the government and its planned political activities (Constitution of the Republic of Estonia, 2008). Thus, the budget is also a mechanism of financial management, which allows monitoring processes and getting feedback about the differences between the goals and attainments with the help of the budget fulfillment report. The Estonian state budget system has three parts:

- 1. the state budget (incl. pension insurance);
- 2. the budgets of municipalities, which are separated from the state budget (Constitution of the Republic of Estonia, 2008);

3. social security funds (incl. the Health Insurance Fund and the Unemployment Fund).

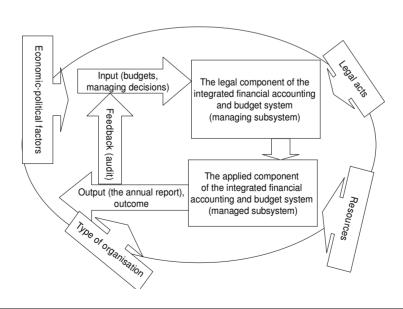
In order to establish a financial management system applicable at the organizational level the planning, cost accounting and cost management systems in the management system are integrated and in such a way significant factors influencing an entity's costs are measured and managed (Kaplan and Cooper, 2002). Thus, a future-oriented financial management system is being created based on past experience, Haldma in editor's foreword refers to provided by Kaplan and Cooper (2002) financial management system, which has:

- 1. a field dimension it can be used in marketing, human resource management, procurement, manufacturing, to give a few examples;
- 2. a branch dimension the model is applicable in all branches of economy;
- 3. a methodological dimension an organization's management system is integrated with the directions of cost management (for example, calculations by objectives, etc.) and concepts of management (for example, Goldratt's theory of constraints);
- 4. a dimension of time both operating and strategic aspects are relied on.

In the process of creating the integrated financial accounting and budget system, a financial management model imitating the system under investigation was designed (Figure 2). The model consists of three components:

- 1. the legal component of the integrated financial accounting and budget system;
- 2. the applied component of the integrated financial accounting and budget system in public organizations;
- 3. a feedback mechanism, which gives information about deviations, and impulses are conveyed to other managerial fields (strategic management, human resources management, management by objectives, etc.)

FIGURE 2. INTEGRATED FINANCIAL MANAGEMENT MODEL FOR PUBLIC ORGANIZATIONS TOGETHER WITH FACTORS IN THE EXTERNAL ENVIRONMENT



Note: Created by the author.

The set of inherently related elements in such a financial management model is a managing (the legal component of the model) and managed (the applied component of the model in public organizations) subsystem together with the feedback system.

The management of an integrated system involves affecting the system by the influential factors so that the system would change from one phase to another (Lorents, 2001). According to contingency theory, we can divide influencing variables into two groups: external and internal factors. The major groups of external factors that have been considered are (economic) political factors (Wildavsky, 1964; von Hagen, 2005; Bergmann, 2009), legal acts (Guthrie et al., 1999), resource dependence (Thompson, 1967; Pfeffer and Salancik, 1978; Hodge and Piccolo, 2005) and the type of the public organization (Katz and Kahn, 1966; Chan and Xiao, 2009), as it can be seen from Figure 2.

A managed subsystem is influenced by internal factors (Figure 3). The major internal factors that have been taken into consideration are the type of service provided by the public organization (Wilson 1989), human resource management (Katz and Kahn, 1966; Mintzberg, 1983), technological facilities (Lawrence and Lorsh, 1967; Thompson, 1967; Wilson, 1989), organizational culture (Cook and Yanow, 1993; Schein, 1996; Jarnagin and Slocum, 2007) and internal control system (Bergmann, 2009).

While observing external variables, it must be considered that changes should be in compliance with the principles of legislation of the law-governed state, and that they should not have a destructive impact on the present system but would have a supportive and developing effect and would serve the public interest - to make accounting, budgeting and reporting more transparent, consistent and comparable.

Internal audit system

The applied component of the integrated financial accounting and budget system

Organisational culture

Technology applied

FIGURE 3. INTERNAL FACTORS AFFECTING THE IMPLEMENTATION OF THE INTEGRATED MANAGEMENT MODEL

Note: Created by the author.

