

Jordan, Andrew; Wurzel, Rüdiger K. W.; Zito, Anthony R

Working Paper

Has governance eclipsed government? Patterns of environmental instrument selection and use in eight states and the EU

CSERGE Working Paper EDM, No. 03-15

Provided in Cooperation with:

The Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia

Suggested Citation: Jordan, Andrew; Wurzel, Rüdiger K. W.; Zito, Anthony R (2003) : Has governance eclipsed government? Patterns of environmental instrument selection and use in eight states and the EU, CSERGE Working Paper EDM, No. 03-15, University of East Anglia, The Centre for Social and Economic Research on the Global Environment (CSERGE), Norwich

This Version is available at:

<https://hdl.handle.net/10419/80274>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

**HAS GOVERNANCE ECLIPSED
GOVERNMENT? PATTERNS OF
ENVIRONMENTAL INSTRUMENT
SELECTION AND USE IN EIGHT
STATES AND THE EU**

by

**Andrew Jordan,¹ Rüdiger K. W. Wurzel²
and Anthony R. Zito³**

**HAS GOVERNANCE ECLIPSED
GOVERNMENT? PATTERNS OF
ENVIRONMENTAL INSTRUMENT
SELECTION AND USE IN EIGHT
STATES AND THE EU**

by

**Andrew Jordan
Rüdiger K. W. Wurzel
and Anthony R. Zito**

**¹The Centre for Social and Economic Research
on the Global Environment
University of East Anglia, Norwich, NR4 7TJ, UK**

²Department of Politics, University of Hull, Hull, HU6 7RX

³Department of Politics, University of Newcastle, Newcastle, NE1 7RU

CSERGE Working Paper EDM 03-15

Contact details:

**email: a.jordan@uea.ac.uk; email: R.K.Wurzel@hull.ac.uk
email: A.R.Zito@newcastle.ac.uk**

Acknowledgements

The support of the Economic and Social Research Council (ESRC) is gratefully acknowledged. This work was part of the interdisciplinary research programme of the ESRC Centre for Social and Economic Research on the Global Environment (CSERGE).

The research underpinning this chapter was generously funded by the UK ESRC under grant number L216252013. Andrew Jordan's contribution was also assisted by a Philip Leverhulme prize fellowship from the Leverhulme Trust. We also draw upon material published in a recently edited book (Jordan *et al.*, 2003b). Any errors we make in interpreting the material contained therein, are entirely our own responsibility.

ISSN 0967-8875

Abstract

Governance is a concept in good currency, but it is often used very imprecisely. In particular, there are precious few detailed empirical analyses of the precise extent to which environmental governance has eclipsed environmental government. This paper explores the governance transition by charting the deployment of so-called ‘new’ environmental policy instruments (NEPIs) such as voluntary agreements, eco-taxes, eco-labels and environmental management systems in eight industrialised states and the European Union (EU). The adoption of NEPIs offers a good touchstone because governance theory treats traditional (‘command and control’) regulation as the quintessence of government. This paper reveals that although there are many NEPIs, the overall pattern of change is highly differentiated across sectors and political jurisdictions. Crucially, most NEPI require some state involvement (i.e. ‘government’) and very few are entirely free of state involvement (i.e. pure ‘governance’). This strongly suggests that environmental governance is at best supplementing, without actually comprehensively supplanting, government by regulatory means. Future research will need to explore the many different and complex ways in which environmental government and governance co-exist in public policy making.

Key words: Governance; government; environmental policy; policy instruments; European Union

1. Introduction

Academia is awash with neologisms, none more pervasive or as apparently important as ‘governance’. In 1998, Gerry Stoker (1998, 18), referred to governance as a new ‘reference point which challenges many of the assumptions of traditional public administration’. More recently, the former Director of the ESRC’s Whitehall Programme, Rod Rhodes (2000, 349), argued that it had become ‘*the* defining narrative of British government at the turn of the century’ (emphasis added). Governance and citizenship now constitute one of the ESRC’s seven thematic priorities. The interest in governance is by no means limited to the UK. In 2001, the European Commission published a much discussed White Paper on the governance of Europe. Some time before, scholars of the European Union (EU) had already set about the task of defining a ‘new governance’ research agenda (Hix, 1998).

In spite of its widespread use, doubts remain about whether the term ‘governance’ can be fashioned into a coherent and cumulative research programme. Thus far, it has generated plenty of theorising, but very little detailed, comparative empirical work (Flinders, 2002, 55). The most obvious place to start is with a definition. According to the Shorter Oxford English Dictionary, ‘to govern’ means to guide, direct or steer society. Governance has been similarly defined as ‘the various ways through which social life is coordinated’ (Heywood, 2000, 19). However, neither of these definitions is precise enough to measure how much governance exists in a political system, relative to government. Two authorities on governance argue that it is popular ‘because of its capacity – unlike that of the narrower term ‘government’ – to cover the whole range of institutions and relationships involved in the process of governing’ (Pierre and Peters, 2000, 1). Therefore, an obvious hurdle confronting those wishing to develop a more coherent and detailed work programme is how to retain this analytical breadth whilst at the same time gaining the precision needed consistently to inform empirical research.

In this paper we scour the theoretical literature to identify a simple touchstone of governance i.e. an analytical device that will allow scholars to distinguish governance from government. Nowadays the term ‘government’ has fallen out of popularity, but essentially it refers to ‘the formal and institutional processes which operate at the national level to maintain order and facilitate collective action’ (Heywood, 2000, 19). We argue that if there is an analytically useful distinction between governance and government it will be revealed in the way that different political jurisdictions deploy policy instruments, that is the tools used to achieve policy goals. According to Richards and Smith (2002, 272), a focus on instruments is revealing because it highlights the difference between what the state (i.e. government) seeks to achieve (i.e. the policy objectives) and

the means it uses (i.e. the policy instruments) to achieve them. In their illuminating analysis of UK governance, they conclude that the policy goals have stayed the same but the means are changing. This chimes with Pierre's (2000, 5) broader point that government lives on in a new era of governance, but its form and functions have changed. Other commentators however, go much further by suggesting that governance is synonymous with 'a change in the meaning of government; a new process of governing; or a changed condition of ordered rule; or the new method by which society is governed' (Rhodes, 1996, 652-3) (emphasis added).

