The Open Method of Co-ordination on Pensions: EU Common Knowledge Production in a nationally-rooted policy

DAVID NATALI University of Bologna-Forli Italy

First draft

Abstract

The present paper focuses on the Open Method of Coordination through which the European Union (EU) has extended its role on pensions. In shedding light on the emergence and first implementation of this governing mode, this paper aims at addressing two research questions.

The first more theoretical is about the normative foundation of the OMC process: is it a case of regulatory or of post-regulatory (deliberative) mode of governance? Some authors have stressed the deliberative and post-regulatory nature of new governing modes introduced at EU level. Yet, others have focused on the persistence of regulatory techniques. This issue has important consequences on the actual traits of the process, in terms of the legitimacy and effectiveness through access, participation, accountability, etc.

The second more empirical question is related to the effects of the EU coordination process. Is the Pensions OMC effective in improving EU governance? And in particular, has this contributed to improve participation (of key institutions and political and social actors) and common knowledge production (in terms of common language, shared values, ideas and indicators)? While much literature has stressed the limited (if any) influence of the EU coordination in the area, other authors have proposed a more optimistic view.

Evidence from the emergence and first implementation of the Pensions OMC helps to address the two questions mentioned above. On the one hand, the first cycles of this governing mode prove the hybrid nature of the OMC and the permanent tension between its supposed post-regulatory nature (with wide participation) and the progressive specialization and control of information (in line with regulation) that tend to exclude stakeholders and the large audience the process should mobilize. On the other hand, the OMC process has had mixed effects on participation. Yet, it has largely contributed to EU capacity building in the field. In particular, the strategy of 'common knowledge production' has aimed at forging common language and indicators. The latter has represented a crucial improvement towards more effective monitoring and evaluation of national performances.

Introduction

The Open Method of Coordination (OMC) is a EU governing mode that aims at organising a learning process about how to cope with common challenges, while also respecting national diversity and enhancing the democratic legitimacy of the EU. Such a form of 'soft' governance is applied to pensions (and other social policies) which are redistributive and nationally-rooted.

Through the study of the emergence and first evolution of this coordination process (in the period between 2001 and 2004, before the so-called 'streamlining' of social protection and inclusion processes), the article deals with two main research questions. What are the key normative and theoretical foundations of the Pensions OMC? Is it a case of post-regulation? Or regulatory techniques are still active in it? And then what are the major effects of the OMC process on the EU governance (in terms of participation – to broaden the set of actors involved in the process, and the production of common knowledge - aimed at forging common language, ideas and indicators)?

The following pages will focus on the two inter-related questions mentioned above. After a brief introduction to the EU role in the field of pensions policy, Section two briefly summarises the normative and theoretical principles of the OMC process for pensions through the contrast with three modes of governance: positive, regulatory and post-regulatory governance. Section three sheds light on the potential influence of the OMC in increasing participation, and improving common knowledge in the EU policymaking process.

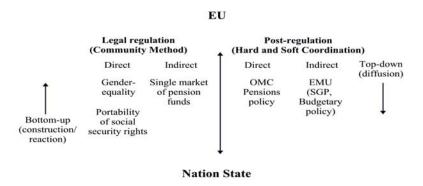
Section four analyses two different phases (between 2001 and 2004): the emergence of the new process (with the definition of common guidelines and working rules), and its first implementation (with the production of national reports and their review, and the indicators production at the level of technical committees). For each phase, participation and common knowledge production are assessed. Section five provides some concluding remarks on the effectiveness and limitations of the OMC. The Pensions OMC proves to be a hybrid governing instrument, mixing traits of regulatory and post-regulatory modes. As a consequence its effects in terms of participation and common knowledge production are mixed: while participation has proved limited (especially in the phase of implementation), EU common knowledge (especially in terms of indicators production) has largely improved.

1. Pensions Policy: The EU level competence

While the national level is still the main locus for pensions policy, the EU level is characterised by expanding competence and influence. The process of European integration has eroded Member States' sovereignty and led to a multi-tiered polity (Leibfried, 2005). In the words of de Burca (2005) the EU's welfare dimension has emerged as an "unplanned collage".

While European integration in the realm of pensions has been traditionally limited, some long-term developments may represent a certain limitation of national prerogatives (Pochet, 2005; Goetschy, 2006). EU has favoured domestic changes through market integration and the hardening of fiscal, monetary and economic discipline, and the coordination of national social and employment policy. Moreover, European integration has directly affected the boundaries of social citizenship. Consequently the traditional link between social rights and (national) territory has become much weaker (Ferrera, 2005 and 2007). Evolving EU social competence has been mainly centred on two instruments: regulation and post-regulation (consistent with the coordination rather than the harmonization of national policies) (Majone, 1994; Levi-Faur, 2006) (Figure 1).

Figure 1: Main EU Action (Instruments and Pressure for Integration) in the Field of Pensions



Given the limited financial resources of the EU (consistent with rigid budget constraints), rule-making has been the most important instrument of governance at that level. The proliferation of directives and regulations and the key role played by the European Commission and the European Court of Justice are all an expression of increased regulatory powers for the EU (see Majone, 2002). The "Community" method produces rules that are legally binding across all Member States. Among the EU modes of governance, it is conducive to the greatest degree of influence, despite implementation deficit and evasion (Citi and Rhodes, 2007). In the field of retirement policy (and in the broader welfare domain), the "Community method" has led to direct and indirect pressures of integration (Figure 1) (Leibfried, 2005; Natali, 2008).

A second set of instruments aims at the coordination of national policies. These modes of governance are mainly (or exclusively) based on non-legislative instruments (e.g. common guidelines, national action plans, peer reviews, joint evaluation reports, recommendations,

and eventually sanctions). Instruments of soft governance are assumed to be effective in shaping the behaviour of those at whom they are directed, without the use of formal law (Trubek and Mosher, 2003). The coordination of pension reforms through the Open Method of Co-ordination (OMC) is a typical example of such soft version of integration (Leibfried, 2005). In the following, the focus is on the Pensions OMC, its theoretical and normative foundations and its main effects on EU-level governance. The latter being much dependent on the former.

2. The Theoretical foundations of the Pensions OMC: Modes of pensions governance

In the following, I briefly summarise the normative foundation of different modes of pensions governance. This ideal-typical modes will then be compared to the actual functioning of the OMC on pensions in Section four. In line with Mabbett and Schelkle (2009) and Natali (2009), I refer to three key aspects: the formulation of problems at stake (in other words the function of public intervention); the institutional arrangements to pursue such function; and the techniques to manage conflicts (or control mechanisms).

