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Institutional Entrepreneurship in the Portuguese NHS

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Key Words: Institutional entrepreneurship; Institutional logics; Critical realism; Mature fields; Health care; DRGs; ABC.
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Abstract

**Purpose:** Drawing on critical realism and institutional entrepreneurship literature this study seeks to explain how the Portuguese Ministry of Health was able to move from a dominant public administration logic to a managerial logic in the 2000s. For this purpose a non-conflating model for studying divergent institutional change in mature and highly institutionalised fields is proposed.

**Design/methodology/approach:** An in-depth and longitudinal case study was adopted as the research method to carry out the investigation since the researchers were interested in placing the management changes they observed in Portuguese public hospitals within their social, economic and organisational context, in order to fully understand their role and impact.

**Findings:** We demonstrate how without disembedding from extant structures the Portuguese Ministry of Health sought for alternative logics, when experiencing tensions and contradictions in the field, and skillfully used several management accounting technologies to frame new institutions that supported the new logic mobilised for the field.

**Originality/value:** We propose to solve the paradox of embedded action through a new model for studying the processes of institutional entrepreneurship that recognises that agency and structure are dual and in permanent interaction.

**Key Words:** Institutional entrepreneurship; Institutional logics; Critical realism; Mature fields; Health care; DRGs; ABC.

**Paper Type:** Research paper.

1. Introduction

Institutional theory has been criticised for emphasising stability and the study of institutional persistence and homogeneity (Dacin et al., 2002; Scott, 2001, 2008). Divergent institutional change, understood as that particular type of change which breaks with the prevailing institutions in a field (Dacin et al., 2002; Greenwood and Suddaby, 2006; Battilana et al., 2009; Scott, 2001), poses thus a problem. This problem is described by Seo and Creed (2002, p. 226) as the “paradox of embedded agency”. The study of how actors embedded within institutional structures are able to change those structures is one of the most important challenges faced by institutional theorists (cf. Leca and Naccache, 2006; Mutch, 2007; Cooper et al., 2008; Greenwood and Suddaby, 2006; Garud et al., 2007). The concept of institutional entrepreneurship introduced by DiMaggio (1988) in organisational analysis, and later developed by others (Maguire et al., 2004; Battilana et al., 2009; Dorado, 2005; Greenwood, and Suddaby, 2006; Hardy and Maguire, 2008; Beckert, 1999; Battilana, 2006, to mention a few), has emerged to help researchers to address such paradox.

Empirical studies of institutional entrepreneurship are of particular interest when carried out in mature, highly institutionalised fields, as those convey exemplar cases of embedded (Greenwood and Suddaby, 2006). In contrast to emerging settings in which narrowly diffused institutions and unstable relationships and values proliferate, mature fields represent
“established networks” and “federations of organisations” strongly ingrained (Maguire et al., 2004, p. 659). In the institutional entrepreneurship literature, higher degrees of institutionalisation are associated with lower levels of uncertainty in the institutional order, inhibiting embedded actors from strategic action and opportunistic behaviour (ibid). Yet certain evidence indicates that divergent change can be deliberately initiated by deeply embedded actors in mature organisational fields exposed to higher levels of institutionalisation (Greenwood and Suddaby, 2006; Greenwood et al., 2002). This might be problematic, as literature has been contending that highly entrenched actors in extant institutional structures are unlikely to champion change, as they tend to be advantaged by the current practices and unable “to see beyond prevailing ‘recipes’” (Greenwood and Suddaby, 2006, p. 29). Accordingly, it is likely that change is triggered by actors in fields in which institutionalised practices are weakly entrenched, or by actors located at the periphery of organisational fields, less embedded and less privileged, rather than by powerful actors in highly institutionalised, mature fields (but see Phillips and Zuckerman, 2001; Sherer and Lee, 2002). Works on institutional entrepreneurship have attempted to address this issue by advancing explanations how deeply embedded actors, when facing some form of crisis that current institutional structures cannot resolve, are able to disembed themselves from prevailing arrangements and initiate change (Leca and Naccache, 2006; Seo and Creed, 2002; Greenwood and Suddaby, 2006). However, this type of explanation has raised criticism of conflation (i.e., the problem of reducing structure to action, or action to structure, or of merging both), and lead researchers to question why either actors’ freedom or the constraining power of structures have to be denied in such accounts (see Leca and Naccache, 2006; see also, Cooper et al., 2008).

The prevailing idea that actors strongly ingrained in extant institutions are unable to initiate (accounting) change without disembedding from prevailing structures led us to integrate insights from critical realism (Sayer, 2000; Archer, 2003) with institutional entrepreneurship literature. In so doing, we develop a model through which we seek to explain why and how a powerful actor, such as the Portuguese Ministry of Health, whilst embedded in prevailing orders, pursued a new (managerialist) logic and wittingly changed extant institutions and introduced new practices, when pressured by heavy criticism regarding the increases in public expenditure on health care. A fuller understanding on how accounting can be instrumentally used by social actors (in our case, the Ministry of Health) to accommodate new logics in organisational fields while competing logics may co-exist is also aimed.

This paper adds to the literature on institutional and organizational literature in different ways. Firstly, it shows the role of agency of dominant actors in promoting new institutional logics and enacting new institutions and practices in mature fields while lingering consistent with the basic institutional tenet that actors are embedded in existing structures or logics, which they cannot escape. But this paper also addresses calls for studying processes of divergent institutional change (related to management accounting, in our case) at the organisational field level (Scott, 2008; Greenwood and Suddaby, 2006; Greenwood et al., 2002; Mazza and Pedersen, 2004), and the strategies followed by entrepreneurs to accommodate new logics in fields which had been under the organisation of old logics (Ezzamel et al., 2012). This study recognises that fields are comprised of many logics which interact, shift and compete (cf. Ezzamel et al., 2012; Scott et al., 2000) and that moving from one dominant logic to another involves the employment of strategies (power) by skilful institutional entrepreneurs (Reay and Hinings, 2005, 2009). Furthermore, by conducting a research in the Portuguese NHS and studying closely the decisions of its Ministry of Health we were able to comprehend how management accounting technologies, such as diagnosis-related groups (DRGs), case-mix accounting and activity-based costing (ABC), can be
strategically employed by actors to help them to further their ends of shifting from a logic to another.

We develop the paper in five more sections. The next section reviews literature on institutional entrepreneurship and discusses how the paradox of embedded agency has been addressed by researchers. This is followed by the development of our theoretical framework, which conflates insights from critical realism and institutional entrepreneurship literature on mature fields. The paper continues with the presentation of the research methods and methodology we adopted. After this, we present and discuss our case findings based on the theoretical framework we previously proposed. The paper ends with conclusions and suggestions for further research.

2. Institutional Entrepreneurship and the Paradox of Embedded Agency

Following criticisms towards the emphasis put by institutional theory on the determinism of institutions and on the impact of external pressures on organizations and individuals (DiMaggio and Powell, 1983; Meyer and Rowan, 1977), institutional entrepreneurship was developed as a theory of action to explain how actors can engage in non-isomorphic and divergent institutional change, notwithstanding pressures towards stasis (Battilana et al., 2009; Battilana, 2006; Leca et al.; Mutch, 2007). It was DiMaggio (1988) who introduced the concept as an effort to readmit the role of actors’ interests and agency that early institutionalists, such as Selznick (1949, 1957) and Stinchcombe (1968), had developed as central issues in institutional studies.

Institutional entrepreneurship has been described as a concept that “represents the activities of actors who have an interest in particular institutional arrangements (understood as the combination of structures and related institutions), and who leverage resources to create new institutions or to transform existing ones” (Maguire et al., 2004, p. 657). Common features of institutional entrepreneurs pointed out in the literature include their willingness to initiate and actively participate in the implementation of divergent change which breaks with the institutionalised template for organising within a given institutional context (Battilana et al., 2009; Leca and Naccache, 2006). Accordingly, the larger heterogeneous social world is pervaded of structures that embed institutions and supply principles of organisation and legitimacy. These structures, called ‘institutional logics’, are “frameworks” which encompass “assumptions, beliefs, and rules”, whereby actors are able to “organize time and space and give meaning to their social reality” (Leca and Naccache, 2006, p. 632). Every time actors contest former shared understandings of the goals to be pursued and the prescriptions of how this is to be achieved in a field, they “break away from scripted patterns of behaviour” (Dorado, 2005, p. 388), and hence embark on divergent change projects.

Individuals (e.g. Maguire et al., 2004; Kraatz and Moore, 2002), organisations (e.g. Greenwood et al., 2002; Garud et al., 2002; Lounsbury, 2002) and collectives (Dorado, 2005; Rao, 1998; Scott, 2008) have been pointed out as examples of actors that can act as institutional entrepreneurs. However, not all actors appear to be similarly motivated to initiate divergent change. Institutional entrepreneurship literature advocates that actors’ willingness to exert agency depends on their position in the field (Garud et al., 2007; Battilana, 2006). Central and dominant actors in a given field are described as deeply embedded in and advantaged by prevailing logics; as so, it is argued that although they have the power to engender change, they lack the motivation to come up with new ideas and novel logics of action. In opposition, peripheral players less advantaged by current structures are regarded as having the impetus to champion change; despite this, normally they do not have the power and the resources to aim for alternative logics and institutions (but see Maguire et al., 2004).