As a result of examination internal factors, the most resource intensive activity is the optimization of information technology. In Estonia an up-to-date governmental information network has been established, which has a potential of being widely used, and whose information technological facilities allow to provide current information to the interest groups about the past, present and future, classified according to the needs of the

user either at the level of an organization, the administrative field of a ministry or the state, or on some other classification bases. It is necessary to work out and add new modules and programs for the purpose of specialized statements, analyses or new user groups. A regulated IT system leads to more favourable conditions for procurements, to the combination of different IT-solutions, exchange or mobility of specialists, etc.

Internal and external control systems are treated as a feedback mechanism. As a result of the implementation of up-to-date methods of financial management, it is not only financial information that is expected as feedback. Therefore, a number of non-financial measures are being applied in order to evaluate the economy, efficiency and influence of organizations' activities. In Estonia, the performance auditing system has been implemented. The focus has been shifted from ex-post financial control to preventive control mechanisms. However, both ex-ante and ex-post elements are necessary for an effective financial control system (Bergmann, 2009). As feedback, control authorities impart information about the deviations between the objectives of the information and the attainments to the decision-makers, which will enable the decision-makers to make corrections and improve the quality of decisions.

#### Conclusion

We conclude from the results of the research and the analysis of the practical functioning of the current financial accounting and budget system as follows.

A radical restructuring of financial accounting in public organizations, which was carried out in the 'from-top-to-bottom' method, on the initiative and under the auspices of the Ministry of Finance of Estonia (Tikk, 2010), was not only a cosmetic innovation in financial accounting but it also represented a change in the paradigm. The new financial accounting system created on the reviewed theoretical and methodological bases was enacted as a law by legal regulation. As a result of the accounting reform managed by changing the laws, the Estonian accounting legislation and regulations conform to the EU directives and regulations.

In Estonia, the strategic planning procedure at the state level and two staged budget formulation process have been introduced. The first stage of budget formulation focuses on creating midterm strategies, the second one focuses on the preparation of the annual budget. However, a one-year cash-based budget is not sufficient in terms of fiscal sustainability while the objectives and targets in the State Budget Strategy are set in a four-year perspective. Moreover, methodology and basic principle for budgeting have not been dealt with in any legal act or guidelines.

Transition of the financial accounting system and the budgeting system onto the same accounting principles will result in an integrated, emergent and qualitatively new system at a higher level. It is a mean for getting comprehensive information about planning and usage of assets (including investments, tangible and intangible assets), liabilities (including debts), revenues and expenses at all levels of management. Transition to accrual based budgeting requires managers to take responsibility for outcomes or output for the long-term. The preparation of all statements and budgets in accordance with unified principles calls for changes and amendments in various legal acts and methodological guidelines.

Internal and external financial control systems give an impulse to all managerial fields - strategic management, human resources management, management by objectives, etc. Efficient feedback will make it possible to relate past experience to strategic and operating development in the future.

#### References

Bergmann, A., 2009. Public sector financial management, Financial Times, Prentice Hall

Chan, J., Xiao, X., 2009. "Financial management in public sector organizations," In: Boivard, T., Löffler, E. (eds) Public Management and Governance, 2nd ed Routlege

Cook, S., Yanow, D., 1993. "Culture and organizational learning," Journal of Management Inquiry, December, pp.400-10

Diamond, J., 2006. "Budget system reform in emerging economies: The challenges and the reform agenda," International Monetary Fund, WP/03/247

Emmanuel, C., Otley, D., Merchant, K., 1990. Accounting for management control, Chapman&Hall, 2nd ed., London

Guthrie, J., Humphrey, C., Jones, L., Olson, O. (Eds.), 2005. International public financial management reform: Progress, contradictions, and challenges, Greenwich, Connecticut: Information Age Publishing

Guthrie, J., Olson, O., Humphrey, C., 1999. "Debating developments in new public financial management: The limits of global theorising and some new ways forward," Financial Accountability and Management, Vol.15 (3)&(4), pp.209-28

Hodge, H., M., Piccolo, R., 2005. "Funding source, board involvment techniques, and financial vulnerability in nonprofit organizations. A test of recourse dependence," Nonprofit Management and Leadership, Vol.16, No.2, pp.171-90

Hughes, J., 2007. "A stepwise approach to transition from a cash, modified cash, or modified accrual basis of accounting to a full accrual basis for developing countries," Public Fund Digest, VI(1), pp.53-62

Hussein, M., 1981. "The innovative process in financial accounting standard setting," Accounting, Organization and Society, Vol.6, No.1, pp.27-37