Modern politico-economic theories of the state distinguish three main types of public intervention in the economy: macro-economic stabilisation and income redistribution (through the 'positive state'), market regulation (through the 'regulatory state') and structural coupling of socio-economic sub-systems (through the 'post-regulatory' state) (Levi-Faur, 2005; 2006; Scott, 2004). The importance of these interventions varies from country to country and from one historical period to the other. Yet, they are all central to the pension field.

The **positive state** aims at producing goods and services with planning functions. The main instruments in the hands of the state are taxing and spending (Moran, 2002). Conflicts of interest are evident in the allocation of budgetary resources. Participation is highly structured, with trade unions and business organisations enjoying a monopoly of representation of single sectors of society. They interact with state institutions to reach an equilibrium in the distribution of resources and the stabilization of economic forces. Public institutions are directly responsible to the voters. In line with the majoritarian interpretation of democracy, the government and its parliamentary majority control all policy areas through a unitary and centralised government system. Redistribution is a zero-sum game: the gain for one social group means a loss for another (Majone, 1997). In such a context, redistributive conflicts are managed through majority votes. The national welfare state has

represented a key part of the historical implementation of the positive state, and pension policy has represented the cornerstone of national welfare programmes. By contrast, given the limited financial resources of the EU, its role in the field has proved limited at best (Natali, 2008).

A second mode of governance is represented by the so-called **regulatory state**. While the positive state aims at macro-economic stabilization and income redistribution, the regulatory state aims at correcting market failures through rule making (with no direct expenditure from the state budget). Redistributive issues are substituted by efficiency issues. The latter are positive-sum games where everybody can gain once the right solution is found. In contrast to redistributive politics, Pareto efficient choices could be settled, in principle, by unanimity. A second-best alternative is the delegation of problem-solving tasks to independent agencies. Flexible and highly specialised bodies with a considerable autonomy from the political executive are assumed to be much more efficient than the bureaucracy typical of the positive state. Independent expert agencies are the cornerstone of the regulatory state and grant two key sources of legitimacy and credibility: technical expertise, and continuity of concerns (because of reduced vulnerability to political alternation) (Franchino, 2002). As argued by Majone (1997), only a commitment to efficiency and problem-solving, rather than a bargaining style of decision-making, can legitimise the political independence of regulators.

Control mechanisms are mainly exerted by the judicial branch of government. Direct administration (provision of services and benefits) is substituted by contractual relationships between the regulator and the regulatee. Conflicts between actors are at the same time externalised (disputes are resolved by the judiciary) and neutralised through depoliticization - the isolation of a policy domain from the public debate and the delegation of power from politicians to experts. While corporate interests are key players in the positive state, single-issue movements (such as environment and consumer advocacy, characterised by a parallel development of expertise) have a role in regulatory politics.

The rise of the regulatory state has assumed great importance in the process of European integration (Majone, 2002). As far as pensions are concerned, the increased role of non-public schemes has been paralleled by regulation at national and supranational level (see Mabbett, 2009). EU intervention has focused on gender equality, the portability of pension rights across member states and the completion of a single market for pension funds.

More recent contributions have then shed light on the limits of regulation and prospects for the emergence of a third mode of governance: the **post-regulatory** state (Levi-Faur, 2005;

2006; Scott, 2004). A first distinctive characteristic of post-regulation is its interpretation of the function of public intervention. Rather than correcting market failures, the aim is to secure 'structural coupling' between different autonomous social sub-systems (mainly politics, economy, society and law). For the theorists of post-regulation the lack of communication between them leads to several problems: law may be irrelevant and non-effective for other systems, it may damage them, and it may be damaged through 'over-socialisation' (see Teubner, 1998). More sophisticated forms of regulatory interventions' such as self-regulation, reflexive law and meta-regulation are assumed to improve steering capacities (Scott, 2004).

Subsequently, law is just one of the instruments to be applied for 'coupling' sub-systems. Soft law (i.e. guidance, circulars) is assumed to be effective in shaping the behaviour of those to whom they are directed without the use of formal law. The development of multiple instruments is paralleled by a variety of control mechanisms. Forms of hierarchical control coexist with heterarchical arrangements, such as self-regulation and processes of standard-setting by private institutions and firms. Hence, the institutional setting of regulators is at the same time more complex and more integrated than in the regulatory state.

Finally, while in the regulatory mode of governance the controlees are primarily businesses, in the post-regulatory state a wider range of actors is concerned. Not only economic actors, but also state bodies (even governments), collective and individual actors may be controlled by these processes. The management of conflicts of interest is made possible through enlarging the room for participation of multiple actors to the procedures of rule making, its review and control. The development of softer forms of control also contribute to solve potential conflicts via the diffusion of steering capacities well beyond state authorities. As shown in the following section, this is consistent with some of the main assumptions of theories of deliberative democracy (Eberlein and Kerver, 2004).

As far as pensions are concerned, application of the OMC has represented in many respects the introduction of a post-regulatory form of governance (in combination with regulatory techniques). To deal with growing imbalances between national welfare in retreat and increased EU competences, some scholars have pointed to the positive impact of new modes of governance capable of combining respect for national competences and European coordination of welfare states (Scharpf, 1999; Zeitlin, 2005a). New methods have thus been introduced since the late 1990s to restore some form of balance (Borras and Jacobson, 2004).

3. Pensions OMC's effects: Participation and Common Knowledge production building at EU level

The evaluation of the influence of non-legislative modes of coordination is particularly difficult. It is a complex process based on the interaction of a number of variables and dynamics. And soft governance may simultaneously affect policies, political structures, discourse, and identities (Citi and Rhodes, 2007).

A vast literature has focused on the Pensions OMC in particular. While some authors have developed the analysis of its impact at national level (see Anderson, 2002; Eckardt, 2005; Natali and de la Porte, 2004; Vanhercke, 2009) others have studied its institutional and procedural traits with a focus on its effects on EU-level governance (de la Porte and Nanz, 2004; Radulova, 2007; Lodge, 2007). Such a literature has provided mixed views about the OMC effectiveness: while some have stressed its limited influence, others have been more supportive.

The following analysis refers to two main dimensions of the potential OMC influence on EU governance: participation and common knowledge production.

