

Financial Crisis and Public Reforms: Moving from Public Administration to Public Management. Cost Allocation and Performance Information for Decision-making Process in the Public Sector. The Case of the Greek Public Sector under the Greek Crisis

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Abstract. During the last decades many states under different circumstances have faced financial crisis, made significant adjustments to their fiscal policy regimes and adapted new public management reforms. The control of the public sector costs seems more important now, in the context of the financial and fiscal crisis of 2008. The international globalized environment and the financial crisis have generated new demands with internals (citizens-users) and externals (creditors) pressuring the governments to control public spending and improve efficiency in the supply of public goods/services. In many countries, performance information is now included for public budgeting, in few countries it is used in decision-making process for budgeting and in fewer countries, it is used for the allocation of resources. In the light of current practices, this article aims to showcase the need and importance of costing allocation in the public sector, in order to promote more effective financial management, a higher degree of transparency and accountability of public spending and to disseminate a 'cost culture' in the public administration. Additionally, cost allocation and performance methods are a powerful public management tool that can provide the knowledge capital, support the reforms in public organizations and lead to a responsible decision-making process. Governments nowadays are rethinking their models, trying to meet the needs of its citizens/consumers of public goods and services. The article demonstrates a cost analysis of the General Chemical State Laboratory (G.C.S.L.) and presents the major structural changes at the Greek Ministry of Finance. It also shows the cost allocation of the central government spending in Greece.

Keywords: Financial crisis; public management; cost accountability; performance; decision-making; public sector.

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1 Introduction

According to World Bank reports (1997), **‘Good government is not a luxury – it’s a vital necessity for development’**.

Cost determination in the public sector is more essential now due to the financial crisis of 2008. The main purpose of this article is to examine whether the implementation of Activity-Based Costing methods is possible in the Public Sector and how the cost analysis can lead to public accountability. In this study, we implement the ABC method at the Greek General Chemical State Laboratory (GCSL) of the Greek Independent Authority of Public Revenue (IAPR). To achieve this, the study needs to identify the public expenses (‘inputs’), the public goods services/products (‘outputs’) and the activities of GCSL. The financial cost data is collected (personnel cost, goods and equipment cost, operational supplies, facilities cost, miscellaneous cost etc.) and cost calculations are made. Also, the public goods/services provided by the GCSL are gathered and presented. Additionally, the major activities of GCSL are presented.

Another objective is to provide insights, taking into account the 2008 fiscal crisis of 2008 in Greece, about the basic countermeasures taken to reduce the public spending and the structural reforms implemented in the Public Sector of Greece. Additionally, we represent data from the Organization for Economic Co-operation and Development (OECD) concerning the central government spending of Greece in comparison with European countries with similar economical size or financial status.

The paper is organized in five sections as follows. In section 2 we present a short review on cost systems and public management. In section 3 we implement a cost analysis of the GCSL and in section 4 we outline the allocation of Greek central government spending in comparison with other European countries. Finally, in section 5 we conclude the paper and discuss today’s and future perspective on public accountability.

2 Literature Review

In recent years, companies have reduced their dependency on traditional accounting systems by developing activity-based costing management systems (Kumar and Mahto, 2013). Traditional costing systems added a broad percentage of expenses into indirect costs. However, as the percentages of indirect or overhead cost rose, this methodology became increasingly inaccurate. Activity-Based Costing (ABC) was a new tool that was developed in the manufacturing sector in the 1970s and 1980s in an effort to improve efficiency and control cost.

ABC was pioneered by Copper, Kaplan and Johnson and is a costing methodology used to mark out overhead costs directly to cost objects (product, services, processes or customers) and help managers make the right decisions regarding product mix and competitive strategies (Ray, 2012).

Vazakidis *et al.* (2010) investigated the relevance of ABC in the Greek public sector. Their findings revealed that when combined with new technologies and new

methods of management, ABC can resolve public sector deficiencies and help produce services at minimal cost.

Horngren *et al.* (2009) described that cost management systems are used to calculate the cost of products, services and other cost objects, to obtain information for planning and control and performance evaluation and to analyze the relevant information for decision-making.

Bovaird et Löffler (2003), mentioned that public expenditure in most parts of the world increased rapidly after 1945, as the '*welfare state*' in its various forms became widespread. However, by the early 1980s, budget deficits provided a major motive for public sector reforms in many parts of the world – reforms that covered both the content of public policy and the way in which public policy was made.

According to Hood (1995), New Public Management (NPM) include a focus on the reduction of budgets, decentralization of activities to corporatized units, an emphasis on performance management and the prominence of managerial accountability.

