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The Architecture of Multi-level Governance of Economic Sectors

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Abstract

In the age of globalization, many economic sectors are addressed not only by the policies of national, but also of international institutions. Using three cases of highly internationalized sectors of the German economy – international tourism, telecommunications, and the pharmaceutical industry – the paper tries to spell out and explain the differences in the governance architecture of these economic sectors. The main differences identified concern the prevalent purpose or goals of governance; the prevalent governance instruments; the relative importance of agencies at different territorial levels; and the prevalence of public, private, or mixed forms of governance. These differences are interrelated and reflect differences between sectoral economies. In the light of the comparison, the relationship between different levels in a multi-level governance structure is discussed, with a view to the extent and nature of coordination that exists between them. Both the architecture and the regimes of multi-level governance are shaped by attempts to cope with conflict, and manifest the endurance of conflicts that cannot be resolved once and for all.

Zusammenfassung

Im Zeitalter ökonomischer Globalisierung sind insbesondere stark internationalisierte Wirtschaftssektoren nicht nur der Regelung von nationalen, sondern auch von Institutionen auf höheren territorialen Ebenen unterworfen. Auf der Basis eines Vergleichs von drei relativ stark internationalisierten deutschen Wirtschaftssektoren – dem internationalen Tourismus, der Telekommunikation und der pharmazeutischen Industrie – identifiziert das Papier die wesentlichen Unterschiede in der Architektur ihrer Governance und versucht sie zu erklären. Die Unterschiede beziehen sich auf die vertikale Aufgabenverteilung zwischen verschiedenen öffentlichen und privaten Regelungsinstitutionen, die Ziele und die Instrumente der Regelung. Diese Merkmale hängen sowohl untereinander wie mit Merkmalen des Regelungsfelds zusammen. Im Lichte dieser Ergebnisse wird die Art des Zusammenhangs zwischen den verschiedenen Ebenen in einem Mehrebenensystem erörtert, die weniger von absichtsvoller Koordination, Arbeitsteilung oder funktioneller Komplementarität als von Versuchen der Konfliktbewältigung geprägt wird.

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1 The analytical frame

The multi-level governance of economic sectors is a new field of investigation that extends the familiar research on the governance of national capitalist economies (see Crouch 2005a; Levy-Faur 2005) in two directions. What is new is the focus on *multi-level* governance, and the focus on economic *sectors* instead the economy as a whole. In research on different national capitalisms, as in the related research on national innovation systems, governance is generally perceived as a single-level phenomenon. Multi-level governance is a concept originating in political science analyses of policy making and implementation in vertically differentiated political systems, in particular in federal states and the European Union (EU) (see Benz 2004: 127–130). The increasing expansion of markets and production systems beyond national boundaries directed attention to the parallel increase in international regulatory efforts on the part of the Bretton Woods institutions and of the EU, i.e. to multi-level governance. The emergence and functioning of these higher level institutions of economic governance have been studied by scholars of International Political Economy. The focus, however, is on policies that touch on general features of the economy, such as tax competition, control of environmental effects, or compliance with the principles of the International Labour Office, but rarely with the regulation of specific economic sectors.

To study the multi-level governance of economic sectors raises two sets of questions. One set refers to the architecture of multi-level governance, specifically the relationship between different levels; the second set refers to the dimensions along which the multi-level governance (MLG) of different economic sectors vary, and the underlying causes of such differences. Before an attempt can be made to answer these questions on the basis of a comparison of three highly internationalized economic sectors, the core concepts that will be used must be spelled out.

The dominant understanding of “economic sector” follows even today the classification by type of output into primary, secondary, tertiary, etc., introduced in 1940 (Wolf 1955). While successively more refined classifications of economic sectors by economic output have been developed, case studies of specific industrial sectors have not led economic sociology to develop an “architectural” concept of economic sector that highlights its internal differentiation and organization. Such an architectural sector concept can, however, be found in the analysis of sectoral innovation systems. These are seen to be

composed of a set of agents carrying out market and non-market interactions for the creation, development and diffusion of new sectoral products. These agents are individuals and organisations at various levels of aggregation.... They interact through processes of communication, exchange, cooperation, competition and command. (Malerba 2005: 65–66)

While a sectoral system of *innovation* includes universities, banks, state agents, unions, and business associations as well as firms, the core components of a sectoral *production* system would be firms of different types, arranged in value production chains that cover supply, production, and marketing. As is true of innovation systems (Whitley 2006), sectoral production systems extend to varying degrees beyond the national to the regional and international levels. I shall be using the term economic sector in the narrow sense of a production system, distinguishing it analytically from the sectoral governance structure.

The term governance is used in the political science sense, where governance refers to all institutions designed for the deliberate solving of collective problems, irrespective of the private or public character of the actors involved and the hierarchical or horizontal mode of their (purposive) interaction (Mayntz 2004). This definition of governance excludes spontaneous market coordination (and, for that matter, all forms of spontaneous, non-intentional coordination, or self-organization as it is understood by the natural sciences). However, the analytical distinction between an economic production system and a governance structure is a functional, not a structural one: To the extent that they are involved in regulation, whether in mixed public/private policy networks or in institutions of self-regulation, economic *actors*, i.e. firms or corporations, are also part of the governance structure. The functional distinction between a production system and governance is consonant with Glenn Morgan's distinction between the level of firms and the level of institutions in the analysis of national economic systems (Morgan 2005).

The concept of institution can refer both to agents (corporate actors or organizations) and to regimes, understood as sets of norms. This double perspective is reflected in governance theory in the distinction, rarely made explicitly, between the architecture and the instruments of governance. The architecture (or structure) of governance focuses on the constellation of actors (public or private) involved in governance and their (hierarchical or horizontal) relations, while governance instruments refer to the type (or means) of intervention chosen to achieve policy goals. Even if governance is defined in the narrower political science sense, governance *instruments* can include the deliberate use of market mechanisms. While analytically distinct, governance architecture and governance instruments are empirically related; by and large, binding norms backed up by sanctions can be more easily used in hierarchical governance arrangements, while both compulsory and voluntary negotiation are more likely to produce "soft" law dependent on voluntary compliance.