Within academic circles, the focus on **participation** has traditionally been related to the input and/or output functions of legitimacy. In line with Scharpf (1999), input legitimacy relates to 'government by the people' and governance involves a broader range of actors than in the case of traditional government. The involvement of non-state actors is supposed to contribute to 'bottom-up' will formation (Kroger, 2008). Output legitimacy, on the other hand, relates to 'government for the people': effective policy-making should thus be achieved by incorporating interest groups and civil society. Welfare functions are typically subject to participatory forms of governance (*ibidem*, 4).

Broad participation is emphasised as positive and desirable: open access of stakeholders is expected to improve national performance via public debate, learning and exchange of information (Zeitlin, 2005a). In turn, participation is expected to increase the accountability, democratisation and legitimacy of EU policy-making (de la Porte and Pochet, 2005). At the time of the Lisbon Council, this emphasis was largely consistent with the Commission's White Paper on European governance. In that document, participation was defined as one of the five major principles of 'good governance', being supposed to enhance both the efficiency and the legitimacy of European governance. It is said to respond to 'the expectations of the Union's citizens' and should 'connect Europe with its

citizens', help in the pursuit of 'a less top-down approach' and make policy-making 'more inclusive and accountable' (Magnette, 2001).

In this theoretical context, the EU has provided a space for experimentation to overcome longstanding opposition between institutions and governments, especially in the social domain (Armstrong, 2006; 2008; Zeitlin, 2005b). The Lisbon strategy foresaw the 'mobilisation of all relevant actors', a formulation that particularly targets non-state actors. According to theories of deliberative democracy, extending the room for participation of multiple actors should solve conflicts and tensions, while improving legitimacy. While Lisbon represented a turning point in the definition of the EU's socio-economic strategy to become more competitive, it was also an attempt to renew its governance.

As for the Pensions OMC, relevant actors (social partners in particular) are entitled to give their views on the reform policies proposed through the coordination process, but their participation is not mandatory or central. Yet, broad participation is functional for coordination. Non-binding rules consist of open guidelines indicating broad goals, leaving it up to Member States to adopt specific reforms for their implementation. Member States are asked to emulate each other in applying the guidelines, stimulating the exchange of best practices through periodic monitoring, evaluation and peer review, accompanied by indicators and benchmarks (Natali and de la Porte, 2009).

From a second perspective, OMC is a cognitive instrument. Mutual learning has been signalled in much of the literature as an important feature (even the most important feature) of the generic and issue-specific OMCs (Ferrera et al., 2002). It is argued that the learning process engendered by one or several instruments - benchmarking, indicators, the exchange of best practices, peer review, iterative reporting – could lead to changes adapted to national contexts (Eberlein and Kerwer, 2004; de la Porte and Pochet, 2002). European coordination should institutionalize intensive consultation among players at various (European, national and regional) levels, and thus allow for mutual learning from their respective experiences. Learning occurs through processes of deliberation (or reasoning), understood as an epistemic "struggle" of diverse perspectives in relation to a certain policy. As Hemerijck (2002) and Schludi (2003) put it, it is an iterative learning process based on the periodic monitoring of national reports and a systematic search for comparisons and knowledge. This will enable national officials to enrich their existing understandings. We can thus distinguish three different types of policy learning: "learning with others", or "interactive learning", based on joint processing and exchange of information and experience; "learning from others", with a large element of "lesson drawing" and

mimicking based on observation of the experience of other countries; and "learning to learn", which consists of the creative use of benchmarking through the OMC or even outside it, but still inspired by or at least consistent with the coordination process at EU level (Natali, 2008).

Learning is largely based on "capacity building" (Zeitlin, 2005b: 471), that is the development of indicators and data sources both at European and national level. The definition of shared beliefs and ideas (in terms of common objectives and sub-objectives) is expected to pave the way for the cooperation of different actors and institutions for enhancing the EU problem-solving capacity in the field. This is consistent with the strategy of **common knowledge production**: shared problem-definition and views on causal relationship contributed to the development of coordination capacities at EU level (Jacobson, 2004; Jacobsson and Vifell, 2003). As shown in the following, this is particularly interesting in the case of pensions where, at the time of the emergence of the OMC process, shared frameworks, data sources and indicators (both at national and EU level) were particularly limited (Pena-Casas, 2004; Lodge, 2007).

4. First Implementation of Pensions OMC: actual theoretical foundation and influence on EU governance

The emergence and evolution of the OMC in the social policy area have attracted much interest from experts and policymakers. Controversial insights and interpretations have concerned, in particular, the practical effectiveness of such a mode of governance and its ability to contribute to dealing with the broad challenges affecting pension systems. In line with some of the most recent contributions (see Zeitlin, 2005b and 2007), the next pages shed light on the theoretical foundation of the process and provide some evidence of the initial implementation of EU coordination of national pension systems.

4.1 Pensions OMC: A hybrid form of Governance?

Terms such as 'soft law', experimental governance, post- and self-regulation have been widely used to characterise the OMC (Citi and Rhodes, 2007; Jacobsson, 2004). Yet, a more precise definition of the evolving governing modes in the EU seems necessary to tackle the key questions at the base of this issue. In terms of its normative and theoretical

foundations, it is a hybrid form of governance with traits of both the regulatory and postregulatory state mentioned above (Table 1).

Table 1. Pensions OMC: Problem-definition, institutional arrangements and conflict management

	Pensions OMC	
Function	Structural coupling	
(Problem-formulation)	(to grant adequate, financially viable and modern pension systems)	
Institutional Arrangements	Self-governance (no explicit delegation);	
	Non-binding guidelines	
	Specialization and technical expertise	
Conflict management	Participation control	
	Common knowledge production	

As far as its function and the definition of the problems at stake are concerned, the OMC on social policies (and the broader Lisbon Strategy) is consistent with two sets of goals: to improve economic competitiveness and to foster social cohesion (Borras and Jacobsson, 2004; Wincott, 2003). These aims are much broader than those of both the positive (macroeconomic stabilisation and redistribution) and the regulatory state (correct market failures). In line with post-regulatory theories, the main goal is to co-ordinate ('structural coupling') different social sub-systems (i.e. social and economic forces). In the case of Pensions OMC, the process aims at simultaneously reach three goals: to improve the social adequacy of pension benefits; to increase the financial sustainability of retirement programmes; and to contribute to their modernization (according to changing labour markets and socio-economic contexts) (see section four).