Yet accounts of institutional entrepreneurship indicate that divergent change is likely to be
initiated by unprivileged and marginal actors, less pressured to conform to institutional expectations, than by dominant actors.

Likewise literature contends that there may be a relationship between the degree of institutionalisation of an organisation field and actors’ eagerness to exert agency (Maguire et al., 2004; Battilana et al., 2009; Hardy and Maguire, 2008). Highly institutionalised fields tend to be associated with lower levels of uncertainty and instability, thereby reducing actors’ opportunities for agency. Whereas mature fields are typically comprised of stable, widely-diffused and taken-for-granted institutions that are often locked in institutional inertia, “proto-institutions”, which are weakly diffused and scarcely accepted by actors, abound in emergent fields (see Lawrence et al., 2002). Moreover, mature fields encompass well-established configurations of actors that developed over time, among them specific patterns of social action and a common sense of being involved in a joint venture (Battilana, 2006; Battilana et al., 2009). This has been pointed out as dulling actors to the possibilities of change whilst giving actors in emergent fields opportunities to behave strategically and opportunistically and, to initiate divergent institutional change (Maguire et al., 2004; Hardy and Maguire, 2008).

Despite the previous arguments, divergent change, which can also affect accounting practices, can be pursued by deeply embedded actors in highly structured, mature fields (Battilana et al., 2009; Hardy and Maguire, 2008). Crisis in mature fields can evidence tensions and conflicts that are particularly conducive to institutional entrepreneurship (Hardy and Maguire, 2008). Established and resilient patterns of interaction in mature fields, such as domination, subordination, conflict and cooperation, as well as prevailing configurations, can be disrupted by events, such as social disturbances, technological developments, regulatory changes, political and economic crisis, or even the publication of books and media stories (cf. Garud et al., 2002; Lounsbury, 2002). These events might “precipitate the entry of new players into an organizational field, facilitate the ascendance of existing actors, or change the intellectual climate of ideas” (Hardy and Maguire, 2008, p. 204). When existing practices and established patterns of behaviour are disrupted, uncertainty can emerge and what has been previously locked in institutional inertia may undergo change. This represents an opportunity for the introduction of new rules, beliefs and practices such as those of accounting by institutional entrepreneurs in mature fields. Furthermore, certain studies (Greenwood and Suddaby, 2006; Greenwood et al., 2002) indicate that endogenous sources of deliberate change can also account for divergent institutional change in highly structured fields. To this respect, Greenwood and Suddaby (2006) show how powerful actors (the big accounting firms in Canada) holding central positions in the mature setting of professional business services were able to use their position to take advantage of contradictions that have emerged in the field and initiate endogenous divergent institutional change. This confirms Powell’s (1991, p. 191) observation that clearly “elite intervention may play a critical role in institutional formation”.

Nonetheless, as Scott claims (2008) in highly institutionalised settings endogenous change almost seems to run counter the concept of institution which is central to institutional theory. The question of how and why actors are able to envision new logics and institutions if their actions, intentions and rationality are constrained by the institutions and structures they seek to change explains why much of the current research on institutional entrepreneurship endeavours to address the paradox of embedded agency (Garud et al., 2007; Hardy and Maguire, 2008; Battilana, 2006; Leca and Naccache, 2006). Under this paradox lies the agency-versus-structure broader debate, which has been a source of considerable controversy among institutionalists as it directly relates to researchers’ assumptions of human nature (Battilana et al., 2009; Battilana, 2006; Leca and Naccache, 2006; Mutch, 2007). One way of addressing the paradox of embedded action has been by emphasising that institutional fields
are comprised of multiple logics and structures that often overlap and conflict (Friedland and Alford, 1991; Thornton and Ocasio, 2008; Ezzamel et al., 2012; Reay and Hinings, 2005, 2009). In fact “institutions are …not homogeneous”, “boundaries are not static, conflicts among actors arise, and structuration does not produce perfect reproduction” (Hardy and Maguire, 2008, pp. 203-204). Yet as actors are able to resolve differences between them through negotiation processes institutional fields appear to be stable (Greenwood et al., 2002). Contradictions defined as “a pair of features that together produce an unstable tension in a given system” and cause conflict between institutions in a field (Battilana et al., 2009, p. 75) have been seen as crucial to understand how actors can seek new institutional arrangements or transform existing ones (Seo and Creed, 2002; Hardy and Maguire, 2008; Friedland and Alford, 1991). The existence of multifarious and fragmented institutional environments represents an opportunity for actors to use contradictions to reflect on the limits of extant logics and institutions, to propose new forms of acting and organising, and to mobilise others in relation to their projects and ideas (cf. Kitchener, 2002). Thus, the recognition that society is an inter-institutional system comprised of multiple logics which may develop at a variety of different levels (e.g. industries, organisational fields, markets, organisations, etc.) represents an important advance to better understand heterogeneity and divergent change in institutional analysis (Thornton and Ocasio, 2008; Friedland and Alford, 1991).

Previous research on divergent institutional change in mature fields have attempted to explain why and by which specific mechanisms embedded actors were able to embrace endogenous divergent institutional change. In their study, Greenwood and Suddaby (2006) draw on network location theory and institutional contradictions framework of Seo and Creed (2002), to propose a sequential model in which actors disembed from existing institutions and champion endogenous change through boundary bridging and boundary misalignment processes. However, in conceptualising these processes, Greenwood and Suddaby ignored that actors cannot escape institutional embeddedness and that any process model of institutional change needs to remain coherent with institutional theory (Leca and Naccache, 2006). Thus, further investigation is needed to enhance our understanding on how deeply embedded actors are able to move from one dominant logic to another, and act as institutional entrepreneurs without disembedding from existing institutional arrangements; in looking for these explanations researchers should not contradict basic tenets of institutional theory. To bridge this gap in the literature we picked an extreme case of agency embeddedness in the Portuguese public health sector and built on critical realism, which we now review.

3. Critical Realism in Institutional Entrepreneurship Analysis

Critical realism bases on the idea that actors’ actions and structures are two separate, ontologically different yet related levels of reality that can neither collapse nor conflate into each other (Sayer, 2000; Leca and Naccache, 2006; Archer, 2003; Ekström, 1992). In other words, though these levels are related they are not reducible. As such this perspective has been cited as providing a strong basis for the study of institutional entrepreneurship and change, including in accounting, as it provides tools to explain how actors can create and change institutions by drawing on prevailing structures and, thus without disembedding from the social world (Leca and Naccache, 2006; Mutch, 2007). In the critical realism perspective, both structures and actors’ actions boast distinct emergent properties, relative autonomy, a previous existence, and causal efficiency, and they are in permanent interaction (Sayer, 2000; Leca and Naccache, 2006; Archer, 2003). Three domains have been identified by critical realists (Sayer, 2000; Leca and Naccache, 2006; Bhaskar, 1978): (i) the domain of empirical,
which is the domain of experienced events. This is the level of actors’ sensations, impressions, and perceptions of reality; (ii) the domain of actual, which includes events (observed or not) that are independent of the experience and perception that actors might have of them. Thus, it is in the domain of actual that events can occur; however as soon as events are identified and experienced by actors they are transferred into the domain of empirical. Such events come about when structures’ causal powers (that is to say, the capacities of structures to behave in particular ways) are activated; and (iii) the domain of real, which consists of the structures and causal powers that generate events. Explanation involves penetrating the surface of reality to access the domain of real, identifying those structures and causal powers, and the ways they act.

These three levels can be applied in studies motivated by institutional theory (see Leca and Naccache, 2006). Whereas actors’ actions concern the domain of empirical, institutions must be considered in the domain of actual because although institutions might not be perceived by actors, they do exist. Institutions may shape actors’ actions, but they are themselves embedded in higher-order institutional logics (Thornton, 2002; Thornton and Ocasio, 2008). The latter refer to the domain of real as they are the central logics that supply principles of organisation and legitimacy (Friedland and Alford, 1991). As Leca and Naccache (2006, p. 632) note “while institutions are the rules of the game, institutional logics are the underlying principles of the game”. Much like structures, which cannot be reduced to events, institutional logics cannot be reduced to institutions. Nonetheless, depending on contextual factors and the actions of actors, institutional logics will unfold in the domain of actual as institutions. This means that “institutions are the results of the ways in which actors transpose these institutional logics through precise scripts, rules, and norms in specific contexts” (ibid, p. 632).