These different ontological assumptions underline the need for careful empirical research to determine the novelty (or otherwise) of governance, and establish its precise relationship with government. In order to make a start, we employ policy instrument selection and adoption as a very simple analytical touchstone. Drawing on the governance literature, we argue that the quintessence of government is the use of regulatory policy instruments, whereas governance is characterised by the appearance of new instruments which allow social actors to steer themselves (i.e. self-regulation), with central government playing a much less active role. Policy instruments are by no means the only touchstone we could have used (e.g. Andeweg, 2003), but they are, as we shall show below, widely referred to in the theoretical literature, and their deployment is relatively straightforward to track using existing databases.

We analyse the overall pattern of change in the European Union (EU)¹ and seven of its member states, namely Austria, Finland, France, Germany, Ireland, the Netherlands and the UK. If the adoption and implementation of NEPIs relative to regulation in these jurisdictions is not widespread, then perhaps environmental governance is not as widespread or as novel as many analysts claim. By also adding Australia to our sample we hope to be in a better position to assess whether the same dynamics of change are present within a broadly comparable, non EU state. It is generally recognised (Weale *et al.*, 2000) that over the last three decades the EU has consistently pushed the environmental policies of its member states in a more innovative direction. One of the aims of this paper is to assess the extent to which its pro-active influence also extends to instrument selection and use.

The environment is a good sector in which to assess these dynamics as it has apparently witnessed the appearance of many so-called 'new' environmental policy instruments (i.e. market based instruments (MBIs) (i.e. eco-taxes and

¹ That is to say, the NEPIs that are formally part of the EU's environmental *acquis communautaire*, rather than those adopted by EU member states as part of their own national environmental policies.

tradable permits), voluntary agreements (VAs), environmental management systems and eco labels) that exhibit, we explain more fully below, many of the defining characteristics of governance. In 2000, the European Commission (CEC, 2000, 2) reported that the number of MBIs had grown 'substantially' since 1990. Voluntary agreements and eco-labels are also becoming much more prevalent (EEA, 1997). This shift is not, of course, confined to Europe. In a wide ranging assessment, Golub (1998, xiii) recently concluded that the world is witnessing a 'fundamental transition' in the way that environmental policy instruments are deployed across the world.

The remainder of this article is structured as follows. Part Two explores some of the different definitions of the two terms governance and government, emphasising the most important areas of (dis)agreement. In Part Three, we very briefly define what we mean by NEPIs. In Part Four we make a preliminary attempt to measure the amount of governance by relating these to the traditional tools of policy (i.e. regulation) using a simple typology. In Part Five we summarise the overall pattern of instrument use in the nine jurisdictions throughout the period of modern environmental policy (i.e. c.1970 to c.2000). Finally, Part Six draws together the main threads of our argument and offers some broad conclusions on the extent to which environmental governance has eclipsed environmental government by regulatory means.

2. On Environmental Government and Governance

Governance is by no means an entirely new term (Pierre and Peters, 2000, 2), but its popularity has undoubtedly grown in the last decade or so. Rhodes (1996) uses it to refer to six different phenomena:

- the minimal state;
- corporate governance;
- new public management;
- ‘good governance’;
- a socio-cybernetic system; and
- self organizing networks.

Our main aim in this article is not to explore, let alone empirically assess, all these definitions, but simply to identify what most differentiates governance from government and subject that to more detailed empirical analysis. Traditionally, governance was used as a synonym for government (Stoker, 1998, 17), but nowadays they are treated as being analytical distinct. For Bevir *et al.*, (2003, 13), governance is a ‘shorthand phrase for encapsulating the changing form and role of the state in advanced industrialised societies.’

Inevitably, different branches of social science use the term governance in slightly different ways. For instance, scholars of international policy tend to be more interested in the international drivers and manifestations of governance in a global society that has never experienced world government (Rosenau and Czempiel, 1992; Rosenau, 1992, 8-9). Those interested in national policy systems on the other hand, are more interested in what governance implies for the internal attributes and functions of ‘the state’ *qua* government. However, these differences of perspective should not be overplayed as there is baseline agreement on a number of fundamental points. First and foremost, governance is normally associated with a decline in central governments’ ability to steer society. According to Stoker (1998, 17), governance refers to the emergence of ‘governing styles in which the boundaries between and within public and private sectors have blurred.’ Pierre and Peters (2000, 83-91) contend that the state is losing its steering ability as control is displaced: upwards to regional and international organisations such as the EU; downwards to regions and devolved localities; and outwards to international corporations, NGOs and other private or quasi private bodies.

Second, there is broad agreement that particular factors are driving the putative shift from government to governance, namely globalisation, Europeanization, new public management and the emergence of new, cross cutting policy problems such as the environment or sustainability that demand much more cooperative solutions (Hèritier, 2002a; Rosenau, 2004, 60-8; Richards and Smith, 2002).

The third point of agreement is that although the governance transition has not been comprehensively measured in every social setting, it is assumed to be sufficiently significant to warrant further research. Stoker (1998, 26) explicitly claims that governance marks a ‘substantial break from the past’. Rhodes (1997, 47) argues that it provides a new ‘operating code’ for British government. Other commentators are less assertive in their claims, but while the precise importance of governance is often left tantalisingly undefined, in most accounts its importance is implicit. After all, if governance was unimportant, why would anybody want to study it?

Fourthly, governance and government are not normally treated as fixed entities, but two poles on a continuum of different governing types. If the extreme form of government was the ‘strong state’ in the era of ‘big government’ (Pierre and Peters, 2000, 25), then the equally extreme form of governance is an essentially self governing network of societal actors. Crucially, such networks are said to ‘involve not just influencing government policy but taking over the business of government’ (Stoker, 1998, 23). They are ‘self organizing’ in the sense that they actively resist government steering (Rhodes, 2000, 61). To use Osborne and Gaebler’s (1992) popular distinction between ‘steering’ (setting policy goals) and ‘rowing’ (delivering those goals), they ‘steer’ as well as ‘row’.

Finally and perhaps most importantly for our purposes, government is indelibly associated with regulation. Heywood (2000, 19), for example, regards the ‘core functions’ of government as the ability to ‘make law (legislation), implement law (execution) and interpret law (adjudication).’ For Richards and Smith (2002, 279): ‘government *is* bureaucracy, legislation, financial control, regulation and force’ (emphasis added). Governance, by contrast, is characterised by a growing use of non regulatory policy instruments such as NEPIs, which are proposed, designed and implemented by non-state actors working together with state actors. There is surprisingly general agreement on this point, hence our decision to treat instrument use as a comparative touchstone. Thus, writing from an international perspective, Rosenau (1992, 4) claims that governance equates to policy ‘goals that may or may not derive from legal and formally prescribed responsibilities and do not necessarily rely on police powers to overcome defiance and attain compliance.’ Working from an intra state perspective, Gerry Stoker (1998, 17) similarly claims that: ‘the

essence of governance is its focus on governing mechanisms which do not rest on recourse to the authority and sanctions of government' (emphasis added).