An important dimension of the governance architecture is its vertical differentiation. In the concept of multi-level governance, levels are defined in a spatial or territorial sense, ranging from local to national, regional and global, rather than by relations of command and obedience as in a hierarchy. Levels in the governance structure refer to the spatial scope of the regulatory competence of agencies, or of normative regimes. To extend the concept of multi-level governance to the global level is not generally consid-

ered fruitful (e.g. Hartenberger 2007); Grande et al. (2006) prefer to refer to transnational regimes. But “regime” suffers from similar conceptual problems as “governance,” and glosses over the important fact of vertical differentiation which the concept multi-level governance highlights.

Though there is agreement that multi-level governance does not imply a hierarchical command-and-compliance relationship, the concept is often taken to imply that decisions are being coordinated between levels (e.g. Benz 2004: 127). In the case of an institutionalized division of regulatory competences between levels, as in a federal constitution, such coordination may in fact exist. But agencies at different territorial levels are sometimes only related by the fact that they are directed at the same economic sector, without explicit coordination between them. Beyond the nation state, MLG tends to be described as unevenly developed, unstable tangled hierarchies (Cerny 2006), as regulatory patchworks (Héritier 1996) beset by coordination problems, or as orders of “competing institutions, overlapping jurisdictions, multiple identities [and] territorial flux” (Cerny 2006: 694). These descriptions suggest strongly that MLG can be more or less incoherent and lead us to ask how the units in a multi-level governance structure are “coordinated,” or cohere.

In the following section, the MLG of three manifestly transnational (or even “global”) economic sectors will be described. Based on these descriptions (which the hurried reader may skip), Section 3 will offer a comparative analysis, highlighting, and trying to explain, the observable differences in MLG. In the final section, the descriptive material is used to understand in what sense the components of multi-level governance, both units and regimes, can be said to cohere.

2 The cases

Making use of the specialized knowledge present at the Max Planck Institute in Cologne, I have looked at the MLG of international tourism, telecommunication, and the pharmaceutical industry. Though chosen for pragmatic rather than systematic reasons, these three cases offer a significant amount of variance in terms of the features of the economic sectors and their governance. The following case descriptions focus on features of the economic sector, and of its MLG – the kind of agencies involved at different territorial levels and the nature of the operative regimes. Sector structures, however, are only summarily described, starting from the level of OECD nation-states.¹ An analysis of

1 This selective perspective reflects the *de facto* bias of the available literature. There is a difference between the description of a national economic sector and its degree of internationalization, the perspective adopted here, and the descriptions of a regional or even worldwide economic sector (e.g. textiles). Governance institutions at all levels will impinge upon any given national economic sector.

the worldwide structure of international tourism or the pharmaceutical industry would have to pay attention to the different configurations of the given industry in countries of different levels of development, a dimension that is neglected in this study. Sectoral governance structures are described in more detail, but they are likewise viewed from the – selective – vantage point of the corresponding sectors in a typical OECD country that is, moreover, also a member of the EU.

International Tourism²

Sector characteristics

Tourism is a huge service industry that has greatly expanded beyond national borders with the increasing legal, technical (transport) and economic opportunities of transnational mobility. Tourism crossing national borders can be counted; in global trade statistics supplied by the World Bank it is considered as service export (because it involves the influx of foreign currency). International tourism (iT) accounted for nearly one third of global service exports in 2003. In national accounts, national tourism figures, too, but cannot be clearly separated from iT; in the EU, the sector comprises about 1.5 million enterprises.³ The service producers involved in iT are travel agencies, travel companies, global reservation systems, hotels, and airlines. None of the producers are dealing only with tourism, let alone iT; the sector iT is closely intertwined with related service sectors. Large co-producers like hotel chains and airline alliances are themselves multi-level systems.

Regulatory institutions

By and large, iT is only subject to national regulation that touches upon economic activities, financial transactions, and the transborder movement of persons in general. Thus liability norms and tax norms also apply to hotels and to travel companies, and immigration control norms may have to be observed. Most countries have a minister responsible for tourism, some even a special ministry; in Germany there is only a special agency (Bundeszentrale für Fremdenverkehr) that cooperates with the economics ministry (BMW). National business associations (such as the Hotel- und Gaststättenverband) fulfill self-regulatory functions while also pursuing promotional activities. In developed and in developing countries alike, iT is also promoted by national development organizations.

2 The following case description is based on information and material collected by Lothar Kempel in the course of an ongoing project and partly presented at the MPIfG in a lecture on “International Tourism and Global Governance” on July 6, 2006 .

3 Press release of a speech by Commissioner Verheugen on February 10, 2005.

The EU has only very limited competences in the area of tourism. The sector is subject to the general EU provisions concerning economic competition, but there is no special unit dealing with it, and only two EU directives specifically addressing this sector are known. One directive regulates the liability of travel companies for prospectus information, the other addresses liability issues in air travel. The European Investment Bank (EIB) supports investment in developing countries; this includes iT. Other regional institutions besides the EU are similarly involved in promoting iT, such as the Southern African Development Community (SADC). In addition to the business associations formed by European travel agents and tour operators (ECTAA), European camping sites and holiday parks (EFCO&HPA), and European hotels, restaurants and cafés (HOTREC), there is an association especially for tour operators bringing tourists to Europe (ETOA). Aside from representing the interests of the sector, these associations may serve some self-regulatory functions.

At the international level, both public and private institutions are involved in iT governance. The World Tourism Organization (UNWTO) is a United Nations agency located in Madrid. It represents public sector tourism bodies from most countries, i.e. national representatives; firms and business associations participate in its regional subunits. UNWTO is also the most important international body collecting statistical information on iT from national agencies, using the Tourism Satellite Account (TSA), a standard to measure tourism formulated in negotiations among Eurostat (EU), OECD, and UNWTO, and accepted by the Statistical Commission of the UN. In addition, UNWTO encourages compliance with the Global Code of Ethics it has formulated, aiming to ensure that tourist destinations and businesses maximize the positive economic, social and cultural effects of tourism while minimizing its negative social and environmental impacts.

The World Travel and Tourism Council (WTTC) is a private organization composed of the presidents, chairs and CEOs of 100 of the world's foremost companies involved in tourism, including airlines, hotel chains, travel companies, banks, credit card companies, and car rental firms. Its mission is to raise awareness of the economic impact of the sector and lobby governments to adopt the Council's "Blueprint for New Tourism," a programmatic statement and recommendation in favor of the sustainable development of iT. The WTTC undertakes TSA-based country studies and translates them into recommendations on policies to ensure a profitable and sustainable development of iT.