Critical realism builds on the idea that actors do not create or construct social reality (Sayer, 2000; Leca and Naccache, 2006; Archer, 2003). Accordingly, the structures of social reality are pre-existing givens. In order to act, actors have to use the pre-existing structures and activate their causal powers. As such, when changing institutions, actors build on the prevailing institutional logics, which are the pre-given structures of any intentional action (Thornton and Ocasio, 2008; Friedland and Alford, 1991). But institutional logics do not constitute a consistent whole (ibid). As discussed before contemporary Western societies have mutually interdependent and yet inconsistent and contradictory logics, which are the inevitable by-products of the ongoing social construction (Seo and Creed, 2002; Friedland and Alford, 1991; Thornton and Ocasio, 2008). Actors’ cognitive world is comprised of these multiple and competing institutional logics (see Ezzamel et al., 2012; Reay and Hinings, 2005, 2009), which provide actors with underlying principles to justify new institutions and/or changing existing ones. Thus, institutional logics do not provide ‘ready-made’ institutions, but only the principles to justify the institutional arrangements actors wish to establish and legitimise. Context plays an important role in critical realism since, depending on the context, some of those institutional logics’ causal powers will work and others will not (Sayer, 2000). As well, their effects will not be the same in each context. This implies that actors select the institutional logics that enable them to frame concrete institutions that support their interests, depending on the context in which they operate.

Drawing on insights from critical realism, we propose a non-conflating model of divergent institutional change to study this phenomenon and refine the extant research on institutional entrepreneurship and accounting change (see exhibit 1).

[Insert Exhibit 1 about here]

1 Structures are comprised of a set of internally related elements whose causal powers, when combined, are emergent from those of their constituents. Causal powers may exist unexercised depending on the context (Sayer, 2000).
This model emphasises the relation between four fundamental blocks in institutional entrepreneurship literature; that is, actors’ agency, institutional logics, tensions / contradictions and institutions. Ongoing, multilevel processes of social interaction between organisations, organisational fields and the wide economic and political structures produce a complex array of interrelated, yet often inconsistent institutional arrangements. Incompatibilities between these arrangements are a source of tensions and conflicts (contradictions) within and across fields. Actors’ position in the field conditions the way they perceive it, and how they experience and can take advantage of tensions and contradictions. Actors holding different social positions in a field face conflicts in different ways; also they have unlike access to resources to initiate change (Battilana et al., 2009; Battilana, 2006). It is likely that the dominant and central actors who hold and control key resources (including knowledge) come not only into contact with contradictions earlier than peripheral players in the field, but also have better ability to manoeuvre change (Greenwood and Suddaby, 2006).

As tensions and contradictions in organisational fields develop, deepen, and permeate actors’ social experience, the likelihood of unsatisfied actors being involved in agency processes (i.e. seeking for alternative logics) increases. Actors need to continually experience tensions and conflicts arising from contradictions (i.e. need to be mindful of contradictions); yet they need to be simultaneously motivated and able to seek for alternative arrangements. As argued this depends on their position in the field. Agency represents the key mediating mechanism between contradictions and divergent institutional change and, hence plays a central role in our proposed model. In order to act, actors need to develop a critical understanding of the prevailing institutional logics, how their (actors) needs and interests are unmet, and simultaneously to be eager to act by the emergence of a new understanding of logics and themselves (Seo and Creed, 2002). This means that agency involves both a reflective moment, in which the actor criticises existing institutional logics and institutions, and an active moment, which follows reflection, and entails mobilisation and the search for alternative arrangements and strategies to replace old logics (Seo and Creed, 2002; see also, Reay and Hinings, 2005, 2009; Ezzamel et al., 2012). Actors’ social position in the field shapes both these moments.

If contradictions and agency are necessary driving forces for divergent change, knowledge of the multiple and pre-given institutional logics, as well as the associated causal powers that can be mobilised to support the creation of new institutional arrangements that favour entrepreneurs’ interests is likewise a crucial issue. It is likely that dominant actors have greater opportunities to access knowledge on competing logics and to mobilise resources to manage the change process than peripheral actors. Successful institutional entrepreneurs will be those who skilfully are able to replace old institutional logics by alternative ones available in the broader societal context and use their associated capacities (i.e. causal powers) to create new institutions that enable them (entrepreneurs) to achieve their purpose of moving from one dominant logic to another. The process of framing problems with existing institutional arrangements and justifying new ones as a solution is an important strategy adopted by entrepreneurs to persuade constituencies of the relevance of bringing about (accounting) change and replacing former logics in the field by new ones (Kitchener, 2002; Maguire et al., 2004; Hardy and Maguire, 2008).

We will use the proposed theoretical framework to inform the findings of a case study but before we proceed with the discussion of the research methods and methodology employed to conduct the study.

4. Research Methods and Methodology
An in-depth and longitudinal case study was adopted as the research method to carry out this investigation since the researchers were interested in placing the management changes they observed in Portuguese public hospitals within their social, economic and organisational context, in order to fully understand their role and impact (e.g. Scapens, 2004; Ryan et al., 2002; Yin, 2009). By putting change in its social and institutional context, the researchers were able to explore why and how the Portuguese Ministry of Health promoted the introduction of a managerial logic to govern the sector, and how this served the Ministry’s ends in controlling hospital’s costs and in answering criticism of mismanagement of public resources (cf. Kitchener, 2002; Reay and Hinings, 2005, 2009). This holistic view could only be achieved by undertaking case study research (Yin, 2009). In its 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. However, these research questions were reassessed, redefined and supplemented once the field was visited, collated initial evidence and reviewed literature on public sector management reforms and institutional theory (Yin, 2009; Patton, 2002). Closer contact with the field and interaction with the literature revealed two complementary relevant research questions. The first concerned the investigation of how and why the Portuguese Ministry of Health introduced a new logic for the management of NHS hospitals built on their corporatisation and on market-based mechanisms, namely the adoption of a prospective payment scheme and the establishment of contracts between the providers and purchasers of health care services. The second related to the examination of how new institutions unfolded in the sector and how DRGs and ABC were used purposely by the Ministry of Health as a means to accommodate the new (managerial) logic when the public health care field has hitherto been structured by a former logic based on the dominance of public administration.

The study was initiated in May 2006 when the Ministry of Health decided to launch the ABC implementation project in five pilot NHS hospitals (each located in one geographical region of Portugal – North, Centre, Lisbon, Alentejo and Algarve), and was extended until April 2010. Evidence from multiple sources was gathered during this period. This allowed the researchers to make use of triangulation. One of the researchers was authorised to follow the ABC project as visitor from its inception, which facilitated understanding the changes affecting the NHS and, simultaneously, the collection of archival data. Consultants’ reports on the development of ABC and on the five pilot hospitals’ annual reports were collated and analysed. Other archival data gathered included government studies on the financial sustainability of the Portuguese NHS, DRGs pricing lists, reports from both the European and the Portuguese Observatory on Health Systems and Policies, Portuguese medical journals, newspapers clippings, contracts established between the Ministry of Health and hospitals, PowerPoint 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 from the ‘Central Health Care System Administration’ – henceforth ‘ACSS’) and cost accounting reports from public hospitals. In addition, the Ministry of Health, ACSS and the five pilot hospital websites were visited and all the relevant information was printed out. That same researcher was allowed to attend all the meetings between the Ministry of Health, the ACSS, hospital administrators and accountants, the five regional health authorities (hereafter ‘RHAs’ - one for each geographical area of Portugal) and consultants. In total, 19 meetings were attended. Apart from this, 44 semi-structured interviews were conducted in the five pilot NHS hospitals, with the consultants who implemented ABC and ACSS. The interviews in hospitals sought to explore how the medical staff (doctors and nurses), accountants, the directors of services and the hospital board of directors perceived the reforms introduced in the sector during the 2000s (namely the corporatisation of the public hospitals, the adoption of the prospective payment system, the establishment of annual
contracts between the Portuguese Ministry of Health and public hospitals, and the introduction of ABC in the sector). On the other hand, interviews with the ACSS allowed the researchers to improve their understanding of why and how the reforms were undertaken and the uses of cost accounting and other related devices (such as DRGs and case-mix) to support hospital funding. The interviews, which lasted between one to three hours, were recorded and later transcribed. For reasons of confidentiality, the names of the five hospitals where the interviews were conducted are not disclosed. In order to ensure the construct’s validity and the reliability of the study, a chain of evidence and a case study database collating all the evidence 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 for 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 being researched. Repacking and aggregating the data helped researchers to search for relationships and trends in the overall data. Furthermore, evidence was interacted with institutional theory, critical realism and the process model we presented before, in order to provide us with explanations for the dynamics of divergent institutional change in mature fields.

5. Case Findings

This section presents our case findings, divided into three sequential sub-sections. The first sub-section discusses the tensions and contradictions that led the Portuguese Ministry of Health to seek for a new institutional logic (i.e., managerial) in the field, whereas the following present the new institutions that emerged and how they were framed in order to work and accommodate the new logic.

