

The evolution of management control in the public water supply sector in the post-Soviet context. A stakeholders' approach

*L'évolution du contrôle de gestion dans le secteur public de distribution d'eau
en contexte post-soviétique. Une approche par les parties prenantes*

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ABSTRACT

This research is focused on the management of Water Supply Chains (WSC) and the use of associated management control techniques in a former-Soviet country. The qualitative analysis is based on an original methodological approach, linking historical perspective and stakeholders' theoretical framework. This approach enables to highlight the role of the

stakeholders in the evolution of management control systems of a water supply company during the transition from the planned economic system to the market economy.

Key-words

Water supply chains; Public management control; Stakeholders' theory

RÉSUMÉ

Cette recherche se concentre sur la gestion des Supply Chains d'eau et l'utilisation des techniques de contrôle de gestion associées dans un ancien pays soviétique. L'analyse qualitative est basée sur une approche originale, couplant la perspective historique et le cadre théorique des parties prenantes. Cette approche permet de mettre en évidence le rôle des parties prenantes dans

l'évolution des systèmes de contrôle de gestion d'une société de distribution d'eau lors de la transition du système économique planifié vers l'économie de marché.

Mots-clés

Contrôle de gestion public ; Parties prenantes ; Supply chain de l'eau

INTRODUCTION

Based on a subsidization logic and (almost) free public services provided by the State during the Soviet period, the water supply became a political issue of great importance in the post-Soviet area. After the fall of communism, the water tariffs gradually increased. The introduction of new prices for the water “sold” to the customer, the obsolescence and the overcapacity of infrastructure represent important organizational challenges for water networks in a context of shortage of financial resources specific to the transition in Eastern European countries. During the Soviet period, these countries adopted a centralized economic system, aiming at deploying the ideology and strategy of the Communist Party in all the state-owned firms. The changes induced by the transition should transform the management methods in all the public organizations, including the water supply chain networks.

This research is focused on the management of Water Supply Chains (WSC) and the use of associated management control techniques. The paper aims at analysing, in a particular public management context, the management control tools used by the WSC in order to manage their operational and industrial activities, given the financial scarcity they face. Thus, our research contributes to the knowledge in public management in the post-Soviet context, a rich and not fully explored research field (Paladi and Fenies, 2018).

This paper is based on a historical approach that retraces the evolution of management control in a former Soviet public company from Moldova during the transition from the planned system to the market economy. By mixing stakeholders' theory and institutional logics, we analyse whether a management control system (MCS) (concept referring to Anthony, 1988; Bouquin, 2010) is used by Water Supply Companies in Moldova and how the emergence of new stakeholders shapes the MCS and its usage.

The study focuses on answering two research questions:

- To determine whether there is any MCS in the public WSC in the former Soviet republics and how it evolves during the transition period;

- To identify whether the MCS is used for performance management purposes in a context of scarcity of financial resources or is serving only as formal reporting required by stakeholders (shareholders, financial institutions).

This paper is structured as follows. The first section presents the research context (the WSC and MCS). The second section deals with the conceptual framework and our research design. In the third section we examine the macro-environment for a public company and the evolution of its MCS during the Soviet period and the two stages of economic transition. The fourth section discusses the results of our research. Perspectives of the research and limitations of this work conclude the paper.

1. RESEARCH CONTEXT

The management of water networks represents a major public management issue and many articles treat its importance from a geopolitical (Baron, 2007) or economic (Le Lannier and Porcher, 2012) point of view. In order to introduce the context of our research, the concept of WSC is firstly characterised; secondly, different regulation modes are presented in a global context and the “local” post-Soviet context. Then a brief review on management control in post-Soviet economies in both public and private organizations ends the section.

1.1. The management of the WSC

Based on the definition of a supply chain (Fenies, 2010), we define a WSC as a coalition of autonomous organizations in which a “pivotal” firm coordinates the activities of an integrated logistics process that provides the water supply services to the final customer. This process is composed of the macro activities of production and distribution of drinking water and collecting of wastewater. Each activity can be performed independently, autonomously or coordinated. Many studies have analyzed, through econometric and benchmarking methods, the relative effectiveness of WSC, in the context of public or private management, in both developed and developing

countries (Boston Consulting Group, 2007). The results show that there is no consensus in the literature on the most effective form of management (public/private/mixed) in WSC, but the studies seem to reveal an evolution cycle of the WSC:

- The construction of the WSC is assumed by the public authorities;
- The distribution is ensured, depending on the case, by a public or private operator;
- When the water supply networks are obsolete, multinational water companies often use this “painful situation” to take “possession” of the WSC of large cities, both in emerging or developed country. The takeover (privatization or concession) is justified by the deterioration of the network and the positive impact of investments for the water network renovation on the public finances of the city;
- After a period of exploitation by multinational water companies, for dogmatic or pragmatic reasons, municipalities try, in many cases, to regain the management of their WSC.

The Soviet WSC, due to the “historic” free of charge water for its citizens have escaped this evolution cycle and is now exclusively under public control. Finally, it should be noted that, to our knowledge, no study on management control has been carried out on water services in the former Soviet republics, whether from the point of view of the efficiency of the water network or management control techniques.

Characterized by a lack of private property, the management of companies and therefore of WSC in the planned economy concerns the area of public management, but with some particular features due to centralized planning (imperative plan, strategy and objectives defined by planners and deployed in all the State enterprises, which are submitted to strong controls, performance measurement based on volume indicators, strong production orientation, etc.). The transition reforms contribute to the diffusion of new managerial approaches in public and private companies. However, in the post-Soviet area, the attempts to introduce a new form of public management based on the culture of results and of “private

sector” management techniques, according to the idea of New Public Management (NPM) (Chappoz and Pupion, 2012) show mixed results. For example, the study of Khodachek and Timochenko, (2014) on Russian government finds that the reforms led to a hybrid form of budget system, influenced by the ideas of the NPM, but also by the ideas rooted in the Russian past, as well as a strong rhetoric of Russian officials aimed to strengthen the image of the Russian state as a modern sovereign and independent player. Monobayeva and Howard, (2015) also point out the limits of the NPM-inspired reforms, linked to the legacy of Soviet administrative practices and a tendency to superficial implementation of these reforms.

1.2. Management control in public and private firms from CEE countries

The collapse of communism in the Central and Eastern European (CEE) countries calls for the redefinition of enterprise management in these countries and the establishment of *western* management methods. During the last decade, research in economics and business in Russia and other transition countries was mainly focused on macroeconomic aspects and financial accounting, only a little research analysed the use of accounting for internal decision-making (Moilanen, 2008). The difficult access to relevant data and managers reluctance to provide information are also contributing to this lack of knowledge (Riskal, 2009). Moreover, management accounting and/or control are not yet recognized as an independent academic discipline in most former Soviet countries, being only a part of accounting.

In recent years there has been a growing body of academic research on management control in former communist European countries, especially among local researchers. However, this literature is way less extensive comparing to research on developed countries (Nobre and Riskal, 2003; Albu and Albu, 2007; Kallunki *et al.*, 2008; Rejc and Zaman, 2012). The communist past is the main reason for the undeveloped management control research and practices. As Pankov and Bailey (1998) point out, the *Western* concept of management control is incompatible with the idea of the centrally planned economy and management control did not exist in the former Soviet

Union (Moilanen, 2008), even if similar tools were implemented (Plans, budgets, reporting, cost accounting system, etc.).

The review by Paladi and Fenies, (2016) concludes that generally, the research on management control in former Soviet countries do not focus on public organizations and that most of the literature is based on case studies or action research that respond to the particular needs of the company, but provide less generalizable results. We should note that, to our knowledge, there is only one paper treating the management control in public organizations in CEE countries. Sinković *et al.*, (2011) study the use of the Balanced Scorecard in a public company in Croatia. Their research identifies several barriers of Balanced Scorecard adoption in the analysed WSC company: an autocratic style of management, deficient human resources management, lack of strategic planning, lack of interest in customer satisfaction, and cultural barriers: highly politicized bureaucracy, corruption, lack of political will.