Cost management systems in public sector have different approaches in Anglo-Saxon countries, with less emphasis on market mechanisms, notions of competitiveness and efficiency and value for money and in "Nordic" style countries, with public management focusing more on meeting citizens' needs and a tradition of negotiation and consultation.

3 Methodology

3.1 Research design and data collection

As mentioned before, Activity Based Costing methods (ABC and TD-ABC) determine 'true' costs by assigning more indirect costs (overhead) into direct costs through activities. Based on Vazakidis and Karagiannis (2006) and Lima (2012) reports, the steps in the implementation of ABC are:

1. Identify expenses (cost resources)
2. Identify end-products/services (outputs-cost objects)
3. Identify activities (cost pools)
4. Assign resources to activities (based on resource driver)
5. Trace/allocate overhead costs to activities and cost objects
6. Assign activities to products/services (based on activity driver)

The first steps of the study were to collect the financial data for the 'cost resources' (personnel expenses, operational and supplies expenses) and the data for the 'cost objects' (analysis and audits from the annual reports). Also, the 'activities drivers' were identified.

Moreover, a main issue is the understanding of the working processes and gathering relevant information through personal interviews with directors and key employees, gaining familiarity with the main working strengths and difficulties.

This study presents below a total cost analysis for the Greek General Chemical State Laboratory and how the crisis and the changes that followed, have influenced it.

3.2 General Chemical State Laboratory of Greece (G.C.S.L.)

The General Chemical State Laboratory (GCSL) was established in 1929 (foundation law L. 4328) and until the end of 2016 belonged to the Greek Ministry of Finance. From 1/1/2017 it reports to the Greek Independent Authority of Public Revenue. The structure of G.C.S.L. after the major reorganization of 2013 is the following:

- 4 Central Divisions
- 14 local Chemical Divisions (including 25 Departments and 10 local offices)

3.2.1 Personnel Expenses Data (Number and Cost)

GCSLs' personnel have extremely high academic qualifications (PhD, MSc, NPAS: National public administration school).

In the period of 2010-2017, the number of personnel was reduced by 30% mainly due to forced retirement. In 2010, a large number of personnel were forced into retirement (-19%).

The annual personnel cost of the GCSL was calculated as a distribution of personnel per level of education multiplied with the average monthly personnel wage per level of education (includes wages, allowances, benefits and employer cost). Then the monthly personnel wage was multiplied the number of wages (14 or 13 or 12) as reduced during the crisis period.

Due to austerity measures, two major reductions were made: (a) Reduction and finally abolishment of Christmas, Easter and vacation allowances (from 14 to 12 wages: -15% until 2013 due to L.3845/5-2010, L. 4093/10-2011) and (b) reduction of allowances and benefits (-12% and -8% at the beginning of 2010 due to the implementation of L.3833/3-2010, L.3845/5-2010).

As shown, the personnel average wages were reduced by a total of -35% and the personnel number was reduced by -30% due to retirement. As a total, the annual personnel cost was reduced by -49%.

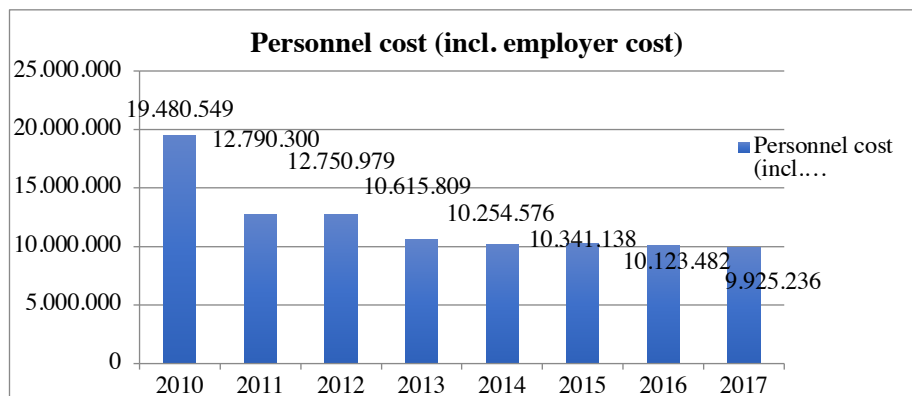


Fig. 1. Personnel cost of GCSL for the period 2010-2017.

3.2.2 Operational Expenses Data (exp. Personnel)

The Annual Statement of Public Accounts of Greece and Diavgeia (The Transparency Program initiative, web the public site www.diavgeia.gov.gr are in the public domain) are the official sources for information regarding financial data of the Authority.