5.1. Tensions and Contradictions in Portuguese NHS

The Portuguese NHS was created in 1979 following the Portuguese revolution of 25th April, 1974, which ended a long period of dictatorship in the country. Article 64 of the 1976 Portuguese Constitution established that a universal and comprehensive free national health system should be set up. Before the revolution, only part of the Portuguese population had access to medical services, as health care provision followed the ‘German Bismarckian model’. This implied that only employed people and their families were offered health protection through social security and sickness funds. The Portuguese social welfare system at that time was financed by compulsory contributions from employees and employers, hence outpatient medical services were provided free at the point of use only for those covered by this system (Barros and Simões, 2007; Barros et al., 2011).

Yet, the new elected post-revolution governments were determined to guarantee that all Portuguese citizens had a right to free health care services. Consequently, local, district and central hospitals, which were previously owned by religious charities named ‘Misericórdias’, were taken over by the Portuguese state during 1974 and 1975 (Barros and Simões, 2007; Bentes et al., 2004; Barros et al., 2011). Furthermore, in 1977, more than 2,000 medical units

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2 Excluding one interview with one hospital administrator, who refused to be recorded. In this case extensive notes were taken during the interview.
and health centres located throughout the country were integrated into the emergent new public health care services. By these means the Portuguese central government, through the Ministry of Health, became accountable for developing national health policy and overseeing and evaluating its implementation in the country. Nonetheless, the core function of the Ministry of Health became the regulation, planning and management of the Portuguese NHS (ibid). The provision of health care was structured in a hierarchically and well-defined set of interrelated organisations headed by the Minister of Health. Consequently, the system became “overwhelmingly public and heavily centralised” (Campos, 2004, p. 9). Exhibit 2 presents the organisational structure of the Portuguese Ministry of Health in the 2000s.

This is comprised of many health-related agencies and entities. Stable and routinised interactions, concurrently with a mutual awareness of which place and activities each entity was performing, accompanied the development of the Portuguese NHS. Thereby well established sets of institutional arrangements and specific patterns of action among the many actors in the Portuguese health care field developed. Scott and Meyer (1991) argued that highly institutionalised fields, such as health care, build on large and complex administrative structures as a way of dealing with pressures to conform to procedural requirements and generalised belief systems on how to conduct operations; this explains why such organisation emerged within the Portuguese NHS.

Without conforming to widely-held beliefs on how to deliver health care, the Portuguese Ministry of Health could not receive support and legitimacy to carry out its activities. Beliefs and organising principles, such as universal and free access to health care and high quality of the medical services provided by the medical profession, were regarded as critical features on which the Portuguese NHS should be based. The formation of these beliefs and principles was related to the new democratic ideology that spread across the country after the Portuguese revolution of 1974. Such ideology was expression of one of the many differentiated institutional logics that pervaded the wider economic and political level of social world. As result of the revolution of 1974, powerful political actors, some of them advocating Marxist-Socialist ideals, assumed power. They contended that all individuals should have access to free high-quality medical services, regardless of their social and economic condition, through the heavy participation of the state in the economy.

Over time, these underlying principles, which as mentioned before stressed quality and free access to medical care under conditions involving strong support from the Portuguese state and reliance on the medical profession, became ingrained in the meaning structures employed to guide action by field participants. These organising principles were based on a central logic (hereafter called ‘public administration’) that favoured the dominance of professional providers (doctors) supported by state authority. Table 1 summarizes this logic.

Together those underlying principles provided actors with vocabularies of motive and a sense of self (cf. Thornton and Ocasio, 2008). The means and ends of actors in the Portuguese health care field became thus constrained by this central logic. Practices in the field reflected such logic. When treating patients, doctors became primarily concerned with the quality of health care, even if this meant more costs in hospitals. Expressions like ‘health has no price’ and ‘economy in surgery is a disgrace’ became very popular among doctors in order to convey how the quality of care provision was paramount. A doctor who contested the introduction of managerialism in the sector claimed:
“I can’t think of costs when I’m treating a patient (…). It’s absurd to tell a doctor that he can’t or shouldn’t use a particular medicine or treatment because it’s very expensive…patients should have the right to the best drugs and treatments, even if they are not cheap (…) At university, as a student, in lectures we used to hear that ‘health has no price’ and ‘economy in surgery is a disgrace’. These two expressions show exactly what we doctors think about costs (…). It’s a huge mistake to bring money issues to the table when what is at stake are human lives.”

Quality of care was such an overriding concern that managerial systems, including cost accounting and budgets, were regarded with scepticism and distrust by medical providers. A member of the board of directors of one of the NHS hospitals that were contacted commented:

“Doctors have a natural aversion to think about how much money is involved with the treatment they provide to patients…They feel that money and health are two very different things that shouldn’t be confused…They say that their job is to treat illness and not deal with costs, even if the latter depends on their decisions (…). We’ve been spending a lot on image, screening and laboratory tests, because for them [doctors] it is unacceptable to use the same tests and images that patients did, let’s say, one or two months ago (…). They [doctors] look sceptical every time we ask them to participate in the implementation of a new managerial initiative here in the hospital…Everything that involves costs seems to frighten them…I remember how difficult it was when we introduced cost accounting for the first time (…) Even when we had to send budgets every year to IGIF [a departmental agency of the Ministry of Health accountable for the management of financial resources, which later became the ACSS] directors of service were critical…”

Budgetary systems were not used as managerial tools by hospital managers and clinical directors. Rather, they were used ceremonially to justify how money had been spent to the Portuguese Ministry of Health. Traditionally, Portuguese public hospitals were reimbursed in full for all health service costs, based on a retrospective payment system. This meant that hospitals were paid for all their expenses, regardless of the costs estimated in the budgets prepared for the Portuguese Ministry of Health each year. Hence, in practice, hospital managers, clinical directors and medical personnel did not have to worry if they were spending more than what was previously indicated in their budgets. This resulted in a widespread lack of accountability for costs in the field (Barros and Simões, 2007; Barros et al., 2011). The previous interviewee mentioned:

“Until recently, doctors were basically the only professional group that could aspire to a seat in the board room of a hospital…if they believed quality of treatments was the ultimate objective in managing hospitals and that costs were comparatively unimportant, nobody would question them (…). Doctors didn’t care about hospitals’ expenses because they knew that, at the end of the day, all expenses were going to be fully reimbursed by the Minister”. 
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 by doctors and others professionals. ‘Soft budget’ and overspending were hence regarded as ‘normal’ and acceptable practices in the 1980s and 1990s, allowing hospital managers, clinical directors and the medical profession to ignore cost containment strategies and the adoption of ‘efficient practices’ (Mateus, 2010). The public administration logic embraced by the Portuguese central government expressed the assumptions, beliefs and rules by which actors in the public health care field were able to produce and reproduce their material subsistence, and to organise time and space (cf. Thornton and Ocasio, 2008). Such logic guided actions of actors in the Portuguese public health care field and was embodied in the sector’s practices. Barros and Simões explained (2007, p. 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 fiscal taxes and that it is their poor results that demonstrate the need for more money. Accordingly, the budgeting process is used as an effective demonstration of poor performance and the need for more money, in order to satisfy citizens’ needs. Thus, until recently, budgetary mechanisms were not used instrumentally to manage Portuguese NHS resources, but rather as a means to legitimate the need for funding by public hospitals’ managers.

Over time, doctors became a powerful professional group in the country, as the quality of the health care services was directly dependent on them. The health care delivery field was firmly under their hegemonic control for at least two decades after the creation of the Portuguese NHS. The power of doctors in the field, and their unwillingness to use cost reasoning to support medical decisions, was regarded as natural and legitimate, thereby being unquestioned vis-à-vis alternatives. As Zucker (1991, p. 105) argued “institutionalised elements become embedded in networks, with change in any one element resisted because of the changes it would entail for all the interrelated network elements”. Efforts to change shared beliefs are often resisted, as they not only disrupt routines, but also augment the cost of information processing and hazard actors’ sense of security (Powell, 1991). Despite concerns from many that the dominant institutional logic in the field could be causing suboptimal decisions, the prevailing arrangements based on the direct involvement of the state and the dominance of doctors, who claimed the paramount of quality (at the expense of cost efficiency), locked in any attempt of seeking new alternative institutional logics for many years.

However, this was going to change in the 2000s. The ‘democratisation’ of access to medical care and the increase in people’s years of life expectancy, together with emphasis over the years on the quality of doctors’ services and reluctance to control health care costs, led to the rapid growth of Portuguese public expenditure on health. As a result, this expenditure became one of the highest in the EU and the OECD, amounting to more than 7% of GDP in 2008 (OECD, 2010). This brought prospects of economic recession and growing
unemployment to the country (Barros and Simões, 2007; Barros, 2009). There was intense debate among policy makers, politicians and the media on how the Portuguese economy could become seriously damaged if urgent cuts weren’t made in public health care expenditure, which included NHS hospitals spending (Barros and Simões, 2007; Simões, 2009; Campos, 2000, 2001; Antunes, 2000, 2001). In this respect, Meyer and Rowan (1977) observed that conformity to institutional arrangements in certain fields, such as the health care, often conflict with technical activities and efficiency demands. As we will discuss next, the accumulation of inefficiencies produced by conformity to prevailing institutional arrangements, together with the development of other forms of tensions and contradictions, provided the seeds for institutional change in the Portuguese NHS.