Thus, our understanding and knowledge of the current state of management control research and practices in former communist countries are very limited, especially in public organisations.

This study is focusing on one former Soviet republic, Moldova, a small country opened to Western ideas and with pro-European aspirations, but presenting at the same time many particularities of the transition process (slow changing mentalities, non-functioning institutions, corruption, lack of knowledge about modern management techniques, specific cultural context influenced by Romanian and Russian cultures and the communist period, etc.).

The management control is a very recent research field in Moldova, the first study was realised in 2013. The results show that companies apply only a few management accounting tools, usually related to the calculation of the production cost. Traditional cost calculation methods do not meet the management needs, being focused only on cost calculation and not their analysis and control. Moreover, they are not linked to company's strategy (Mihaila, 2013). Other studies (Țugulschi, 2013; Bajan, 2015) also point out that the traditional costing methods used by the companies in Moldova do not provide the necessary

information for decision-making. Thus, control practices are at an early stage.

In conclusion of this section, it could be noted that:

- the former Soviet countries represent an area in which management control is poorly studied;
- when management control and its tools are studied, it is rarely in the field of public management; for many authors, management control did not exist before 1991 (we will explain our disagreement with this point in the discussion section);
- Moldova represents a real “laboratory of transition”, aiming to understand the transformation of management control throughout the “post-Soviet world”.

2. RESEARCH DESIGN AND THEORETICAL FRAMEWORK

The former Soviet Union republics share a common past in economic and social practices. In this context, Alexander and Ghedrovici, (2013) argue that the analysis of one former Soviet country contributes to the understanding of the current and past situation in all the Post-Soviet area. In this context, we consider that the case of the Republic of Moldova will enable us to understand the evolution of the management control in formerly Soviet firms. We build our reasoning on the observations and the experience of one of the authors of the paper who worked in investment banking in contact with formerly Soviet companies. During the Soviet period, the same management control processes existed in all enterprises and the diversity of practices appeared in the mid-1990s. The current transition is an era of reconstruction and consolidation of a “hybrid” management control between the practices inherited from the Soviet period and those from the Western world.

2.1. Research Design

Tracing the history of management control in the transition period will contribute to a comprehensive

understanding of the company's management, as well as its transformation (Labardin, 2017). The historical approach will therefore enable to follow the evolution of management control in its historical, organizational, social and ideological context. To highlight this evolution in the context of our research, we define three periods:

- 1945-1991 (centrally planned economy);
- 1991-1998 (neo-liberal transition, period of radical changes) (Andreff, 2007);
- After 1998 (institutional transition, focus on institutional dimensions of the transition) (Andreff, 2007).

Through a longitudinal case study (historical perspective) on a public company, we illustrate the main features of management control under the centrally planned economic system and the transformations induced by the transition to the market economy. We will focus on the emergence of new stakeholders and their impact on MCS.

Figure 1 presents the research design and methodology for the three historical periods.

For each period, an analysis of political, economic and social context, is proposed by considering that accounting and control are not only a technique but a technical system with material, economic, social and organizational dimensions. Consequently, their history cannot be isolated from that of the organizations and the socio-economic system (Colasse, 1988). Therefore, the technical features of MCS are complemented by considerations on the economic environment, the ideological/political and social context (Berland, 1999).

Longitudinal case study. As the economic transition of the former Soviet countries represents a unique and rare circumstance, it seems appropriate to adopt a methodology based on a longitudinal case study analysis (Yin, 2009). A longitudinal case is a particular type of case study and consists of studying the same single case study at different points in time (Yin, 2009). It can be defined by three elements (Musca, 2006): the data are collected over at least