The World Trade Organization (WTO) also belongs to the iT governance structure. The General Agreement on Trade in Services (GATS) will contain a special section on transport, and one on tourism, which is still being negotiated. Objects of regulation are different aspects of service transaction between countries (e.g. cross-border trade, commercial presence in other countries) as well as employment. Until now, these questions have been regulated in bilateral agreements. The rules apply to hotels and travel companies, but touch also on airlines, which are subject to regulation by other specialized international bodies as ICAO and IATA.

The International Monetary Fund (IMF) with its Structural Adjustment Programs (SAP) and the Poverty Reduction and Growth Facility (PRGF) is also involved in iT regulation. The conditionalities attached to loans from the IMF, basically designed to get receiver countries to open their economies to foreign investments and multi-national corporations (MNC) while eliminating subsidies and protective measures, promote iT as a means for Third World countries to repay their debts. This goal is also pursued by the World Bank. Several organizations in the World Bank Group are involved in tourism promotion: they facilitate market expansion by liberalization, but also by giving incentives for investment, while the Multilateral Investment Guarantee Agency (MIGA) tries to alleviate the financial risks connected with political events in developing countries. The International Bank for Reconstruction and Development (IBRD) serves middle-income countries with capital investment and advisory services, while the International Development Association (IDA) provides interest-free credits and grants to the poorest developing countries, part of which goes into tourism, or infrastructure build-up related to the development of tourism.

Telecommunication⁴

Sector characteristics

Telecommunication (Tc), traditionally a state monopoly in developed countries, has been successively privatized and liberalized for political reasons, forming today a publicly regulated infrastructure system of near to global scope. Privatization changed the sector structure: producers became separated from regulators, and many providers, suppliers etc. previously linked to the monopoly as the focal organization now constitute a more open market. In 2000 there were more than 305 licensed telecommunication companies active on the German Tc market (Hartenberger 2007).

Technological development has also changed the sector. At first it comprised only the telephone network and the services based directly on it; later mobile telephony was added. The Tc sector used to be separate from postal services, and from the (print and broadcasting) media. With digitization and the related advent of electronic media such as TV and the Internet, Tc and information technology started to merge, and encroached upon the postal services (email); convergence in one encompassing technical system became a realistic option. Internet expansion and regulation was driven and guided by private actors. The global nature of the Internet called for a global regulatory regime from the start: here governance was largely transnational, and largely private, from the very beginning. While Tc regulation is now closely integrated with the regulation of information technology, the Internet remains a distinct component of the regu-

4 The following case description is based on Werle (2002), Schneider and Werle (2007), Hartenberger (2007), and oral communication by Raymund Werle.

latory regime; in fact, Internet standardization is completely detached from any official standardization (Werle 2002: 255).

Regulatory institutions

At the national level, hierarchical control of public Tc used to be very detailed; it aimed at performance, not profit. When Tc was privatized, independent regulatory agencies became the major national actors; supervised by a ministry, these agencies control market access and prices and have sanctioning power. Competition law also applies to Tc; antitrust agencies monitor and can intervene in Tc operations. The formally independent national standardization agencies such as the German DIN, the British Standards Institute (BSI) and French AFNOR have Tc-specific subunits. As international standardization has grown, national standardization has decreased, and national agencies now mainly transpose regional and international standards to the national level. Private corporate actors are involved in technical, but not in economic regulation at the national level. Firms as well as unions lobby national governments and regulatory agencies, but private initiatives aim increasingly at the global level (Schneider/Werle 2007: 275–276); industry has in fact become a driving force of transnational regulation.

At the level of the EU, a special Tc policy domain evolved in the 1980s with the advent of commercial TV. Tc policy is the domain of the DG Information Society, but occasionally of the DG Competition, too. After a first Commission directive sought to liberalize the equipment market in 1988, liberalization of the Tc networks and services became a major focus. A 1990 directive required the deregulation of state monopolies, and in the following decade, various steps to promote the opening of national markets were undertaken. Attempts to establish an EU regulatory agency for Tc failed. In 2002, upon the initiative of the Commission, national agencies formed the European Regulators Group instead, a regulatory clearing house working towards the harmonization of national regulation. Today EU policy covers all aspects of communication policy (in the inclusive sense), and some attention is also paid to the possible negative effects of market extension on service quality and security. There is now also a European Internet policy, promoting a European e-commerce regime and trying to shield it from globalization pressures.

Technical standardization is a necessary complement to Tc liberalization, diverging national standards obviously being a trade barrier. Already in 1988, the Commission established the European Telecommunications Standards Institution (ETSI). The agency is composed of national representatives and private Tc companies, and its goal is to develop European standards to replace national standards. In the US and Japan, the corresponding agencies are formally national, but de facto of regional significance. The EU has accredited the European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC); these public, non-governmental organizations are the European counterparts of the international stan-

standardization organizations ISO and IEC. These committees are, however, not specialized in Tc standardization. Outside the EU framework there is the European Conference of Postal and Telecommunication Administrations (CEPT), established by national governments in 1956; CEPT is the regional counterpart of the International Telecommunications Union (ITU). Since 1997, the Independent Regulators Group comprising representatives of 29 national regulatory agencies has partly taken over the functions of CEPT.

At the European level, MNCs and sectoral interest organizations push for liberalization, harmonization, and compatible technical standards. Numerous business and trade associations, industry consortiums and forums are involved in standardization; the European Computer Manufacturers Association (ECMA) has achieved quasi-official status and maintains stable links to ITU, ETSI, CENELEC and other private forums.

At the global level, the WTO is a relevant, but not very forceful actor. Within the WTO General Agreement on Trade and Services (GATS), the special Agreement on Basic Telecommunications Services (ABTS) of 1997 and the Agreement on Basic Telecommunication (ABT) of 1998 are mainly directed at opening markets, among other things by avoiding standards that are obstacles to international trade. These agreements provide only a loose and very general framework; their impulse is promotional rather than regulatory. The Agreement on Technical Barriers to Trade (ATBT) of 1996 contains a Code of Good Practice that can also be applied to Tc; it is binding only for countries that adopt it.