The increasing awareness of waste in the management of public healthcare resources, together with difficulties faced by the Portuguese economy in controlling its level of overseas debt in the 2000s, triggered considerable political discussion of alternative ways of structuring the delivery of public health care services and on how to reduce hospital expenses (OPSS, 2001, 2002, 2003; CRES, 1998). The public administration model based on the distinction between public and private sectors (Hood, 1995), which dominated the organisation and management of the Portuguese NHS since its inception in the late 1970s, became widely criticised for not conveying the most effective logic to control national public health expenditure (Simões, 2009). As a manager of a hospital noted:

“Since the creation of the NHS at the end of 1970s, the management of public health resources has been based on very bureaucratic and administrative processes…There is an extensive web behind every single decision-making process, making even the simplest of decisions difficult …this is because [public] hospitals have been under the control of the state…As a result we have problems of inefficiency in the allocation of resources, a lack of productivity, and unsatisfied professionals and patients in hospitals…”.

Seo and Creed (2002) argued that the formation and reproduction of a particular institutional logic is often unable to satisfy the various interests and perspectives of participants in the field. Disagreements and contradictory interests, which might have been hidden for many years under the field’s dominant logic, are likely to come to the surface, particularly when disruption arises as result of crises or external factors. In this case, the left-wing ideological values, upon which the principle of free access to health care was grounded after the 1974 revolution, were increasingly contested during the escalating growth of public health expenditure by actors endorsing an alternative logic for the sector from the many institutional logics comprised in the wider social institutional environment. Such new logic advocated by these actors built upon the corporatisation and the introduction of market-oriented mechanisms and was part of the multiple pre-existing logics/structures in contemporary Western societies (cf. Scott et al., 2000). As Friedland and Alford (1991, p. 248) contend there are several important orders (the capitalist market, the bureaucratic state, families, democracy and religion), each with a central and distinct logic which is available to organisations and individuals. Depending on the context, actors mobilise those logics that serve their interests and purposes. Contradictions between the underlying principles of organising social world provide actors with cognitive resources for transforming individual identities, organisations and society (Thornton and Ocasio, 2008). If practices and structures in the Portuguese health care field had endured through the efforts of actors advocating the bureaucratisation of the state, then divergent political interests claiming the introduction of market structures that could sustain economic growth developed over time.
The following quotations from a former Portuguese Minister of Health (Campos, 2004)\(^3\) are a good illustration of how divergent perspectives emerged in the field:

“The greater the importance of state funding, the more visible state or bureaucratic failures in the health care sector became”. (p. 10)

“…the increasing signs of state inefficiencies in the management of health services (...) indicated the need for 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”. (p. 8)

“…privatisation came (...), 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 achieve technical efficiency”. (p. 9)

Thus, the public administration logic based upon the Portuguese NHS’ bureaucratisation and the supremacy of quality and universality in medical services through the professional dominance of doctors, was unable to satisfy the interests and agendas of some of the NHS field’s participants when the sector was confronted with harsh criticism for overspending. The misalignment between these underlying principles and the interests of various actors, who enacted, inhabited and reproduced that logic became particularly evident following prospects of economic recession. This source of contradiction, together with gaps between the levels of performance arising from conformity with prevailing institutional arrangements and alternative opportunities in the marketplace, fuelled by the inability of the Portuguese NHS field to adapt because of locked-in patterns of behaviour and thought, caused tensions and conflicts, which together provided impetus for the Portuguese Ministry of Health to bring about change.

5.2. A New Logic for the Field

Facing heavy criticisms for overspending in the administration of the NHS by many of its constituencies (namely, politicians, patients, media, and national and international agencies supervising health strategies) particularly in the management of public hospitals, the Portuguese Ministry of Health looked for alternative logics of organising the field that could halt discontentment, and which pervaded the wider social and political level in the domain of the real (Leca and Naccache, 2006). Throughout the 1990s, and albeit not followed at that time, several recommendations were made to the Portuguese Ministry of Health (OCDE, 1998; CRES, 1998, were two of the most important). Generally speaking, these recommendations advocated the adoption of ‘public entrepreneurism’ in the sector and reducing the role of the state in managing public hospitals, in a similar vein to what had occurred in most EU countries and the US. Furthermore, splits between the providers and the purchasers through the establishment of contracting mechanisms and the introduction of competition were encouraged in these recommendations. From an early stage, Portuguese politicians, particularly those defending liberalism in the Portuguese economy, were attentive

\(^3\) Campos was a member of the Portuguese government (in charged of the Ministry of Health) during 2001-2002 and later in the period 2005-2008.
to the ‘new public management’ policies adopted by Western countries in public administration during the 1980s and 1990s, especially the political options of the British NHS. In fact, since the 1970s, when politicians decided that the Portuguese NHS was going to follow the ‘Beveridgean model’ adopted in the UK, British policies and strategies for the public health sector were object of scrutiny by national health policy makers. As a clinical director in one of the hospitals noted:

“...the strategy for the Portuguese NHS follows the UK NHS... The Portuguese Ministry of Health has been enacting into legislation many of the options taken by the UK Ministry of Health...though with a temporal gap.”

Therefore, once the Portuguese Ministry of Health had to search for viable and legitimate alternatives for organising the sector, in order to end criticism, it thought NPM and the new ‘English model’ could be the right ‘solution’. According to a top manager of the Ministry of Health:

“In all developed countries, a new administrative philosophy of public administration called new public management has been adopted...This new concept was developed in the UK in the 1980s and sought to replace traditional public administration by a new type of administration, based on techniques used to manage the private sector...I believe this is the solution for the Portuguese NHS...New public management puts emphasis on results and efficiency...(...)We just need to look at the English system of public health...We know that it is not perfect but in terms of efficiency it is definitely much better than ours (...). Efficiency is exactly what we need for the sector...”.

Nonetheless, as it will be discussed later, elements of the former (public administration) logic remained influential as they coexisted with the new logic (hereafter ‘managerialist logic’) and the dominance of market that the Ministry mobilised for the sector (to this respect see Ezzamel et al., 2012 who explored how a business logic, a professional logic and a governance logic competed in the education field). The movement towards the ‘marketisation’ and ‘corporatisation’ of the Portuguese NHS started in 2002 after a new law on the management of hospitals (Law 27/2002 of 8th November) was passed. Public hospitals, which consumed more than 50% of the financial resources of the NHS, were identified as accountable for the increase in public health expenditure (Barros, 2009). The transformation of NHS hospitals into publicly-owned private firms, “an advanced form of corporatisation” in the own words of a former Minister of Health (Campos, 2004, p. 9), was thereby inevitable. In relation to the benefits of the ‘company form’, the previous manager of the Ministry of Health deemed:

“I believe that if hospitals are managed as companies, there will be significant gains of efficiency in the future...Hospital managers need to be accountable for the way they use resources...resources are not unlimited...If hospitals are financially autonomous from the state, they have to find ways of doing things in a better way, yet spend less (...) Both national and international analysts of the health care sector have been recommending the introduction of a market
mindset in the management of the Portuguese NHS for many years…”.

A total of 34 hospitals (approximately 40% of all NHS hospitals) changed their legal status in 2002. Moreover, in 2003, the building, finance, maintenance and operation of new public health facilities through public-private partnerships (PPPs) were permitted by the Ministry of Health. In 2005, and in the following years, the move towards corporatisation in the Portuguese NHS continued, with more public hospitals being transformed into state-owned enterprises (Barros, 2009; Barros et al., 2011). At the end of 2009, they totalised 39 4; only 16 hospitals kept their former legal status of ‘public sector hospitals’.

Thus, the corporatisation of Portuguese public hospitals throughout the 2000s reflected a shift in the underlying (primary) logic of how the health care sector should be organised. This new logic advocated the introduction of market-based principles and the application of management practices adopted in the private sector as the solution for controlling the escalation of public health care expenditure. But this type of logic was not ‘devised’ by Portuguese policy makers, rather it was part of the prevailing structures of social reality (as mentioned in the previous section). In many OECD countries, such as the UK and US, managerialism has been the dominant logic in the organisation of the health care field for many years. As critical realism contends, the social world is comprised of many different, but existing institutional logics/structures, allowing actors to select those with principles which justify the creation of new institutions that favour their (of the actors) interests within specific contexts (Sayer, 2000; Archer, 2003; Mutch, 2007). Thus, when the Portuguese Ministry of Health experienced tensions and contradictions in the field, it thought replacing the prevailing public administration logic of sector organisation with the logic that advocated managerialism in public organisations (cf. Kitchener, 2002). Yet principles such as high quality for the medical services provided and universal access to health care, which were core elements of the former institutional logic based on the bureaucratisation and active involvement of the state, endured in the 2000s together with managerialism mobilised for the sector by the Ministry of Health. As Scott et al. (2000) note institutional logics are not mutually exclusive in organisational fields. Often competing institutional logics co-exist for many years in fields (cf. Ezzamel et al., 2012). The Portuguese Ministry of Health looked for a new logic to organise NHS but without disembedding from prevailing/competing logics in the sector.

