New Public Management and the Corporatization of Portuguese Public Hospitals

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ABSTRACT

This paper reports an in-depth and longitudinal case study on the new public management (NPM) reforms introduced in Portuguese public hospitals throughout the 2000s. The objectives of the investigation were twofold: firstly, it sought to analyse the role of accounting technologies and market-based mechanisms in the NPM reforms introduced in the sector when compared with other cases of NPM implementation; and, secondly, it aimed to investigate the impact of NPM on hospitals and individuals following calls that more research on the consequences and side effects of NPM was needed (Kurunmäki, 2009; Lapsley, 2008; Hood and Peters, 2004). Public hospitals were criticised for having grown inefficiently and wastefully under the Portuguese Government’s former policy of full cost reimbursement. There was a general belief that a spirit of entrepreneurship and dynamism needed to be created in the Portuguese national health services (NHS) in order to encourage the sector to restrain costs. NPM, which has been promoted at a global scale as leading public services to efficiency improvements, was regarded as the solution. Portuguese health care reforms included the transformation of public hospitals into public enterprises, the introduction of purchaser-provider splits, the establishment of contracts based on DRG prospective payment schemes and, ultimately, activity-based costing (ABC) implementation in pilot hospitals. The research evidenced the Ministry of Health’s efforts in developing accounting and accountability mechanisms in the sector, despite suspicion and scepticism from some, particularly the medical profession, in charge of the provision of health care services. Furthermore, it showed how managerial reforms led hospitals managers to develop financial and non-financial indicators to help them monitor and control the efficiency and quality of the services contracted, and how hospitals’ patterns of health care delivery changed.
1. Introduction

The Portuguese national health service (NHS) has been under the political spotlight in recent years. An increasing growth in public health care expenditure, particularly since the end of the 1990s, and a growing awareness of waste in the management of NHS resources, especially in public hospital administration, have led to extensive discussion among politicians, policymakers and the media about alternative ways of restructuring the delivery of public health care services. This concern increased throughout the 2000s following the difficulties faced by the Portuguese economy in controlling its level of overseas debt. The prospects of economic recession and growing unemployment reinforced the idea that public expenditure, including health care spending, needed urgent cuts (Barros and Simões, 2007). Major changes in health care policy were made in order to force public hospitals to adopt a more business-oriented approach in the delivery of health care. Some of these reforms included the transformation of the NHS hospitals into companies and the establishment of contracts following the introduction of a purchaser-provider split. Furthermore, the budgetary system which was the basis of the former system of hospital reimbursement was replaced by a prospective payment system based on diagnostic-related groups (DRGs) and case-mix accounting. Likewise, Activity-based Costing (ABC) was implemented following claims that the cost accounting systems of public hospitals were too crude and that better costing data was needed to support pricing and cost control in hospitals. These reforms were accompanied by a general belief that the introduction of a market ideology based upon the adoption of private sector management practices would increase the accountability of hospitals and their engagement in the control of public expenditure (Campos, 2004, 2008).

Drawing on a longitudinal and intensive case study involving public hospitals, the Ministry of Health and some of its central and regional departmental agencies, this paper seeks to analyse the role played by accounting technologies and accountability systems in the New Public Management (NPM) reforms introduced in Portuguese NHS hospitals in the 2000s when compared with other cases of NPM implementation and how these reforms impacted on hospitals, professional groups and individuals. NPM is a global paradigm that affects multiple sectors, including health care, and hence there are gains to be obtained by analysing local phenomena in the context of major global trends (Hopwood, 1999; Pettersen, 1999). Furthermore, most of the research on the introduction of market reforms into the health care sector has been conducted in the US and UK, and thus there are few studies from other
national contexts, particularly from non-English speaking countries such as Portugal (Lehtonen, 2007; Kurunmäki, 2009; Pettersen, 1999). This paper is also intended to fill a gap in research on NPM implementation in the health care sector in Mediterranean countries and to respond to calls for further studies on the ‘third age of NPM’, particularly regarding the consequences of recent and contemporary managerial reforms and their unintended effects on public services (Hood and Peters, 2004; Lapsley, 2008; Kurunmäki, 2009). This is an excellent avenue for additional investigation since no consensus has been reached about the consequences of NPM reforms on the studies conducted in several national and institutional contexts (Kurunmäki, 2009). NPM is a multi-faceted phenomenon in its design, implementation and effects (Lapsley, 2008), and thus more investigation is needed to comprehend its variations (Hood, 1995), consequences, discontinuities and nonlinearities (Hood and Peters, 2004).

The rest of the paper is structured as follows. Section 2 deals with the literature on NPM and previous research on the role of accounting and accountability mechanisms in supporting reforms. Section 3 reports the research methods and methodology employed in the investigation. The reforms introduced in Portuguese NHS hospitals are discussed in Section 4. Section 5 presents discussion and the main conclusions of the paper.

1. NPM and Reforms in the Public Sector

In a world of global competition in which many domestic economies are no longer controllable, the public sector, still under the influence of the State, has been the object of frequent reforms by governments with the aim of improving its contribution to the performance of national economies (Lapsley, 2008). The literature analysing these reforms points to a common demand for better resource utilisation and the introduction of accountability and managerialism in the sector (Kurunmäki, 2009; Modell, 2009; Hopwood, 1990). Public sector institutions are often described as managing their resources inefficiently and spending too much public money (Hood, 1991, 1995). In this respect the public health care industry is no exception (Eldenburg and Krishnan, 2007). Many studies conducted in different countries have sought to analyse the public reforms introduced in the provision of health care services and the role of accounting technologies in supporting these reforms, following demands for greater efficiency (e.g. Shaoul, 1998; Llewellyn and Northcott, 2005; Lehtonen, 2007; Northcott and Llewellyn, 2003; Kurunmäki et al., 2003; Jacobs et al., 2004; Jacobs, 1998; Preston, 1992; Covaleski et al., 1993; Pettersen, 1999). Common issues related
to the NPM paradigm pervade these studies, including reliance on management skills and contract provision, the shift from an emphasis on process to a focus on output and the replacement of orderly hierarchies by a more competitively-based system to support the provision of public health care services. This may suggest that the NPM movement was transformed into a global industry covering many geographical regions and sectors (Kurunmäki, 2009; Hood and Peters, 2004).

It was Hood (1991, 1995) who first coined the term “NPM” when new doctrines of public accountability and public administration pervaded the administration of the public sector in the 1980s (Hood and Peters, 2004). Failures inherent to the progressive public administration (PPA) model, which based its legitimacy on the distinctiveness between public and private sectors and the maintenance of buffers against political and managerial discretion, were pointed out as possible reasons for the emergence of NPM (Hood, 1995). Whatever the motives behind the abolition of the previous system, the replacement of the PPA model of public accountability by the NPM paradigm has been seen as inevitable (Osborne and Gaebler, 1992). Four administrative ‘megatrends’ are claimed to be associated with NPM development: (i) efforts to decrease or reverse the growth of public expenditure and staffing; (ii) emphasis on the privatisation and quasi-privatisation of public institutions; (iii) development of information technologies and automation in the provision of public services; and (iv) the emergence of an international agenda focused on policy design, public management and international cooperation, which progressively became dominant in many of the OECD countries (Hood, 1991: 3).

Despite its popularity among policymakers, consultants and academics over the two decades, NPM has been criticised for being a loose term and an ill-defined doctrine (Hood, 1991). Researchers have questioned whether there is a single NPM (Lapsley, 2008), observing that different features have been stressed by its advocates. Regardless of the controversy, seven elements and doctrinal components originating from two different strands of intellectual movements (see Hood, 1991, pp. 5-6) can be identified in most discussions of NPM (Hood, 1991, 1995). These are: (1) ‘hands-on professional management’ in the public sector; (2) explicit formal measurable standards and measures of performance and success; (3) greater emphasis on output controls; (4) disaggregation of public organisations into separately managed ‘corporatized’ units; (5) more contract-based competitive provision with internal markets and term contracts; (6) focus on private sector styles of management practice; and (7) emphasis on greater discipline and parsimony in the use of resources (ibid). All these doctrinal elements evidence the importance of accounting and accountability devices in the
NPM paradigm. In fact, accounting and accountability are at the heart of NPM, as its principles are grounded on the language of economic rationalism, and economic knowledge is operationalised by accounting (Hopwood, 1990; Kurunmäki, 2009). Accounting creates visibility in public organisations through the objectification of phenomena, “making things visible that otherwise would not be” and would thereby “reside in the realm of the abstract” (Hopwood, 1990: 8). Cost accounting, management accounting, performance measurement systems and other financial systems became key instruments for NPM managers. These technologies are capable of capturing abstract and conceptual phenomena (e.g. costs or profits) that are not seen, but which after being translated into records, provide a powerful tool for monitoring and controlling individuals and public organisations (Hopwood, 1990). Abstract concepts are thus transformed through accounting into a concrete and dominant device of governance for public managers. Moreover, by permitting visibility, accounting is likewise a potential calculative practice. Abstractions and objectifications in accounting are powerful devices that permeate and shape governments’ and public reformers’ agendas and actions. Due to the advent of NPM various groups of expertise are now in closer contact with accounting technologies and accounting-based information. Accounting devices are so powerful that relations among organisational actors might even become affected by accounting. As Kurunmäki (2009) claimed, accounting has the capacity to alter the balance of power relations among organisational actors.