The main categories of public expenses per KAE (code number per expenses for the government expenses) are:

0000: PERSONNEL PAYMENTS & SERVICES

(overtime/night employment, travel, post, communications, electrical energy, water-supply, cleaning, building maintenance, equipment fees etc.)

1000: SUPPLIES OF GOODS & EQUIPMENT

(office equipment/supplies, laboratories materials, maintenance and repair items, heating fuel, etc.)

The GCSL's annual cost per expenses' category (exp. personnel) for the period 2010-2017 is presented below. On the category Supplies of Goods and Equipment the total reduction was -61%, with a major reduction of -95% happening in 2014. On the category of Services (operational cost) the total reduction was -9%, with a major reduction of -50% happening in 2014. This was due to the fact that no public procurement procedures (for chemical materials, equipment maintenance items and supply, etc.) were held. The austerity measures led to a major reduction of public spending on all categories of expenses.

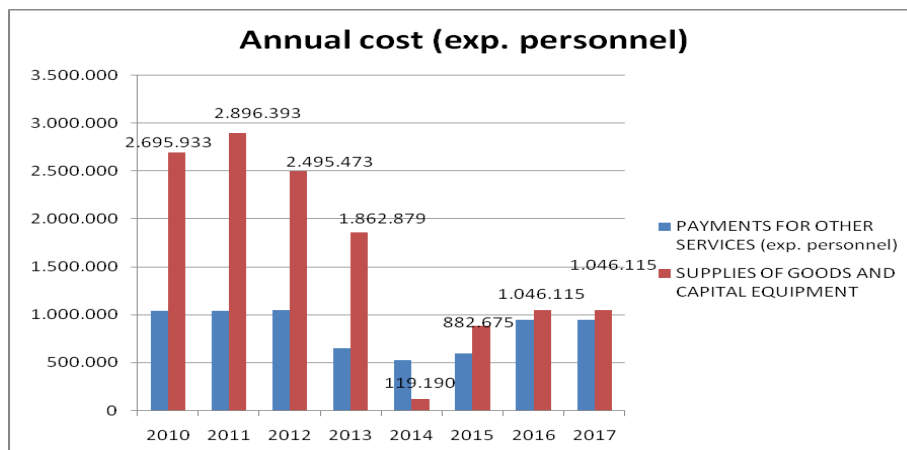


Fig. 2. Annual cost per category on Goods, Equipment and on Services of GCSL (exp. personnel) for the period 2010-2017.

3.2.3 Activities-Annual Report

The Annual report of the GCSL provides the number of activities per category (a. laboratory analysis, b. audits on excise duties/inspections on/products/facilities and others (legal and administration tasks) for the period of 2010-2017.

A. Sector: Laboratory/Chemical Analysis

The charts below present the number of chemical analysis per main samples categories for the period of 2010-2017:

- Chemical analysis (food, alcohol, water, petrochemicals, raw materials, environmental, tobacco)
- Chemical analysis/Statement of classification for customs
- Chemical analysis of controlled substances (drugs)

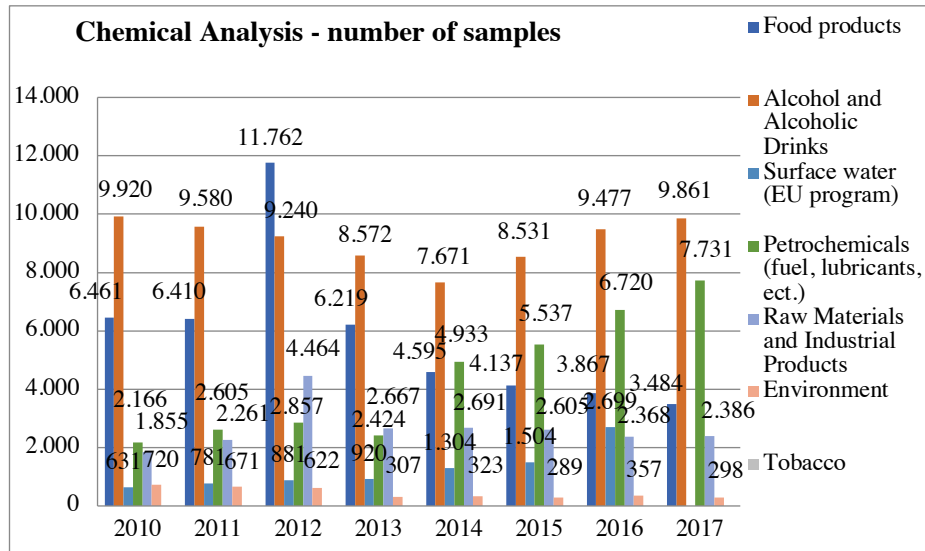


Fig. 3. Laboratory Chemical Analysis per major activity for the period 2010-2017.