Yet, if compared to the theory of regulation, the OMC shows important similarities. The social (pension) policy problem is defined in terms of efficiency through solidarity. Welfare reforms are framed in terms of positive-sum games, where innovations are expected to increase economic competitiveness and social policy is interpreted as a 'productive factor' (Hemerijck and Ferrera, 2004). Welfare issues are thus amenable to a consensual solution.

The same hybrid tendency can be seen in its institutional arrangements. In line with post-regulation, the OMC process is not based on delegation of regulatory power to independent agencies but on self-regulation. On the one hand, decisions are not subject to judicial review. The European Court of Justice has no role in it. The regulatory power of the Commission is limited through the subsidiarity principle and more closely monitored by member states (Lodge, 2007). On the other hand, member states and a broad range of

stakeholders participate in the definition of guidelines, and to strengthen the democratic quality of European governance.

But regulatory elements are also evident. Pensions OMC institutionalizes some forms of specialization and creates much room for experts. The political institutions *par excellence* (European and national parliaments) and civil society stakeholders (NGOs and social partners) play a limited role in the process through information and consultation. By contrast, technical and advisory committees, specifically the Social Protection Committee¹ (SPC) and the Economic Policy Committee² (EPC), play a central role. They are located jointly under the Commission and the Council and are the only preparatory bodies before the Council level, in that neither the Commission working groups nor the COREPER are involved in the process (Jacobsson and Vifell, 2003). As argued elsewhere (see de la Porte et al, 2009), the officials involved in this work are often specialists with technical expertise. They are 'experts' that, irrespective of the intergovernmental nature of these bodies, adopt a common policy-oriented approach (Jacobson and Vifell, 2003). What is more, the collection and control of information and data are decisive for developing this common approach.

As to the techniques used in coordination, (soft) rule making constitutes the primary mode of intervention for steering socio-economic forces. Non-binding rules consist of open guidelines with the indication of broad goals to be achieved, leaving it up to member states to adopt specific reforms for their implementation. Member States are asked to emulate each other in applying the guidelines, stimulating the exchange of best practices through periodic monitoring, evaluation and peer review accompanied by indicators and benchmarks.

This has important consequences for conflict management strategies. Open participation of institutions and stakeholders is expected to improve national performances via public debate, learning and processes of exchange of information (Zeitlin, 2005a). Yet, experts should be isolated from more political influence in order to de-politicize the process. Beyond participation control, the second strategy for conflict management consists of 'common knowledge production'. This relies on persuasion, argument and discursive

_

¹ The SPC was established in 2000 in order to serve as a vehicle for cooperative exchange between the Commission and the Member States of the EU about modernising and improving social protection systems. It is composed of two delegates from each Member State (usually civil servants) and the Commission. The secretariat of the SPC consists of a support team located at the Commission.

² The EPC was set up in 1974 to contribute to the preparation of the work of the Council (Ecofin) in coordinating the economic policies of the Member States and the Community, and to provide advice to the Commission and the Council. The Committee is composed of two members of each Member State, the Commission's Directorate General for Economic and Financial Affairs (ECFIN) and the European Central Bank.

processes (Jacobsson 2004). Potential conflicts of interest are faced through deliberation, a mechanism for learning that brings together actors with diverse ideas (and interests) in settings that require the definition of common priorities. As de la Porte and Nanz (2004: 269) put it: 'although participants are expected to pursue their interests, an overall interest in the democratic legitimacy of outcomes (understood as responsiveness to concerns of all stakeholders) ideally characterise deliberation'. Hence, conflicts are allowed to enter the policy-making process but are solved via deliberation. As we argue below, these partly contradictory traits have both advanced the OMC and limited its influence on increasing both participation and common knowledge.

4.2 Assessing Participation and Common-knowledge Production through the Pensions OMC

The next pages shed light on the OMC's effects on EU-level governance in two subsequent phases: the emergence of the OMC on pensions through the definition of common objectives and working methods; and the first evolution of the process (through the preparation of the national reports and their evaluation; and the definition of common indicators at the level of technical bodies).

As introduced above, the focus is on the potential effects of the Pensions OMC on two dimensions: the participation of key actors and institutions; and the production of common knowledge.

Participation and Common Knowledge Production in the emergence phase

In 2001 the launch of the OMC process on pensions was firstly characterised by increased room for **participation**. The definition of very broad common objectives and shared working methods was agreed on by a wide range of institutions and actors. As stressed elsewhere (Natali, 2009), the Commission (and its DGs), the Council (and its different formations) as well as political parties, national civil services and to some extent social stakeholders participated at different levels in the launch of the process. Social interest groups were active in promoting the application of OMC to social protection - not just social partners but social NGOs as well (de la Porte and Nanz, 2004).

The main impetus for a coordination of national pension strategies came from actors primarily concerned with budgetary issues.³ In 1997 the EPC submitted a statement concerning the pension issue. In 2000 it put forward a first report on the impact of ageing on public pension systems, which subsequently was updated and accepted by the ECOFIN Council in 2001 (Pochet, 2003). These recommendations led to the mobilisation of 'socially-oriented' players who took issue with the insufficient attention paid to social objectives, and sought to establish an institutional counterweight to the dominating position of economic actors (the Social Protection Committee was formally established in June 2000). They sought to prevent the emergence of a paradigm according to which privatization is seen as the key response to the solution of the pension crisis. The Directorate General for Employment and Social Affairs of the Commission therefore drafted two communications proposing alternative basic principles for a European pension policy.

Such a participation had important consequences on **common knowledge production**. In order to arrive at a greater harmonization between the different positions of 'socially-oriented' and 'economically-oriented' policy makers, the European Council in Stockholm and Göteborg engaged both committees to draft a joint report. The first joint report proposed a set of rather broad common objectives and working methods which represented the compromise between different orientations. The Göteborg European Council of June 2001 endorsed three common objectives on social adequacy, financial sustainability and the modernisation of pension programmes (Table 2).

Table 2. Common Objectives of the OMC on Pensions

Adequacy of Pensions

- 1. Preventing social exclusion;
- 2. Enabling people to maintain their living standards;
- 3. Promote solidarity within and between generations.

Financial sustainability of pension systems

- 4. Achieve a high level of employment;
- 5. Extend working lives;
- 6. Making pension systems sustainable in a context of sound fiscal policies;
- 7. Adjust benefits and contributions in a balanced way;
- 8. Ensure that private pension provision is adequate and financially sound;

³ As stressed by Vanhercke (2009), at the beginning of the 1990s the High level Group on Complementary Pensions started working on this domain.