Public sector reforms in the UK, New Zealand and Australia as well as in other OECD countries would be likely to have been exposed to at least some of the doctrinal components identified by Hood (1991, 1995). Although the NPM reforms comprise several common features across Western societies, some variation has been reported (Hood, 1995). In fact, while cross-national studies systematically analysing the features of national public reforms are scarce, fragmentary sources suggest that NPM ideas were not adopted to the same degree by OECD countries and nor do national reforms inevitably seem to share the same features (Hood, 1995). Even with the ‘globalisation’ of the NPM phenomenon, important variations can be found (ibid). Several reasons have been put forward to explain the variation, such as relating the changes to ‘Englishness’, right-wing governing parties, government size and poor macroeconomic performance. However, these variables seem unable to fully explain the propensity of countries to shift to NPM and the diversity of public reform styles. This variation has led researchers to argue that NPM is a multi-faceted phenomenon, varying not merely in design and implementation, but also in its effects and consequences (Lapsley, 2008).
NPM critics regard NPM as a fashionable and transitory movement whose popularity is due to its ability of offering “an all-purpose key to better provision of public services” (Hood, 1991: 3). In this respect Brunsson (1994) noted that there had always been bandwagon effects throughout the last century regarding the best organisational form to adopt. Accordingly, different features of political organisations and companies found support at different moments: if in the 1930s and 1970s the ‘political organisation’ (which public organisations well represent) was the form considered the most adequate, “in the 1950s and 1980s the company became the hero” (ibid: 333). This explains the recent phenomenon of ‘companyisation’ in public organisations. Furthermore, it has been noted that the NPM doctrine is cheap, superficial and popular (see Hood, 1991) and provides a universal, but poorly grounded, recipe for institutional design (Hood and Peters, 2004). From this standpoint, NPM’s prospects of efficiency and effectiveness based on the introduction of market mechanisms and practices imported from the private sector are very attractive, turning into ‘easy’ solutions when reformers face messy change processes. These solutions are nonetheless, in the eyes of NPM critics, “all hype and no substance” (Hood, 1991: 9). Accordingly, NPM has changed little except the language public managers have started to use in public (ibid). Its most notable achievement concerns the rapid development of ‘middle-level bureaucratization of new reporting systems’, of which the ‘performance indicator industry’ is a fine example (Hood, 1991). The paperwork load has consequently been increasing (Hood and Peters, 2004). Additionally, it is contended that NPM puts ‘economy and parsimony’ (sigma-type values) at centre stage, and hence traditional core values in public management, such as ‘honesty and fairness’ (theta-type values) and ‘security and resilience’ (lambda-type values) tend to become neglected (Hood, 1991). In spite of many criticisms of NPM and predictions of its demise, some researchers have been contending that the NPM phenomenon “is still evolving and developing” and is “here to stay” (Lapsley, 2008: 93). In this respect, Hood and Peters (2004) have stated that NPM is now entering ‘middle age’ and that three main phases can be distinguished in its development: (1) a normative stage, in which there was a concern with the descriptive mapping of public reforms and a philosophical critique of managerialism and market forces as the main principles of NPM; (2) a midway stage, which was based on comparative investigations of public management reforms between countries and on efforts to analyse the ‘movers’ and ‘laggard’ reformer cases; and (3) a third stage dating from the late 1990s, in which there is an increasing concern with the impact of NPM reforms, particularly with its unexpected effects, paradoxes and surprises (see also Lapsley, 2008). The study of the effects of public sector management
reforms, including their side aspects, paradoxes and surprises seems to be a promising new area for investigation and it has already attracted the attention of scholars. However, it is claimed that the future progress of NPM is essentially dependent on its capacity to overcome constraints and obstacles related not only to the existence of an ‘audit society’, but also to the embedded nature of professional boundaries in public services and to the legitimising behaviour that certain public organisations seek (Lapsley, 2008). The phenomenon of the audit society might threaten NPM development, as auditing may lead managers to act in certain specific ways in order that their actions are rendered verifiable by auditors. The power and influence of auditing in contemporary societies is so considerable that it may influence and distort the behaviour of public managers in deleterious ways (ibid). Likewise, professional boundaries are likely to hamper the effectiveness of NPM reforms. Public service professions have their own professional language and perspective on ethos and their mission and thus are often a key obstacle to managerialism and a barrier to the introduction of reforms. Public managers need to deal with their resistance when seeking to change public services. Institutional environments dominated by organisations that seek legitimating behaviours are also another type of obstacle for NPM. Sagacious conformity may disguise poor efficiency. NPM ideas are unlikely to succeed in such an environment. It is alleged that these constraints and obstacles are determinant of the extent of the influence that the NPM phenomenon will achieve in the future (ibid).

2. Research Methods and Methodology

An in-depth and longitudinal case study was adopted as the research strategy to conduct this investigation. This was because the researchers were interested in placing the accounting changes they observed in Portuguese public hospitals within their social, economic, cultural and organisational context in order to fully understand their role and impact (Scapens, 2004; Ryan et al., 2002). By putting accounting in its social and institutional context the researchers were able to explore how the ‘company-isation’ of NHS hospitals and the development of a DRG-based prospective reimbursement system, and ultimately the adoption of ABC, served the ends of the Portuguese Ministry of Health in controlling hospital costs and in introducing a spirit of entrepreneurship into the public health care sector (Hopwood and Miller, 1994). This holistic view could only be achieved by undertaking a case study research (Yin, 2009). In the case-based research design preliminary research questions expressly related to the Portuguese Ministry of Health’s decision to initiate ABC implementation in a group of
hospitals were posed; These research questions were however reassessed, redefined and supplemented once visited the field, collated initial evidence and reviewed literature on public sector management reforms and DRGs application in the healthcare sector (Yin, 2009). Closer contact with the field and interaction with the literature revealed a twofold yet complementary set of relevant research questions. The first set, which is the object of this paper, concerned the investigation of how accounting technologies and market-based mechanisms were used to support the introduction of new public management reforms during the 2000s within the Portuguese NHS, and how hospitals and individuals responded to NPM demands. The second set, which is addressed in a subsequent paper, deals with the analysis of how specifically ABC was implemented in public hospitals, the difficulties faced during the implementation process, and how both medical staff and hospital administrators and the central health authorities perceive and use ABC outputs.

The study was initiated in May 2006 when the Ministry of Health decided to launch the ABC implementation project in NHS hospitals, which was extended till April 2010. Evidence from multiple sources was gathered during this period. This allowed the researchers to make use of triangulation. The researchers were authorised to follow the ABC project from its inception as visitors, which facilitated their understanding of the changes affecting the NHS and, simultaneously, the collection of archival data. Consultants’ reports on the development of ABC and hospitals’ annual reports were collated and analysed. Other archival data gathered included government studies on the financial sustainability of the Portuguese NHS, reports from both the European and the Portuguese Observatory on Health Systems and Policies, Portuguese medical journals, clippings from newspapers, Power Point presentations prepared by health care consultants and departmental agencies of the Ministry of Health, internal reports from the Ministry of Health and its departmental agencies (in particular of the ‘Central Health Care System Administration - ACSS’) and cost accounting reports from public hospitals. In addition, the Ministry of Health, ACSS and hospitals websites were visited and all the relevant information was printed out. The researchers were allowed to attend all the meetings between the Ministry of Health, the ACSS, hospital administrators and accountants, the five regional health authorities and consultants. In total 19 meetings were attended. Apart from this, 44 semi-structured interviews were conducted in five NHS hospitals, each located in one geographical region of Portugal (North, Centre, Lisbon, Alentejo and Algarve), with the consultants who implemented ABC and the ‘Central Health Care System Administration - ACSS’. The interviews in hospitals sought to explore how the medical staff (doctors and nurses), accountants, the directors of services and the hospital administrators perceived the
reforms introduced in the sector during the 2000s (namely the ‘corporatisation’ of the public hospitals, the new system of financial reimbursement linked to production and the use of technological devices such as DRGs, case-mix accounting and ABC to support pricing decisions, cost control and incentive efficiency). On the other hand, interviews with the ‘Central Health Care System Administration - ACSS’ allowed the researchers to improve their understanding of why the reforms were undertaken and of the actual uses of cost accounting and other related devices to support hospital funding. The interviews, which lasted between one to three hours, were tape-recorded and later transcribed. For reasons of confidentiality the names of the five hospitals in which the interviews were conducted were not disclosed. In order to ensure the construct’s validity and the reliability of the study, a chain of confidentiality and a case study database keeping all the evidence collated were developed (Yin, 2009). Data collected from different sources was also continually compared and cross-referenced. Finally, a case study protocol was established with the Ministry of Health at the beginning of the investigation to clarify the purposes of the study and the research methods to be employed.