Before moving on, it is worthwhile explaining why the environment represents such a good policy area in which to use our analytical touchstone. The main reason is that environmental policy is inherently regulatory in nature (Jordan, 2001, 4645), although regulation inevitably has distributive and redistributive consequences (Lowi, 1964). Because environmental damage has its origins in otherwise socially legitimate activities like energy and food production, the state has often stepped in to police the consumption of public goods by limiting the level of damage that one section of society can impose upon others. We shall show that regulation has been the preferred tool of environmental policy in all eight of the countries in our sample, most for many decades. This strong, historical legacy would make any consistent shift from traditional regulation (i.e. government) to NEPIs (i.e. governance) all the more significant.

3. What Are 'New' Environmental Policy Instruments?

Broadly speaking, policy instruments are the 'myriad techniques at the disposal of governments to implement their policy objectives' (Howlett, 1991, 2). Traditionally, regulation has been the mainstay of environmental policy, but for a number of reasons policy makers have started to explore and, in many cases, adopt 'new' tools of environmental policy. In this article, we will concentrate on four main sub types of NEPI, namely MBIs, VAs, ecolabels and environmental management systems (EMS). The latter include the EU's eco-management and audit system (EMAS) and the International Standard Organisation's (ISO) 14001 eco-management and audit system.

In practice, as 'new' is a relative term, NEPIs can only be categorically defined in by looking at the political/policy context and time period in which they are used. In the analysis that follows, we shall seek to determine the novelty of the NEPIs used in particular jurisdictions by comparing them with the traditional 'repertoire' of policy instruments (Anderson, 1971, 122; Bennett, 1988, 439). We shall also show that in practice, the different sub-categories of NEPIs listed above blur into one another, and explore the implications this has for the study of government and governance.

3.1 Market based instruments

MBIs 'affect estimates of costs of alternative actions open to economic agents' (OECD, 1994, 17). MBIs make greater use of the market to internalise the cost of polluting activities in a more cost-efficient manner. At least in theory, both eco-taxes and tradable permit schemes fulfil these criteria. However in Europe, tradable permits have so far been used only very sparingly while eco-taxes are much more widely used. The total number of MBIs used in OECD countries has grown steadily since the early 1970s, as has the diversity which now extends from subsidies through to emission charges and tradable permits (OECD, 1998). The OECD distinguishes between four main types of MBI: eco-taxes (including charges and levies); tradable permits; subsidies; and deposit-refund schemes. Because of space constraints we only focus on eco-taxes and tradable permits when assessing MBIs.

3.2 Voluntary agreements

The first VAs appeared in Japan in the 1960s, but there is still no commonly agreed definition of what they actually are. The European Commission has adopted the following generic definition: 'agreements between industry and public authorities on the achievement of environmental objectives' (CEC, 1996, 5). We shall use the following typology of sub types developed by Börkey and Lévêque (1998) for the OECD: unilateral commitments; public voluntary schemes; and negotiated agreements. *Unilateral commitments* consist of

environmental improvement programmes instigated by individual companies or industry associations, and communicated to their stakeholders. Many of the recent corporate social responsibility (CSR) activities fall into this category. *Public voluntary schemes* (PVS) are established by public bodies, which define certain performance criteria and other conditions of membership. Individual companies are free to decide whether or not to join, although the membership criteria are normally agreed in advance, often through a business association or standard setting authority (e.g. the ISO). Finally, *negotiated agreements* are more formal agreements or contracts between industry and public authorities aimed at addressing particular environmental problems. They may or may not be legally binding, but normally their content is negotiated between industry and public bodies, and then published in the public domain.

3.3 Ecolabels

Ecolabels mainly rely on moral suasion by providing consumers with more information about the environmental impact of particular products and services (Jordan *et al.*, 2004). The OECD differentiates between 3 subtypes: Type I – externally verified, multi issue schemes; Type II - unverified self-declaratory schemes; and Type III - single issue schemes. In comparison to regulation and also some MBIs, eco-labels do not directly steer society; they simply provide information to consumers in a standardised manner, allowing them to make more informed purchasing decisions. Widely recognized and supported eco-labels may influence producers in a similar manner to traditional regulatory standards in markets where green consumerism is very strong (OECD, 1999). In such areas, producers will be strongly compelled to secure a label so they are not at a competitive disadvantage. However, in markets which are characterized by a low degree of environmental awareness, producers will have much more choice as to whether or not to seek a label.

3.4 Environmental management systems

In theory, EMSs such as EMAS and ISO 14001 are supposed to encourage industry to behave in a more environmentally responsible manner. Although the precise characteristics of these two systems differ, both require companies to audit the environmental impact of their activities, establish internal management systems to monitor and where possible reduce these impacts, and provide stakeholders with a regular statement of their activities. In exchange, the business in question is granted an official confirmation (or logo) by a national competent authority (as in the case of EMAS) or the ISO (as in the case of ISO 14001), which they are entitled to use in their environmental statements and/or products. Although participation in both schemes is voluntary, firms are often driven to participate by pressure from their stakeholders, their competitors or others firms in their supply chain. One way in which policy makers encourage

participation is by offering to link membership to a slightly lighter regulatory regime (e.g. fewer on site inspections etc.).

The potential advantages of environmental management systems are that they encourage greater self-responsibility, reduce central government involvement and allow regulators to target their scarce resources more effectively. Critics, however, claim that they are an inferior alternative to regulation (Taschner, 1998). The accreditation process, they claim, is often opaque and over-dominated by industry. Consequently, the environmental effectiveness of EMSs is at best unproven and at worst inferior to that of other instruments.

4. A Typology of Instrument Types

Figure 1 provides a very simple typology of the main instrument types delineated on the basis of who determines the ends and means of policy. This typology usefully reveals both the overlap between the main sub-types and, by implication, the difficulty of distinguishing government from governance. For instance, forms of regulation are found in three of the four cells. Subsidies could be placed in all four cells, but they tend to be found within the two on the left. The definitions of instrument sub-types are also not discrete. For instance, many EMSs could be defined as voluntary agreements, specifically unilateral commitments and public voluntary schemes.