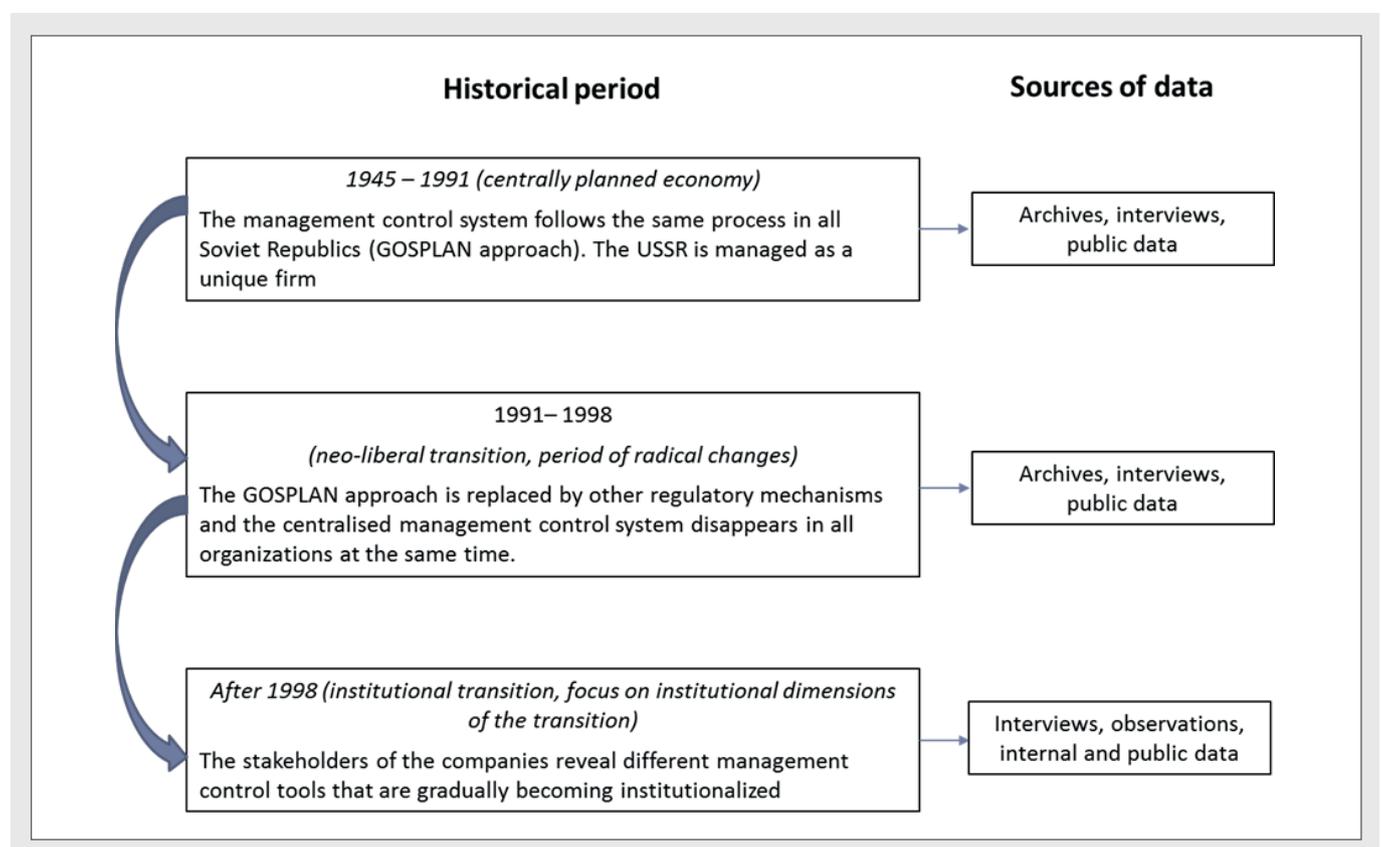


Figure 1 – Research Design

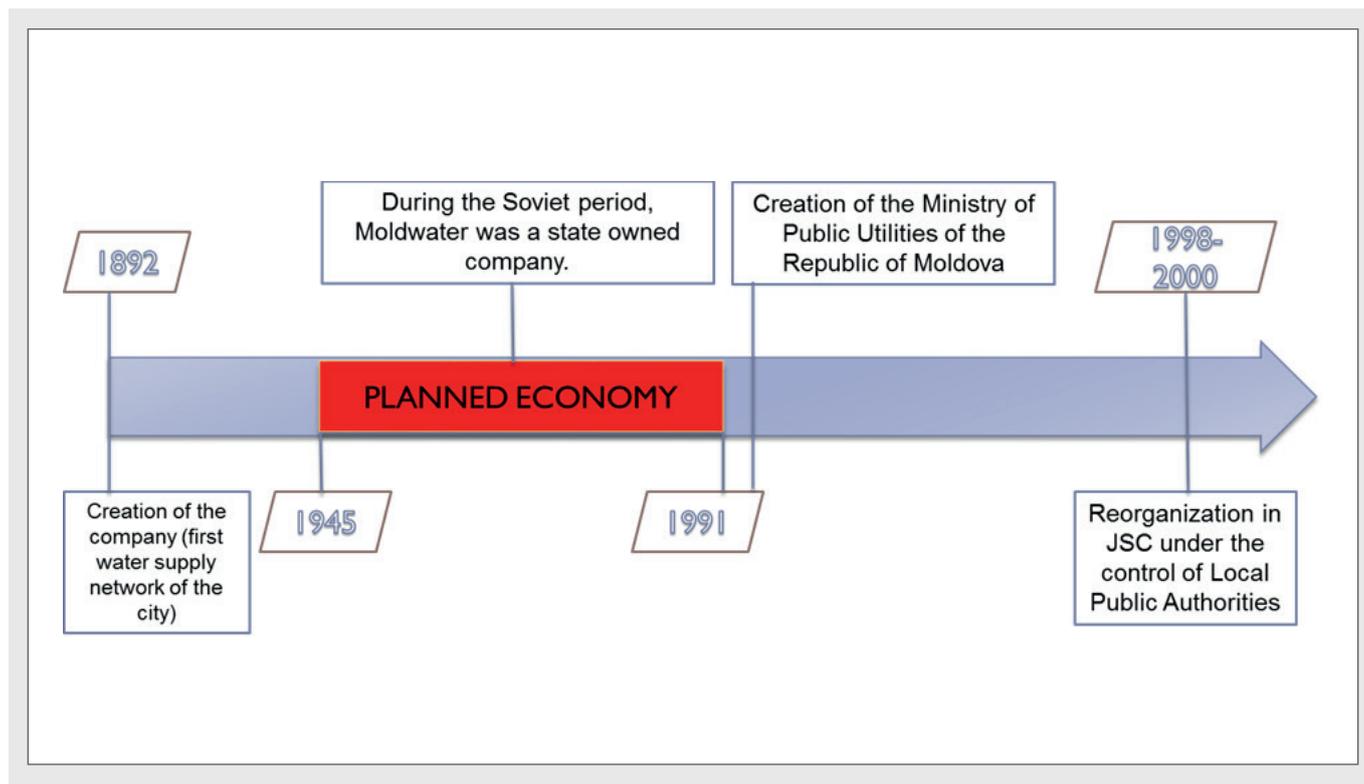


Figure 2 – Histoire de Moldwater

two distinct periods, the subjects are comparable from one period to another, and the analysis generally consists of comparing the data between different periods or tracing the evolution of the analysed phenomenon. Thus, the longitudinal approach aims to examine how economic conditions change over time (command economy, different phases of transition) and the selected time intervals reflect the different stages of changes (Yin, 2009).

The case company, Moldwater, is a public water company operating in Moldova. The first water distribution network in the analysed city, based on groundwater, was created in 1892. The current system of water distribution that uses surface water was created during the Soviet period (in the '60). As in the Soviet period the public companies received many subsidies from the State budget, after the fall of the communist system, the company become autonomous and had to overcome serious financial difficulties. In 2000 it was transformed into a joint-stock company with a unique shareholder - the Municipal Council (before it was a State-Owned Company). Having around 2100 employees, the company manages a network of more than 1500 km of pipelines that serves 800,000 people.

A framework for MCS Analysis

The concept of management control was introduced by Anthony, (1965), who defined it as *“the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives”* (Anthony, 1965). Later, he will change his definition by linking management control and strategy: *“management control is the process by which managers influence other members of the organization to implement strategies”* (Anthony, 1988; Anthony and Govindarajan, 2001).

According to Simons (1987; 1995), management control includes *“the formal processes and information-based procedures that managers use to maintain or modify certain patterns in organizational activities”*. Simons (1995) makes a difference between diagnostic control system, which is the formal feedback systems that managers use to monitor the achievement of their business strategy (a classic reporting system); and interactive control system, that managers use to become personally and regularly involved in the decision activities

of subordinates and to focus the organization on strategic uncertainties. The other two levers of control of his model concern the belief and the barrier system. This conceptual framework is revisited by Tessier and Otley, (2012), who separate managerial intentions for controls and employee perceptions of controls. Managerial intentions are comprised of three levels: 1) types of control (social and technical); 2) which are organized as four control systems (strategic performance, operational performance, strategic boundaries and operational boundaries) and 3) which can be used diagnostically or interactively, have an enabling or constraining role and can lead to either reward or punishment.

A more recent approach by Malmi and Brown, (2008), considers as MCS all the tools used by managers to ensure that the behaviours and decisions of their employees are in line with the objectives and strategies of the organization. Thus, their definition of MCS is broader in scope and the proposed typology concerns a wide range of controls they include in the MCS package: cultural control, planning, cybernetic control, rewards and compensation system, and administrative control.

Ferreira and Otley, (2009) also adopt a holistic approach, which enables to define MCS according to a 12-question framework characterizing MCS design and use.

As we can note, there is an evolution in the definition of management control towards broader approaches, which integrate both formal and informal aspects. Considering that the various informal controls are the subject of other research fields (such as sociology, behavioural approaches, organizational culture, etc.), our paper focuses on formal management control systems. We adopt the vision of Bromwich and Scapens, (2016), considering that only the formal tools can be included in the management control dimensions.

Therefore, management control can be seen as a core system of management that supports strategy implementation or execution (Anthony, 1988; Bouquin, 2010). It includes planning systems, monitoring procedures, and reporting systems which are based on information use by managers (Simons, 1987).

The evolution and the current state of MCS are analysed according to three main dimensions:

- Management control actors (who makes management control, who uses it);
- The organization/structure of the management control in the company;
- Management control tools – technical aspects (budgets, reporting, cost calculation systems, dashboards/performance indicators).

Sources of information (figure 1). When undertaking this case study, we used multiple sources of evidence. Primary data was gathered from semi-structured interviews with the company's employees (Economic Director - 2 interviews, former economist - 1 interview) and bankers (2 interviews) and observations made during company visits.

Secondary data is based on the study of Soviet archive documents (5 archival fond of the Republic of Moldova), professional literature from the Soviet period and legislative framework of the transition, websites and internal documents – for the current period.

The data analysis was carried out with manual coding based on thematic analysis according to the criteria that emerged from the review of the management control literature and the theoretical framework. This leads to classify the empirical data according to the following main themes:

- Business context;
- Stakeholders' Influence;
- Management control systems:
 - Organization of management control;
 - Management control actors;
 - Management control tools;
 - Role and use of control systems.

2.2. Theoretical framework

The choice of stakeholder theory as the framework for this research is based on the particular context of the former Soviet republics. During the period

of centrally planning, the State has been the main (unique) stakeholder. Only after the collapse of the command economy, the transformations induced by the transition to a market economy have contributed to the emergence of new stakeholders which have changed the organizational environment and the way of doing business. A stakeholder theory perspective emphasizes the importance of the emergence of new stakeholders in business activity and examines their influence on the MCS.

The *stakeholder approach* indicates that organizations are not only accountable to their shareholders but should also balance a multiplicity of stakeholders' interests that can affect or are affected by the achievement of an organization's objectives (Freeman, 1984).

However, there is no consensus on the definition of stakeholder (Mercier, 2010), the literature presents different attributes that allow the identification of a stakeholder, ranging from narrow to broad approaches. Thus, Freeman (1984) defines a stakeholder as "any group or individual who can affect or is affected by the achievement of the organization's objectives".