The International Telecommunications Union, established in 1865 to facilitate international Tc in the age of national telephone monopolies, with its standardization branch ITU-T, formulates Tc standards. The ITU is a classical international organization, composed originally of representatives of national monopolies; today it brings representatives of national governments together with national standards organizations. In 1990 it opened membership to Tc firms as well. With the growing importance of private MNCs, the ITU has lost importance; it tries to extend its domain to the Internet and focuses on Tc in developing countries.

Pharmaceuticals⁵

Sector structure

The boundary between medicines for human use and products classified as foodstuffs (such as herbal teas) is a matter of definition and difficult to establish. Pharmaceutical

5 The following case description is based on Feick (2000, 2002, 2005), Abraham/Lewis (2000), and oral communication from Jürgen Feick.

firms range from very small (individual pharmacies) and local enterprises, to national companies, to MNCs. In Germany there are roughly 1,200 registered drug manufacturers; some 40 of them are MNCs. The industry is internally differentiated by size, by research intensity, and by type of product – innovative medicines, generic drugs, and prescription-free drugs. Many national companies are only marketing organizations for firms headquartered elsewhere.

The business associations in the pharmaceutical industry are powerful. In Germany there are separate organizations for the pharmaceutical industry at large (Bundesverband der Pharmazeutischen Industrie BPI), for research-intensive companies (Verband forschender Arzneimittelhersteller, VFA), for firms manufacturing generic drugs and for firms manufacturing prescription-free drugs. National associations representing research intensive firms are organized in the European Federation of Pharmaceutical Industry Associations (EFPIA). Professional associations present expert views, but are not involved in licensing. Consumer protection organizations are not specialized in pharmaceutical issues, but may occasionally deal with risks from certain medicines. They have only recently become more influential actors in this field. Particularly in the US, specialized patient organizations and public health advocacy groups can play a role as watchdogs.

Regulatory institutions

Public health has always been of concern to national governments. In the US, a law dealing with food and drug safety dates already back to 1906; in 1927, the Food and Drug Administration (FDA) was established. In imperial Germany, public health was addressed by the Reichsgesundheitsamt, local health agencies, and special branches of the police and the trade inspectorate. Professional associations of doctors and pharmacists formulated standards for their members and evaluated medicines, functioning as private governments. Licensing, i.e. mandatory marketing approval for new medicines, was introduced in Scandinavian countries earlier than on the continent, where regulation was mainly spurred by the thalidomide affair. In Germany, at first a manufacturer had to be licensed; after 1961, registration of new medicines with the federal health agency (Bundesgesundheitsamt, BGA) became mandatory and was tied to providing information; sera and blood products had to be registered with the Paul Ehrlich Institute; from 1978 on medicines required marketing approval. In the UK, the Commission on Safety of Drugs had to approve new drugs from 1970 onwards. National licensing agencies are co-financed to varying degrees by the fees of applicants. Everywhere registration and later on marketing authorization (licensing) became tied to increasingly exacting prerequisites in terms of pre-marketing testing. “Practically every detail of the product itself, substantial parts of research, development, production, commercialization and medical utilization are regulated...” (Broscheid/Feick 2006: 7). Market entry control is complemented by monitoring utilization (pharmacovigilance). While previous market entry controls had left old drugs on the market, a 1975 EU directive with

which national governments eventually complied required *all* medicines to be assessed according to “modern licensing standards.” In consequence, many traditional medicines disappeared from the market.

In the EU, pharmaceuticals are the domain of a special unit in the DG Enterprise (also called DG Industry). Health policy is basically a national prerogative. The first pertinent EU directive came only in 1965 after the thalidomide disaster, followed in 1975 by the directive requiring a review of all drugs already on the market before licensing became mandatory. In the same year, the inter-agency Committee for Proprietary Medicinal Products (CPMP) and the Pharmaceutical Committee, an intergovernmental network of national bureaucrats involved in policy formulation, were set up. EU policy aims at creating the single market for pharmaceuticals, safeguarding public health, and fostering innovation. In the beginning the EU supported legal harmonization in order to facilitate the mutual recognition of national marketing authorization. This was followed by attempts to centralize authorization at EU level. In 1995, the European Medicines Evaluation Agency (EMA) was established; CPMP became its scientific committee and regulatory cornerstone. Not a genuine independent regulatory agency, EMA mainly serves to coordinate the evaluation procedure; the final decision is taken by the Commission. The members of the crucial scientific committee CPMP are mainly representatives of national regulatory agencies. A centralized procedure grants EU-wide authorization for biotechnology-derived pharmaceuticals and other innovative medicines; it is mandatory for all such products. EMA receives the application, CPMP assesses it and makes a recommendation, and the Commission makes the final decision after going through a comitology procedure. For all other new medicines not restricted to the national market there is a Mutual Recognition Procedure that involves negotiation between national agencies, but requires mandatory arbitration by the Commission in case disagreement arises. Though Mutual Recognition is complicated and time-consuming, this procedure outweighs the Central Procedure in terms of number of applications/cases; in some EU countries, purely national licensing procedures still account for the largest part of applications. If recognition in countries outside the EU is sought, application must be made directly to their national agencies. However, by the fall of 1999, the EU had signed Mutual Recognition Agreements with the US, Canada, Australia and New Zealand.

Pharmacovigilance is basically a national responsibility; however, for medicines approved in the Central Procedure, EU is responsible. EMA tries to coordinate national measures, but is not actively involved. The national agencies are linked in an electronic network (EudraNet). In many countries several different agencies are involved in pharmacovigilance; there is a special EU service for the transmission of reports (Eudra-Watch).

Governance of pharmaceuticals at the international level concentrates on harmonization rather than regulation. The International Conference on Harmonisation (ICH) deals with the technical requirements for the registration of pharmaceuticals. ICH is not

an agency, but a regime established by national agencies and the International Pharmaceutical Association, which hosts the ICH secretariat. ICH was launched in 1990, and by its own account has served to “almost fully” harmonize the standards for demonstrating the quality, safety and efficacy of new medicines throughout the EU, the US, and Japan. Testing standards are defined by detailed technical guidelines, and test results are to be presented in standardized form in marketing application. However, the three regulatory institutions (EU, USA, J) who have negotiated the agreement with industry do not always comply with these standards, which are legally only recommendations. Within the WTO, the TRIPS regime only deals with patenting new substances and testing procedures. Of course licensing could be a trade barrier, but since the national health policy prerogative is generally accepted, WTO does not try to intervene, except in the unlikely case that a country bars entry to *all* foreign medicines.