Figure 1: A Simple Typology of Instrument Types

	The state specifies the goal to be achieved	The state does not specify the goals to be achieved
The state specifies how the goal is to be achieved	Regulation (e.g. linking an emission target to the use of a certain type of technology); subsidies	Technology-based regulatory standards (e.g. BAT)
Non-state actors specify how the goal is to be achieved	Most negotiated VAs; some MBIs; some regulation (e.g. EQOs); subsidies	EMSs; most MBIs; some VAs; ecolabels

Source: based on Russell and Powell (1996).

It should already be apparent to the reader that government and governance (at least as the existing literature defines them) are actually much more entwined than is implied by some theorists. In fact, a close empirical examination of the four types of instruments reveals that the blurring between the two categories is even more substantial than is implied in Figure 1. At its heart, the governance debate is really about where society is steered from. Thus, under a ‘government’ approach, society is steered from the centre by the state, whereas in a ‘governance’ model, ‘society actually does more self steering rather than depending upon guidance from government’ (Peters, 2000, 36). Figure 2 recasts the contents of Figure 1 into the language of governance and government. Both these Figures identify two important functions: the determination of the means of policy (i.e. the ‘rowing’) and the determination of the ends to be

achieved (i.e. the ‘steering’). To suggest, as we did in section one, that there is a governance transition, does not necessarily imply that both these functions are changing.

Figure 2: A Simple Typology of Governance types

	Government determines societal goals (ends)	Society determines societal goals (ends)
Government selects the means of policy	Government: hierarchical steering	HYBRID TYPES
Society selects the means of policy	HYBRID TYPES	Governance: society is ‘self organising’

In general, ‘government’ is found in the top left cell of Figure 2 and the further we travel towards the bottom right cell the more important societal steering (i.e. governance) becomes. Many scholars of governance claim that society is undergoing such a shift as hierarchical government structures are replaced by public private partnerships and various forms of ‘ecological self organization’ (e.g. Teubner *et al.*, 1994). On closer inspection, government may in fact feature in all four of the cells. It also has some role to play in relation to all four instrument types. So, to take VAs as an example, only unilateral commitments are actually instruments of ‘self organising’ governance, because they offer businesses an entirely voluntary means of communicating with their stakeholders. Most public voluntary schemes would also qualify as instruments of governance, although they still entail a great deal of government involvement in their design, adoption and monitoring (OECD, 2003). Negotiated agreements normally involve so much state activity that they actually sit closer to the government end of the government to governance continuum.

As for EMSs, some systems (e.g. EMAS) involve, or are closely allied to regulation (EMAS scheme is actually implemented via an EU Regulation!), whereas others do not (e.g. ISO 14001). Under EMAS, compliance with existing environmental regulation is a condition of certification, but under ISO 14001 it is not. In some countries EMSs have been explicitly linked to the use of other NEPIs (e.g. eco-taxes) which are characterised by a much higher degree of state-led steering.

Ecolabels are commonly regarded as relatively unintrusive policy instruments, but in reality only Type II schemes can be said to constitute ‘self organising’ governance. The other two involve the state supporting, verifying or refereeing the labelling system (Jordan *et al.*, 2004). Finally, neither eco-taxes nor

tradable permits are entirely free of government involvement – far from it. In short, they are not ‘self organising’ either.

So far, we have not looked in detail at how the four instruments are used in the nine jurisdictions. But it is already clear that the neat theoretical distinction between governance and government is, in reality, a lot more blurred than many theorists of governance suggest. In the next section we offer a more detailed assessment of the temporal and spatial patterns of NEPI use in the nine jurisdictions, in order better to analyse the nature and extent of that blurring.

5. Environmental Policy Instruments: Patterns of Use

Table 1 provides a summary of the distribution of NEPIs across the eight countries and the EU. Rather than populate the cells with numbers,² we have decided instead to offer a qualitative weighting. The descriptors indicate the popularity of a given instrument in the jurisdiction in question relative to the other eight jurisdictions, rather than to some absolute baseline. In other words, they allow comparisons to be made between the jurisdictions within a particular column, rather than the other way round.

Two things are immediately apparent. The first is that all nine jurisdictions have adopted at least one form of NEPI. To that extent, the diversity of instruments used has indeed grown significantly since 1970. Thirty years ago only a small number of countries had adopted what are now classified as NEPIs, while the majority relied upon regulation. Today, even the least innovative and environmentally ambitious countries (in our sample – Ireland and Australia) have a number of NEPIs in place, although regulation remains important in all nine jurisdictions. Second, although NEPIs are generally more popular, they are relatively more popular in some jurisdictions (e.g. the Netherlands, Germany and Finland) than others (e.g. Austria, Australia and Ireland). There are, as we shall see, also important cross sectoral variations in the use of environmental instruments. Third, no country is enthusiastic about all the instruments; even the most innovative countries have shunned certain types of new instrument (e.g. tradable permits in Germany and Finland; ecolabels in the Netherlands; eco-taxes in the EU). Furthermore, some countries are enthusiastic about a particular type of NEPI (e.g. tradable permits in the UK; EMSs in Australia) but fairly uninterested in the rest.

In short, just as there were enduring differences in the way that (traditional) regulation was applied in the past (e.g. Vogel, 1986), there appear to be significant differences in the way that NEPIs are being utilised today. If NEPIs are used as a simple touchstone of governance, then clearly there has been no wholesale and spatially uniform shift from government to governance across our nine jurisdictions. In the next section, we analyse each instrument in turn to see if we can identify a clear shift from government to governance.

² This is actually not terribly meaningful for our purposes, as countries collect data using different definitions of a particular instrument (see text for details). Simple, quantitative measures may therefore obscure more than they reveal (e.g. with eco-labels does one count the number of labels or the total number of products/service groups within a particular scheme?), hence our more disaggregated, qualitative approach.

Table 1: The Distribution of NEPIs in the Nine Jurisdictions, c. 2000

	<i>Ecotaxes</i>	<i>Tradable permits</i>	<i>Voluntary agreements</i>	<i>Eco-labels</i>	<i>Environmental management systems</i>	<i>Regulation</i>
<i>Australia</i>	Low	Low	Low	Low	Medium	Still dominant
<i>Austria</i>	Medium	Low	Low/medium	Medium	High	Still dominant
<i>Finland</i>	High	Low	Medium	High	High	Still significant
<i>France</i>	Medium	Low	Low	Low	Low	Still dominant
<i>Germany</i>	Medium	Low	High	High	High	Still dominant
<i>Ireland</i>	Low	Low	Low/medium	Low	Medium	Still dominant
<i>Netherlands</i>	High	Medium/High	High	Low	Medium	Still significant
<i>The UK</i>	Medium	High	Medium	Low	Low/Medium	Still significant
<i>The EU</i>	Low	Low/medium	Medium	Medium	n/a	Still dominant

5.1 Market based instruments

The Nordic countries, the Netherlands and France introduced charges and levies on water and air pollution as early as the mid-1970s. Germany adopted a wastewater levy in 1978, but this was not fully implemented until the early 1980s. By contrast, the UK did not adopt environmental taxes until the early 1990s (Jordan *et al.*, 2003c), Australia is an even more recent adopter and Ireland has barely started.