The data was analysed following Miles and Huberman’s (1994) recommendations of interacting data reduction, display and conclusion drawing/verification successively as analysis episodes followed each other. In order to find common themes and patterns, the longitudinal evidence collected was read several times and the information was categorised into clusters according to the themes under investigation. Repacking and aggregating the data helped researchers to search for relationships and trends in the overall data. Furthermore, evidence was interacted with theory to facilitate the development of an explanatory framework.

3. The Empirical Study

“Economists are philosophers of scarcity”(Øvretveit, 1998)

[A doctor’s quotation to illustrate his perspective on the economic reforms introduced in the Portuguese NHS]

The corporatisation of the Portuguese NHS

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1 Excluding one interview with one hospital administrator, who refused to be tape-recorded. In this case extensive notes were taken during the interview.
The Portuguese NHS was created in 1979, following the Revolution of 25th April 1974 which put an end to over four decades of right-wing dictatorship in this country. After the 1974 Revolution health care services were fully restructured in order that all Portuguese citizens could have the “right to health protection regardless of their economic and social background” (Campos, 2008). Therefore local, district and central hospitals previously owned by religious charities named ‘Misericórdias’ were taken over by the Portuguese state during 1974 and 1975 (Barros and Simões, 2007). Furthermore, in 1977 the more than 2,000 medical units and health posts located all over the country were integrated in the emergent new public health care services (ibid). As a consequence of these reforms the system became “dominantly public and heavily centralised” (Campos, 2004: 9). Before the Revolution health care provision in Portugal followed the ‘German Bismarckian model’, which meant that only employed people and their families were offered health protection through social security and sickness funds. The principle of citizens’ right to health was enshrined in the 1976 Portuguese Constitution (Article 64), which established the delivery of health care through “the creation of a universal, comprehensive and free-of-charge national health system” funded through general taxation (i.e. direct taxes on income and profits and indirect taxes on goods and services) (Campos, 2008). As result of the ‘democratisation’ of access to health care, Portuguese total expenditure on health (TEH) has been increasing over the last three decades, exhibiting a strong growth pattern. National health expenditure jumped from 2.5% in 1970 to 9.9% of GDP in 2006, which was above the EU average of 9% (OECD, 2009). Whilst in 1970 Portugal spent significantly less than Italy or Spain on health in terms of proportion of GDP, throughout the 2000s it was spending much more. This growth was more noticeable in public care expenditure, which increasingly boosted its share of TEH (Barros and Simões, 2007; Barros, 2009). In 2006, Portuguese public expenditure on health care was among the highest in the EU and the OECD (OECD, 2009).

It became apparent that such a high rate of increase in public health expenditure could not persist without seriously damaging the Portuguese economy. From the end of the 1990s, and most markedly from the beginning of 2000s onwards, cost containment in the NHS became a major concern for successive governments, whether of a more left or right-wing political

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2 This means that the Portuguese social welfare system at that time was financed by compulsory contributions from employees and employers. Outpatient medical services were provided free at the point of use for those covered by this system (Barros and Simões, 2007).

3 However, in 1989 the Portuguese Constitution was reviewed and the words ‘free of charge’ were deleted. In their replacement it was stated that the “national health service is universal and tends to be free of charge, taking into account citizens’ social and economic conditions” - Article 64 (2)a).
orientation. The accountability paradigm of progressive public administration - PPA (Hood, 1995) which dominated the organisation and management of the Portuguese NHS since its inception in the late 1970’s began to be questioned by politicians as the most effective model to control national health expenditure. The following quotation from a former Portuguese health minister (Campos, 2004: 10)\(^4\) illustrates well the distrust of the public administration ideas of the progressive era:

“The stronger the importance of state funding, the higher became the visibility of state or bureaucratic failures in the health care sector”.

The shift to a new conception of public accountability based on trust in the market and private business methods and on the removal of the differences between the public and private sector was regarded as the right solution for containing costs and increasing efficiency in the public health care sector. According to the former health minister (Campos, 2004: 8):

“...the growing signs of state inefficiencies in the management of health services (...) recommended the adoption of new public management (NPM) instruments, within the health sector, increasing accountability in the public sector and substituting hierarchy by contracts or quasi-contracts in the relations between public services”.

He added that (p. 9):

“...privatisation came in the late nineties, as the state recognised growing inefficiencies and losses in the management of health services and assumed that the corporatisation, as well as private management, of public hospitals and health centers [sic], could be a useful tool to gain technical efficiency as a first objective, which is expected to be followed by allocative [sic] efficiency later on.”

The first movement towards the ‘marketisation’ and ‘corporatisation’ of the Portuguese NHS occurred when at the end of 1995 the management of a large public hospital on the outskirts of Lisbon was contracted to a private firm. This was the first attempt at putting an NHS hospital under the management control of a private consortium. Further reforms took place in 1996 in order to increase the purchasing role of the regional health administrations (RHAs)\(^5\) and prepare the NHS in the following years to move “from an integrated model towards a

\(^4\) Campos was a member of the Portuguese government (in charged of the health care department) during 2001-2002 and later in the period 2005-2008. Both governments in which he participated had a centre-left political orientation.

\(^5\) There are five regional health administrations (North, Centre, Lisbon and Tagus Valley, Alentejo and the Algarve), which are accountable directly to the Minister of Health. They were set up in 1993 to ease regional implementation of national health policy objectives and to coordinate all levels of health care (primary health care and hospitals).
contract model of health care” (Barros and Simões, 2007: 52). Contracting agencies were thus created in each of the RHAs with the overall aim of providing the basis for the payment and provider split within the NHS. In 1998 and 1999 additional restructurings were introduced: an experimental payment system for GPs, replacing payment based on fixed salary by payment according to capitation and performance, was tested; a local hospital and related health centres were integrated into a single provider entity (‘Local Health Unit of Matosinhos’); and responsibility centres in hospitals were set up as a means of establishing intermediate management levels and promoting the decentralisation of authority and of responsibility (Barros and Simões, 2007; Barros, 2009). All these reforms shared the same objective of achieving higher levels of efficiency in the NHS.

However, more ‘drastic’ changes were to be introduced in the coming years. Public hospitals, which consumed more than 50% of the financial resources of the NHS, were identified as accountable for the growth in public health expenditure (Barros, 2009). There was an overall awareness and concern about the rise of hospitals’ costs and their inefficiency in the management of public resources that urged governments to find a solution for stopping the escalation of costs. The solution found was to enable NHS hospitals to be transformed into publicly-owned private firms (‘SA hospitals’), which were regarded as “an advanced form of corporatisation” (Campos, 2004: 9). Thus, in 2002 a new law on the management of hospitals (Law 27/2002 of 8th November) was passed. As result, a total of 34 hospitals (amounting to roughly 40% of all NHS hospitals) changed their legal status in that year. Moreover, in 2003 the building, finance, maintenance and operation of new public health facilities through public-private partnerships (PPPs) were permitted by the government. In 2005 and in the following years, the move towards entrepreneurship in the Portuguese NHS continued, with more hospitals being transformed into public enterprises (Barros, 2009). At the end of 2009 there were 39 ‘EPE hospitals’ and only 16 hospitals kept their former legal status of ‘SA hospitals’. The corporatisation of Portuguese public hospitals throughout the 2000s reflected an important ideological shift about how the health care sector should be organised. This new ideology advocated the introduction of market-based principles and the application of

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6 Although a law was passed permitting hospitals to be organised in responsibility centres, there was only one case of its adoption (in the ‘Hospital Universitário de Coimbra’) at the time this case study was undertaken.

7 In 2005, Decree-Law 233/2005 of 29th December provided a new legal statute for the previous hospitals, transforming them into publicly-owned private firms (‘SA hospitals’) in order to signal that despite their entrepreneurial form there was no intention to privatise them. ‘SA Hospitals’ were thus converted into public enterprise entities (‘EPE hospitals’). There was virtually no change in the management rules of ‘EPE hospitals’ in relation to ‘SA hospitals’.

8 This also includes ‘hospital centres’ (which comprise a group of hospitals) and ‘local health units’ (which include primary care units and hospitals).
management practices adopted in the private sector as the solution for controlling the escalation of public health care expenditure. Driven by concepts of efficiency and competence hospitals were transformed from typical ‘political organisations’ into ‘companies’ (Brunsson, 1994). Whereas the political organisation is “part of a hierarchy, in which the citizens are the clients or the principals” and survival is not a problem, the company strives for wealth and continued existence (Brunsson, 1994: 325).

Interestingly, the ‘corporatisation’ and ‘privatisation’ of public hospitals was not followed by the decentralisation of the public health care system, as in the case of several other countries (e.g. Norway and Sweeden). As Campos (2004: 18) argued:

“Private management of health services, as stated in the most recent NHS legislation (…), was never intended to have decentralisation as a condition or as a consequence. Paradoxically, in the Portuguese context it has invariably led to centralised control”.