Modernisation of pension systems in response to changing needs of the economy, society and individuals

- 9. Adapt to more flexible employment and career pattern;
- 10. Meet the aspiration to the equal treatment of women and men;
- 11. Make pension systems more transparent and adaptable to changing circumstances

In December 2001, the eleven sub-objectives agreed on at the Council of Laeken were jointly defined by SPC and EPC after considerable disputes (de la Porte and Pochet 2002; Pochet 2003). The common guidelines represented the compromise between different institutional, competence-based and ideological positions. They enabled the various parties to recognize the legitimacy of one another's interests and thus stimulated the management of conflicts through cooperation.

A contested issue was the definition of the 'social adequacy' principle referred to in the common objectives (Table 2). While Anglo-Saxon countries (belonging to the liberal welfare regime and with lower public pension spending) defined adequacy in terms of 'poverty prevention', continental European and Scandinavian countries with higher public pension spending proposed a broader interpretation of that goal and made reference to the aim of public programmes of granting pensioners the same living standard as the active population. As confirmed by a SPC member: "It was at the same time a technical and conceptual problem. For continental European countries, the main goal of public pension schemes is to grant, to some extent, the same level of revenues before and after retirement. This approach contrasts to that of other countries, especially the Anglo-Saxon ones, which emphasises the prevention of poverty in the old-age. This led to the initial divergence between members about the real value of the OMC in the field and the right indicators to implement it. For Anglo-Saxon countries, the OMC on pensions had to use the indicators proposed for the common strategy on social inclusion which deal with the issue of povertyprevention for the elderly. Representatives from the continental European countries were more sympathetic to a more ambitious goal (that of income-maintenance) and thus to different indicators to work on" (Interview with a member of the ISG, Brussels, 5 April 2005).

The SPC adopted a consensus-seeking approach among the interests allowed to participate: "at the end we reached a compromise. Continental European countries did agree to the reference to poverty prevention indicators. This was consistent with the first objective of the OMC on pensions. Yet, we also agreed to work on more ambitious and specific

indicators measuring the social adequacy of public pension programmes (objective two). This was the result of the co-ordinated action of continental European countries (i.e. France, Belgium and Germany) and southern-European countries (Italy), then followed by Sweden" (Interview with a member of the ISG, Brussels, 5 April 2005). In all these countries, left-of-centre governments were in power.

Thus the increased participation led to the definition of shared beliefs and ideas (in terms of common objectives and sub-objectives). Shared problem-definition and views on causal relationship contributed to the development of coordination capacities at EU level. And the agreed guidelines provided more visibility to the social adequacy issue. This was expected to pave the way for the cooperation of different actors and institutions for enhancing the EU problem-solving capacity in the field.

Yet, as argued by Schludi (2003: 31), 'while justified by a rather vague notion of a common "European Social Model" these objectives remained at a rather general level and did not suggest concrete reform proposals'. The European objectives formed the lowest common denominator between 'socially-' and 'economically-oriented' policy makers, and between member states with their diverse arrangements. The wide-reaching definition of pension challenges resulted in potentially contradictory signals to the member states. Moreover, political contestation did not disappear, but shifted to more technical (but still inter-governmental) fora. And no formal requirements for the involvement of stakeholders and political institutions (e.g. national and EU parliaments) in the future evolution of the process were envisaged (Natali 2008).

Participation in the first implementation stage

As the OMC came to be implemented, participation was more limited. The reduction of the room for participation of social interests, and EU and national parliaments, had the effect of isolating competent institutions (Councils and the Commission) and their technical bodies from more political debates. This was at odds with the normative foundation of the post-regulatory state, while it was more consistent with regulatory politics.

As far as the European Parliament (EP) is concerned, its role was reduced to that of passive recipient of information about the progressive evolution of coordination. This limited role led the EP to demand more active participation and to stress its progressive exclusion from quasi-regulatory processes which favoured the Council and the Commission (EP 2003).

Parliamentary involvement at the national level proved limited too (de la Porte and Nanz 2004).

At the same time, the OMC did not enhance the participation of social partners and civil society NGOs. The extent to which the former participated in the national pension reform processes and in the writing of the National Strategy Reports proved to be dependent on national tradition. At the EU level, their influence operated mainly through consultation by the SPC. At the national level, where pension politics usually involves state bureaucracies, social partners and political actors and institutions, NGOs had almost no role (Natali and de la Porte, 2009). At the European level, trans-national non-profit civil society organisations, (e.g. the European Older People's Platform, AGE) proved to be active but still at the margin of the policy-making process. In the first stage of implementation of the process, the participation of civil society stakeholders was thus particularly limited. The most direct (and easy to activate) channel should have been provided by the SPC committee. However, meetings between the SPC and social partners were few. They concerned both specific problems (e.g. the functioning of privately managed pension schemes, the strategy to 'make work pay') and broader issues (e.g. the Streamlining of social OMC processes) (Natali 2008). On each occasion, social partners were just informed about the activity of the SPC, and they provided some comments.

The main instrument used by the Commission to allow stakeholders to participate was the Questionnaire launched in 2004 for the evaluation of the OMC process in view of their 'streamlining' (the integration of the processes on social inclusion, pensions and health and long-term care). In answering the Questionnaire, the European Trade Union Confederation (ETUC) stated both limits and future opportunities for the soft governance implemented on social policies (ETUC 2005). ETUC reaffirmed its disappointment about the low level of integration of key stakeholders in the coordination of social protection policies. At the national level, social partners were not really consulted in the preparation of national reports. Instead they were just informed about basic elements of the plans already defined by governmental authorities. The plans thus represented political and administrative documents that lacked broader social participation by social partners and civil society. National social actors were involved neither in the review process nor in the elaboration of reports. This weakness was perceived to lead to other key problems in implementation which limited the effectiveness of the Open Method of Co-ordination in the field. First, it was related to the lack of transparency and public debate on social policy OMCs, both at the national and European level. Second, the limited access of social partners and civil

society to the co-ordination process was said to decrease the potential for exchange of expertise and information and result in a 'disconnection' between European objectives and national experiences of implementation. This would decisively reduce the effectiveness of the co-ordination. ETUC also stressed the lack of true consultation through the SPC. European social partners' representatives were informed by the SPC about its work and the key steps implemented in the process, but they were never asked actively to participate in its decision-making. Similar reservations were expressed about the peer review process. The first peer review session, devoted to the presentation and discussion of the National Strategy Reports (NSRs), consisted of brief presentations and discussions among national and EU civil servants (Natali, 2009).