In general, the ‘followers’ are now beginning to catch up with the initial pioneers as MBIs are more widely applied (EEA, 2000). However, the gap between the wealthier Northern and poorer (Southern/peripheral) European countries persists and, on some criteria, may even be growing (CEC, 2000). Thus the pioneers have now moved on to more sophisticated ecological tax reforms, whereas the followers have still not made much progress with the first generation MBIs such as simple effluent taxes and user charges.

The range of MBIs used has also evolved. In the 1970s, cost recovery charges dominated, but in the 1990s policy makers began to experiment with ‘second generation’ approaches involving hypothecation (CEC, 2000, 16). In our sample, Austria (e.g. landfill taxes), Finland (e.g. the oil waste levy), Germany (e.g. the duty on mineral oils) and the UK (e.g. the landfill tax) formally ‘ earmark’ the revenue from environmental taxes to environmental or other ‘good’ causes. Environmental tax reform is the most sophisticated form of MBI currently deployed in the nine jurisdictions. But here again, there are clear leaders (the Netherlands, Finland, France, Germany and the UK all adopted significant programmes in the late 1990s) and followers (Australia, Austria and especially Ireland). Tradable permits were originally developed in the USA and are still relatively uncommon in the EU. In our sample, only the UK and the Netherlands have successfully adopted them, though Germany is now seeking to respond to an EU scheme (see below).

Finally, the overall pattern is also highly differentiated across the various sub-sectors of environment policy. Thus, some sub-sectors, such as fuels, road transport and energy consumption are relatively well covered. Other than in Finland and the Netherlands, the agricultural sector is hardly touched at all, although at one stage Austria did adopt a fertilizer tax (CEC, 2000, 12).

5.2 Voluntary agreements

The overall popularity of VAs has also grown significantly in all eight countries since the 1970s. Every EU state has adopted at least one VA, but the vast majority are still to be found in the Netherlands and Germany. By 2002, these two had adopted more than 230 between them. Most VAs are non binding and voluntary, but some states are now experimenting with more formal and binding

forms (i.e. negotiated agreements). The same pattern of leaders and followers is also apparent with respect to VAs: in this case Germany, France and the Netherlands pioneered their use, with the rest following.

The intrinsic nature of VAs also varies quite significantly across the nine jurisdictions. In the Netherlands, VAs supplement regulation rather than being an alternative to it; they are legal contracts or ‘covenants’ (Mol *et al.* 2000). In Germany, VAs are non binding, but they are often negotiated ‘in the shadow of the law’ i.e. proposed by industry as a means to pre-empt regulation. In Austria, which has a relatively lower number of VAs (all of which are non binding for constitutional reasons), a similar pattern can be observed. In France and Ireland, roughly half of the VAs are binding. VAs are not very common in the UK and those that do exist tend to be non binding and very flexible. Finally, the sectoral focus of VAs is also very uneven: most are to be found in the energy/climate change, chemicals and waste sectors, with very few in the agricultural, transport and tourism sectors (OECD, 1999, 15).

5.3 Ecolabels

Germany adopted the world’s first national ecolabel scheme in 1977. Austria (1991), Australia (1992), France (1992), and the Netherlands (1992) followed by adopting their own schemes. Finland has been actively participating in the Nordic Swan which is a multinational ecolabel scheme adopted by the Nordic Council countries in 1989. Ireland and the UK are the only states that rely upon the EU’s ecolabel scheme, which has a very low profile among most producers and consumers in the EU. By 2000, only 41 EU ecolabels had been awarded across all 15 Member States, in stark contrast to the 4,000 or so national ecolabels issued under the German national scheme. The French, Dutch and, to a lesser degree, the Austrian schemes all suffer from a low take up rate.

As with VAs, each ecolabel scheme has its own peculiar national characteristics. Thus, the Austrian, Dutch, French and the Nordic White Swan label all put somewhat more emphasis on lifecycle analysis than the German scheme. They even address different issues, depending on what is regarded as locally important. Thus: Austria pioneered an ecolabel for tourism; the Netherlands was the first to award ecolabels to the food sector and flower growing; Finland regards forest certification as an important issue; and Australia emphasises energy labelling.

5.4 Environmental management systems

Environmental auditing first developed in the USA, primarily as an internal management tool. During the 1990s, international schemes were developed, with a stronger environmental component. Thus, the EU’s EMAS scheme was

first established by a Regulation in 1993 and then subsequently revised in 2001. The ISO 14001 scheme was launched three years later in 1996. However, as originally designed, the two schemes were somewhat different (the common perception is that ISO 14001 was less demanding (Golub, 1998, 18)). In 2001, the European Commission re-launched the EMAS scheme to make it more compatible with the ISO’s scheme, while preserving its superior environmental credentials. The Commission had become increasingly concerned that European companies were shunning EMAS for the more globally recognised ISO standard.

These differences are reflected in the relative patterns of adoption (see Table 2). Thus, the total number of EU registrations under the EMAS scheme is currently just under 3,700, as opposed to nearly 20,000 certifications under ISO 14001. In effect, a pronounced (although by no means uniform) shift is underway in Europe from a soft ‘new’ instrument (EMAS) to an even softer and even ‘newer’ instrument, namely ISO 14001.

Table 2: EMAS and ISO 14001 registrations/certifications by country

	EMAS Registrations ¹	EMAS registration per million population	ISO 14001 certifications ²	ISO 14001 certifications per million population
Australia	n/a	n/a	1,485	82.5
Austria	310	38.5	301	37.4
Finland	41	8.0	750	146.5
France	24	0.4	1,666	28.5
Germany	2,414	29.5	3,700	45.2
Ireland	8	2.2	170	47.0
Netherlands	27	1.7	1,073	69.2
UK	78	1.3	2,917	49.8
The EU	3,695	1.00	19,998	54.5

Notes:

¹As of May 2003

²As of December 2002

Based on: ENDS (2003, 21)

As regards the overall pattern of use, Austria and Germany completely dominate the EMAS scheme, having registered around 70% of all the registered sites in the EU. By contrast, Ireland and France have registered the fewest companies. Germany and Austria also dominate the league table of ISO 14001 certifications in the EU, but there are a number of other countries where

certification is popular. Crucially, in many of these (e.g. the UK, the Netherlands, Finland and Ireland) the popularity of ISO 14001 far exceeds that of EMAS.