Furthermore, according to this author (ibid: 15):

“The recent history of health service organisation and development in Portugal demonstrates that decentralisation was far more difficult to implement than privatisation. The public sector remains highly centralised due to the failure of administrative devolution”.

Although some power was delegated to the RHAs and to the contracting agencies, decision-making remained ultimately in the hands of the Ministry of Health. The ‘company-isation’ of the Portuguese NHS was thus at odds with its decentralisation. This is somewhat surprising as ‘company-isation’ and decentralisation are two movements that both seek gains in efficiency, and are commonly regarded as signs of the NPM paradigm (Lapsley, 2008).

Moreover, in the hospitals that are the object of this investigation, decision-making processes were found to be centralised in the hospital Boards. Although division into responsibility centres was encouraged by the Ministry of Health, hospitals were not disaggregated into smaller autonomous units, such as responsibility centres.

Following the transformation of many NHS hospitals into corporate entities, the hospital payment system has evolved to a contract-based approach (called ‘contratos-programa’).

**From a retrospective payment system to a prospective payment system**

Before the transformation of public hospitals into corporate entities in 2002, and further change in 2005, a retrospective-based payment system was used to pay hospitals. This meant
that hospitals were reimbursed in full for all health service costs. The Ministry of Health allocated a budget to each of the five RHAs for the provision of health care to the inhabitants of geographical regions. However, in practice RHA autonomy over the way budgets were spent was limited to primary health care (Barros and Simões, 2007). In fact hospital budgets continued to be negotiated, defined and allocated at the central level through the ‘Central Health Care System Administration (ACSS)’, a departmental agency of the Ministry of Health. Historical costs were used for preparing the yearly budgets. Yet often the initial budget was below the previous year’s and supplements were needed for the overspending (Campos, 2004; Barros, 2009). This practice damaged the reliability of budgets as a management tool and was an incentive for wastefulness, as Barros and Simões (2007: 41) observed:

“Another factor that has likely been a contributor to the fast growth in public health expenditure was the previous recurrent government underfunding [sic] of the NHS. The initial budget for the NHS has often been below its expenditure at the end of the previous year by a substantial amount. The difference between these two values has undermined the credibility of budgets as a management tool and provided room for uncontrolled growth in spending through a build-up of debts to suppliers (...), as it was clear that initial budget values faced only a very small chance of being respected”.

‘Soft budget’ and overspending were hence regarded as ‘normal’ and acceptable practices in the 1980s and 1990s, allowing hospitals to ignore cost containment strategies and the adoption of ‘efficient practices’ (Valente, 2010). Barros and Simões explained (2007: 52):

“Historically, the global NHS budgets have been ‘soft’, and overspending has been common. There is evidence that more spending in a hospital (with a deficit well above the allocated budget) in a year results in more funds allocated in the next year, even after allowing [sic] for the increases in activity of the hospital and for more resources used. This has created a clear incentive for overspending.”

In this respect, Brunsson (1994) contended that political organisations (of which public hospitals are an example) usually finance their activity from taxes and that it is their poor results that demonstrate the need for more money. For him, the budgeting process is used as an effective demonstration of bad performance and the need for more money in order to satisfy citizens’ needs. Budgetary mechanisms tend thus to not be used instrumentally to

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9 The ACSS is in charge of the management of financial and human resources, facilities and equipment, systems and information technology (IT) of the NHS. It is also accountable for the definition of policy, regulation and planning of health along with the RHAs, particularly with regard to health service contracting.
manage resources, but as a means to legitimate the need of funding in these types of organisation.

Nonetheless, with the conversion throughout the 2000s of public hospitals into ‘SA hospitals’ and afterwards into ‘EPE hospitals’, management rules and financial responsibility at the hospital level changed (Barros, 2009). The former scheme of payment based on the retrospective reimbursement of expenses was replaced by a prospective payment system (PPS) in 2003 based on the separation between the health care providers (public hospitals) and the public payer (represented by the ACSS and the RHAs) through contracting mechanisms. Yearly contracts establishing the obligations of the providers, the amount of health care to be delivered and settling the price between the Ministry of Health and hospitals became a key role in the new reimbursement scheme. It was believed that public hospitals had grown inefficient and wasteful under cost reimbursement and that the same services could be produced more cheaply if contracts were established between the Ministry of Health and the hospitals. Decree-Law 233/05 of 29th December stated:

“Hospitals’ activities and acts are paid for by the Portuguese State through programme-contracts between hospitals and the Ministry of Health which define the objectives and qualitative and quantitative goals, schedules, the means and the tools for achieving them, in particular with regard to investment, service performance indicators, patient satisfaction level and the remaining obligations of the hospitals, using as a reference the market prices for the different clinical acts.”

In the new system the Ministry of Health, which is both the purchaser of health care services and the payer entity, became accountable for identifying the yearly health care needs of the population and planning the delivery of health care according to the restrictions of the annual government budget. Only after producing these forecasts can the Ministry of Health contract the provision of specific health care services with hospitals in order to ensure that “demand is satisfied” (Barros, 2009; Amaro et al., 2008). A period of negotiation between NHS hospitals and the ACSS supported by the RHAs then follows, usually between August - December each year, to agree on hospital production. In the contracts hospitals commit to specific levels of activity measured in terms of admissions, external consultations, emergency episodes and ambulatory care cases. Payments to hospitals are made monthly according to the hospital’s contracted activity. Comparisons between the actual and contracted production of NHS hospitals aimed at evaluating hospitals’ activity deviations ensue at the beginning of the following year. Corrections to the reimbursement fees are then introduced in the following
payments in order that hospitals are reimbursed according to their effective production. Unlike the retrospective payment system whereby hospitals were not accountable for their financial results, in the new form of reimbursement if a hospital has had more costs than revenues, negative financial results are to be internalised by the hospital. Furthermore, because of the government budget restrictions, which impose a previous definition of the volume of health care delivery to be purchased, payment rules for marginal (i.e. additional) hospital production have been introduced. One of these rules compels marginal production to be paid for at a price lower than the contracted production and to have a limit of 10% (excluding programmed surgical inpatient and ambulatory care). A second rule specifies that if production is less than 50% of the contracted amount there is no payment for any production. However, there is an exception to this rule for emergency services: half of the fixed costs related to the contracted units which are not delivered are paid even if the number of emergency cases is 50% lower than the contracted provision. Apart from this form of payment, which is directly related to the hospital’s activity (in terms of volume and also complexity as we shall see later), an additional form of reimbursement called ‘convergence value’ is included in the contracts between the Ministry of Health and NHS hospitals. The convergence value is a temporary form of financing less efficient hospitals linked to a plan with targets that seek to eliminate wastefulness, and that covers part of the difference between the total costs and the revenues of hospitals. It is composed of a fixed component (amounting to 60%), which hospitals receive independently of their performance, and a variable component (40%) that hospitals receive according to the fulfilment of certain efficiency and quality targets which are revised every year by the ACSS. These targets embrace national, regional and institutional goals (having a relative weight of 45%, 20% and 35%, respectively). The number of targets has been increasing over the years, representing more than 15 indicators in 2009. As an ACSS economist explained:

“Establishing targets for hospitals is very important as they allow us to monitor their financial performance, production, the quality of the health care hospitals deliver and their efforts in increasing accessibility to services...”

Examples of targets contracted between hospitals and the ACSS over the last five years include: inpatient readmission on the first five days; first outpatient encounters in total of medical outpatients encounters; outpatient surgery in total programmed surgery; length of

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10 However, there is a wide belief among hospitals administrators that the Minister of Health will not close public hospitals because they are not ‘profitable’.
stay; net and operational results; caesarean sections in total births; extraordinary salaries in total personnel costs; unit costs by treated patient; and the average waiting time for having a first encounter, just to mention a few. Exhibit 1 presents the national and regional indicators contracted for one of the hospitals in the study.

Exhibit 1 presents the national and regional indicators contracted for one of the hospitals in the study.

Every time a hospital fulfils the variable component a further 2% incentive is distributed. Hospitals can only be entitled to receive the convergence value for three years. After this it is considered that hospitals have had time to restructure their services and are ready to provide health care to patients in an efficient way\textsuperscript{11}.

The creation of contracting agencies in each RHA was aimed at facilitating the assessment of the degree of accomplishment of the contracts and at monitoring hospitals’ overall performance. Although the power of these agencies was very limited at the outset, the increasing development of tools and methods for negotiation and contract follow-up has to some extent contributed to changing their role over the last years. Yet the system has been kept very centralised under the authority of the ACSS. The introduction of contracting mechanisms in 2003 was expected to increase cost awareness and provide incentives for hospitals to manage their resources efficiently. With the replacement of the budget-based retrospective reimbursement system by the new contract-based prospective reimbursement system, the Portuguese Ministry of Health expected that (Amaro et al., 2008):

“\textit{EPE hospitals assure the delivery of health care in the contracted amount and quality, managing their own activity into efficiency levels suitable with the contracted prices}”.