The lack of openness was paralleled by the low visibility of the Pensions OMC at the national level. As argued by de la Porte and Nanz (2004: 278), while in that period the reform of (national) pensions was often a focal issue in national media, the European discussion under OMC pensions was not mentioned. At the national level, there was no evidence of political debate about the EU coordination process; and, apart from those involved, little awareness of its existence. In the words of an SPC member: "the EU coordination of pension reforms is a 'closed' process, largely based on the role of the Commission and national bureaucracies" (Interview with a member of the SPC, Brussels, 3 February 2005).

To sum up, limited participation in this phase led to two main consequences: it limited the potential for ideological contestation and prevented escalation of conflicts; but it also largely reduced the room for deliberation. More critical positions (e.g. those of trade unions) that could destabilize shared understanding of problems, solutions and procedures were set aside.

Indicators Production in the Advisory Committees

As far as EU capacity building and common knowledge production, advisory committees had the task of defining common indicators in this field. The definition of indicators for the assessment of the financial sustainability and the social adequacy of pension provisions was in fact decisive for the operation of the OMC in this policy sector. Indicators measure the degree to which the common objectives are implemented at national level, and they are thus a prerequisite to identify best practices and making the benchmarking process work (Eckardt 2005: 257). In particular:

- from February 2001 the SPC and its Indicators Sub-Group (ISG) worked on the definition of indicators related to the first three objectives of the Pensions OMC (about the 'social' adequacy of pension benefits), objective 4 related to employment policies and objectives 9, 10 and 11 on the modernisation of old-age programmes (see Table 2);
- the EPC, and its Ageing Working Group (AWG) were responsible for identifying indicators linked to the 'financial viability' goal (especially, objectives 6, 7 and 8);
- for the indicators more linked to employment policies (objectives 4 and 5) a third Committee, the Employment Committee (EMCO) was to be consulted.

In the following, the focus is on the production of 'social indicators' within the Indicators Sub-group of the SPC. As pointed out above, the eleven common objectives adopted at the Laeken European Council had been kept rather vague to neutralise conflicts between actors and institutions. As a consequence, tensions over the direction of pension reform were shifted to the technical level of indicators production.

Political contestation arose particularly over the definition of common indicators linked to objective 2 (*Enabling people to maintain their living standards*). Representatives of Anglo-Saxon, Scandinavian, and continental and southern European countries took different positions. Countries with pension programmes of a Beveridgean type (especially the UK) proposed indicators focused on the relative income situation of older people in the European Union and their risk of living in relative poverty. Statistics on both are collected through the European Community Household Panel (ECHP). These allowed for an assessment of the poverty risk and income conditions of older people relative to people below retirement age. But members from Scandinavian countries were not entirely satisfied with these indicators because they did not capture some important determinants of older people's living standards such as benefits in kind and social care which are particularly important in countries with a social-democratic welfare regime (Caussat and Lelièvre 2004).

Representatives of continental and southern European countries with higher public pension spending, for their part, were critical of indicators which comprised different sources of income on which elderly people could draw, either through their own entitlement or through sharing of resources with other household members. Information on the role of public retirement programmes was obscured by age structure and household composition effects. The specific contribution of pension schemes to the income situation of the elderly

could not be gauged. Moreover, data on income provided by current pension systems did not indicate the income situation of future generations of elderly people, since pension systems were going to be reformed in many countries (*ibidem*: 15-17).

To achieve a compromise between different members of the group, the ISG concluded that the ECHP indicators needed to be complemented by another type of information, more specifically focused on the pension systems themselves and their future evolution: the (aggregated and theoretical) replacement rates. The aggregate replacement rates chosen measure the median pension benefit of people between 65 and 74 relative to the median individual earnings of people between 50 and 59. This expresses the level of pensions as a percentage of previous individual earnings at the moment of take-up of retirement benefits. These indicators are calculated with reference to a hypothetical worker with a given earnings and career profile (and a corresponding affiliation to pension schemes) and by making specific assumptions on the key policy, economic and demographic parameters that may be relevant for the calculation of future earnings and benefit entitlements.

Indicators on median relative income of elderly people and replacement rates are now all included in the set of common statistics for the 'streamlined' social inclusion and social protection process of coordination (Table 3).

Table 3: Common Primary Indicators for Pensions OMC

1) Adequate pensions	1) At-risk-of-poverty rate of older people	EU indicator
	2) Median relative income of elderly people	EU indicator
	Aggregate replacement ratio	EU indicator
	Change in projected theoretical replacement ratio	National indicator
2) Sustainable pensions	5) Total current pension expenditure (% GDP)	National indicator
	6) Employment rate	EU indicator
	7) Effective labour market exit age	EU indicator
	8) Projections of pension expenditure, public and	National indicator
	total	
3) Modernised pensions	9) Gender differences in the risk of poverty	EU indicator
	10) Gender differences in the relative income of older people	EU indicator
	11) Gender difference in aggregate replacement ratio	EU indicator

Source: CEC (2006).

This has been the result of a long phase of 'common knowledge production' within the competent technical body through a wide consensus-seeking strategy between national representatives. As confirmed by more recent surveys (see de la Porte et al 2009), the technical committee under examination has proved the key role of persuasion in improving

EU coordination capacities. Delegates attempt to find solutions on the base of their expertise. This has happened with no effective participation of the actors supposed to be part of the process: i.e. civil society stakeholders and social partners.

Further efforts for mutual learning have also been advanced. As far as the third aspect of the cognitive dimension, "learning to learn" is concerned, the French case seems to display some influence from the EU. The first was a meeting of trade unions leaders from five European countries at a conference on the issue of pension reform organised by the French Cfdt and Cgt confederations in Paris in January 2003 (Natali, 2008). At the same time, the French Minister of Social Affairs undertook a "European tour" to meet his colleagues/peers in Germany, Sweden, Finland, and Spain and compare different national experiences. Both of these events happened outside the pensions OMC. What is more, the French government has been active in developing parallel forms of communication. As stated during an interview with a civil servant from the EU Commission (DG Employment). "We know that the French members of the Social Protection Committee have developed bilateral exchanges on pensions (but also social inclusion and health-care) with their colleagues from Italy, Spain (in these countries at least under right-wing governments) and the UK (a sort of OMC on a bilateral base)" (interview, Brussels, 3 February 2005).