These cross-national variations cast serious doubt on the equivalence of the different systems, and indeed the consistency of national accreditation systems. As with the other three types of NEPI, the way in which EMSs are interpreted and applied in the eight countries is also intrinsically different. For instance, the UK was the first to implement EMS in the manufacturing sector and to register local authorities. Some countries offer financial incentives to firms that adopt an EMS and some do not. Germany even offers a greater incentive to those firms that join EMAS in preference to the ISO 14001 scheme (Clausen *et al.*, 2002).

5.5 Regulation

Amid all the discussion about the growth in NEPI use, it is all too easy to forget that regulation has not simply disappeared even in those states that have adopted the most 'new' instruments. There has certainly been no wholesale switch to NEPIs, or significant deregulation (see also Hèritier, 2002b). There are a number of reasons for this. First, regulation often serves an important support function that cannot be easily performed by other tools. For example, regulations are often used to implement NEPIs, set the rules governing their operation and penalise defectors. Second, there is still strong support for regulation in many countries (most notably Austria, Finland and Germany) as a tool for dealing with point sources of pollution. More often than not, NEPIs are used for a set of more specific tasks such as: filling in the 'cracks' in the regulatory system (e.g. VAs); dealing with emerging issues such as climate change (e.g. tradable permits); supplementing regulation by encouraging best practice across all business areas (e.g. EMSs); or dealing with issues that are not suited to a regulatory approach (e.g. encouraging sustainable consumer consumption through ecolabelling; diffuse pollution etc.). Finally, the EU has been an important driver of national environmental policy development in Western Europe since 1970. For reasons discussed more fully below, it attempts to steer society by issuing regulations, which its Member States are compelled to transpose into their own national legal systems. As most national policy goals are now determined in the EU, this inevitably means that regulation remains pre-eminent, although it is not nearly as dominant as it once was.

6. Has Governance Eclipsed Government?

6.1 Dominant patterns of instrument use

The common perception that NEPIs are sweeping uniformly across different national environmental protection systems simply does not stand up to detailed empirical testing. In this article we have tried to show that the overall pattern of use is very strongly differentiated by sector and by country. The total number and diversity of NEPIs used in the eight countries and the EU has grown significantly, with environmental taxes, VAs and eco-labels proving especially popular. However, no single type of NEPI is overwhelmingly popular across all nine jurisdictions. In fact, some types of MBI (e.g. tradable permits) have only recently been deployed, while some 'old' policy instruments (e.g. subsidies) remain (though they are increasingly discredited as policy tools). In some countries, the adoption of NEPIs has been stunningly fast, to the extent that NEPIs are now the first port of call for environmental policy makers in countries as diverse as the UK, Finland, and Germany. But there are also many countries in which NEPIs are either being adopted much less quickly (e.g. Australia (except ISO 14001) and Austria (except EMAS and ISO 14001)), or not at all (e.g. Ireland for all subtypes apart from ISO 14001). This finding should worry those that believed that NEPIs would assist in overcoming the very uneven implementation of environmental regulation (Knill and Lenschow, 2000).

6.2 The resilience of regulation

The growing popularity of NEPIs suggests that governance is increasingly important, but government remains – and will probably continue to remain – hugely important. However, our discovery of national differences in NEPI use suggests that there are important spatial and temporal differences in the extent to which government has been supplemented by governance. The paucity of some types of NEPIs can be partially explained with reference to more local factors such as political opposition, a lack of technical/economic expertise, fears of declining economic competitiveness and concerns about the distributional impacts of some NEPIs (Golub, 1998). These obstacles notwithstanding, analysts must still account for the surprising resilience of regulation across all nine jurisdictions. One obvious explanation is that regulation is often very hard to eliminate once it is in place. To borrow a historical institutional term, it becomes 'locked in' to societies as actors adjust their behaviour and expectations around it - e.g. by fitting expensive pollution abatement equipment, or setting aside certain types of land for environmental purposes (Pierson, 1993). For instance, recent attempts made by France and the UK to introduce NEPIs into their already highly regulated water pollution sectors, have not amounted to much thus far. There are not many 'cracks' to fill and many stakeholders believe that regulation is performing sufficiently well.

A second explanation is that regulation performs a highly symbolic function in politics, through its moral emphasis on penalising polluters. By contrast, critics of NEPIs have found it easy to condemn emission trading systems and certain VAs as 'licences to pollute'. Our research suggests that NEPIs (i.e. governance) are not replacing regulations (i.e. government). Rather, NEPIs are more likely to be used to fill in the gaps within environmental protection systems or as a means of responding to urgent new problems such as climate change.

Thirdly, regulation (and government more generally) often provide(s) an important support function for NEPIs. Among other things, it provides authority to the agency designing and implementing a NEPI, and establishes the rules governing its operation. For example, the EU's EMAS system, while voluntary, still requires member states to take various actions, such as creating an accreditation system for independent verifiers as well as appointing a certification body to maintain an inventory of certified sites.

A fourth explanation is that many environmental policy makers are, in Herbert Simon's apt phrase, as much satisficers as utility maximisers. That is to say, while they recognise that regulation is imperfect, many still regard certain NEPIs as largely unproven. Their suspicions will doubtless have been confirmed by a recent OECD analysis (OECD, 2003), which concluded that the environmental effectiveness of VAs is often no different from what would have happened with business as usual. Tradable permitting will also be put to its sternest test when the EU's greenhouse case scheme starts up.

6.3 The EU's role

The EU's role in facilitating and/or retarding the shift to NEPIs (and hence governance) is rather more difficult to decipher (Jordan *et al.* 2003a). After all, a cursory inspection of Table 1 reveals that EU membership is generally associated with higher levels of NEPI adoption. However, while EU member states appear to be more enthusiastic adopters than Australia (a broadly comparable non-member), there are still member states with a similarly low uptake (e.g. Ireland). And if we look in more detail at the EU's promotion and adoption of NEPIs, its performance is strikingly at odds with its widespread reputation for innovation in environmental affairs. In short, regulation remains the mainstay of EU environmental policy in spite of substantial NEPI use at the national level. Why is this?