The new logic was skilfully mobilised by the Ministry of Health taking into consideration the context of higher demands and expectations of efficiency for the sector and the widespread belief that competition and efficiency are the major criteria to justify state expenditure (Kitchner, 2002, p. 401). To act, the Ministry had to use the causal powers (i.e. the capacities of the structures or logics’ to perform in specific manners) associated with the benefits of introducing managerialism in public administration. These causal powers included the enhancement of efficiency in the use of health care resources and accountability for performance in the NHS hospitals, as well as the reduction of waste and public deficit in the sector, based on the corporatisation of public hospitals. The Ministry of Health’s central position allowed it to have a profound knowledge about both the problems and tensions arising from contradictions in the sector and the logics and associated causal powers it could activate in order to get support and hold up endorsement from its most influential constituencies. Table 2 summarises the main elements of the managerial logic embraced by the Portuguese Ministry of Health.

[Insert Table 2 about here]

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4 This also includes ‘hospital centres’ (which comprise a group of hospitals) and ‘local health units’ (which include primary care units and hospitals).
As new managerial bases of legitimacy have emerged in the field, new institutions that supported the vision of the Portuguese Ministry of Health were framed. The next section discusses the efforts of the Ministry of Health to establish these new institutions and the enactment of managerialism in public hospitals.

5.3. The Creation of New Institutions

In this section we explore the strategy followed by the Portuguese Ministry of Health to accommodate the new managerial logic in the field. We discuss how prospective payment schemes and contracting mechanisms unfolded as central institutions to transpose managerialism. Furthermore, we examine how accounting technologies, such as DRGs and ABC, were strategically used to support the managerialist logic introduced in the field and make the new institutions work.

The Prospective Payment System and Contracting Mechanisms

Following the managerial logic and its causal powers of efficiency and cost control mobilised for the sector by the Portuguese Ministry of Health, new institutions were framed. These new institutions sought to accommodate the new managerialist logic advocated for the field which had previously been organised by a public administration logic. According to the Ministry of Health, management rules and financial responsibility at the hospital level had to be changed if improvements and efficiency were to be boosted (Barros, 2009). To this end, the former scheme of payment based on the retrospective reimbursement of expenses was replaced by a prospective payment system (henceforth, ‘PPS’); furthermore, the Ministry decided on the separation of the health care providers (public hospitals) and the public payer (the Ministry of Health, represented by the ACSS and the RHAs) through the introduction of contracting mechanisms. This meant that the Ministry of Health would become both the purchaser and the payer of health care services. Contracting mechanisms and PPS were, thus, two important new institutions which developed under the new managerial logic mobilised for the sector. Diagnostic framing (which sought to make explicit the failings of the former payment process) and prognostic framing (which cast PPS and contracting practices as superior) were strategically pursued by the Ministry of Health as a form of dealing with opponents to the new institutions. The Ministry claimed that, by replacing the budget-based retrospective reimbursement system with the new contract-based prospective reimbursement system, it expected that public hospitals (Amaro et al., 2008, p. 2):

“...assure the delivery of health care by the contracted amount and quality, managing their own activity with efficiency levels in line with contracted prices”.

Also, according to the Ministry of Health, yearly contracts defining the obligations of the providers, the amount of health care to be delivered and setting the price between the purchaser (i.e., the Ministry of Health) and hospitals played a key role in the new reimbursement scheme. In this respect, Decree-Law 233/05 of 29th December stated that:

‘Hospitals’ activities and acts are paid 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 the market prices for the different clinical acts as a reference”.

Critical realism contends that structures (institutional logics) do not provide ‘ready-made’ institutions and that actors can only use logics as underlying principles to justify the creation of institutions that enable entrepreneurs to pursue their goals (Leca and Naccache, 2006). PPS and contracting mechanisms were introduced by the Ministry of Health with the aim of restraining and reducing expenses and increasing efficiency in the field, in other words, as a means of facilitating change from a public administration logic to a managerialist logic. The creation of these two institutions transposed the new logic promoted for the field; they were strategically created by the Ministry of Health’s to accommodate managerialism as the underlying principles that organise the Portuguese NHS and as an endeavour to replace the extant logic (or at least some of its elements) and associated practices. PPS and contracting mechanisms were thus the ‘devices’ created under the new logic by the Ministry to materialise its response to the criticism 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.

Moreover, the Ministry determined that, under the new reimbursement scheme mobilised for the NHS hospitals, it should become accountable for, firstly, identifying the yearly health care needs of the population; and, secondly, planning the delivery of health care according to the restrictions of the annual government budget. Only after producing these forecasts should the Ministry contract the provision of specific health care services with hospitals to ensure that demand is satisfied (Barros, 2009; Amaro et al., 2008). Between August and December of each year, a negotiation between NHS hospitals and the ACSS supported by the RHAs should occur, to agree on hospital production. In addition to this, the Ministry of Health determined that, in the contracts, hospitals should commit to specific levels of activity, measured in terms of the number of episodes of 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, haemodialysis, peritoneal dialysis and legal abortion). Payments to hospitals should thereby be made on a monthly basis, according to the hospital’s contracted activity. Comparisons between the actual and contracted production of NHS hospitals aimed to evaluate hospitals’ activity deviations at the beginning of the following year. Corrections to the reimbursement fees should be introduced in the following payments, so that hospitals were reimbursed according to their effective production. Unlike the retrospective payment system, whereby hospitals were not accountable for their financial results, in the new system of reimbursement, if a hospital generated more costs than revenues, negative financial results were to be internalised by the hospital. The Ministry of Health believed such practice help it gain control on hospital costs. An ACSS manager argued:

“If hospitals are reimbursed according to the contracted production with the Ministry of Health they become more cost conscious…Because the new form of reimbursement relates directly to the purchased production by the Ministry, hospital’s profits or losses become dependent on hospitals efforts to be internally efficient…(…) Hospitals are not going to receive more money if they spent inefficiently or unwisely as before”.

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In order to make the new institutions work to achieve its interests and to move from the prevailing logic in the sector to managerialism, the Ministry of Health established that payment rules should be laid down for marginal (i.e. additional) hospital production. The idea was that hospitals should not be able to control the amount of funding they were going to receive, but rather only their level of expenses. Without these rules, PPS and contracting mechanisms would not be effective institutions for encouraging hospital managers to pursue cost containment strategies, which could peril the permanence of the new logic advocated for the field. The Ministry of Health was conscious that the ultimate objective of developing managerialism in the NHS and reducing public health expenditure was dependent on how its constituencies perceived the legitimacy and appropriateness of the new institutions. A manager of the Ministry of Health explained:

“It is very important for the Ministry of Health to show the public how the prospective payment system [PPS] and the annual contracts are working properly and how they are effective devices to reduce costs and waste in hospitals …”.

Therefore, the Ministry of Health decided that marginal production should be paid at a price that was lower than that set up for contracted production and to establish a limit of 10% (excluding programmed surgical inpatient and ambulatory care, which were considered strategic by the Ministry). Furthermore, a second rule specified that if production was less than 50% of the contracted amount, there was no payment for any production. Nonetheless, an exception was stipulated for emergency services: half of the fixed costs related to the contracted services which were not delivered was paid, even if the number of emergency cases was 50% lower than the contracted provision. The Ministry of Health believed the introduction of these rules would help the new logic and contracting scheme to gain legitimacy. As the above manager noted:

“Nobody can criticise the Ministry of Health for being loose…It has been working hard in order to introduce all the mechanisms that can assure the development of competition and efficiency in the sector”.

**DRGs to Support the New Contracting Mechanisms**

Other devices (apart from payment rules for additional hospitals’ production) that could support the latest institutions (PPS and contracting mechanisms) and the managerialist logic introduced in the sector also had to be developed. Because health services needed to be identified in great detail in order to draw up contracts, DRGs, combined with case-mix accounting, became fundamental for supporting the Ministry of Health’s initiative for framing the new reimbursement process. Much like what happened in many OECD countries in the 1980s and 1990s, DRG technology was used by the Portuguese Ministry of Health in the 2000s to target funding for NHS hospitals. DRGs are a system devised to classify and group together acute hospital inpatients, based on several variables, including principal diagnosis, secondary diagnosis, surgical episodes, age, sex, discharge status of the patient treated and weight at birth. DRGs were developed by Professor Fetter of the Yale University Centre for Health Studies in the 1970s and the two following decades, as a way of identifying the services provided by hospitals (Thompson et al., 1979). With the introduction of contracting mechanisms for stipulating the overall payment of Portuguese public hospitals by the Ministry of Health in 2003, DRGs became crucial. The reasons for this were threefold: firstly, the funding public hospitals received became dependent upon the type and amount of services
delivered, which were measured by DRGs (for inpatient episodes and ambulatory cases); secondly, DRG costs became the basis on which the Ministry of Health set the price to pay hospitals’ health services; 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 when compared with all treatments provided by NHS hospitals at a national level). Therefore the DRG system formed the basis for the new institutions. Without DRGs the new institutions would not be able to work effectively, threatening the Ministry of Health’s new vision for the Portuguese NHS.