However, hospitals processes were still closely controlled by the ACSS. As a hospital administrator explained:

“\textit{After we become an SA hospital we got more autonomy from the Ministry of Health and the ACSS...Comparatively I didn’t feel such an increase in autonomy when we changed from an SA to an EPE hospital...Despite this the hospital is very much dependent on ACSS and RHA decisions (...)}”

This shift from a uniform and inclusive public service based on ceremonial budgetary activities to a structure which emphasises contract provision and efficiency demonstrates how

\textsuperscript{11} Nonetheless, in practice the Ministry of Health was paying this convergence value to the hospitals that had presented losses for more than three years.
Portuguese policy-makers in the 2000s came to rely, at least apparently, on principles and methods drawn from the private corporate sector rather than the PPA-style public sector to manage NHS hospitals (Hood, 1995). Because health services need to be identified in great detail in order to draw up contracts, diagnostic-related groups (DRGs), combined with case-mix accounting, became important elements in the new reimbursement process. As we shall see later, the introduction of DRGs was a means to enable the assessment of hospitals’ inpatient production, rendering at the same time the work of medical staff visible and controllable from a distance (Lowe and Doolin, 1999).

**DRGs and case-mix accounting in the new reimbursement system**

Similarly to what happened in US in the 1980s and later in many other OECD countries, DRG technology was adopted by the Portuguese Ministry of Health in the 2000s to target funding to NHS hospitals, replacing the former system of paying all hospital expenses retrospectively. Yet the introduction of DRGs in Portugal can be traced back to 1984 when the Portuguese Ministry of Health, financially supported by the United States Agency for International Development, asked the University of Yale to develop a DRG implementation project in Portugal in order to support the settlement of prices for the health subsystems that make use of public hospital inpatient services.

DRGs were developed by Professor Fetter of the Yale University Centre for Health Studies in the 1970s and during the two following decades as a way of identifying the services provided by hospitals. The US Medicare programme was pressing researchers to find ways of making hospital resources and costs controlled and manageable (Preston, 1992); yet this could not be achieved without devising a way of objectively measuring hospital production (Thompson et al., 1979). This concern with controlling costs and devising ways of measuring hospital outputs reflected the growing dominance of economic discourse over the medical view which formerly prevailed in the US health care sector (Preston, 1992). As a result of this economic dominance, hospitals were scrutinised and compared to manufacturing organisations. They came to be regarded as similar to any other type of organisation which seeks to transform inputs in intermediate products (which in a hospital were identified as laboratory tests,

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12 Despite the development of a unified publicly-financed health care system for all Portuguese inhabitants at the end of the 1970s, part of the population (about 20% to 25%) are also covered by special public and private insurance schemes (‘health subsystems’).
screening images, etc.) and in final products (discharged patients, in a hospital) through several internal processes.

DRGs are a system devised to classify and group together acute hospital inpatients based on several variables including their principal diagnosis, secondary diagnosis, surgical episodes, age, sex, discharge status of the patient treated and weight at birth. DRGs can thus be regarded as product lines. A disease classification originally published as a medical reference – the “International Classification of Diseases, Ninth Revision, Clinical Modification” (ICD-9-CM) was used as the starting point to obtain the DRG categorisation. The groups were formed in order to be clinically coherent and homogenous with regard to the consumption of hospital resources. This meant that each DRG included a set of clinical procedures, nursing care and diagnostic tests which were typically required in treating the related medical condition.

In 1984, after Professor Fetter and colleagues had been contacted and a pilot study had been conducted to examine whether the variables used in the US could be adapted to group homogeneous inpatients in Portugal, DRGs were implemented in all Portuguese public hospitals. In 1987 more than 50% of hospitals were included in this project and in 1990 about 90% of hospitals were collecting information to feed the DRG system (Valente, 2010). During the early 1990s all Portuguese NHS hospitals had to classify every inpatient episode according to the DRG system. A doctor in charge of auditing DRG codification in one of the hospitals of the study that was involved with DRG classification since its inception in Portugal noted that doctors strongly resisted its implementation, particularly in the beginning of its development:

“Doctors did not like to have to specify the patients’ diagnoses and what tests the patients had ... They say that they’re in hospitals to treat patients and not to do administrative work. (...) I tried hard to explain to them that without this kind of information we couldn’t categorise episodes in DRGs, but they didn’t care.... These days their unwillingness to disclose these details has been reduced. I did many training sessions with doctors explaining what they should do (...). However, many of them still give us very short descriptions so we need to contact them in order to get more details about the patients’ diagnoses...”

Despite resistance from doctors, information on DRGs was apparently regarded as reliable both inside and outside hospitals. NHS hospitals created auditing departments for ensuring all doctors’ records were correctly categorised into DRGs. Apart from this, hospitals were periodically audited by the ACSS. Auditing activities became a very important function
following the establishment of contracts between the Portuguese Ministry of Health and hospitals and the introduction of a prospective reimbursement scheme based on hospital volume and type of production, as we shall see. In fact there was widespread concern about the possibility of hospitals manipulating DRGs registrations in order to increase funding (see below), and the need for more auditing. As an ACSS manager stated:

“(...Auditing DRG categorisation has became crucial for assuring the ACSS that hospitals are not manipulating the system in the context of the new hospital funding scheme (...). This is a new area that needs to be further explored”.

Portugal was one of the leading countries in the implementation of the DRG system in the 1980s. Countries like France, the UK and Sweden initiated similar processes subsequently, whereas the other European countries preferred to directly import the American DRGs without adapting them to their hospitals’ specificities due to the high costs associated with the change (ibid, 2010). The need to collect data on an individual patient basis for DRG grouping pressed Portuguese NHS hospitals to develop a system of information based on a minimum basic dataset (called ‘folha de admissão e alta’). This information system began to be developed at the end of the 1980s in association with the establishment of DRGs in Portugal. Simultaneously, cost accounting systems were introduced in some of the NHS hospitals. However, at that time there were no compulsory standardised rules obliging hospitals to calculate the costs of inpatient services in the same way. This explains why hospitals then adopted different allocation bases to distribute identical indirect costs by cost objects and often varied their cost accounting practices from one year to another. As a result of these diverse practices “abnormal DRG costs might have been calculated” (Valente, 2010: 397). Despite the likelihood of DRG inaccuracy, since its inception this technology was adopted to obtain payment from the health subsystems that used the inpatient services of the NHS hospitals.

Hospital cost accounting improved when in 1997 a standing committee was set up by the Portuguese Ministry of Health to study ways of standardising cost allocations among hospitals. As an ACSS consultant explained:

“...Hospital cost accounting was very weak till 1997...There were many doubts about its accuracy as no rules were established for all hospitals...Obviously this situation had to change (...)”

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13 In English, ‘admission and patient discharge sheet’.
14 The first chart of accounts for cost accounting was developed in 1997.
As a consequence of improving hospital cost accounting from 1997 until the introduction of PPS in 2003, DRGs were also adopted to support budgetary activities by providing information on the complexity of patients treated, “enabling a more equitable and fair allocation of resources than would otherwise be possible if only patient volume or information on the length of stay were available” (Barros and Simões, 2007: 54). Regardless of any formal sophistication that the budgets achieved after the introduction of DRGs, they were not used instrumentally to encourage cost containment and efficiency in the management of public resources but essentially in a ceremomial way to allocate funds to hospitals.

Although substantial progress was achieved in the cost accounting systems of Portuguese public hospitals at the end of the 1990s, no DRG costs were directly obtained from these systems. An accountant from one of the hospitals commented:

“…Our cost accounting has been improved, and I’m proud of it ...However, it’s incapable of providing information about how much DRG X or DRG Y costs ...We’re not different in this respect from the other hospitals in the country (...). I would like to know how much each patient, each DRG costs...but unfortunately our traditional system just provides information on the cost of the average patient treated…”

The cost accounting data obtained by hospitals and sent to the ACSS are the following: (i) direct costs for all the main cost centres and their disaggregation by consumption, purchased services and personnel costs; (ii) direct costs of inpatient services (in total and per patient treated) and their disaggregation by consumption, purchased services and personnel costs; (iii) unit costs of inpatient episodes per day and their disaggregation by consumption, purchased services and personnel costs; (iv) outpatient direct costs (in total and per visit) and their disaggregation by consumption, purchased services and personnel costs; (v) emergency direct costs (in total and per case) and their disaggregation by consumption, purchased services and personnel costs; (vi) direct costs of day care (in total, per session and per patient treated) and their disaggregation by consumption, purchased services and personnel costs; (vii) direct costs of home care and their disaggregation by consumption, purchased services and personnel costs; (viii) direct ambulatory surgical costs and their disaggregation by consumption, purchased services and personnel costs. These outputs are disclosed publicly on an annual basis by the ACSS in order to encourage hospitals to benchmark their costs and activities with other NHS hospitals.
This means that to obtain information on the costs of DRGs, the ACSS still had to work out the costs provided by hospitals every year. Relative standardised weights based on the inpatient costs incurred by hospitals operating in the state of Maryland in the US (‘Maryland matrix’)^{15} were used by the ACSS to obtain the costs of DRGs. The Maryland matrix, by establishing a relationship between each category of inpatient costs and DRGs, makes it possible to calculate the average cost (taking into account all Portuguese public hospitals) of each DRG. Because DRGs are computed according to the cost structures of the Maryland state hospitals, a board of Portuguese medical experts was created in 1994 to scrutinise yearly whether the relative standardised weights contained in the matrix reasonably reflect the resource consumption of Portuguese hospitals’ DRGs. Another important element related to the DRG system, calculated by the Ministry of Health, is the ‘average weight of each DRG’ (case-mix). The DRG average weight or case-mix expresses the expected cost of a ‘normal patient’ in a DRG compared to the mean cost for all the DRGs in all NHS hospitals.