Apart from the many questions raised about their transparency and legitimacy, VAs are difficult to negotiate across borders especially when well established large industry associations are absent (i.e. it is significant that the first EU VAs target the chemical and car industries and not retailing). Meanwhile, several states (initially the UK and more recently Ireland and Spain) have sought

consistently to block the Commission's ability to innovate with environmental taxation, which unlike most other aspects of EU environmental policy, still falls under the unanimity rule. Two recent political breakthroughs should nonetheless be mentioned: the 2003 agreement to set minimum rates of tax on certain fuel oils, and the EU's emissions trading regime which becomes fully operational in 2005. These recent innovations notwithstanding, the Commission's reliance on regulation is so deep seated that it even has to implement many of its NEPIs (such as the ecolabelling, emissions trading and EMAS schemes) using regulation. Regulation is also being used to implement some of the outcomes of the EU's VA on car emission standards (the 'Auto-Oil' programme). So, far from being an unambiguous case of 'new' governance (Hix, 1998), the EU's experience with NEPIs demonstrates that is actually quite strongly constrained by member state (i.e. government) preferences. To conclude, EU membership is associated with higher levels of NEPI adoption and use, but this probably has more to do with the fact that EU member states share similar domestic drivers of NEPI adoption and many (relatively ambitious) EU environmental policy goals, than any concerted leadership shown by the EU institutions in relation to the use of NEPIs.

7. Conclusions

In a previous section we noted that governance and government are probably not fixed entities, but two poles on a continuum of different governing types. Very broadly speaking, as regards their respective toolkits of environmental policy instruments, the nine jurisdictions have shifted from a position of 'government' to one of 'governance'. However, the total distance travelled along that continuum has, on balance, been surprisingly modest, and spatially and temporally uneven. With hindsight, very few of the jurisdictions started from a position of 'strong' government, and none has yet shifted to a position of 'strong' governance in which NEPI use is essentially 'self organising'. Moreover, in spite of the political rhetoric about finding less direct forms of state involvement, we still find the state being drawn inexorably into the detailed design, adoption and implementation of all environmental policy tools, however soft and supposedly unintrusive. This can include critically important administrative activities such as negotiating the precise content of VAs, determining ecolabelling criteria, allocating tradable permits, undertaking economic valuation studies to set pollution taxes, ensuring fair play, monitoring compliance and penalising defectors. Performing these tasks in turn requires huge amounts of bureaucratic (i.e. government) time. For instance, the UK environment ministry apparently devoted an incredible 17 person years to negotiating just forty two climate change VAs (Jordan *et al.*, 2003b)!

Before we conclude that governance (as defined above) is weak while government remains relatively strong, three complicating factors should be aired. First, although regulation remains important, it is nonetheless being used in new ways i.e. there is a possibility that governance is now emerging *within* government. Thus, in Australia regulation is much more 'light handed' than before, 'new approaches' are being trialled in the EU, and in Finland regulation increasingly serves a 'support function'. In the UK, the new integrated pollution control regulatory regime is more akin to a negotiated agreement than the regulation of old. And although it continues to generate many new items of regulation, the EU is now making much greater use of framework Directives that leave greater scope for national interpretation.

Secondly, a lot depends on how the analyst chooses to define governance. We have opted to use the presence and/or absence of regulation as our analytical touchstone, but there is a literature that argues that many of the drivers of governance, namely privatisation, marketization and new public management, actively require *more*, not less regulation (e.g. Majone, 1996). In other words, governance may generate a need for new government. We have identified some examples of this in the environmental sector. Writing from a somewhat broader perspective, Alberta Sbragia (2000) has shown that regulation is not a reliable

touchstone of governance because member states have deliberately designed the EU to create (or maintain) new economic markets, a task for which regulation is ideally suited. There is one other important point about the EU's attempt to deliver policy goals via softer policy instruments (e.g. the open method of coordination) in areas such as health and social policy: it is significantly more circumscribed precisely because that it how member *governments* would like the EU to operate. Interestingly, Héritier (2002a) argues that the use of softer instruments in areas where the EU has little competence may eventually turn out to be a first step on the road to regulation. Either way, this debate and our own empirical contribution to it questions the strong association between governance and new instruments posited by some authors.

Finally, government (as we have defined it) may never have been as prominent as some Anglo American theorists have suggested. Our research confirms that governance has been around for much longer than is commonly supposed, with several prominent examples of 'self-organisation' as early as the 1970s. Our analysis confirms that the less hierarchical exchange relationship between public and private actors that are typical of many VAs, have been a particularly well established feature of some national environmental policy systems (e.g. the Netherlands) for decades. In other words, we should not assume that governance is necessarily 'new' or that it succeeds government. 'The governance perspective... *is* date and place specific' (Stoker, 1998, 26) (emphasis added). The difficulty of distinguishing the two is very apparent when one looks at the various language translations of the European Commission's recent White paper on governance. The Italian and Dutch translations adopt the English term 'governance', but the German translation uses the term *Europaaisches Regieren* or 'European governing.'

To conclude, our empirical analysis strongly suggests that governance has not uniformly or comprehensively eclipsed government. Rather, environmental governance is at best supplementing, not comprehensively supplanting government by regulatory means. Although there have been some significant innovations at the national level, many core aspects of instrument selection and adoption have endured, producing a rather blurred picture of change. Crucially, we have demonstrated that: governance can emerge within government; some forms of governance demand new forms of government; and government may never have been that dominant anyway in some jurisdictions. In providing a new 'organising framework', governance successfully problematises current understandings by highlighting new research questions and puzzles. For that reason it should be retained. But instead of looking for broad trends using simple labels (i.e. government and governance), social scientists are likely to gain more from the governance 'turn' by formulating more specific research questions and subjecting them to detailed empirical testing.