Stakeholders are classified as *internal* or *external* (Carroll and Näsi, 1997) and they have a reciprocal relationship with an organization as they contribute to the firm's value creation, and that firm's performance affects their well-being (Rezaee, 2016). Other

authors (Clarkson, 1995; Gibson, 2000; Harrison *et al.*, 2015) distinguish between *primary* stakeholders (involved in the value-producing processes of the firm: employees, shareholders, banks, customers and suppliers) and *secondary* stakeholders, which do not engage in direct transaction with the company but are affected by or can affect its actions; such as communities, special interest or environmental groups, the media, or even society as a whole (which could raise difficulties as from a practical perspective it is impossible to determine the best interests of such a large and heterogeneous group) (Harrison *et al.*, 2015).

Several studies analyse stakeholders according to their degree of influence on the company. Thus, Mitchell *et al.*, (1997) identify stakeholders as the actors possessing at least one of the following attributes: the power to influence the organization, legitimacy of relationship with the organization, and the urgency of a claim on the organization.

Depending on the contribution of stakeholders to the fundamental resources of the company and on the level of firm dependence on these resources, Frooman, (1999) identifies 4 types of company-stakeholder relationship, characterized by different influence strategies (Figure 3).

From a managerial point of view, the stakeholders' approach enables to consider management control as a two-way process, which (Atkinson *et al.*, 1997):

		Is the stakeholder dependent on the firm?	
		No	Oui
Is the firm dependent on the stakeholder?	No	Low interdependence Indirect/withholding strategy	Firm power Indirect/usage strategy
	Yes	Stakeholder power Direct/withholding strategy	High interdependence Direct/usage strategy

Figure 3 – Classification of stakeholders (Frooman, 1999)

- allows management to assess stakeholders' contributions to the company's primary and secondary goals, and
- enables stakeholders to assess whether the organization is capable of fulfilling its obligations to them now and in the future.

The choices that a company makes in relationship with its shareholders should be reflected in the design of MCS which is the tool the company uses to monitor the relationships with its stakeholders (Atkinson *et al.*, 1997). In our particular context of transition from command toward a market economy, this approach highlights how the emergence of new stakeholders impacts and shapes the company's MCS.

The neo-institutional approach envisages MCS as a response to the pressures faced by organizations (DiMaggio and Powell, 1983) resulting in a formal management structure that constitutes a “myth” or “ceremony” (Meyer and Rowan, 1977) rather than a tool pursuing efficiency improvement and rational organizational behaviour.

Thus, it seems important to supplement the stakeholders' approach with a neo-institutional perspective, which will explain the organizational responses to stakeholder pressures, distinguishing the adoption of MCS for managerial purposes (aiming to improve efficiency and to meet organizational needs) or as legitimation tools (“ceremonial” tool, decoupled with the real management practices).

In the public sector, Brignall and Modell, (2000) show that decoupling could be an effective strategy allowing organizations to deal with pressure from different stakeholders with divergent interests. Instead of intensifying the conflicts between the stakeholders, decoupling allows the organization to remain “hypocritical” and appear to comply with all their expectations.

Renaud (2009) shows the interest of an approach mixing neo-institutional and stakeholder theory, by proposing a typology of the actors influencing the firm decisions according to the types of institutional pressures they exert. This conceptual framework enables the analysis of the role of the formal tools adapted by the companies and distinguishes their

use as performance management or external legitimation tools.

Therefore, this paper will focus on the primary stakeholders (shareholders, employees, financial institutions, customers and suppliers) and their influence on the company's MCS and its use (legitimation or management tool).

3. THE EVOLUTION OF MANAGEMENT CONTROL AT MOLDWATER in the transition context

This research considers, as suggested by Anderson and Lanen, (1999), that economic and political turbulences are associated with equally dramatic changes in firms' management accounting and control practices. In order to better understand these changes, our study is based on a public former Soviet company. This section will illustrate how the MCS is “shaped” by changes in the economic, social and political environment that determine throughout the emergence of new stakeholders a transformation of the management control of the WSC. For each of the three analysed periods, the context of the activity, the characteristics of MCS and the link between context, stakeholders and MCS are presented.

3.1. *Period I. Centrally planned economy (1945-1991)*

3.1.1. Context analysis

General background

Political context. The political system of the Soviet Union is described as totalitarianism, the state having total political power over all decisions affecting the country and its people. The tools serving to implement totalitarianism include a one-party system, limited human rights, censorship, compulsory elections, extensive regulations and bureaucracy (Shama, 1994).

Economic system. The centrally planned economy is characterized by state monopoly of all means

of production, the production is mainly organized in large state enterprises, or cooperatives (Hare, 1987). There was a lack of consumer orientation and no competition. In such a system, markets are relatively closed, politically oriented, and have latent rather than real unemployment. Consequently, the demand is almost always larger than the supply of less-than-pleasing products and services, leading to chronic shortages which promote hoarding and alternative black markets (Shama, 1994).

Socio-cultural context. The socio-cultural context of a command economy is socialism, or as Karl Marx stated, “*from each according to his ability, to each according to his needs*”. Socialism appreciates societal considerations as more important than individual considerations, and the State strives for even distribution of income, minimum wage, free education and medical care, leading to a one-class society (Shama, 1994). Overall, the social policy of the USSR is articulated around five elements: (i) guaranteed job for life; (ii) prices were controlled and maintained at a low level; (iii) free public services, such as education and health; (iv) many services subsidized by state-owned enterprises (nurseries, housing, water, heating, etc.); (v) a social insurance system. Thus, Soviet social policy guaranteed a decent income and access to basic services (health, education and housing) for each Soviet citizen; these different services are often provided at the firm level, thus Soviet state enterprise is was a major player in the social policy (Bertin and Clément, 2008).

Context of the WSC

In all the republics of the USSR, including Moldova, the WSC was attached to the housing sector and planned in the associated bodies. It was not considered as a major economic sector, as in Western countries, but merely a social obligation to be met by organizations, state-owned enterprises or municipalities. Consequently, there was no formal need for analysis of the behaviour and performance of this sector, and administration restricted access to information (Renaud, 1995). The former USSR had the most distorted urban ownership structure among the socialist countries with 83% of housing stock under state control. The housing policy in the former USSR has resulted in the construction of oversized WSC in all cities and capitals of the republics intending

to provide almost free public service in the context of the tenant right to housing. At the same time, rents paid by households cover only a small part of operations and maintenance, utilities being heavily subsidized (Renaud, 1995), that water is almost free, only a modest subscription being charged per consumer (public water, electricity, gas and heating rates charged to residents were subsidized at rates of 80-90%, representing about 5% of GNP in 1990 in the USSR).

During the Soviet period the utilities are not paid at the real price due to the social aspect of artificially reduced prices of services which was imposed by the political idea that in socialism, utilities (and living costs) are not expensive, but accessible for all, unlike in the capitalist world. There is a strong political influence, as in all areas of economic, cultural and social life. Hence, the water sector is no different from other sectors: it is public, like the entire economy.

3.1.2. MCS characteristics

The totalitarian communist regime gave little autonomy to companies. Strategic decision-making was not in the area of responsibilities of the Soviet director, as everything was previously decided at the central level. The company directors were not confronted with problems of commercial viability and necessity to ensure the survival of the enterprise. They were not empowered with entrepreneurial responsibility, so we can say that the directors administer, rather than manage, the enterprise. They had a reduced need for accounting information, consequently, the role of the accounting function was altered (Bailey, 1975). At the same time, they were subject to strong political control and censorship exercised both by the enterprise unit and the regional and central organs of the Communist Party (Zaleski, 1959).

Accounting and management practices and traditions in communist systems differed considerably from those in Western countries. In the centrally planned economy, accounting was a tool for State control (McGee, 2005) over state-owned enterprises, being a part of the hierarchical administrative control. It served mainly for reporting to government and tax authorities (Moilanen, 2008) and monitoring the execution of the plan (Bailey, 1975).