With the introduction in 2003 of contracting mechanisms for stipulating the overall payment of Portuguese public hospitals, DRGs became a central accounting technology. This was for a threefold reason: firstly, the financing hospitals receive turned out to be dependent upon the type and amount of services delivered, which are measured by DRGs (for inpatient episodes and ambulatory cases); secondly, DRG costs developed into the basis on which the Ministry of Health sets the price to pay hospitals; and thirdly, DRGs became widely used to obtain information on the case-mix of hospitals (which reflects the complexity of the treatments provided and the level of resources consumed in a hospital, and thereby the amount of funds to be paid). The DRG system therefore formed the basis for the prospective payment system introduced in Portugal following the corporatisation of public hospitals.

The financing that each hospital eventually received depended on the contracted volume of production measured using all-patient DRG version 21 (669 DRGs), expressed in equivalent patient terms^{16}, on the contracted price and on its case-mix index. The contracted price for the services provided^{17} became established by the Ministry of Health every year according to the

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^{15} In 1987 Professor Fetter and colleagues of the University of Yale proposed to the Portuguese Ministry of Health a model for estimating costs per patient and DRG combining elements from the accounting systems of Portuguese NHS hospitals and US hospitals. The Maryland matrix, which was devised in the context of the US Federal Government’s Medicare programme, was then recommended as a means to compute the DRG costs for Portuguese hospitals. It continued to be used until ABC was implemented in hospitals.

^{16} Only for inpatient and ambulatory services. Equivalent patients are the total of episodes after conversion of outlier episodes (short and long-term stay) and transferred episodes for each DRG into groups of patient equivalent to the average length of stay for each DRG (Amaro et al., 2008).

^{17} The health care services delivered by hospitals comprised surgical and non-surgical inpatient, surgical and non-surgical ambulatory services, outpatient encounters, emergency, day care, home care and other services (such as HIV/AIDS, pre-natal diagnosis, hemodialysis, peritoneal dialysis and legal abortion).
average costs of each DRG\textsuperscript{18} in all NHS hospitals and based upon the efficiency aimed at for hospitals. This price tends to be below the average cost of DRGs in order to encourage hospitals to be efficient. However, since there were structural factors (e.g. size, technology acquired by hospitals, location of the hospital, type of hospital, etc.) which were not reflected in the case-mix index and could be key to explain hospital costs, four groups of hospitals were identified and prices were established for each of them. Exhibit 2 summarises how the PPS works.

[Insert Exhibit 2 about here]

In the new reimbursement scheme hospitals are not able, in theory at least, to control the amount of funding they receive. Indeed the new scheme attempts to encourage hospitals to focus on cost reduction and control. However, in practice hospitals are able to ‘manage’ their case-mix index in two distinct ways: (i) firstly, by attempting to manipulate the DRG registrations in order to increase the hospital case-mix index (this kind of behaviour is known in the literature as ‘DRG-creeping’); and (ii) secondly, by focusing on the episodes and cases that offer a higher financial compensation when compared with their costs (this is described as ‘DRG-dumping’). As a consultant of ACSS contended:

“A big pitfall of the new prospective payment model is that it encourages hospitals to increase their case-mix index...The higher the case-mix index the higher the payments...This might induce hospitals to pernicious practices”.

Exhibit 3 presents the case-mix index for the EPE hospitals in the period 2000-2007.

[Insert Exhibit 3 about here]

The case-mix index of the public enterprise hospitals had grown about 15% between 2000 and 2007, and 8% between 2003 and 2007. This might be related to the two behaviours (‘DRG-creeping’ and ‘DRG-dumping’) described above.

The new form of reimbursement based on the payment of a fixed amount for health care services, volume of production and case-mix index pressed hospital managers to produce internally detailed information in order to closely monitor hospital activities and their costs.

\textsuperscript{18} Only for inpatient and ambulatory services.
This was a common pattern encountered in all the five NHS hospitals that were the object of this investigation. Monthly meetings between the service’s directors, doctors, head nurses and hospital administrators became an important event in these hospitals. Some of the most important issues discussed in these meetings concerned how the case-mix of the hospital was evolving, the direct costs of each service and department of the hospital (detailed by personnel costs, consumption, laboratory tests, imaging, etc.) and its actual volume of production when compared with the contracted production. Although hospital managers became very much involved in devising strategies to restrain costs in hospitals, doctors and other clinical staff did not seem very concerned with reducing hospital expenditure. A service director in one of the hospitals visited argued:

“We have all these meetings with doctors to analyse why the hospital spent so much on a specific drug or treatment and to encourage them to rationalise resources…but the truth is they don’t care about costs”.

Doctors seemed much more concerned about delivering health and treating patients than in restraining the costs of their activities. In fact, they believed that financial issues should not be involved with the provision of health care. Doctors use the following colloquial expressions to express their belief: “health has no price” and “economy in surgery is a disgrace”. These expressions were disseminated at the medical schools and were commonly accepted as true among doctors and nurses.

Individual services and departments were closely controlled in order to verify whether they were producing the intermediate services (e.g. lab tests, treatments, medication and nursing) required for the treatment of patients in a cost-effective way. Similarly doctors, who were regarded as responsible for determining the mix of the hospital’s resources and services required to diagnose and treat each type of patient, came under surveillance. DRGs and case-mix were used to control doctors and services. These accounting devices provided visibility to doctors’ decisions on the treatments delivered and on individual departments’ performance, and hence permitted the management and regulation of medical practice from a distance. Moreover, internal performance evaluation databases were developed in the five hospitals visited. These databases sought to provide hospital administrators and service directors with relevant information to check whether the efficiency and quality targets established in the contracts were being met. As a result of tight control of these targets, hospital production patterns changed. Inpatient care was gradually reduced in comparison with ambulatory
services, which increased. Length of stay, another of the indicators included in the contracts, became shorter (see Exhibit 4).

[Insert Exhibit 4 about here]

In sum, both financial and non-financial information became important devices to monitor hospitals’ activities and check doctors’ decisions. Together they provided visibility to medical practices and behaviours that were not previously subject to control.

**The introduction of ABC in 2007**

Traditionally, public hospitals calculated their costs using a two-stage model. In the first stage, resource costs were allocated to cost centres, which could be main cost centres, auxiliary cost centres or administrative support cost centres. The main cost centres comprised in-patient services, ambulatory services, outpatients, emergency, day care and home care. On the other hand the auxiliary cost centres included clinical support cost centres, such as surgery and diagnosis and therapeutic tests (including image, screen and laboratory tests), and general support cost centres. Finally, the administrative support cost centres dealt with the technical and administrative services of the hospitals. During the 1990s and until the cost accounting systems of hospitals were improved in 1997, the ‘step-down method’\(^{19}\) was used to allocate the costs of the auxiliary cost centres to the main cost centres. Nevertheless, after 1997 inter-service department reallocations began to be calculated through the ‘simultaneous equation method’. In order to facilitate the computation of the reallocations to hospitals through this method, the ACSS prepared a special Excel spreadsheet containing formulas that automatically allocate the costs of services to departments. As a means to obtain information about unit costs, total costs from the main cost centres should then be divided by a measure of volume, which in the case of inpatient care is the total number of patients treated or the total number of inpatient days. Although the ACSS laid down rules\(^{20}\) as to how hospitals should calculate costs per patient treated and which allocation bases should be adopted, anecdotal evidence showed that there was still a high level of arbitrariness in the allocation of indirect costs in hospitals. This was mainly due to the heterogeneity of NHS hospitals, which in some

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19 Also called ‘specified order of closing method’.
20 In 1997 the ACSS laid down a chart of accounts for supporting cost accounting which was compulsory for all NHS hospitals. This chart of accounts was upgraded in 2000 and again in 2007.
cases carried out very distinct activities, making it difficult to standardise the allocation bases for all hospitals. As an ACSS management accountant argued:

“Despite our efforts to get cost accounting information standardised for all hospitals, we are conscious that there is a degree of arbitrariness in the allocation of costs. When we receive costing data from hospitals we’re able to compare costs between hospitals and to see which hospitals have higher or lower unit costs. (...) Some deviant costs are due to the use of inappropriate cost allocation bases”.

Another explanation for why both the Ministry of Health and hospital managers regarded cost accounting information with distrust concerned the use of the Maryland matrix, which used the cost structures of North American hospitals to calculate the DRGs of Portuguese hospitals. As Valente (2010: 400) contended:

“The use of the Maryland weights matrix for allocating the total costs of each hospital cost centre by the different DRGs is simultaneously one solution and a source of potential bias when calculating the costs of products”.