3 Differences in sectoral governance

A comparison of the three cases bears out the expectation that there are significant differences in sectoral multi-level governance, and allows us to identify the dimensions of variation. The main differences in the MLG of the three sectors concern (1) the prevalent purpose, or goals of governance, (2) the prevalent governance instruments, (3) the relative importance of governance agencies at different levels, and (4) the prevalence of public, private, or mixed forms of governance.

International tourism is the least regulated of the three sectors compared; it is largely left to market forces and private initiatives. Promotion of the industry is the dominant goal of governance specifically directed at iT on all levels. A few regulatory measures are directed at service quality and consumer protection, while mainly lip service is paid to the prevention of negative externalities, i.e. damage to the environment. Governance thus addresses preferably (profitable) service production. There is little by way of regulation targeted especially at iT. What little there is occurs mainly at the national level, where iT is subject to the regulation of national general-purpose agencies, such as tax offices, customs and border control agencies, and trade inspectorates. The regional level of the EU is only marginally involved, but there are specialized international organizations, both public and private, serving primarily iT development. To the extent that governance is specifically directed at iT, it uses mainly positive incentives, information, and brokerage as instruments. Measuring iT activities and generating information plays an important role as a precondition for assessment, and for giving promotional advice. At all levels, from the sub-national to the national, the regional, and to the international, representatives of the industry are actively involved in attempts to develop iT.

In contrast to the relatively new sector of iT, Tc is a very old sector that has been a public service until recently. As a public service, it used to be tightly regulated by national gov-

ernments; service quality and cost efficiency were the dominant goals. Privatization and liberalization policies pursued at the national, the EU and the international levels (i.e. WTO) have changed Tc governance significantly. Service quality is still an important goal, but privatization has caused economic profitability to supplant the goal of simple cost efficiency. Since the use of mobile phones for criminal purposes has become a significant threat, there have been some efforts to control this negative externality. Market access, prices, and service quality are regulated at the national level, while further liberalization is still the dominant goal at the EU and international levels. Parallel to the change in the functional orientation of governance, there is a shift in the nature of the regimes as we move from the national to the international level. At the national level, Tc governance is highly legalized; all EU member states have sector specific, national Tc laws. At the regional (EU) and the international level, technical coordination conducted in the spirit of problem-solving predominates. Technical coordination through the development of standards has always been a prevalent instrument of Tc governance, and is a precondition of liberalization. Standardization now shifts from the national to the regional and the global level, and from public to private actors (Werle 2002: 256). At all levels, standardization is the task of special agencies or specialized units within non-governmental organizations. Representatives of public regulatory and standardization agencies still predominate at all levels, but producers participate increasingly in standardization. As Ute Hartenberger (2007) explains, Tc governance can be described as a closely integrated, transnational regime that subjects a liberalized, internationalizing economic sector to collective regulation.

Medicines for human use are the oldest economic sector of the three, and it is the most strictly regulated. As in Tc, there are sector-specific laws, but in pharmaceuticals they address not simply the provision of a service but above all the quality of the product. The primary goal of regulation had traditionally been the safety of medicines, but as the pharmaceutical industry and public health organizations (hospitals, health funds etc.) grew, industrial policy and budgetary concerns became additional goals. At the regional and international levels, market expansion (e.g. creation of a single European market in pharmaceuticals) and fostering innovation are the major goals; safety and lately also budgetary concerns (health costs) serve as limiting conditions to the goal of market expansion. Private self-governance, which dominated in the past, has in time given way to increasingly tight public regulation; in fact, medicines are among the most regulated products on the market today (Feick 2005: 3). A host of public agencies, both general purpose and specialized, deal with the control of pharmaceuticals at the national level. The major instrument is to make market access conditional upon proven quality, complemented by monitoring utilization and health costs. Beyond the national level, regulatory norms are largely arrived at by negotiation and voluntary agreement. At the level of the EU, market access of new medicines is partly subject to a centralized procedure that, however, includes strong elements of intergovernmental negotiation. In addition there is procedurally regulated voluntary coordination (in the Mutual Recognition Procedure). International governance in this sector is weak, being largely limited to legal harmonization. At all levels, business associations and large MNCs play an im-

Table 1 Multi-level governance features

Governance features	Sectors		
	International Tourism	Telecommunication	Pharmaceuticals
Governance goals	Development of industry	Quality of service	Market expansion, product safety
Relation of public/private actors	Private involvement high	Mixed public/private involvement	Dominantly public
Relative importance of levels	All three equal	EU and international	National and EU
Scope and density of regulation	Low	Medium	High

portant role as pressure groups. Unlike iT, and in a more pronounced way than Tc, the pharmaceutical industry has scientific experts integrated into the regulatory procedures and agencies, especially at the national and regional levels. Table 1 crudely summarizes the sectoral governance features.

The significant differences existing between the MLG of different economic sectors raise the question of whether the intersectoral variation is so large as to invalidate attempts to make general statements about the governance of economies as a whole, statements of the sort that are the basis for distinguishing varieties of capitalism. Though this paper is far from the systematic two-dimensional comparison of the multi-level governance of different (national) economic sectors in different types of national economies that would be needed to answer this question, it nevertheless suggests that differences between sectors within a given country are larger than differences in the MLG of the same sectors in OECD countries with different types of capitalist economies. At the regional level, in contrast, there should be a pronounced difference in the architecture of MLG between members and non-members of the EU. For non-members of the EU, a regional governance level hardly exists, which gives international institutions relatively more weight. At the global level, finally, there should be a difference in governance between OECD countries and developing countries, last not least the so-called weak or failing states preferably addressed by international organizations as the UN in its function of peace-keeping, by the World Bank, and the IMF.