The state replaced the firm as the prime user of accounting data (macro- instead of a micro-orientation of accounting), as the accounting reports were not used for internal management, being prepared for the authorities (Bailey, 1975). Moreover, because of controlled prices, the accounting information lacked any economic content (Moilanen, 2008) and the performance evaluation was based mainly on quantitative and output-oriented measures (Mironova and Bovaird, 1999).

Management Control Structure. The common structure of Soviet companies was the functional organizational structure, that we found in the case company. Thus, “management control” activities are accomplished by the Planning Department. This unit is subordinated to the Financial and Planning Department of the Ministry of Municipal Services (Archives FR 3002-1 Administrative Department, Ministry of Municipal Services), while the management of the (production) activity of Moldwater is under the responsibility of the Directorate of municipal enterprises of the same Ministry.

Management Control Actors. The *economists* from Planning Division ensured the planning (elaboration of the annual plan according to authorities’ directives and imposed indicators) and reporting toward the public authorities (State, Ministries, Gosbank, Office of Statistics and others). The management accounting information has not been used for internal management but intended for the State Planning authorities (used for the National Plan elaboration and monitoring).

“The number of economists in the Planning Department has varied over time, but there were about 20 people during the Soviet period (and then declined).

The head of the department signed all the reports, the plan, the reporting. He ensured the transmission of information to the authorities. The teams were specialized according to the following activities:

- *Calculation of wages and working standards (setting the standard day; productivity, duration, size of teams);*
- *Monitoring of water production and distribution activity;*
- *Monitoring of the wastewater recovery activity;*

- *Cost calculation including one person dedicated to monitoring electricity consumption;*
- *Elaboration of the plan (Promfinplan) and reports...” (Former economist, Moldwater).*

Management control tools. The main management control tool of the centrally planned economy was the National Plan (Gosplan), its key indicators being cascaded at republic, industry and firm level. The main management control tools (planning and reporting system; performance indicators; cost calculation method; pricing system) are presented and the nature of their use is characterized.

Planning and reporting system. The annual plan of the company – Promfinplan (Production and financial plan), is the operating program of the company; all its indices being directly derived from the Gosplan.

The structure of the Promfinplan for the 1971 year, according to archival data from the National Archival Fund of the Republic of Moldova is presented in table 1.

The Social Development Plan of the Workers can be considered as a long-term “planning” tool (FR 3024-1 348a, Direction of public utilities). This plan is discussed during the meetings with workers’ representatives but approved by the Management and the Communist Party committee. Nevertheless, it does not materialize specific objectives or operational decisions, and plays a purely “ideological” role.

The Annual Report on Operational and Financial Activities - (FR 3002-5-459 Activity Report) contains the following compartments:

1. Technical report;
2. Water network indicators;
3. Pumping Station Indicators;
4. Production plan;
5. Monitoring of production costs;
6. Monitoring of rates and benefits.

The main components of Promfinplan

- The main indicators of the Operational plan;
- Plan of sales of goods (services), in volume (m³);
- Calculation of Production cost (par m³);
- Raw material consumption for the execution of the production program;
- Depreciation plan;
- State of the operating personnel;
- Plan of production, general and other operating expenditures;
- Labour Plan;
- Working capital requirement;
- Financial Plan .

Table 1 – Structure of Promfinplan

Source: Archival Funds 3024, 1, 351, Direction of public utilities of Municipal Council, Financial and Planning Department, year 1971, 163 pages.

It should be noted that the reporting to the Soviet authorities concerned all these indicators and that the differences between the plan and the actual data were almost always zero, or in favour of a “*very slight improvement compared to the plan*”. The system was very sophisticated but myopic at the same time, as the fear imposed by the political controls resulted in doubts about the veracity of the reporting figures.

Pricing. Water tariffs are imposed by the authorities. Prices are differentiated by user category (1 - population, 2 – public services, commerce and agricultural sectors, 3 - self-management enterprises (*khozrastcet*), industrial firms, and others) and region. For example, in 1973 the price for the population was 2.5 kopeik per m³ (in all regions), 10 kopeik for the category 2 and 20 kopeik for the third group in Chisinau, while in other regions Group 2 and 3 companies paid 20, respectively 30 kopeik for one m³ of water (8 and 12 times more than the price set for the population).

Cost Method (*sebestoimosti*’). The typical Soviet method for cost calculation was the normative costs based on production norms. The norms of personnel,

consumption of materials, fuel and depreciation are established by the authorities.

Performance indicators are mainly based on physical outputs; cost and prices do not have much managerial importance, being centrally established; therefore, the only significant variable is the quantity/volume (of services). Even if the USSR applied the national quality standards (GOST), no reference to quality indicators was found in the reporting documents.

MCS role and usage

“*The main role of planning and reporting tools was to supervise and control firm directors. The Soviet authorities were nevertheless aware that the system only partially reflected reality; still, they tolerated the informal practices that enabled the system to survive. The purpose was to force companies and their managers to produce as much as possible, given a production capacity, in a situation of scarcity of raw materials and goods.*

Economists from each Soviet firm elaborated the company plan based on Gosplan's guidelines and

objectives. The main goal concerned the maximum utilization of production capacities, while efficiency and benefits were not critical.

In some industries, for social and ideological reasons, the activity was planned with negative results - losses (agriculture, electricity, water). The ministry approved the tariff for electricity at a subsidized price, which was then used for the distribution of water at a planned rate, and then for the production of goods and services at planned prices; stores and distributors had a margin that was also set by the Authorities. Economic activity was not a business, interdependent planning across the entire value chain, was the norm” (former economist).

Decisions were taken by Gosplan, without economic justification. Therefore, the water sector lacked coherent investment projects, resulting in overcapacity and technologically obsolete infrastructure. *“The president of the Communist Party or the members of the Supreme Soviet strongly influenced the construction of the water distribution networks. Thus, their hometowns were connected to the network, while some large cities did not have access to WSC” (former economist).*

3.2. Period II. First phase of transition (neo-liberal transition) (1991-1998)

3.2.1. Context analysis

General background

Political context. The collapse of the communist regimes of Central and Eastern Europe led inevitably to the breaking up of the institutional framework of the centrally planned economies (Bailey, 1995) and the democratization of totalitarianism. The establishment of newly independent states and attempts to develop a multi-party system of government is characterized by an increasing number of human rights and new institutions: free speech, free elections, and constitution adoption (Shama, 1994).

Since the proclamation of the Declaration of Independence in August 1991, the Republic of Moldova has been embarking upon a process of state- and nation-building (Liikanen *et al.*, 2016).

In the first phase of transition, the priority of authorities was to provide the legislative framework necessary for the new economic environment (adoption of the Constitution of the Republic of Moldova and the laws on Property, Privatization, Entrepreneurship and Enterprises, Foreign Investments, Tax System, Protection of Consumer Rights, Environmental Protection, Accounting, Financial Institutions, Restructuring of Enterprises, Joint Stock Companies...).

Economic system. The main reforms aiming to begin the transition process of planned toward market economy concern the promotion of open markets, liberalization of prices, competition, entrepreneurship, and private property, as well as a managerial orientation to consumer-focused strategies designed to make profits. This period is characterized by a higher level of competition (sudden emergence of competition for markets and customers), but the lack of management skills to develop and implement competitive business strategies (Shama, 1994).

Overall, the transition proved to be more painful than expected (Healey, 1994), the transformations in former command European countries being confronted with a severe recession, booming unemployment, inflation, low productivity, low living standards, high debt burdens, and also fear of change and inertia (Budnikowski, 1992; Hooley *et al.*, 2003). Like in other post-communist economies, the transition process in Moldova has started with a high rate of inflation (hyperinflation, in 1992 1280%) and massively decreasing production. Moldova introduced its national currency, the Moldovan Leu, on November 29, 1993. A high political and commercial risk explains the low level of Foreign Direct Investment, reflecting the unwillingness of foreign investors to take such risks (Siegelbaum, 2002). Moldova faces many obstacles such as war (transformed into a “frozen conflict” in Transnistria), severe economic recession, and banking crises and fails to achieve sustainable success in terms of growth or poverty reduction (Siegelbaum, 2002).