DRG costs were heavily criticised as being distorted by both hospital and ACSS managers. Several of the interviewees observed that a considerable number of DRGs were overcost whereas others were undercost. Moreover, they contended that hospitals need to carry out overcost DRGs in order to pay or all the undercost DRGs hospitals produce. According to an administrator of one of the hospitals visited during this study:

“We know which DRGs are overcost and which ones are undercost. We expect though that at the end of the day some of the DRGs we treat that are not well paid by the ACSS will be offset by profitable DRGs”.

Following calls that it was crucial to continue developing hospital cost accounting systems in order to “make the costs of the DRGs more specific to the reality of Portuguese hospitals” (Valente, 2010: 406) a major ABC implementation project was launched by the Ministry of Health in the beginning of 2007. This project was aimed at obtaining more accurate costs and better understanding of the real costs of public hospitals. As Borges et al. (forthcoming) noted:

“In the contracts established with hospitals prices are fixed based on their costs. It is therefore very important that hospitals have solid and reliable cost accounting systems that can provide correct information on the costs of the services they deliver”.
In order to press medical staff for efficiency, the prices of health care services were set below the average costs incurred by NHS hospitals. According to the Ministry of Health “prices would not trigger efficiency if they did not resemble real hospital costs” (Interview 27, December 2009). Getting reliable costing data therefore became vital to support pricing decisions. The contracting mechanisms introduced in 2003 associated with the transformation of Portuguese public hospitals into enterprises could not work properly if the cost accounting information provided by hospitals was not regarded as reliable by both hospitals and the Ministry of Health. Two reasons explained this: on the one hand, public expenditure needed to be controlled and setting ‘efficient’ prices was crucial to encourage cost containment. Yet without reliable information on hospital costs, prices could not be adequately established; and on the other hand, hospitals could not rely on their costing information to find ways of cutting costs in their activities. In this respect Borges at al. (forthcoming) stated:

“Seven years after the inception of contracts between the paying entity and the NHS hospitals, there is the belief that hospitals need to have thorough and in-depth knowledge of the costs related to the activities they undertake and of the factors that cause waste in hospitals. (...) The objective of ABC adoption in public hospitals is related primarily to the need to provide more detailed and reliable cost accounting data to all the parties involved in order that prices can be calculated reflecting clearly the costs of hospitals’ activities”.

An ACSS manager contended that the introduction of “an advanced costing system such as ABC in hospitals would make hospitals and their staff more cost-conscious and rational in their daily activities, consuming resources in a more cost-effective way” (Interview 26, 2009). Between January to April 2007, contracts were signed between public hospitals and a powerful international consultancy firm with wide experience of implementing ABC in Portugal. From May 2007 till December 2008 ABC was implemented in five hospitals (called ‘pilot hospitals’), each located in a particular region of Portugal (North, Centre, Lisbon, Alentejo and Algarve). Subsequently, in 2008, the ABC project was expanded to six other hospitals in order that the costs of specific pathologies such as oncology and mental diseases were known. Previously, in 1999, this consultancy firm had implemented ABC in a hospital located in the outskirts of Lisbon. Yet after it was adopted with great enthusiasm, mainly by one of its administrators, the system was abandoned. According to this administrator “ABC was implemented before the right time” (Major, 2007).
In the consultants’ opinion the ABC system was implemented for four main reasons: (1) as a means to setting prices for health services more accurately; (2) to enable the comparison of costs between hospitals with regard to DRGs, patients, procedures, etc.; (3) to obtain the real costs of DRGs; and (4) to identify potential areas for improvement in hospitals. As one consultant observed:

"Hospitals cannot effectively manage their resources and develop their activities without obtaining better information on their costs… Having a reliable cost accounting system is crucial to support decisions on what to produce and how to produce. (...) ABC information might even be used to support benchmark costs between similar hospitals...”.

Despite the enthusiasm of consultants and the ACSS for the benefits of ABC implementation in hospitals, a general discontent and distrust on the part of hospitals administrators, service directors and doctors was evident since the beginning of the project. [This section needs to be concluded].

4. Discussion and Conclusions

The contemporary world is dominated by economic thought (Hopwood, 1990). Until recently health care in Portugal was not perceived primarily as an economic phenomenon. This explains why the Ministry of Health and public hospitals had invested little in accounting and other financial devices. However, during the 2000s the public health care institutions have come to be seen as belonging to the economic domain. The language of efficiency, cost-effectiveness, value for money and other similar expressions, which the NPM paradigm is infused with, has undeniably entered the vocabulary of the Portuguese health care sector, necessitating the development of modes of economic calculation to objectify and operationalise the abstract concepts in the name of which change occurred. Managerial reforms based on the ‘corporatisation’ of public hospitals, on the development of contracting mechanisms and new forms of accountability were expressions of the pervasiveness of the NPM movement in the Portuguese NHS. This move towards NPM ideas brought new rationales for organisational action, new ideas of legitimate behaviour and new patterns of influence and authority into the sector, which were regarded by many directly involved in the delivery of health care with disbelief and scepticism.

The ‘corporatisation’ of Portuguese NHS hospitals in 2002 and again in 2005 and in the following years reflected the NPM belief that companies are “the most important prototype
for organising the production of goods”, and that ‘political organisations’, of which public hospitals are a good example, do not prompt the efficient use of resources as in the ‘company’ model (Brunsson, 1994: 324). This idea of the superiority of the company over the political institution model seems to be related to the fact that companies are organised through principles such as unity, specialisation and problem-solving capacity, are considered able to produce products and services that are in demand and to generate money as result of selling them (ibid). The financing model based upon the full payment of public hospital expenditure and the continuous reporting of poor results and need for more money made the political organisation model to appear clearly less appealing than the company institution, which is characteristically engaged in the production of good results. In fact, whilst the company is viewed as generating a surplus of money, and thus as ‘sustaining’, the political organisation might be described as ‘draining’ (Brunsson, 1994). The unattractive features of the political organisation that public hospitals exemplify seemed to have been solved by politicians and policymakers by bringing into the public health care sector the attractive attributes of other models of organisation, particularly those of the company. Typical features of companies such as the emphasis on results and action, and trust in competition as a means to achieve efficiency and autonomy in decision-making, were therefore introduced in NHS hospitals, as a means to overcome the deficiencies intrinsically related to their institutional model. Nonetheless, the former status of NHS hospitals as providers of universal health care services and as public utility entities has been retained. During this process of transformation, Portuguese public hospitals appeared to be in a confused state, with vestiges of their former institutional model form persisting throughout the four years of fieldwork on which this case-study was based. Examples reflecting this institutional confusion include the inclusion in the contracts established between the payer entity (the Ministry of Health through the ACSS and the RHAs) and the providers (the public hospitals) of mechanisms to cover the losses of the less efficient hospitals (‘convergent value’).

An increasing range of managerial tools characteristic of the private sector, including performance and measurement systems, DRGs, cost and management accounting systems, such as ABC, and new information systems and technologies were developed and adopted. It can be argued that the major beneficiaries of this growing market of health care were the management accounting consultants and business experts in information technologies who became accountable for the implementation of the accounting and accountability systems. These transformations were made in the name of efficiency even though no one knows precisely what efficiency is, as there is no precise and generally agreed definition of that
concept (Hopwood, 1990). It is alleged that the ambiguity of the concept is appealing, particularly if used in political discourse (*ibid*), to explain why outer-city hospitals need to be shut down or integrated into larger hospital centres. The Portuguese public medical services were thus converted into a market, in which the patients became the consumers, doctors, hospital suppliers and care a commodity, similarly to what had occurred before in many other Western countries (see Kurunmäki, 2009). However, the ‘marketisation’ of the Portuguese public health care sector had its limitations. Economic reasoning was observed to play an important part mainly in supporting the decisions of the hospital service directors (who were doctors) and hospital administrators. These professional groups used accounting information together with medical data to support decisions and to manage hospital resources. Despite regular meetings between clinical directors, doctors and nurses, doctors and other clinical staff persisted in not being interested in the accounting and financial aspects of their activities. DRGs, ABC and other managerial systems were regarded with scepticism and distrust by these professional groups. According to them, health could not be dependent on financial matters. Money and health in their view were two very different things which should not be mixed. They used to express this belief through expressions like ‘health has no price’ and ‘economy in surgery is a disgrace’. When doctors were asked to make details available about their diagnoses and treatment provided to patients in order that DRGs could be categorised they postponed the provision of such information for as long as they could. In their view they were doctors and not administrative personnel to be involved in such an obligation. Likewise, doctors were not keen on costing systems, particularly ABC. ABC demanded too much information about their activities, which in their view could be a threat to their autonomy and power in hospitals. One means they found to obstruct ABC implementation was to provide the consultants with inaccurate and rough approximations about the time they spent in each hospital activity. Interestingly, after the first ABC outputs were obtained they criticised the information, alleging that it could not be accurate as the inputs were not reliable (‘garbage in, garbage out’) (Major and Hopper, 2005).