Jarnagin, C., Slocum, J., 2007. "Creating corporate cultures through mythopoetic leadership," Organizational Dynamics, Vol.36, No.3, pp.288-302

Kaplan, R, Cooper, R., 2002. Kulu ja tulemus. Kuidas integreeritud kulusüsteemidega suurendada kasumlikkust ja tulemust, Fontese Kirjastus

Katz, D., Kahn, R., 1966. The social psychology of organizations, New York. Wiley

Kieso, D., Weygandt, J., 1998. Intermediate accounting, 9th ed., New York

Kraan, D., Wehner, J., Richter, K., 2008. "Budgeting in Estonia," OECD Journal on Budgeting, Vol.8, No.2, pp.1-40

Lawrence, P., Lorsch, J., 1967. Organization and environment, Irwin, Homewood

Lorents, P., 2001. Süsteemse käsitluse alused, EBS Print OÜ, Tallinn

Lüder, K., 1994. "The contingency model reconsidered: Experiences from Italy, Japan and Spain," In: Buschor, E., Schedler, K. (Eds), Perspectives on performance measurement and public sector accounting, Paul Haupt Publishers Berne, Stuttgart, Vienna, pp.1-16

Lüder, K., 2002. "Research in comparative governmental accounting over the last decade - Achievements and problems," In: Montesinos, V. and Vela, J. (Eds.), Innovations in government accounting, Boston, MA: Kluwer Academic Publishers, pp.1-21

Mintzberg, H., 1983. Structure in fives: Designing effective organizations, New Jersey: Prentice Hall

Mulas-Granados, C., Onrubia, J, Salinas-Jimenez, J., 2009. "Do budget institutions matter? Fiscal consolidation in the new EU member states," Eastern European Economics, Vol.4 (1), pp.60-91. Quoted in: Raudla, R., 2010. "The evolution of budgetary institutions in Estonia: A path full of puzzles?" Governance: An International Journal of Policy, Administration and Institutions, Vol.23, No.3, July, pp.463-484

OECD Public Governance Reviews, 2011. Estonia: Towards a single government approach

Otley, D., 1980. "The contingency theory of management accounting: Achievement and prognosis," Accounting, Organization and Society, Vol.5, No.4, pp.413-28

Pfeffer, J., Salancik, G., 1978. The external control of organizations: A resource dependence perspective, New York, Harper&Row

Pollitt, C., Bouckaert, G., 2004. Public management reform: A comparative analysis, 2nd ed., Oxford University Press

Raudla, R., 2010. "The evolution of budgetary institutions in Estonia: A path full of puzzles?" Governance: An International Journal of Policy, Administration and Institutions, Vol.23, No.3, July, pp.463-84

Rozenfeld, I., 1975. Süsteemanalüüs, Eesti Raamat, Tallinn

Schein, E., 1996. "Culture: The missing concept in organization studies," Administrative Science Quarterly, Vol.41, pp.229-40

Schick, A., 2007. "Performance budgeting and accrual budgeting: Decision rules or analytic tools," OECD Journal on Budgeting, Vol.7(2), pp.109-38

Zapal, J, Schneider, O., 2006. "What are their words worth? The political plans and economic pains of fiscal consolidations in the New EU member states," Eastern European Economics, Vol.44(5), pp.6-37. Raudla, R., 2010. "The evolution of budgetary institutions in Estonia: A path full of puzzles?" Governance: An International Journal of Policy, Administration and Institutions, Vol.23, No.3, July, pp.463-84

Thompson, J., 1967. Organizations in action, New York: McGraw-Hill

Tikk, J., 2010. "Accounting changes in the public sector in Estonia," Business: Theory and Practice, Vol.11(1), pp.77-85

von Hagen, J., 2005. "Budgeting institutions and public spending," In: Shah, A, (Ed.), Public sector governance and accountability series, Fiscal Management. Washington DC: The World Bank

von Hagen, J., 2006. "Political economy of fiscal institutions," In: Weingast, B, Wittman, D. (Eds), Oxford Handbook of Political Economy, Oxford: Oxford University Press

Wildavsky, A., 1964. The politics of the budgetary process, Boston: Little, Brown and Company

Wilson, J., 1989. Bureaucracy: What governments do and why they do it, New York, Basic Books

Wynne, A., 2007. "Is the move to accrual based accounting a real priority for public sector accounting?" Public Fund Digest, Vol.VI(1), pp.25-38