Considering that state-owned enterprises are managed inefficiently, the government creates a privatization agency to provide technical assistance in restructuring and reorganizing enterprises (IMF, 1996). However, privatization is not allowed in some

sectors, water supply activities remain under public control, subordinated to local authorities (municipal councils).

Socio-cultural context. In the transformation from socialism to capitalism, individualism gains position. The increased focus on individual effort leads to greater income inequality, lower minimum wage, lower government support of education, lower support of medical care, and a higher crime rate (Shama, 1994). The unstable political and economic conditions undermine the development of a well-functioning civil society (Siegelbaum, 2002).

Context of the WSC

The fall of the USSR brings radical changes in the Soviet area:

- each republic becomes independent and the Russian “colonization” in this region ends;
- the communist ideology is also rejected, and capitalism is gradually introduced.

The sector of water supply is not seen as “business utilities”; water is perceived as a social field, without an economic issue. The social perception of the sector (the utilities should not be paid at the real price) and the artificial reduction of utility prices are imposed by the political ideas, which is, therefore, a heritage of the Soviet period.

Given the lack of interest of the authorities for this sector, considered as without added value, Moldwater is gradually becoming a completely discredited organization, disorganized and obsolete (from an infrastructure point of view):

- The exclusive use of the equipment made in socialist countries, which was not the best ... (interdiction to apply the Western technology and equipment until the fall of the USSR) results in the obsolescence of infrastructure (currently the average age of the network - 25 years, while its expected operating life is only 20 years), and a difficulty to find spare parts. Also, the lack of financial resources does not allow the acquisition of Western equipment.

- The population, keeping the old mentality, considered that it is not necessary to pay for the water services ... and caused an explosion of receivables and the cessation of the water supply in several localities (despite financial difficulties, Moldwater ensured a continuous water supply).

The state loses its position as a single shareholder, but an important part of companies remains state-owned and are subject to varying degrees of ministerial control and direction, as the WSC. Following the Soviet model, all enterprises from the sector are subordinated to a Ministry of Public Utilities. This Ministry set the prices for water (until 1998), but these prices did not reflect the production cost, the social aspect being essential.

3.2.2. MCS characteristics

Created during the Soviet period, the Moldovan accounting system is still influenced by the Soviet administrative system and the centralized plans and decisions, despite some reforms (Ghedrovici *et al.*, 2014). The role of accounting for companies' management is minimized, as it is perceived as an instrument of indirect control or surveillance over privatized companies. Accounting has an important role in monitoring companies activities (e.g. for tax assessment purposes) and the collection of national economic statistics. (Bailey, 1995). Management accounting is not separated from financial accounting (until 1998), this situation does not ensure keeping the commercial secrets regarding the calculation of costs and limits the application of management accounting methods (Government of Republic of Moldova, 1997).

Management Control Structure. After the dissolution of the centrally planned system, the Planning Division (Economic Department) continued to exist and to provide reporting (mainly statistical data) to Ministry and State authorities, even if its importance decreased considerably (ending of central plans). Its role is limited to *a posteriori* reporting, without a planning phase.

Management Control Actors. The former *economists* from the Planning Department are still the

main providers of planning and reporting information. The single user of this information is the State (Public Authorities), which uses it only for statistical and fiscal purposes.

Management Control Tools. The fall of the communist system determined the disappearance of the National Plans and indicators, and consequently, of the company plan (without a legal obligation, companies do not use it at all). Very similar reports to the old system provide historical data; however, the indicators used (cost/price models, etc.) are obsolete and focused on consumption norms per m³ and are not subject to analysis.

There is a temporary 'legal void' regarding the quality of drinking water and water distribution services. The research institutes responsible for monitoring quality standards disappeared, new agencies were not been created immediately (in the USSR, national quality standards - GOST were applied, but the methods employed for measuring the level of chemicals concentration produced biased and doubtful data).

Pricing system. In the first years of transition, prices of the water distribution service were subject to approval by central authorities (Ministry), following the same logic as in the Soviet period – a fixed price for water consumption per capita established at a low level for social considerations. This system does not consider real water consumption and does not provide incentives for water savings. At the same time, the costs recorded by companies from the sector do not serve as the basis for tariff fixation. Investments in the infrastructure were also completely ignored.

MCS role and usage

The MCS as a tool for strategy implementation and execution disappears in this period, only *a posteriori* reporting persists and records the historical data concerning revenues, expenses, without any data analysis. *“During this period, the Promfinplan ceased to be employed, the activity was 'chaotic', we sold what we can, we collected what customers paid... We had a certain number of employees because they already worked for the company, there were no standards for the activity ... To repair a water leak we spent x MDL, we do not know if it is too much because there is no standard”* (former economist).

“Economists only record facts, such as electricity consumption, without any analysis or comparison with previous periods, or with a standard. Just the consumption of electricity was x kWh for the analyzed period, with the detail by different items ... They produce 'statistics', but not economic information” (former economist). There is a very strong political influence on the activity: *“The company becomes autonomous: on the one hand - no more subsidies, the company must self-finance its activity, and on the other hand it depends on the public authority which sets the prices (at an insufficient level to ensure profitability)... Another problem comes from customers, who do not pay for the service ... the legal framework is not yet clearly established, the company can do nothing against bad customers...”* (former economist).

3.3. Period III. Second phase of transition – institutional transition (after 1998)

3.3.1. Context analysis

General background

Political context. This period is characterized by an attempt of consolidation of democratic principles in Moldova and major achievements in the bilateral relations with the EU (on 27 June 2014, Moldova and the EU signed the Association Agreement, including a Deep and Comprehensive Free Trade Area). Moldova has a good level of freedom in comparison with the region, but many concerns about concentration and transparency of media ownership (political interference). Corruption in the Moldovan judiciary remains a major concern. Also, minimal progress is reached towards a resolution of the Transnistrian conflict (EUROPEAN COMMISSION, 2015).

Economic system. After suffering several crises (Russian crises – 1998, financial crisis – 2008-2010) it seemed that Moldova recovered macroeconomic stability. But the banking system crisis of 2015 (massive fraud) has negative effects on the economy and undermines investor confidence. Corruption remains an important and costly problem (Siegelbaum, 2002).

Socio-cultural context. Overall, the socio-economic consequences of the transition include unemployment, de-skilling, and job insecurity (Simai, 2006). Poverty and social inequalities are remaining important concerns. As a result of increasing migration, remittances become one of the most important sources of income for many Moldovan households, which is also financing the country's trade account deficit.

Context of WSC

At the end of the '90, the government transfers the management of the WSC to the local authorities (cities) and transforms all the companies of distribution of water in joint-stock companies with the Local Council (municipal council) as the sole shareholder.

At the same time, it is noticed a pressure from foreign operators (European / American) to privatize the network and change the legislative framework. However, the law does not allow the privatization of the JSCs from the sector, but the concession is possible. Also, a legislative void is noticed concerning the water supply activity (no law on public water supply, no clear methodology of price approval – the political factor is dominant).

In the beginning, this change in scope and decentralization of the sector resulted in a change in the management of the network and a deeper consideration of local problems.

The modification of the pricing method (during the Soviet period and the first years of transition - a fixed amount per capita, with the introduction of meters - actual consumption) results in a change in consumer behaviour. With the introduction of meters, Moldwater realized that the population uses much less water than its production capacity. During the Soviet period, the capacity of the water networks was conceived from a perspective of growing cities, which is not the case. Moreover, the industry currently uses much less water than during the Soviet era (currently the industry as a consumer of water represents 15% of the level recorded during the last years of the USSR). Overall, Moldwater's production capacity is 120 million m³, only 45 million are used. Consequently, the company has the same fixed expenses, but considerably fewer revenues.

However, the Public Local Authorities (Municipal Council) are still responsible for the approval of prices for water distribution services. Based on social and political reasons, for several years the tariff does not even cover the production cost, causing a poor financial situation for the company. Also, there was a differentiated price for households and companies, the tariff for individuals being much lower than for economic agents (without any economic explanation).