Driven by political as well as economic interests, the MLG of a given economic sector evolves within institutional and legal constraints. At the same time, the specific character of the sector presents opportunities for intervention as well as restrictions. It is therefore not surprising to observe a – contingent – relationship between the architecture of MLG and the specific character of the sector itself. While sectoral properties such as the degree of internationalization, the boundedness, the concentration, and the internal differentiation of the production system can impinge upon the design of governance institutions, the crucial feature seems to be the quality of the product or service itself, its potential profitability for the producers, its more or less vital importance for consumers, and the risks associated with its consumption. Where potential profits, benefits, and risks are all high, there is a tendency to call for tight public control. Turning

to structural properties, economic sectors generally vary considerably in the degree of internationalization, but for this study I have chosen only sectors with an appreciable degree of internationalization. Even so there are differences among our cases. Internationalization can refer to the service itself, as in iT, it can be part of service quality, as in Tc, and it can refer to the market for a product, as in pharmaceuticals. If a service is international in nature from the start, higher level governance institutions develop and assume importance more quickly; this, for instance, has also happened in the case of the Internet. As for the scope of the market, it makes a difference whether producers want internationalization (i.e. bottom-up as in pharmaceuticals), or whether it is imposed upon them politically, in which case the development of international regimes meets with more resistance. As for the property of boundedness, a clear functional separation of the sector from neighboring sectors favors the development of specialized governance agencies and regimes, while vaguely bounded sectors (such as iT) are more subject to governance by general-purpose agencies. But as the case of Tc shows, the boundedness of a sector can change with technological development. Internal differentiation, finally, refers to the size distribution of firms, and to the development of sub-categories of a given product or service, as observed in the production of pharmaceuticals and in Tc services. The latter kind of differentiation has consequences both for the structure of sectoral interest representation, and for the emergence of specialized regulatory regimes. Yet another kind of internal differentiation is represented most visibly by iT, where producers belonging to several different sectors are involved in the production of a given service. This kind of differentiation appears to militate against the development of specialized regulatory regimes targeted at the service.

Comparison between our three sectors also enables us to identify a causal mechanism linking different governance features, especially the goal of governance, the density of regulation, the level, and the public, mixed, or private character of governance agencies. Control as goal of governance, regulatory density, prevalence of public agents, and dominance of the national level appear to be connected in a closely linked causal chain. As noted, the goals of governance differ between sectors, concentrating on different parts of the production chain: in iT governance is about the development of production, in Tc it revolves around a crucial part of service quality (i.e. the territorial scope of communication), and in pharmaceuticals product safety is the paramount concern. The control of negative externalities (i.e. risk to public health) is most palpably a concern in the governance of pharmaceuticals, and least so for Tc. Across sectors, the goals of governance differ characteristically by level. In all three sectors, legal regulation aimed at the control of product or service quality and backed by sanctions occurs mainly at the national level, where the notion of public service connected with statehood prevails and a sanctioning apparatus is in place. At the level of the EU, regulation serves primarily, but not exclusively, to create the Single European market. At the international level, finally, market expansion beyond national and regional boundaries is the predominant goal. These differences reflect the tasks assigned to the EU and the Bretton Woods institutions by their founders, i.e. they are the historical result of a political process. Where product safety is the dominant goal and regulation backed by sanctions

the predominant instrument, governance by specialized agencies and legal regimes is more intense than in sectors where governance aims primarily to develop a service. The balance of public and private involvement in governance is similarly related to the governance goals pursued, and correspondingly differs between levels. In iT, where promotion rather than regulation is the predominant goal of governance specifically targeted at the sector, private economic actors are heavily involved at all levels. In Tc, private economic actors play a lesser, though increasing role in governance at all levels ever since state monopolies were privatized. Since public authorities have tightened safety control, industry and business associations participate least directly in the governance of pharmaceuticals; in this sector, private actors act today mainly as pressure groups. Involvement of private actors giving rise to mixed public/private forms of governance that function as negotiating systems differs more by sector than by level. At the regional and international levels, mixed public/private negotiating systems are particularly complex, since industry representatives meet with agents not of one but of several different governments who often pursue divergent interests.

Sector structures are subject to historical change, and this is reflected in changes in MLG. Thus the prevalence of public agencies, both governmental and non-governmental,⁶ in the present governance of Tc is a path-dependent effect of the former public status of the service. In pharmaceuticals, the growing power of manufacturers as a result of the market dominance of big corporations, together with the development of a growing and increasingly costly public health system, have motivated governments to tighten their regulatory grasp. These observations attest to the importance of a historical perspective in the analysis of MLG.

4 Coherence in multi-level governance

To turn to the second question formulated at the beginning of this paper, in what sense can it be said that the MLG of the three sectors is more or less coherent? In contrast to cohesion and integration, coherence is not a core concept in social theory. Coherence refers to the interrelationship of the components in a whole, and is applied to meaning (of an utterance, a text), to strategy, and to systems of different kinds. In legal theory, the vertically and horizontally differentiated European body of public law is called coherent if there are no gaps in the protection of substantive rights, and if its component regimes are systematically coordinated (Schmidt-Aßmann 2006: 274–275, 288). A political science counterpart of the first of these two legal criteria of coherence, i.e. absence of gaps, might be the complete regulatory coverage of a given process of production and utilization of a given product (good or service). In fact the case studies point to some

6 By non-governmental public agencies we understand private law organizations serving public functions, such as technical standardization.

regulatory gaps in areas where regulation was a goal, for instance in the technical standardization of Tc and in monitoring the safety of medicines not subject to licensing. But regulation per se is functional only if profitable production, high product or service quality, and avoidance of negative externalities cannot be achieved without (public and/or private) regulation. Dense regulatory coverage is therefore not a meaningful criterion of coherence in MLG.

The literature on the varieties of capitalism (VoC) suggests that coherence may be the result of institutional complementarity.⁷ The notion of complementarity

is at the core of most analyses that try to identify coherent national models, systems of innovation and/or production, varieties of capitalism or models of *regulation* ... These approaches ... stress that the pattern of interrelationships between the different elements of the institutional structure defines the coherence of this structure. (Amable 1999: 20)

The core assumption of the VoC school is that institutional complementarity, whether based on mutual functional enhancement or on value homogeneity (i.e. the sameness of normative orientation), makes for superior economic performance (see the discussion in Crouch 2005a, 2005b). However, the relationship between coherence, complementarity, and performance is ambivalent: if complementarity is defined as mutual functional enhancement of institutions (Streeck 2004: 114; Amable 2003: 6), it can stabilize institutions, but need not increase system performance. Nor does coherence necessarily presuppose either functional complementarity or value homogeneity. The atoms in a molecule cohere not because they complement each other functionally, nor because of some ulterior sameness, but as a result of interacting forces of attraction and repulsion. In social systems, coherence may not only be based on a functional division of labour, functional complementarity, normative integration, or social cohesion, but at least for some time also on brute force.