References

- Anderson, C. (1971), 'Comparative Policy Analysis: The Design of Measures', *Comparative Politics*, 4, 117-131.
- Andeweg, R. (2003) On Studying Governments. In: J. Hayward and A. Menon (eds) *Governing Europe*. Oxford: Oxford University Press.
- Bennett, C.J. (1988), 'Regulating the Computer: Comparing Policy Instruments in Europe and the US', *European Journal of Political Science*, 16, 437-466.
- Bevir, M. Rhodes, R. and P. Weller (2003) Traditions of Governance: Interpreting the Changing Role of the Public Sector, *Public Administration*, 81 (1), 1-17.
- Börkey, P. and F. Lévêque (1998), *Voluntary Approaches for Environmental Protection in the EU*, ENV/EPOC/GEEI (98) 29/final, Paris: OECD.
- CEC (Commission of the European Communities) (1996) *Communication from the Commission on Environmental Agreements*, COM (96) 561 final, Brussels: CEC.
- CEC (Commission of the European Communities), (2000) *Database on Environmental Taxes in the EU Member States*, July 2001, Brussels: CEC.
- Clausen, J., Keil, M. and Jungwirth, M. (2002) *The State of EMAS in the EU: A Literature Study*. Ecologic/IEEP: Berlin and London.
- EEA (European Environment Agency), (1997), *Environmental Agreements: Environmental Effectiveness*, Copenhagen: EEA.
- EEA, (European Environment Agency), (2000), *Environmental Taxes: Recent Developments in Tools for Integration and Sustainable Development*, Copenhagen: EEA.
- ENDS (2003) Regulators Place EMS Auditors under the Magnifying glass. ENDS Report, 342, 20-23.
- Flinders, M. (2002) 'Governance in Whitehall', *Public Administration*, 80 (1), 51-76.
- Golub, J. (ed.) (1998), *New Instruments of Environmental Policy*, London: Routledge.
- Héritier, A. (ed.) (2002a), *Common Goods: Reinventing European and International Governance*, Lanham: Rowman & Littlefield Publishers.
- Héritier, A. (2002b), 'New Modes of Governance in Europe: Policy-Making Without Legislation', in A. Héritier (ed.) (2002a), *Common Goods. Reinventing European and International Governance*, Lanham: Rowman & Littlefield Publishers.
- Heywood, A. (2000) *Key Concepts in Politics*, Basingstoke: Palgrave.
- Hix, S. (1998) 'The Study of the EU II: The 'New' Governance Agenda and Its Rival. *Journal of European Public Policy*, 5, 1, 38-65.

- Howlett, M. (1991), 'Policy Instruments, Policy Styles and Policy Implementation', *Policy Studies Journal*, 19 (2), 1-21.
- Jordan A.J. (2001), 'Environmental Policy (Protection and Regulation)', in Smelser N. and P. Baltes (eds.) *International Encyclopaedia of the Social and Behavioural Sciences, Volume 7 (of 26)*. Oxford: Elsevier, pp. 4644-51.
- Jordan, A. Wurzel, R. K. W. and A. Zito (2003a), 'European Governance and the Transfer of 'New' Environmental Policy Instruments', *Public Administration*, 81 (3), 555-574.
- Jordan, A.J., R. Wurzel and A. Zito, (eds.) (2003b), *New Instruments of Environmental Governance*, Frank Cass: London.
- Jordan, A. Wurzel, R. Zito, A. and L. Brückner (2003c), 'Policy Innovation or 'Muddling Through'? 'New' Environmental Policy Instruments in the United Kingdom', in Jordan, A.J. Wurzel R. and A. Zito (eds.), (2003) *New Instruments of Environmental Governance*, London: Frank Cass, pp. 179-198.
- Jordan, A. Wurzel, R. Zito A. and L. Brückner (2004), 'Consumer Responsibility-taking and National Eco-labelling Schemes in Europe', in Micheletti, M. Follesdal A. and D. Stolle (eds.), *Politics, Products and Markets: Exploring Political Consumerism, Past and Present*, Somerset, NJ: Transaction Publishers (in press).
- Knill, C. and A. Lenschow (eds) (2002) *Implementing EU Environmental Policy*. Manchester: Manchester University Press.
- Lowi, T. (1964) 'Four Systems of Policy, Politics and Choice', *Public Administration Review*, 32, 298-310.
- Majone, G. (ed.) (1996), *Regulating Europe*, Routledge: London.
- Mol, A. V. Lauber and D. Liefferink (2000), *The Voluntary Approach to Environmental Policy*, Oxford: Oxford University Press.
- OECD, (1994), *Managing the Environment: The Role of Economic Instruments*, Paris: OECD.
- OECD (1998), *Evaluating Economic Instruments*, Paris: OECD.
- OECD, (1999), *Voluntary Approaches for Environmental Policy*, Paris: OECD.
- OECD (2003), *Voluntary Approaches for Environmental Policy*, Paris: OECD.
- Osborne, D. and T. Gaebler (2001), *Re-inventing Government*, Reading, Mass: Addison Wesley.
- Peters, B.G. (2000), 'Government and Comparative Politics', in Pierre, J. (ed.) (2000) *Debating Governance*, Oxford: Oxford University Press.
- Pierre, J. (2000) Introduction, in: Pierre, J. (ed.) (2000) *Debating Governance*, Oxford: Oxford University Press.
- Pierre, J and B.G. Peters (2000), *Governance, Politics and the State*, Basingstoke: Macmillan.
- Pierson, P. (1993) 'When Effect Becomes Cause', *World Politics*, 45, 595-628.
- Rhodes, R.A.W (1996) 'The New Governance: Governing without Governance', *Political Studies*, 44, 652-67.
- Rhodes, R.A.W (1997) *Understanding Governance*, Milton Keynes: Open University Press.
- Rhodes, R.A.W (2000), 'Governance and Public Administration', in Pierre, J. (ed.) (2000), *Debating Governance*, Oxford: Oxford University Press.
- Richards, D. and M. Smith (2002), *Governance and Public Policy*. Oxford: Oxford University Press.
- Rosenau, J.N. (1992), 'Governance, Order and Change in World Politics', in Rosenau J. and E-O Czempiel (eds.), *Governance without Government*, Cambridge: Cambridge University Press.
- Rosenau, J.N. (2004), 'Strong Demand, Huge Supply: Governance in an Emerging Epoch', in Bache, I. and M. Flinders (eds.), *Themes and Issues in Multi-Level Governance*, Oxford: Oxford University Press.
- Rosenau, J. and E-O Czempiel (eds.) (1992) *Governance without Government*, Cambridge: Cambridge University Press.
- Sbragia, A. (2000), 'The European Union as Coxswain', in Pierre, J. (ed.) (2000), *Debating Governance*, Oxford: Oxford University Press.
- Stoker, G. (1998), 'Governance as Theory', *International Social Science Journal*, 155, 17-28.
- Taschner, K. (1998) Environmental Management Systems, in J. Golub (ed.) (1998), *New Instruments of Environmental Policy*, London: Routledge.
- Teubner, G, L. Farmer and D. Murphy (eds.) (1994), *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self-Organization*, Chichester: John Wiley.
- Vogel, D. (1986), *National Styles of Regulation*, Ithaca: Cornell University Press.
- Weale, A. et al. (2000) *Environmental Governance in Europe*. Oxford: Oxford University Press.