This situation changed in 2015 following the pressure from lenders. Indeed, financial difficulties and the imperative need for investment in infrastructure are forcing the company to seek financing from international financial institutions (IFI). Intending to secure their financing and reduce credit risk, IFI impose several requirements aiming to improve the transparency and independence of the company's activity.

The main requirements for international financing concern the approval of a water tariff by an independent agency, according to an explicit methodology allowing to set up a unique tariff for all the categories of users. The price level must be justified by costs and standing at an acceptable level for investors (to ensure a positive return on investments). Another requirement is the implementation of a delegation contract of water supply services, representing a clear framework for the company's activity.

3.3.2. MCS features

Progress is being made in the effort to adapt the accounting legislative framework (reform of 1998 and 2007) to market economy principles, but changes are still needed. The new legal framework still does not allow users to obtain the information necessary for decision-making and does not provide transparency. The information contained in the financial statements is not available to external users, negatively impacting their decisions (Ghedrovici *et al.*, 2014).

As for management control adoption by companies from Moldova, a recent study shows that accounting for business purposes is marginalized, especially in local companies (Paladi and Fenies, 2016).

Management Control Structure. The Economic Department remains the entity in charge of

management control, namely two of its units: Budget, Accounting, Finance and Economic Analysis and Rates. Its structure evolves aiming to improve the efficiency of management control process, the Divisions: Budget, Accounting, Finance and Economic Analysis and Rates, being recently replaced by a single unit of Planning and reporting.

Management Control Actors. . The economists from the Economic Department are the main providers of management control information (cost calculation, elaboration of Business Plan, reporting). The State keeps the regulatory role of the sector but requests information only for statistical and fiscal purposes. The financial stakeholders (International Financial Institutions), the shareholder (Municipal Council) and the top management become the main users of the management control information.

Management Control Tools.

Planning and reporting system. . In order to ensure access to credit, Moldwater must conform to the requirements imposed by the IFI. Thus, a delegation contract for the water distribution services was signed in March 2015 between the City Council and the company. This contract determines the adoption of a planning and reporting system with an annual

program of planned activities (annual production program, annual business plan and investment plan) and reporting: annual management report (balance sheet, income statement, audit report and analysis of the implementation of the Annual Program of Planned Activities) and Technical report. These documents are also intended for the IFI.

Performance indicators. At the same time, the lenders require compliance with some financial ratios (DSCR *debt-service coverage ratio*, *EBITDA*, *Cash Flow/Operating expenses*), which lead the company to use budgets and financial models allowing to calculate and estimate these indicators on the lending period.

The delegation contract also imposes the reporting of performance indicators to the shareholder and top management (Table 2).

Cost Calculation and pricing system. The company uses the standard cost method, which is an element of resemblance with the Soviet period. However, the new tariff setting methodology recognizes costs according to the norms suggested by western practices (for normal conditions of activity). Moldwater does not respect all these standards and did not dispose of a 'transition' period necessary to

Performance indicators
1. Water quality indicators
2. Time to return to service after an incident (response time after incidents)
3. Reaction time for the prevention of dangers to the health and life of users
4. Continuity of services (24h/24)
5. Water leakage level (water loss level)
6. Revenue collection efficiency
7. Response time, customer complaints
8. The optimal number of employees
9. Energy efficiency

Table 2 – Performance indicators imposed by the shareholders

adapt to the new norms. So that an important part of its registered costs is not considered as admissible and therefore not included in the tariff.

Role and usage of MNC. With the change of the legal form, the company respects the law on the JSC, and have new governing bodies – General Meeting/Assembly, Board of Directors, and the CEO. Reporting is no longer done only for the external authority, but also for the CEO. Thus, new performance indicators are followed, reflecting both the political involvement of the single shareholder and also the requirements of the financial stakeholders (the EBRD - European Bank for Reconstruction and Development, the EIB - European Investment Bank) which finance the progressive upgrade of the WSC of the city.

However, there are significant differences in the use of management control tools. Thus, the business plan and the financial indicators serve only as reporting towards the banks, and do not have any real internal use.

“The majority of our time (Planning Department), we work for banks... without a management accounting software, we have to do all the calculations and consolidation of data with Excel... 3000 sheets to obtain the ‘financial model’ (forecast and actual financial data from our income statement). It takes a huge amount of time !!! we cannot get into the analysis of these data at all...” (economist). “We don't have time to do internal studies and optimizations because we never finish reporting, we spend our time collecting, processing and reporting information to the banks” (Economic Director).

“In order to reduce the credit risk, we demanded more transparency in this industry, with the establishment of a legal framework presenting the ‘rules of the game’ thus reducing the political influence on the economic activity. Also, we ask for more transparency in the management process, with the introduction of a formal planning and reporting system. However, we realize that till now, they do not know how to use the MCS, and do not understand its usefulness for management” (representative of IFI).

As for the performance indicators requested by the shareholder and the top management, they mainly

concern operational indicators reflecting the WSC efficiency and effectiveness (Fenies, 2010), as well as customer-oriented indicators and concern the service quality and customer satisfaction, but also customer financial risk (debt collection rate). These indicators are monitored by management and are used to manage Moldwater's activity. As for the shareholder, *“the municipality does not care at all about the company... it is not interested in business and profit”* (Economic Director).

4. DISCUSSIONS OF RESULTS

According to stakeholder theory, the MCS influence and can be influenced by company's relationships with its stakeholders. In our research context, the changes induced by the transition from the centrally planning to the market economy result in the emergence of new stakeholders, which can exert new pressure and therefore shape the MCS of companies. The analysis of the results from a historical perspective illustrates this evolution of MCS and highlights the impact of different stakeholders on the adoption and use of MCS.

Period 1. During the Soviet period, all the economic activity falls within the domain of public management. The Soviet state is the only stakeholder and imposes a particular mode of company management, based on imperative centralized planning. Management control represent a tool used by the State to implement its strategy at all the hierarchical levels of Soviet administration and firms, the management control being at the service of the huge Soviet “corporation”. Therefore, in the Soviet Union we notice a form of management control comparable to that of a huge “western” multinational corporation; this management control is serving the state strategy and the “economists” are responsible for a part of the Western MCS. The tools (cost calculation, plans, performance indicators...) are comparable to those used in the multinational corporations of the time. Indeed, it is a management control process since it supports a determined strategy at the highest level of the organization and the tools are used to control the strategy execution. Its purpose, however,

is different: it does not serve to guide organizations towards profit, but to control the behavior of individuals through collective objectives oriented towards a certain idea of “communist welfare”.

The State, represented by the Communist Party, is the only stakeholder and holds a dominant position according to the typology proposed by Frooman (1999). Thus, the State has the power to impose the establishment of MCS in the Soviet firms. However, it appears that the MCS is adopted “by obligation” and it has no internal managerial use. The MCS is intended for “external actors” (the State) and shows “what the planners wanted”, having a role of legitimization with the stakeholder and ensuring access to the resources allocated by central planners, while the Soviet company’s management is based on informal practices.

Period 2. After the collapse of the Soviet Union, there is a change in the granularity level of the MCS: it is no longer Moscow that controls the water distribution activity, but the Ministry of Public Utilities of Moldova. The WSC is considered by the authorities as an area of high social importance, but with no economic value. Therefore, the public authorities show a lack of interest in this field and do not involve in the management of WSC. They keep only the role of setting tariffs, which like in the Soviet period, are based on social considerations. The State-shareholder exerts no pressure concerning the adoption of management tools by public enterprises.

The legal framework of water distribution, supposed to regulate the relation company-users, is lacking. The company must provide the water distribution services and in case of non-payment, it has no legal recourse and cannot cut off access to the network. The users exert thus an important pressure on Moldwater. The efforts of the actors from the industry (Ministry and water distribution companies) are focused on establishing a legal framework according to the principles of the market economy.

As the labour market is characterized by soaring unemployment, employees are loyal and hope the company won't lay them off or go bankrupt. The other categories of stakeholders (banks, suppliers) have a low interdependence with the company, as several players exist on the market.