Conclusion

The analysis of the emergence and first evolution of the OMC on pensions has shed light on the way new modes of governance have developed their theoretical and normative foundations and shaped EU governance.

From a normative and theoretical point of view, the OMC has been defined a hybrid form of governance consistent with traits of both the regulatory and post-regulatory modes. In the period under scrutiny, problems were formulated in terms of efficiency rather than of redistribution, while the key function of the OMC process consisted of structural coupling: the combination of social solidarity and economic competitiveness. Institutional arrangements too were consistent with both regulation (key role of expertise and specialization) and post-regulation (self-governance, non binding guidelines and iterative monitoring and peer review). And conflict management has consisted of both participation control and common knowledge production.

As a consequence of these mixed foundations, the OMC's influence on EU-level governance have proved mixed too. As far participation is concerned, for the launch of the OMC process, there was a wide participation of players. Different Council formations and Commission DGs have contributed to the compromise between different priorities. Yet, later on the Pensions OMC (especially in its first implementation) has limited the participation of political and social actors and institutions. Pensions OMC proved a 'closed' method of coordination based on the key role of the Commission and national bureaucracies. And as shown by the literature on the broader Lisbon Strategy (see Zeitlin 2008), the limited access for stakeholders and more political institutions and the low visibility all contribute to lower transparency and potentially reduce the room for deliberation.

As far as common knowledge production is concerned, common objectives and subobjectives have represented the compromise between solidarity and economic efficiency
thus partially rebalancing the more economic EU discourse on pension reforms. On the one
hand, such a compromise has contributed to the launch of the process; on the other hand, it
led to the definition of partly contradictory objectives that left room for manoeuvre in their
application by EU member states. Then, vague guidelines shifted conflicts to the
subsequent (and supposed 'technical') phase of indicators production. Institutional
conflicts re-emerged and were dealt with through consensus-seeking approach. At the level
of advisory committees, a consensus-seeking approach based on persuasion and discursive
decision-making contributed to find a compromise on common statistics. The main forum
for the technical and political debate was the Social Protection Committee. After
considerable disputes, a set of common indicators (consistent with broad objectives and in
particular with the social adequacy goal) was agreed on. And the definition of common
indicators has represented a crucial advance towards more effective monitoring and
evaluation of national performances.

Summing up, the analysis of the Pensions OMC has provided evidence of the mixed and still important influence of this 'new' governing mode on the EU-level governance of pensions policy. While participation (after its first broadening) is still limited, common knowledge has largely improved. The OMC has in fact contributed to building up institutional capacities and common knowledge that are both decisive for mutual learning and the future coordination of pension reforms.

References

Anderson, K. (2002), The Europeanization of pension arrangements: convergence or divergence?, in C. de la Porte and P. Pochet (eds.), Building social Europe through the Open Method of Coordination, Brussels, PIE-Peter Lang.

Armstrong, K. (2006) 'Inclusive Governance? Civil Society and the Open Method of Coordination', in S. Smismans (eds.) *Civil Society and Legitimate European Governance*, Cheltenham: Edward Elgar.

Armstrong, K. (2008) 'Governance and Constitutionalism after Lisbon', *Journal of Common Market Studies*, 46 (2), 415-426.

Borras, S. and K. Jacobsson (2004). 'The open method of coordination and new governance patters in the EU', *Journal of European Public Policy*, 11:2, 185-208.

Caussat, L. and M. Lelièvre (2004). 'Construire des Indicateurs Européens de Pensions: une entreprise qui relève les particularités nationales des systèmes de retraite', *Dossier Solidarité et Santé*, Drees, 2:04, 7-27.

CEC (2006). 'Portfolio of Overarching Indicators and Streamlined Social Inclusion, Pensions and Health Portfolios', 7 June 2006,

http://ec.europa.eu/employment_social/spsi/docs/social_inclusion/2006/indicators_en.pdf Citi, M. and M. Rhodes (2007). *New Modes of Governance in the EU: Common Objectives versus National Preferences*, European Governance papers (EUROGOV), n. N-07-01, http://www.connex-network.org/eurogov/pdf/egp-newgov-N-07-01.pdf.

De Burca, G. (2005), 'Towards European Welfare State?', in G. De Burca (eds.) EU Law and the Welfare State, In Search of Solidarity, Oxford, OUP, pp. 1-9.

de la Porte, C. and P. Pochet (2002). 'Supple Co-ordination at EU level and the Key Actors' Involvement', in C. de la Porteand P. Pochet (eds.), *Building Social Europe through the Open Method of Co-ordination*. PIE Peter Lang: Brussels.

de la Porte, C. and P. Nanz (2004). 'OMC – A deliberative-democratic mode of governance?, The cases of employment and pensions', *Journal of European Public Policy*, 11:2, 267-88.

de la Porte, C., D. Natali and P. Pochet (2009). 'Self-Governance in EU employment and social policy through the Open Method of Co-ordination', in E. Sørensen and P. Triantafillou (eds.), The Politics of Self-Governance. London: Sage, forthcoming. Eberlein, B. and D. Kerwer (2004). 'New Governance in the European Union: A Theoretical Perspective', *Journal of Common Market Studies*, 42:1, 121-42.

Eckardt, M. (2005). "The Open Method of Coordination on Pensions: An Economic Analysis of its Effects on Pension Reforms", *Journal of European Social Policy*, 1:3, 247-67.

EP (European Parliament) (2003). 'Rapport sur l'analyse de la méthode ouverte de coordination dans les domaines de l'emploi et des affaires sociales et les perspectives futures', A5-0143/2003.

ETUC (European Trade Union Confederation) (2005). *Newsletter n. 10 on Social Protection*. Brussels: ETUC.

Ferrera, M. (2005). The Boundaries of Welfare. Oxford: Oxford University Press.

Ferrera, M. (2007). *The European Welfare State. Golden Achievements and Silver Prospects*, URGE working paper, 4/07.

Ferrera, M, A. Hemerijck and M. Rhodes (2000), *The future of social Europe. Recasting work and welfare in the new economy*, Oeiras, Celta Editora.

Franchino, F. (2002). 'Efficiency or Credibility? Testing the two logics of delegation to the European Commission', *Journal of European Public Policy*, 9:5, 677-94.

Goetschy, J. (2006), 'Taking Stock of Social Europe: Is there such a thing as the Community Social Model?', in A. Serrano-Pascual and M. Jepsen (eds.), *Unwrapping the European Social Model*, London, Polity Press.