Coordination in MLG does not take the form of complementarity between functionally distinct institutions which mutually enhance each other's ability to contribute to system performance.⁸ For one thing, it is hardly possible to define a performance measure for MLG that would permit measuring the effect of different sectoral governance arrangements. In VoC, the performance of the economy is an outcome of the activities of the component institutions as measured by an outside observer. Even an outside observer, however, would be hard put to define a single effectiveness measure for the MLG of different economic sectors, because such a measure would have to take into account several potentially conflicting criteria.⁹ Even if we relate functional complementarity

7 For an extended discussion of the connection, see Mayntz (2006).

8 Mutual enhancement and contribution to system performance are two different aspects of complementarity that are usually not distinguished in VoC, and that may, but need not, be empirically related.

9 Economic profitability, service quality, and the avoidance of negative externalities are criteria defined from three different perspectives: the perspective of producers, of users, and of the system as a whole.

between institutions not to system performance, but only to the stability of an institutional arrangement, it can hardly be said that the component institutions of a given MLG enhance each other's functioning mutually. While the agencies and regimes of sectoral governance do fulfil different tasks, they do not appear to assist and stabilize each other, but rather to accommodate to each other as best they can. This even holds true when, as in the licensing of medicines, a functional division of labor has been established between the EU Central Procedure and national authorities.

If it is not based on functional complementarity, coordination in MLG might be based on subsidiarity, the normative principle guiding the division of labour in multi-level government. Subsidiarity means that at each government level, only those problems shall be addressed that can best be solved at that particular level, 1) because of scale economies, 2) because the means are available only at this level, 3) because of the scope of the problem and hence the nature of the causal structure to be targeted. In discussions of European integration and international institutions, particularly the third criterion is often given as a reason for the emergence of the EU, and of global governance. Functional considerations do in fact suggest that the development of iT, technical standardization of international Tc, and the control of access to an international market for medicines be assigned to international agencies. Market expansion, however, the prevalent goal of the EU and of international institutions involved in economic governance, has been a political choice rather than a functional response. Functionalist theory would require that at higher levels of governance, priority be given to the control of negative externalities of cross-border movements and transactions. But this is clearly not what we found.

Multi-level governance differs from a vertical division of labor and of powers in which "higher" level agencies are constituted by the transfer of competences to be executed by their own personnel. In MLG, in contrast, levels are in good part linked by interpenetration, i.e. they form Putnam's famous two-level games, where the members of a higher level agency represent at the same time a lower level unit to which they belong. This dual membership leads to dual loyalties. Interpenetration is a special mode of organizational coupling, studied mainly in horizontal relations as in interfirm networks. Interpenetration between levels in MLG constitutes a specific type of regional and international agencies, namely hybrids of intergovernmental negotiation systems and corporate actors (Mayntz 2002). Public non-governmental organizations fulfilling a given function at successively higher levels, such as the standardization organizations DIN (national), CEN (regional), and ISO (international), are linked by interpenetration in a way much like the way national representatives link individual governments to regional and international institutions. The same holds again for vertically differentiated sets of business associations and private organizations. Where regional governance exists, linkage between the national and the international level can still be direct; thus the German DIN sends delegates both to the regional organization CEN and the international ISO.

Interpenetration in MLG is the result of bottom-up delegation to newly forming higher levels and of cooptation from lower levels in (less frequent) top-down processes of MLG development. Interpenetration gives the MLG of economic sectors an appearance of coherence, but it is a form of linkage that is often fraught with conflict. MLG has to deal with two fundamental kinds of conflict: conflicts between governance agents and governance addressees, and conflicts among different governance agencies and regimes. Conflicts of the first type arise wherever the goal of governance is to discipline and regulate, rather than to promote; they are not specific to MLG. Though producers can be in favor of regulation where it serves to restrict competition or to expand markets, intense conflicts between governance agents and producers result when producers seeking profit are to be disciplined in the service of public interest. Pharmaceuticals, the most densely regulated of our three sectors, is beset by the most intense conflict, as manufacturers wanting to put medicines on the market are confronted with regulatory agencies at the national and EU levels that regulate the market access of products in the interest of public health.¹⁰ The fact that firms – very much so in Germany, but depending on legal opportunities in other countries as well – even go so far as to challenge regulatory decisions in court, attests to the acuteness of this conflict. In Tc, a conflict line between manufacturers and regulators evolved after the service became privatized; in this sector, too, the regulatory agency’s decisions are occasionally challenged in court – at least in Germany, where this is legally possible. In general, however, MLG in Tc is not very conflict-ridden. There are some conflicts involving economic issues (e.g. price regulation, or market access granted to competitors) and some competition between private and official standardization organizations, but by and large technical standardization is characterized by the “peaceful coexistence” of different standardization organizations (Werle 2001: 400). In iT, finally, producers may chafe at the restrictions imposed upon them by general-purpose regulatory agencies, and there may be occasional disagreement about the scope and nature of promotional activities, but there is no evidence of manifest conflict.

The cooptation of producer representatives into regulatory decision making is a familiar measure to cope with conflict between producers and regulators, but if it does not lead to agency capture, it leads to the internalization of the conflict, which now calls for within-agency negotiation. Such negotiations do not *resolve* conflicts; they are indicators of their continued presence. Another attempt to move from a confrontation of interests to the sphere of objective problem-solving is the involvement of scientific experts. But especially in the case of high uncertainty and a strong conflict of interests, the success of this measure is doubtful. According to Abraham and Lewis (2000: 58), the experts involved in the regulation of pharmaceuticals in Britain, having in their majority financial interests in the industry, constitute a “revolving door” between industry and agency.

10 In the case of pharmaceuticals, it has not been the regulation per se, but the time-consuming and complicated regulatory procedures involved that have incited opposition.