As for the MCS, the dissolution of the centrally planned system leads to the disappearance of national plans and indicators, and therefore, of the company’s plans. In a chaotic environment of radical change, there is no MCS at the service of a well-defined strategy; the lack of strategy in public companies leads to maintaining the old routines while the world has changed.... There is only an *ex-post* information system that provides statistical information and performs an obsolete cost calculation. The new configuration of the stakeholders does not stimulate the adoption of new MCS tools as all efforts are directed towards building the legal framework.

Period 3. A reform of the water distribution sector is implemented in 2000, the company is reorganized into a JSC with the municipality as the sole shareholder. These changes lead to a decentralization of the field, tariffs are set by local public authorities, resulting in a variety of price levels in different locations across the country that reflect the political will and not economic considerations. The case company faces financial difficulties and needs massive investments in infrastructure renovation so that financing from the IFI seems the best to improve its situation. To reduce credit risk, the IFI require the adoption of a clear and transparent framework to guide the water distribution activity, with an emphasis on cost-based pricing. The purpose is to avoid the influence of public authorities imposing water prices below cost for political reasons. The financial stakeholders (international lenders) are also the key drivers of the implementation of a new budgetary and reporting system by the WSC company. The IFIs “replaced” the former Soviet State as the stakeholder in a dominant position. However, as in the Soviet period, the MCS has mainly a legitimizing role, aiming to provide access to financial resources. In reaction to pressures exerted by the IFI the company adopts a formal MCS and shows conformity to stakeholders’ expectations, but without using the MCS for internal management and decision making. The originality of this form of diagnostic control system (Simons, 1995) lies in its users, who are external stakeholders.

The shareholder also holds a dominant position, but it is not interested in the management of the company and does not impose the implementation of internal management tools.

At the same time, there is a major change in the business environment - customers exert high pressure on

the company which must measure their consumption and make them pay according to the quantity consumed (m3). A new major stakeholder is emerging - the customers (users), in a position of interdependence with the company. On the one hand, because of the monopoly on this public service, the customer depends on the company for a basic service. On the other hand, the survival of the business depends on its ability to collect trade receivables. The monitoring of efficiency indicators (customer-oriented) therefore relates to organizational needs and plays a managerial role. Thus, the company constantly monitors debt collection and make efforts on improving customer satisfaction; water and service quality becomes an important issue. Most of the performance indicators monitored by management are customer-oriented and reflect the interdependence of the company and its users.

In this period there is no change in relations with suppliers, while the stabilization of the labour market results in a weak interdependence between employees (who can easily change jobs) and the company (which can also hire and fire without difficulty).

This analysis of the MCS dynamics throughout a stakeholders' approach highlights the different roles of the MCS (external legitimation or management tool) according to the position and the strategy of the different stakeholders in relation to the company during the transition.

Figure 4 illustrates each of the stakeholders in the light of the theoretical framework used and thus shows the evolution of dependency links.

This classification shows that an MCS emerges only when the company is in a relationship of dependence vis-à-vis a stakeholder. Two situations are thus possible: (I) The stakeholder holds the power and imposes the adoption of formal tools (case of GOSPLAN during the Soviet period or of the IFI during the recent period). The use of MCS only shows the image of compliance with the requirements of these stakeholders. (II) The company is in an interdependent relationship; this situation leads to the adoption of management tools necessary for the company survival (such as monitoring customer indicators and the recovery rate).

In line with the results of previous studies in a post-communist context (Riskal, 2009;

Zernand-Vilson and Terk, 2009; Albu and Albu, 2012), this research highlights that the adoption of MCS during the transition is mainly associated with the foreign influence. However, MCS adoption does not automatically determine the change of management practices. By mobilizing a stakeholders' approach a better understanding of the emergence of MCS is provided in the context of public management in a former Soviet country.

CONCLUSION

The purpose of this paper was to analyse the MCS of a public enterprise in a former Soviet republic by highlighting the role of stakeholders in the evolution of management control tools and their use during the transition from the centralized system to the market economy. Using a historical approach, we trace the evolution of the MCS of a Moldovan public water company. The longitudinal approach and the adopted theoretical framework enable us to understand the transformation in the water distribution sector, a major domain of public management.

The findings from this study make several contributions:

- Despite the consensus in the existing literature (Moilanen, 2008) that there were no MCS in the Soviet period, this study reveals (based on interviews, archives, and soviet literature) that **the Soviet Union were managed as a unique enterprise, throughout a MCS at macro-level** aiming to implement the Communist strategy at every level of the economic system. The MCS is introduced in Soviet enterprises by legal obligation, as a response to pressure from a dominant stakeholder (State). But it only serves as an external legitimation tool, ensuring companies access to resources, while it is decoupled from real management practices.
- A lack of studies on management control in the public organizations of the former Soviet republics and little knowledge and usage of management control in private firms are noticed. That might suggest that management control is not applied in former Soviet public companies. The

Company-stakeholders position during the Soviet period			
		Is the stakeholder dependent on the firm?	
		No	Yes
Is the firm dependent on the stakeholder?	No	Low interdependence Suppliers, users, banks, employees	Firm power
	Yes	Stakeholder power Gosplan (Communist Party)	High interdependence
Company-stakeholders position during the first phase of transition			
		Is the stakeholder dependent on the firm?	
		No	Yes
Is the firm dependent on the stakeholder?	No	Low interdependence Suppliers, banks	Firm power Employees
	Yes	Stakeholder power State (Ministry), users	High interdependence
Company-stakeholders position during the second phase of transition			
		Is the stakeholder dependent on the firm?	
		No	Yes
Is the firm dependent on the stakeholder?	No	Low interdependence Suppliers, employees	Firm power
	Yes	Stakeholder power Shareholders (Municipal Council), banks (IFI)	High interdependence Users

Figure 4 – Evolution of company-stakeholders position during the transition

case company shows, on the contrary, that there is really a public approach to contracting performance at the service of the new stakeholders and that the economists are monitoring this process. Thus, the tools, methods and actors of the old MCS inherited from the Soviet world have not disappeared in the WSC but have been adapted to respond to the new strategy driven by the local council under the constraint of international lenders. From an empirical point of view, the case study shows that MCS seem easy to be implemented in the former Soviet firms, efforts should be directed towards its use as a decision-making tool by management.

- From a methodological point of view, the mix of a historical approach for MCS analysis and a theoretical framework allows highlighting the role of stakeholders in the evolution of management control tools and methods in the WSC.
- From a theoretical point of view, the use of stakeholder theory provides an explanation of the evolution of management control, particularly the recent changes related to the influence of International Financial Institutions who impose the monitoring of costs and margins and mandatory financial reporting. To some extent, financial reporting for International Financial Institutions replaces the previous reporting towards Moscow.
- Our results highlight two opposing logics of use of management control tools and explain the organizational choices regarding one of these uses according to the pressures exerted by the stakeholders and the power/dependency relationship of the company with the stakeholder. However, some phenomena are not explained by the stakeholder theory, such as the maintaining of the reporting system during the first transition period. Institutional routines might better explain this phenomenon. Such an approach could be of great interest for future research.

The limitations of this study represent opportunities for future research.

The first limitation is related to the empirical data on a single country, Moldova. Still, in our research

context where all the former Soviet countries share a common past, the analysis of only one country serves as a “research laboratory” and contributes to the understanding of past and current situations in the post-Soviet area (Alexander and Ghedrovici, 2013).

Nevertheless, in order to have a reliable extrapolation of the results, a first research perspective is to extend the research to other Soviet republics. A research design based on a multi-case approach in other former communist CEE countries will enable comparisons of the evolution and role of MCS in public water companies and assess the changes induced by the transition in the specific context of WSC

The second limitation concerns the qualitative research methodology. Given our research context (ex-Soviet countries in which questionnaire surveys are complex and almost impossible to conduct correctly), the use of a qualitative approach allowed a comprehensive approach. However, the limits inherent in any qualitative research apply to our research and are admissible. Thus, a second perspective for future research is to propose a research protocol allowing us to work in a post-Soviet context with a quantitative approach in order to compare our results with those of a quantitative study.

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