Two distinct arenas could be identified in the hospitals visited. While the ‘internal arena’ of work was dominated by the doctors and nurses providing health care to patients, the ‘external arena’ was dominated by hospital administrators and service directors, who were concerned with the management of hospital resources and the new demands of efficiency and effectiveness posed by the hospitals’ institutional environment. A loose coupling relationship between the ‘internal’ and ‘external’ arenas in hospitals was established, with each of them occupying semi-autonomous positions. Historical reasons related to the power in hospitals of
the professional groups that formed these ‘arenas’ dictated this distinction. Doctors had until recently enjoyed full professional jurisdiction over the domain of hospital administration. This has changed with the transformation of public hospitals into public enterprises. A more entrepreneurial structure was introduced in the administration of EPE hospitals. Doctors who had previously been dominant in the administration of hospitals were gradually replaced by professional managers (‘hands-on professional management’, see Hood, 1991, 1995). This was a consequence of the displacement of the dominant organisational culture which was traditionally centred on doctors’ concerns in favour of a new preoccupation with financial and economic concerns. Yet doctors were still a very powerful professional group inside hospitals and their boards. Their discontent with the new managerial reforms was expressed firmly by setting aside the managerial initiatives adopted in hospitals. Yet, external expectations of cost containment related to pressures from the Portuguese Ministry of Health towards a better use of resources became gradually translated into hospitals’ internal actions. Performance measures instituted by the ACSS in the contracts established with hospitals reshaped perceptions of what constituted the critical issues. Doctors and their activities became subject to reorganisation and control. The implementation of managerial tools such as DRGs, case-mix accounting and ABC increased the transparency of their activities and rendered their practices calculable at distance. For some doctors this represented a reduction in their autonomy, and a loss of task significance. They expressed a concern to protect the integrity of their medical work in a context where the increased cost-consciousness and patient-turnover rate had become important principles. This investigation did not find evidence of hybridisation in the sense of “the outcome of the process by which medical professionals acquired much of the calculative skills often regarded as the preserve of management accountants” (Kurunmäki, 2009: 1375). However, some degree of financial literacy was evident, particularly in those doctors who were service directors.

This investigation contributes to accounting literature in two different ways. First of all, it provides evidence from a non-English-speaking country about how NPM reforms have been implemented in NHS hospitals and how these reforms are distinguished from other experiences in public health care institutions worldwide. In this respect the investigation demonstrates that the ‘corporatisation’ of the Portuguese public health care sector was not followed by its decentralisation, although NPM advocates often regard these two movements as related. Likewise decentralisation was not found internally in NHS hospitals, despite attempts by the Ministry of Health to introduce responsibility centres in these organisations. Furthermore, it shows how emphasis on the development of accountability mechanisms and
output controls were accompanied by an emphasis on processes, and to some extent on bureaucratic work. NPM pressures for efficiency and accountability brought increased paper work for hospital managers and accountants. Secondly, by opening the ‘black box’ of NPM reforms, the study sought to analyse its impact and also its side effects on hospitals and individuals and to investigate how they responded to the new managerial pressures. Both financial and medical elements were found relevant in supporting hospitals' strategies for cost containment. DRGs and case-mix were only one of the systems used for monitoring hospitals’ activities and controlling their efficiency, possibly because cost accounting and ABC outputs were regarded with distrust and scepticism by many in the hospitals. The dominance of doctors in the management of public hospitals until the 2000s might explain why accounting systems were poorly developed. In addition to this, there was evidence that the introduction of a new scheme of payment to hospitals based on their volume of production and case-mix index was changing hospitals’ health care delivery patterns: inpatient care became gradually replaced by ambulatory care which became paid for at the same rate but requires less resources; the length of stay became shortened; and the case-mix index of the EPE hospitals increased following the introduction of PPS.
References


Exhibit 1 – Quality and Efficiency Indicators for 2009

<table>
<thead>
<tr>
<th>Areas</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Objectives</strong></td>
<td></td>
</tr>
<tr>
<td>A. Quality and Services</td>
<td>A1. Inpatient readmission rate on the first five days (%)</td>
</tr>
<tr>
<td></td>
<td>A2. Percentage of employees involved in training in the field of infection control (%)</td>
</tr>
<tr>
<td>B. Access</td>
<td>B1. Rate of discharged patients in the specialities of internal medicine, surgery and orthopaedics (%)</td>
</tr>
<tr>
<td></td>
<td>B2. First outpatient encounters in the total of medical outpatients encounters (%)</td>
</tr>
<tr>
<td>C. Performance in Assistance</td>
<td>C1. Outpatient surgery in total programmed surgery (%)</td>
</tr>
<tr>
<td></td>
<td>C2. Length of stay (in days)</td>
</tr>
<tr>
<td>D. Economic and Financial Performance</td>
<td>D1. Operating income (€)</td>
</tr>
<tr>
<td></td>
<td>D2. Unit costs by patient treated (€)</td>
</tr>
<tr>
<td>E. Supranational Objectives</td>
<td>E1. Purchased services (rate of increase) (%)</td>
</tr>
<tr>
<td></td>
<td>E2. Purchase of raw materials (rate of increase) (%)</td>
</tr>
<tr>
<td></td>
<td>E3. Consumption (rate of increase) (%)</td>
</tr>
<tr>
<td></td>
<td>E4. Personnel costs (rate of increase) (%)</td>
</tr>
<tr>
<td><strong>Regional Objectives</strong></td>
<td></td>
</tr>
<tr>
<td>F. Institutional Regional Objectives</td>
<td>F1. Percentage of electronic prescription of drugs in outpatient services (%)</td>
</tr>
<tr>
<td></td>
<td>F2. Waiting time for a first encounter (rate of decrease) (%)</td>
</tr>
<tr>
<td></td>
<td>F3. Rate of decrease in the waiting time list for a first encounter in dermatology (%)</td>
</tr>
<tr>
<td></td>
<td>F4. Rate of decrease in the waiting time list for a first encounter in gynaecology (%)</td>
</tr>
</tbody>
</table>

Source: Financial Department of Hospital D.
Exhibit 2 – Prospective Payment Scheme for Portuguese NHS Hospitals

<table>
<thead>
<tr>
<th>Type of care</th>
<th>Quantity Details</th>
<th>Price Details</th>
<th>Case-mix index Details</th>
<th>Payment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient (DRG)</td>
<td>Number of equivalent patients (Z)</td>
<td>Group price (1)</td>
<td>CMI for medical inpatient; CMI for surgical inpatient (4)</td>
<td>Z X Group price X CMI</td>
</tr>
<tr>
<td>Ambulatory (DRG)</td>
<td>Number of equivalent patients (Y)</td>
<td>Group price (1)</td>
<td>CMI for medical ambulatory; CMI for surgical ambulatory (5)</td>
<td>Y X Group price X CMI</td>
</tr>
<tr>
<td>Outpatient</td>
<td>Number of consultations (W)</td>
<td>Group price (2)</td>
<td>---</td>
<td>W X Group price</td>
</tr>
<tr>
<td>Emergency</td>
<td>Number of emergency episodes (T)</td>
<td>Group price (3)</td>
<td>---</td>
<td>T X Group price</td>
</tr>
<tr>
<td>Day care</td>
<td>Number of sessions (M)</td>
<td>Price by type of day care</td>
<td>---</td>
<td>M X Price by type of day care</td>
</tr>
<tr>
<td>Chronic inpatient care</td>
<td>Per day (H)</td>
<td>Price per day</td>
<td>---</td>
<td>H X Price per day</td>
</tr>
<tr>
<td>Home care</td>
<td>Number of visits (V)</td>
<td>Price per visit</td>
<td>---</td>
<td>V X Price per visit</td>
</tr>
</tbody>
</table>

Source: Amaro et al. (2008: 5, adapted).

CMI = Case-mix index
(1) Inpatient price = Ambulatory price
(2) The price of the first encounter is 10% above the price contracted for the following encounters
(3) There is no payment when an emergency episode results in an inpatient episode
(4) CMI for surgical inpatient > CMI for medical inpatient
(5) CMI for surgical ambulatory > CMI for medical ambulatory
### Exhibit 3 – Case-Mix Index for EPE Hospitals

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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</thead>
<tbody>
<tr>
<td>Case-Mix Index</td>
<td>0.9206</td>
<td>0.9443</td>
<td>0.9650</td>
<td>0.9794</td>
<td>1.0119</td>
<td>1.0224</td>
<td>1.0285</td>
<td>1.0600</td>
</tr>
</tbody>
</table>

Source: ACSS.

### Exhibit 4 – Length of Stay in Days (adjusted by CMI) for EPE Hospitals

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>7,729</td>
<td>7,555</td>
<td>7,350</td>
<td>6,857</td>
<td>6,807</td>
<td>6,919</td>
<td>6,846</td>
<td>6,737</td>
</tr>
</tbody>
</table>

Source: ACSS.