The funding that each hospital receives depends on the contracted volume of production measured using all-patient DRG version 21 (669 DRGs), expressed in equivalent patient terms, on the contracted price established by the Ministry of Health and on the hospital’s case-mix index. The contracted prices for the services provided are hence established by the Ministry of Health every year, according to the average costs of each DRG (for inpatient and ambulatory services) in all NHS hospitals and based upon hospital efficiency targets. These prices have tended to be set up below the average cost of DRGs, in order to encourage hospitals to be efficient. Hospitals’ case-mix index is calculated periodically by the Ministry, based on the ‘average weight of each DRG’ (case-mix) and the number of equivalent patients by DRG. The DRG average average weight or case-mix expresses the expected cost of a ‘normal patient’ in a DRG, compared with the average cost for all the DRGs in all NHS hospitals. Thus, through the multiplication of the number of equivalent patients for each DRG by the respective case-mix the Ministry of Health is able to compute hospitals’ case-mix index. Exhibit 3 summarises how the PPS works.

Nonetheless, DRGs were not sufficient to support the recent institutions framed by the Ministry of Health under the managerialist logic advocated for the Portuguese NHS. ABC had to be implemented so that the contracted prices for medical services could be considered as legitimate and reasonable in the eyes of hospital managers.

The Introduction of Activity-Based Costing

When the Ministry of Health introduced the new reimbursement scheme for NHS hospitals, many criticisms were made to the prices it established. As a hospital manager noted:

“…Prices for contracts are established by the Minister of Health based on DRG costs...However, everybody knows that most of the DRG costs [which are calculated by the Portuguese Ministry of Health] are inaccurate and unreliable...”

Despite some progress in the cost accounting systems of Portuguese public hospitals over time, particularly in 1997 when a chart of accounts was established centrally by ACSS to standardise costing procedures in NHS hospitals, no DRG costs were able to be generated by these systems until late 2000s. An accountant from one of the NHS hospitals commented:

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5 Only for inpatient and ambulatory services. Equivalent patients are the total 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).

6 This chart of accounts was compulsory for all NHS hospitals, and it was upgraded in 2000 and again in 2007.
“…Our cost accounting has improved, and I’m proud of it …However, it is 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 [cost accounting] system just provides information on the cost of the average patient treated…”

In order to get the DRGs costs that would support pricing decisions in the contracts to be established between the Ministry of Health and hospitals, the Ministry of Health had to work on hospitals cost information delivered annually to ACSS. Basically, this costing data respected detailed information on the costs supported by the hospital’s cost centres. Relative standardised weights, based on the inpatient costs incurred by hospitals operating in the state of Maryland in the US (‘Maryland matrix’)\(^7\), were used by the Portuguese Ministry of Health to obtain the costs of DRGs. The Maryland matrix established a relationship between each category of inpatient costs and DRGs; thereby making it possible to calculate the average cost (i.e. taking into account all Portuguese public hospitals) of each DRG. Because DRGs were computed according to the cost structures of the Maryland state hospitals, a board of Portuguese medical experts was created to scrutinise whether the relative standardised weights contained in the matrix reasonably reflect the resource consumption of Portuguese hospitals’ DRGs on a yearly basis. Despite these efforts, DRG costs were heavily criticised as being distorted by both hospital and ACSS managers. Mateus (2010, p. 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”.

Furthermore, although the ACSS laid down rules as to how hospitals should calculate costs per patient treated and which allocation bases should be adopted, the allocation of indirect costs in hospitals was very arbitrary. 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 and to different criteria in the classification of costs”.

Following comments on the importance of developing hospital cost accounting systems in order to “make the costs of the DRGs more specific to the reality of Portuguese hospitals” (Mateus, 2010, p. 406), and to respond to criticisms regarding the “distorted prices” (according to a top manager of one of the hospitals) established in the contracts between hospitals and the Ministry of Health, a major ABC implementation project was launched by

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\(^7\) In 1987, Professor Fetter and colleagues of the University of Yale proposed a model for estimating costs per patient and DRG to the Portuguese Ministry of Health which combined 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.
the Ministry of Health at the beginning of 2007. There was the belief that without obtaining accurate DRG costs and ultimately having a better understanding of the ‘real’ costs of public hospitals, the new institutions introduced in the sector could not work, and hence would not be regarded as legitimate and acceptable, jeopardising the new logic mobilised for the sector by the Ministry of Health. In other words, without contracts hospitals could not be accountable for their finances; yet, the acceptance of contracts depended upon the perception of how prices of the medical services were regarded as resembling ‘real’ costs. Borges, Ramalho et al. (2010, p.143) noted:

“In the contracts established with hospitals, prices are set up 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 delivered”.

Therefore, getting reliable data on DRG costs from NHS hospitals became vital to the Ministry of Health to support pricing decisions, and to assure the legitimacy and the appropriateness of contracts, and ultimately of the managerialist logic embraced for the field. The contracting mechanisms introduced in 2003, following the transformation of Portuguese public hospitals into corporations, 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. Moreover, as a manager of the Ministry of Health pointed out “prices would not trigger efficiency if they did not resemble real hospital costs”. In this respect, Borges et al. (2010, p. 143) 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, so that prices can be calculated clearly reflecting the costs of hospitals’ activities”.

Globally promoted as the state of the art in costing matters, and therefore as providing accurate product costs (Major, 2007; Major and Hopper, 2005), ABC was regarded as the right cost accounting system to implement. ABC has become commonly accepted as a rational and ‘modern’ method: it incorporates the ‘myth’ of rationality, and thereby its adoption provides organisations with legitimacy (Meyer and Rowan, 1977).

Between January and April 2007, contracts were signed between the Ministry of Health and a powerful international consultancy firm with wide experience of implementing ABC in different industries in Portugal (namely, in the telecommunications, banking and health care). From May 2007 to December 2008, ABC was implemented in the five hospitals visited. The idea was to implement ABC in a range of hospitals located in different parts of the country that could provide an ‘accurate image’ of the DRG costs an efficient hospital would support. The hospitals that were part of the ABC project were carefully selected by the Ministry of Health, together with the consultants, so that costs for each of the 669 DRGs used to establish prices in the contracts with hospitals became known. In order to obtain the DRG costs of specific pathologies, such as oncology and mental diseases, from 2008 to the end of this investigation in 2010, the ABC project was expanded to six other hospitals. Despite a lack of interest from doctors and other medical personnel in the project, consultants were able to
implement ABC in these hospitals and obtain DRG costs for the year before the beginning of the project (i.e., 2006). At the end of 2010, the Portuguese Ministry of Health contended that it had basically “all the information on DRG costs needed to support pricing decisions” (according to a senior manager of the Ministry of Health) in the contracts with hospitals.

6. Conclusion

This study showed how a dominant and central actor, highly embedded in extant structures in a mature field, was able to act as institutional entrepreneur without disembedding from the social reality where it was ingrained. By investigating the strategies and processes through which the Portuguese Ministry of Health was able to mobilise an existing logic transposed in other countries, as well as activate its causal powers to reorganise the NHS, we have sought to overcome the paradox of ‘embedded agency’ (i.e. how can change occur if actors’ intentions, actions and rationality are conditioned by the institutional structures they wish to change). In order to achieve our objective, a non-conflating model based on critical realism (Sayer, 2000; Archer, 2003; Leca and Naccache, 2006; Mutch, 2007) and insights from institutional entrepreneurship literature was developed and adopted to inform our empirical findings. In so doing, we dealt with criticisms on previous work on institutional entrepreneurship of being incoherent with basic tenets of institutional theory and unable to convincingly address the problem of conflation between agency and structure (Leca and Naccache, 2006; Mutch, 2007). Such work mostly focused on the mechanisms by which embedded actors in prevailing institutional logics were able to disembed and dislodge current practices. Accordingly, a field should face some form of a crisis (exogenous ‘jolts’) that disturbed extant consensus and arrangements, so that ‘disembedded actors’ created or changed established institutional arrangements (e.g. Seo and Creed, 2002; Kraatz and Moore, 2002; Lounsbury, 2002; Garud et al., 2002; Thornton, 2002). More recent explanation for divergent institutional change builds on the exploration of mechanisms behind motivated and endogenous (i.e. not triggered by exogenous jolts) divergent change by emphasising how network location, through processes such as ‘boundary bridging’ and ‘boundary misalignment’, render actors to contradictions and lower their embeddedness (Greenwood and Suddaby, 2006). Both these two streams of research stress that actors are unable to champion divergent institutional change if they are not capable of disembedding themselves from prevailing structures. However, to remain coherent with institutional theory such disembedding is impossible. Accepting that actors are able to disemb from existing institutional structures and orders means to have to open the door to rational choice models and explanations, highly contested by former institutional scholars and which inadequacy was the major motivating force behind the new institutionalist project (Mutch, 2007; DiMaggio and Powell, 1991).