Hemerijck, A. and M. Ferrera (2004). 'Welfare reform in the shadow of EMU', in A. Martin and G. Ross (eds.), *Euros and Europeans: Monetary Integration and the European Model of Society*. Cambridge University Press: Cambridge.

719-745.

Jacobsson, K. (2004). 'Soft regulation and the subtle transformation of states: the case of EU employment policy', *Journal of European Social Policy*, 14:4, 355-70.

Jacobsson, K. and Å. Vifell (2003). *Integration by deliberation? On the role of Committees in the Open Method of Coordination*. Paper for the workshop 'The Forging of deliberative supranationalism in the EU', Florence, 7-8 February 2003.

Kroger, S. (2008) 'Nothing But Consultation: The Place of Organised Civil Society in EU Policy-making across Policies', European Governance papers (EUROGOV), No C-08-03. http://www.connex-network.org/eurogov/pdf/egp-connex-C-08-03.pdf.

Leibfried, S. (2005), 'Social Policy left to the judges and the market?', in H Wallace, M. Wallace and M. Pollack (eds.), *Policymaking in the European Union*, Oxford, OUP, pp. 243-278.

Levi-Faur, D. (2005). 'The Global Diffusion of Regulatory Capitalism', *The Annals of the American Academy of Political and Social Sciences*, 598:12, 12-32.

Levi-Faur, D. (2006). 'Regulatory Governance in the European Union', in P. Graziano and M. Vink (eds.), *Europeanization: New Research Agendas*, Besingstoke, Palgrave Macmillan.

Lodge, M. (2007). 'Comparing Non-Hierarchical Governance in Action: the Open Method of Co-ordination in Pensions and Information Society', *Journal of Common Market Studies*, 45:2, 343-65.

Mabbett, D. and W. Shelkle (2009), The Politics of Conflict Management in EU Regulation, *West European Politics*, 32/4, pp. 699-718.

Magnette, P. (2001) 'European Governance and Civic Participation: Can the European Union Be Politicised?', Jean Monnet Working Paper 09/01.

Majone, G. (1994). 'The Rise of the Regulatory State in Europe', West European Politics 17, 77-101.

Majone, G. (1997). 'From the Positive to the Regulatory State: Causes and Consequences of the Changes in Modes of Governance', *Journal of Public Policy*, 17:2, 139-67.

Majone, G. (2002). 'Functional interests: European Agencies', in J. Peterson and M. Shackleton (eds), *The Institutions of the European Union*. Oxford: Oxford University Press.

Moran, M. (2002). 'Review Article: Understanding the Regulatory State', *British Journal of Political Science*, 32, 391-413.

Natali, D. (2008). *Pensions in Europe, European Pensions*., Brussels: PIE Peter Lang. Natali, D. (2009), The Open Method of Coordination on Pensions: Does it De-politicise Pensions Policy?, *West European Politics*, 32/4, pp. 810-829.

Natali, D. and de la Porte, D. (2004), 'OMC Pensions: What role for Europe in coordinating the reform of different pension systems? The cases of France and the Netherlands', in H. Jorgensen, M. Baerentsen and J. Monks (eds.), *European Trade Union Yearbook 2003-04*, Brussels, ETUI, pp. 255-282.

Natali, D. and de la Porte, C. (2009), 'Participation through the Lisbon Strategy: Comparing the European Employment Strategy and Pensions OMC', *Transfer*, pp. Pena-Casas, R. (2004), 'Methode ouverte de coordination sur les pensions – mise en perspective des indicateurs européen avec ceux des rapports stratégiques nationaux 2003', working paper Obsevatoire social européen, Brussels.

Pochet, P. (2003). 'Pensions: The European Debate', in G.L. Clark and N. Whiteside (eds.), *Pension Security in the 21st Century – Redrawing the Public-Private Debate*. Oxford: Oxford University Press.

Pochet, P. (2005). 'The Open Method of Coordination and the Construction of Social Europe', in J. Zeitlin and P. Pochet with L. Magnusson (eds.), *The Open Method of Coordination in Action: The European Employment and Social Inclusion Strategies*. Brussels: PIE-Peter Lang.

Radoulova, E. (2007), Variations on Soft Governance: the Open Method of Coordination, in D. De Brieve and C. Neuhold (eds.), *Dynamics and Obstacles of European Governance*, Celtenham, Edward Elgar, pp. 3-27.

Scharpf, F. (1999). *Governing in Europe. Effective and Democratic?* Oxford: Oxford University Press.

Scharpf, F. (2002). 'The European Social Model: Coping with the Challenges of Diversity', *Journal of Common Market Studies*, 40:4, 645-70.

Schludi, M. (2003). *Chances and limitations of benchmarking in the reform of welfare state structures- the case of pension policy*. Paper for the Amsterdam Institute for Advanced Labour Studies, WP10/03.

Scott, C. (2004). 'Regulation in the Age of Governance: The Rise of the Post-Regulatory State', in J. Jordana and D. Levi-Faur (eds.), *The Politics of Regulation*. Cheltenham: E. Elgar.

Teubner, G. (1998). 'After privatisation: The many autonomies of private law', *Current Legal Problems*, 51, 393-424.

Vanhercke, B. (2009), Inside the OMC, The OMC as a selective amplifier for reforming Belgian pension policies, in S. Kroger (eds.) *What we have learnt: Advances, pitfalls and remaining questions of OMC research*, European Integration Online Papers, 1/13.

Wincott, D. (2003). 'Beyond Social Regulation? New Instruments and/or a New Agenda for Social policy at Lisbon?', *Public Administration*, 81:3, 533-53.

Zeitlin, J. (2005a). 'The Open Method of Coordination in Question', in J. Zeitlin and P. Pochet with L. Magnusson (eds.), *The Open Method of Coordination in Action: The*

Zeitlin, J. (2005b). 'The Open Method of Coordination in Action: Theoretical promise,

European Employment and Social Inclusion Strategies. Brussels: PIE-Peter Lang.

Empirical Realities, Reform Strategy' in J. Zeitlin and P. Pochet with L. Magnusson (eds.),

The Open Method of Coordination in Action: The European Employment and Social Inclusion Strategies. Brussels: PIE-Peter Lang.

Zeitlin, J. (2008). 'The Open Method of Co-ordination and the Governance of the Lisbon Strategy', *Journal of Common Market Studies*, 46:2, 436-50.