Conflict between agencies is again not specific to MLG, except where it involves different levels. There are conflicts about the distribution of powers between agencies at the same and at different levels. Conflicts between different levels occur mainly between national governments and the EU. EU member countries have delegated substantial powers to EU institutions; non-EU members who are weak states may be dependent on the IMF or the World Bank, but this is not a relationship of manifest conflict. Occasionally there is conflict between regional and international agencies, such as the EU and the WTO; conflicts between WTO and individual countries are more frequent. Agency conflicts between levels occur both in Tc standardization, and in the market control of medicines (licensing). In Tc, national governments wanted to preserve their domain, while the EU pressed for privatization and centralized standardization. In the field of pharmaceuticals, national regulatory agencies resisted the centralization of licensing in a European regulatory agency. The compromise arrived at – participation of national regulators in the scientific committee CPMP – kept being contested by the Commission, to little avail; in the course of the Legislative Review it succeeded in reducing the number of national representatives on the committee from 2 to 1 per country, but due to EU enlargement the size of the committee grew at the same time from 15 to now 27 members.

Conflicts about agency powers often coincide with, and are exacerbated by, a difference in the goals pursued by agencies at the same and at different levels, and even within agencies. This sets the WTO, intent on market expansion, against quality controls pursued at the national level. Within the framework of the EU, different agencies or subunits of the Commission pursue conflicting goals; thus there is conflict between the development of the tourist industry and guaranteed service quality for tourists, and even more pointedly between market expansion and the safety of medicines. That it is difficult to strike an appropriate balance between industrial, medical and budgetary needs is openly admitted by the Enterprise-Directorate General of the Commission. Abraham and Lewis (2000) therefore doubt that public health is still sufficiently safeguarded since regulation has shifted to the EU. Conflicts within agencies are rampant not only where different subunits have different priorities, as in the EU Commission, but also where the prominent decision-makers represent different countries or regions. The WTO thus often serves as an arena for conflicts between the US, Japan, and the EU.

Domain conflicts are about the allocation of powers to different corporate actors and the delineation of jurisdictions. But there is not only conflict between different actors in MLG; different regimes can also conflict with each other substantively. Joerges (2006, 2007) distinguishes between vertical, horizontal, and diagonal legal conflicts in the EU, i.e. conflicts about which legal norms apply to a given case. These three types of legal conflict can be applied to MLG generally. Vertical conflicts are conflicts between legal regimes at different territorial levels; they occur both between national law and EU legislation, and between EU law and WTO rules. In horizontal conflicts, the injunctions of different national laws to a given case diverge. Horizontal legal conflicts occur typically in the context of transactions involving the movement of persons, goods, or finances

across national borders. Diagonal legal conflicts finally occur if regimes at two different levels that apply to different aspects of a given case make contradictory demands. Thus Community competition law may accept a given contract between businesses as a pro-competitive arrangement, while national competition law may find it unfair and hence invalid (Joerges 2006: 794). While this paper has not analyzed MLG from a specifically legal viewpoint, the case studies have nevertheless pointed to the existence of horizontal conflicts between national regimes in the control of pharmaceuticals, and of horizontal and vertical conflicts between different standardization regimes in Tc. In general it may be expected that the frequency of conflicts between legal regimes varies with the extent of legalization of sectoral MLG.

Different and partly cross-cutting lines of conflict between agencies, and legal conflicts at the same and at different levels, make coordination in MLG precarious and problematic. The resulting tensions and inefficiencies provoke continuous efforts to cope with them; conflicts thus are a major driving force of institutional change in MLG, as Morgan (2005: 416) also pointed out with respect to institutional change in the governance of national economies. A new kind of collision law which Joerges (2006: 2007) has analyzed specifically for the EU, but which can also be found at the international level (in WTO law, for example), is being developed in response to the increasingly frequent vertical, horizontal, and diagonal legal conflicts in MLG. The anticipation of a power conflict between governance levels is dealt with by having lower level representatives serve in higher level agencies. A famous instance is the EU comitology system (Joerges/Neyer 1998).¹¹ The comitology procedure grants member country executives influence on the elaboration of regulatory provisions which implement EU legislation. Comitology developed in response to the power conflict between the Commission and national governments, even before it was formally instituted in 1987. In addition to permanent institutions in which lower level representatives negotiate with each other and with higher level representatives, ad hoc committees are also set up to coordinate diverging interests. Thus in Tc, various committees have been set up for the express purpose of coordination; one such committee (ICTSB) coordinates ETSI, CEN, CENELEC, and many private standards organizations. Besides, in 1997 an Independent Regulators Group which is not part of the EU framework was established; this intergovernmental network deals with problems of regulatory practice. Another example of coordination efforts which respond to coordination deficits is the Legislative Review Process started in 2001 by the Commission to deal with the obvious problems in the market control of medicines. The reform turned an existing informal group facilitating the Mutual Recognition Procedure into an official Coordination Group, charged with speeding up the processing of applications and negotiations about the mutual recognition of national authorizations, and improving the effectiveness of pharmacovigilance.

11 Comitology, or implementation committees, are not the only type of committee involved in EU policy processes that link member states and European institutions; there are also numerous expert committees active in drafting policy, as well as Council working parties helping to prepare Council decisions; see Schäfer (2000).

If coordination is understood as resolution, and hence the disappearance of conflicts, coherence in MLG should not be called coordination. EU comitology has sometimes been interpreted euphemistically as leading to genuine supra-nationalism (e.g. Joerges/Neyer 1998). In truth, however, the very need for such a procedure attests to the continuing conflict between national and European governance. Conflicts between regulators and economic actors, and conflicts between governance agents and the norms they produce and apply follow from the interest structure underlying the actor constellation in a given economic sector and its governance. Both the architecture, and the regimes of MLG are shaped by the attempts to cope with conflict, and manifest the endurance of conflicts that cannot be resolved once and for all. To the extent that there is coherence in MLG, it is closer to the notion of coherence familiar from chemistry than from arguments about institutional complementarity. The dimension of conflict, and coping with conflict, is neglected in VoC analysis as pursued by Hall and Soskice (2001). Analysis of the multi-level governance of economic sectors may help to change this perspective.

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