In order to move forward, institutional entrepreneurship needs to address convincingly how embedded actors can create and change institutions without breaking away with the underlying view that actors’ intentions, actions and rationality are conditioned by prevailing arrangements and orders. This crucial issue, which motivated our study, sets the basis for the development of a non-conflating and expanded institutional theory. To this respect, we argue that combining critical realism, which recognises the different ontological status of structures (i.e., logics) and actions, as well as their permanent interaction, with institutional entrepreneurship literature permits providing a robust explanation of the dynamics of divergent change without denying the crucial importance of actors’ institutional embeddedness.

When applying such explanation model to our findings we were able to understand how the Portuguese Ministry of Health, when facing tension and conflicts (contradictions) in extant institutional arrangements as a consequence of its central position in the field sought
for alternative structures (institutional logics) within the broader societal context, and manoeuvred moving from one dominant logic to another (cf. Reay and Hinings, 2005). These logics the Ministry embraced were pre-giving structures located in the domain of real, which co-existed together with other differentiated logics (cf. Leca and Naccache, 2006; Sayer, 2000). This explains how our institutional entrepreneur was able to engender divergent change without disembedding from the wider institutional environment it was embedded. The implementation of a new manageralist logic in the field was intended to establish managerial criteria for legitimacy assessment and hence to favour the fragmentation of the former public administration logic (cf. Kitchener, 2002). Yet the prevailing institutional logic and structures of public administration couldn’t be repressed without efforts of the Ministry to further encode and legitimise manageralism in Portuguese NHS. This explains why PPS and contracting mechanisms were established and replaced the former retrospective payment scheme to hospitals. The creation of new institutions in the field that supported the new manageralist logic mobilised for the Portuguese NHS was thus the ‘countervailing package’ devised by the Ministry to eradicate the public administration model. Furthermore, our model allowed us also to understand how the Ministry was skilled in activating efficiency and reducing waste as the causal powers of the manageralist logic, and how, under the argument that costs would be reduced in the management of public hospitals, this favoured its objective of repressing the prevailing logic of public administration and of accomplishing the Ministry ends. Furthermore, we were capable, via our proposed model, to understand how our powerful entrepreneur strategically used management accounting technologies (in our case, DRGs, ABC, case-mix and rules for payment of additional production) to frame new institutions in the sector that favoured its interests and strategies of introducing manageralistism and replacing former logics (albeit preserving some of its elements), and how the development of such technologies made institutions work and supported the new logic.

This study contributes to literature in different ways. First of all, we propose to solve the paradox of embedded action through a new model for studying the processes of institutional entrepreneurship that recognises that agency and structure are dual and in permanent interaction. Moreover, we have addressed calls for the empirical use of critical realism (Leca and Naccache, 2006) by building on it to inform an in-depth case study of divergent institutional change in the Portuguese NHS. But our study equally allows us to theorise about the role of management accounting in processes of institutional change and therefore to contribute to the accounting literature. To this respect we contend that the manageralist logic and the new institutions created to transpose it generated new accounting practices (DRGs, case-mix accounting and ABC) that supported and legitimized the new logic envisaged for the Portuguese public health care field. Thus, these accounting technologies relayed the introduction of the new logic and institutions, and permitted their instantiation and enactment as well as the replacement of the prevailing logic in the sector. Furthermore, we argue that DRGs, case-mix accounting and ABC were also a form of re-ordering in the Portuguese health care field as they contributed “to the construction of the ‘reality’ of which they speak” (Ezzamel et al., 2012, p. 285). In other words, the new practices provided tools for cognition, which facilitated the divergence institutional change analyzed. Finally, the new accounting practices functioned as symbolic ties to the manageralist logic mobilized by the Portuguese Ministry of Health to reorganize the health care sector (cf. Ezzamel et al., 2012). Nonetheless, our study distinguishes from Ezzamel et al. (2012) as, rather than exploring tensions between the competing logics in a field, our focus has been to theorize the process of mobilizing a new logic to replace an older dominant and how accounting contributed to support this process. Reay and Hinings (2005) were also motivated to study the process of moving from a dominant logic to a new one in the health care field. Yet, our study adds to the latter as we observed and theorized divergent change in that established organizational field without a
change in what Reay and Hinings defined as organizational structure, i.e., how the components of the field are organized (2005, p. 352). In our case, such organization did not change. However, the Portuguese NHS went through a divergent change process, which was characterized by an altered, yet pre-given, institutional logic, political factors (the power of the Ministry of Health to introduce that altered logic) and the instantiation/enactment of institutions created to transpose the new logic and assisted by new accounting practices.

More studies of dominant and powerful actors in highly institutionalised settings acting as institutional entrepreneurs informed by the model we propose are needed. Future research should investigate how far the processes within our model are feasible within other fields and with other central actors, and furthermore how management accounting is used by actors to help them accomplish change.

References


Exhibit 1
Process Model of Divergent Institutional Change in Mature Fields

- Institutional Logics
- Causal Powers
- Agency
- Tensions / Contradictions
- Actors' Social Position
- New Institutions
Exhibit 2
The Structure of the Portuguese Ministry of Health

Minister of Health

- High Commissariat for Health
- Central Administration of the Health System
- General Inspectorate of Health Activities
- Drugs and Medicines Institute
- General Secretariat of Health
- National Institute for Medical Emergency
- General Directorate of Health
- Portuguese Blood Institute
- Authority for Blood and Transplantation
- National Institute of Drugs Addiction
- National Health Council
- National Institute of Dr. Ricardo Jorge

Regional Health Administrations
- North
- Centre
- Lisbon
- Alentejo
- Algarve

Hospitals
- Central
- District
- Specialised

Health Centres

Source: Adapted from Barros and Simões (2007, p. 22).
Table 1 – Features of the Public Administration Logic

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational identity (i.e., assumptions, beliefs and rules)</strong></td>
</tr>
<tr>
<td>• Provision of free and high quality health care services</td>
</tr>
<tr>
<td><strong>Authority mechanisms</strong></td>
</tr>
<tr>
<td>• State</td>
</tr>
<tr>
<td>• Professional associations</td>
</tr>
<tr>
<td><strong>Central values</strong></td>
</tr>
<tr>
<td>• Health care quality as determined by the medical profession</td>
</tr>
<tr>
<td>• Focus on the free provision and universal access of health care services</td>
</tr>
<tr>
<td><strong>Governance arrangements</strong></td>
</tr>
<tr>
<td>• State authority</td>
</tr>
<tr>
<td>• Professional membership (for doctors and nurses)</td>
</tr>
<tr>
<td>• Retrospective payment scheme</td>
</tr>
<tr>
<td><strong>Role of accounting</strong></td>
</tr>
<tr>
<td>• Very little, mainly due to a lack of accountability systems (for instance, budgets used ceremonially)</td>
</tr>
</tbody>
</table>

Table 2 – Features of the Managerialist Logic

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational identity (i.e., assumptions, beliefs and rules)</strong></td>
</tr>
<tr>
<td>• Provision of health care services based upon both quality and cost concerns</td>
</tr>
<tr>
<td><strong>Authority structures</strong></td>
</tr>
<tr>
<td>• Market under the surveillance of ACSS and regional health authorities (RHAs)</td>
</tr>
<tr>
<td><strong>Central values</strong></td>
</tr>
<tr>
<td>• Efficiency</td>
</tr>
<tr>
<td>• Cost containment</td>
</tr>
<tr>
<td><strong>Governance arrangements</strong></td>
</tr>
<tr>
<td>• Contracting mechanisms between hospitals and ACSS / RHAs</td>
</tr>
<tr>
<td>• Prospective payment scheme (PPS)</td>
</tr>
<tr>
<td><strong>Role of accounting</strong></td>
</tr>
<tr>
<td>• To promote accountability in terms of hospital’ financial and economic results</td>
</tr>
</tbody>
</table>
### Exhibit 3 – Prospective Payment Scheme for Portuguese NHS Hospitals

<table>
<thead>
<tr>
<th>Type of care</th>
<th>Quantity</th>
<th>Price</th>
<th>Case-mix index</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inpatient (DRG)</strong></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><strong>Ambulatory (DRG)</strong></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><strong>Outpatient</strong></td>
<td>Number of consultations (W)</td>
<td>Group price (2)</td>
<td>---</td>
<td>W X Group price</td>
</tr>
<tr>
<td><strong>Emergency</strong></td>
<td>Number of emergency episodes (T)</td>
<td>Group price (3)</td>
<td>---</td>
<td>T X Group price</td>
</tr>
<tr>
<td><strong>Day care</strong></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><strong>Chronic inpatient care</strong></td>
<td>Per day (H)</td>
<td>Price per day</td>
<td>---</td>
<td>H X Price per day</td>
</tr>
<tr>
<td><strong>Home care</strong></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, p. 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