As shown above, chemical analyses are performed in the fields of food, alcohol, water, petrochemicals, raw materials, environmental, tobacco and others, with a total decrease of -10%. (2010: 26.446 to 2017: 24.060 number of samples analyzed). More specifically, petrochemicals samples showed a major increase of +256% (due to excite duties) and raw materials shows a major increase of +29%. Food and environmental samples were reduced by -46% and -58% due to fewer samples from other authorities.

Besides, the number of chemical analysis for customs samples was reduced by -60% and the number of statement of classification for customs was reduced by -35% due to the changes on the risk management method for samples selection by the customs. Furthermore, in the field of controlled substances (drugs) the number of samples is the highest in the category of laboratory chemical analysis tests and is increased by 31%.

B. Sector: Audits on Alcohol/Fuels Taxation/Inspections on Products/Facilities

The chart below presents the number of audits on alcohol and fuel taxation and inspections on products/facilities, for the period of 2010-2017:

- Audits for alcohol taxation (that include audits in distilleries, breweries, wineries, vinegar, bottling units and ethyl alcohol tax warehouses etc.)
Increase of +236% (2010: 8.374 to 2017: 28.209)
- Audits for fuel taxation (that include tasks for determining quantity of petroleum in tanks, audits for issue of licenses, on meters, on suitability etc.)
Increase of +48% (2010: 30.125 to 2017: 43.919)
- Audits/Inspection on products and units (that include internal market, imports-exports, substances/facilities, volatile compounds, cleaning materials etc.)
Increase of +86% (2010: 350 to 2017: 651)

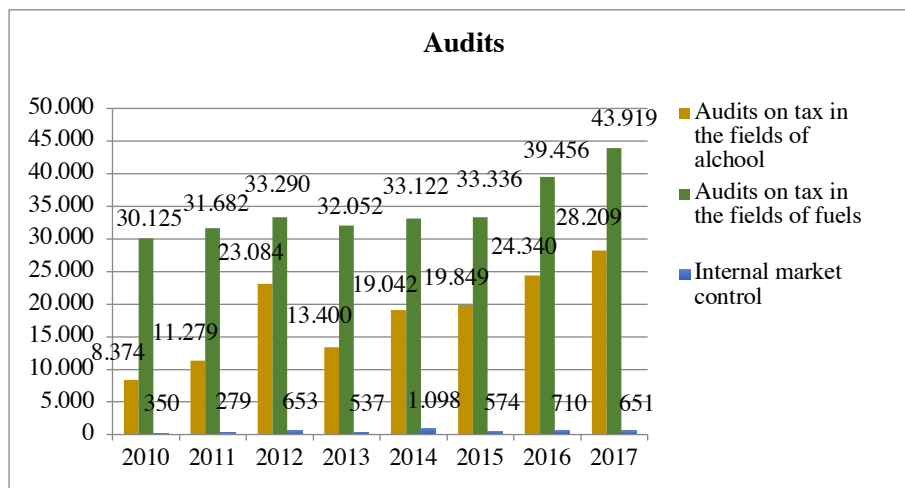


Fig. 4. Audits on alcohol, fuels and products & units for the period 2010-2017.

4 Empirical Analysis on Greek Adjustment Programs and Public Reforms

Since 2008, Greece has faced a serious fiscal crisis and three (3) Economic Adjustment Programs (Memorandums) were signed between Greece and European Commission, European Central Bank and International Monetary Fund (IMF).

4.1 Structural changes at the Greek Ministry of Finance

In the year 2013, major structural changes were implemented in many Greek Authorities. Specifically, at the Greek General Secretariat of Public Revenue of Ministry of Finance the number of organic units (divisions, departments, units) was reduced by 61% (from 3282 to 1285 units). Additionally, the first initiative of the e-government (on-going process) was implemented on the financial statements of the Individuals and Legal entities. This led some employees to move from some departments and to increase the number of the auditors (from ~800 in 2011 to more than 2200 in 2013, auditors for tax audit & enforced collection with 90% university education). Moreover, initial 15days-training program and continuous yearly educational program was developed. Also, an on-line monitoring program for audits was developed and many statistical reports started to be monitored.

On 1/1/2017 the Greek General Secretariat of Public Revenue became an Independent Authority. The new Authority is not supervised by the Greek Ministry of Finance, but directly by the Greek Parliament.

4.2 Central government spending – Comparing Greek government data

Central government expenditure is defined as the central government budget expenditure as reported in the final central government accounts. Data are based on the System of National accounts (SNA), a set of internationally agreed concepts, definitions, classifications and rules for national accounting.

The expenditures are divided into in the following governments activities: general public services; social protection; health; education; defence; public order and safety; economic affairs; environmental protection; housing and community amenities; and recreation, culture and religion. The general government sector consists of central, state and local governments and the social security funds controlled by these units.

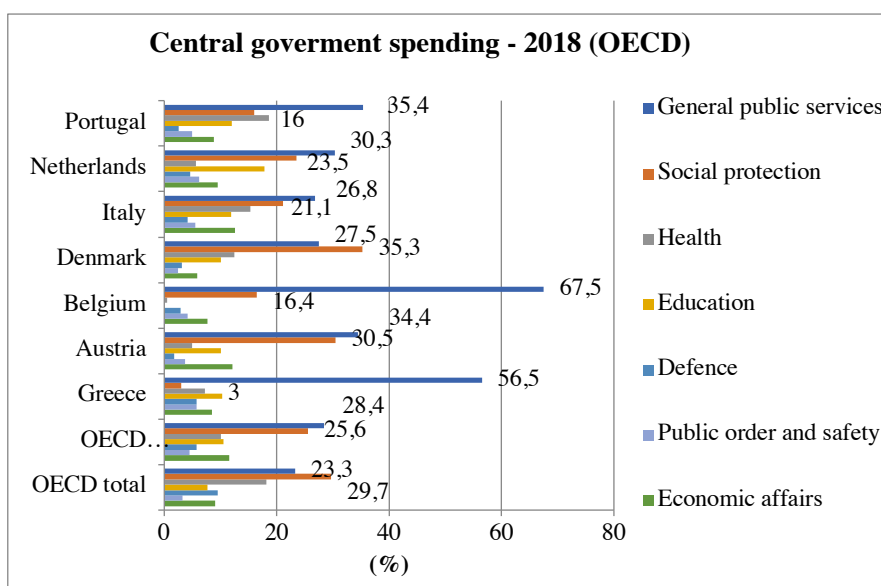


Fig. 5. Central government expenditure 2018 – comparing OECD countries.

Comparing central government expenditures between Greece and others OECD countries with similar sizes and status (Austria, Belgium, Denmark, Italy, Netherlands and Portugal) we see some similarities at the percentages spent on health and education, data close to the OECD average of 10%. But there is a big distance on general public services (Greece: 56,5% average: 28,4%) and social protection (3% average: 25,6%). For evaluating this distance, an analytical study should be made so the general public services should be reviewed on the services provided and the resources needed, so that the public reforms should be based on financial and administration data and not only on budgetary constraints.

Cost analysis of the public services is essential for better financial public management and 'good' policymaking. In recent years governance reforms have three orientations: improved service delivery processes and outcomes, engaging

informed citizens in public affairs and creating open, responsible and accountable government.

5 Conclusions

The absence of public accountability and proper oversight in so many aspects of Greek public finances (public deficit, public debt, public spending) compounded the problems. (Kindreigh A., 2017)

The recent worldwide request for better transparency and quality of the public sector, calls for managerial techniques to control the public sector's spending and for a continuous improvement of quality of the provided public services/goods. Governments nowadays are rethinking their models, trying to meet the needs of its citizens/consumers of public goods and services and disseminate a 'cost culture' in the public administration.

Cost analysis is currently an issue in public authorities in order to enhanced productivity, effectiveness and utility of public services and goods. Cost allocation basically means setting up budgeting and accounting systems in a way that allows administrators to determine a unit cost or cost per unit of service. Cost accounting methods can help to determining 'true' costs.

The use of ABC costing management information system by the public sector, can lead to cost reduction and also to process improvement. The cost determination is a central problem because it is always indefinable, so by using the best applied costing method we could assign more indirect costs (overhead) into direct costs. The use of ABC method would be a useful tool for the administration decision making for an efficient use of resources and improvement of the performance in the public sector.

Implementing the ABC method in Greek public authorities will provide the public administration the information need for an efficient decision-making tool. General public managers are responsible for achieving specified results within specific budgetary constraints; on the other hand political managers are responsible for the overall achievement of authorities. As showed, during the Greek crisis, the cost reduction was implemented by the legislation and not based on cost analysis of the public authorities. For an efficient public sector, which will not just satisfy regulations and legitimate the authorities activities, we need to separate the political process from the financial management process.

Busch, Johnson, & Vanebo, (2002) concluded that regardless of how one chooses to define efficient use of resources in the public sector and measure value creation, it will be up to the politicians to decide whether the services the public sector supplies are of high enough value in relation to their use of resources [Boe et al., 2015].

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