Abstract

Over the past two decades the state has retreated from several of its core functions. The retreat of the state is especially visible in network infrastructures, e.g. telecommunications, postal services, electricity or railways. State owned infrastructure companies have been privatized, monopolistic markets were opened to competition and new regulatory institutions were established in order to ensure fair conditions for new market participants. Based on this development, the article analyzes whether the process of regulatory reform has indeed produced similar or even identical infrastructure regimes in the enlarged European Union (EU), as it is for instance postulated by the ‘regulatory state hypothesis’. The analysis focuses on a comparison of the reform development and the outcomes in the 15 old member states (EU-15) and the eight new members from Central and Eastern Europe plus Bulgaria and Romania (CEEC-10). In the analysis, special focus is put on the Europeanization of regulatory policy-making in network infrastructures and on the transition process in the CEEC-10 since the early 1990s. On the basis of a new data set for the telecommunications and the electricity sector, the article evaluates to which extent the 25 countries have privatized state owned companies, how they have progressed in liberalizing their national markets and how independent newly established regulatory agencies are in ensuring fair competition. The goal is, first, to compare the reform outcomes in the two sectors for both group of countries and, second, to contrast the timing and scope of reform in the CEEC-10 with that in the EU-15 in order to categorize the national regimes accordingly. Based on the results of this regime categorization we can identify those countries among the CEEC-10 which should be given further analytic attention. By analyzing national categories of reform as well as horizontal processes of diffusion and policy learning, the paper tries to find explanations for cross-sectoral and cross-country divergence among the CEEC-10.
1. Introduction

The privatization of public enterprises and the liberalization of closed markets have become common synonyms for a paradigm shift that set in almost three decades ago. Beginning in the mid-1970s, governments have gradually changed their view of the role of the state in the provision of public goods and services. This paradigm shift is most clearly visible in network infrastructures. It is, however, rather astonishing that state involvement in those sectors is being reduced because modern infrastructures are becoming increasingly important for the functioning of an internationalized economy. In times of globalization, telecommunications and physical transportation networks have become sectors of central relevance for economic competitiveness.

The trend of state retreat can be captured by mapping the development of government expenses over time. Up to the mid-1990s state expenditure as a share of Gross Domestic Product (GDP) increased continuously. As we can see from Figure 1, between 1960 and 1995 total government outlays of the old member countries of the European Union (EU) have in average more than doubled. In Spain, for instance, the ratio of state expenditure to nominal GDP increased from 13,7 per cent in 1960 to 45,0 per cent in 1995 and in Sweden from 31,1 per cent to 67,6 per cent in the same period. This trend set in right after the Second World War. Especially in the 1960s and 1970s we can observe a heavy expansion of the public sector in all countries of the Western industrialized world. The major reasons for this development was the heavy expansion of social programmes, i.e. health care, pension systems or unemployment benefits, and of public infrastructure provision.

If we look at Figure 1, we find that the trend of increased public spending as a percentage of GDP seems to have reversed since its peak in the mid-1990s. Although spending for social

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2 State expenditure, or total government outlays, is here defined as current outlays plus capital outlays. The definition includes social security expenses, subsidies, interest payments, capital and other current transfers and state consumption (OECD 2004: 7). Data refer to the general government sector, which is a consolidation of accounts for the central, state and local level plus social security systems.

3 Usually, the public sector development is plotted using the state expenditure to GDP ratio. It can be considered as the most accurate form of statistical representation. Nevertheless, the use of figures on relative public expenditure shares is controversial. One problem certainly is the demarcation of the public sector. In most OECD statistics, the numerator ‘state expenditure’ commonly includes general government spending, expenditures of public enterprises and of public financial institutions. It further covers public sector purchases (material and services) from the private sector, costs for the publicly employed, public investment and transfer and interest payment (Gretschmann 1991: 197-199). As we will see later, similar problems arise in the context of infrastructure privatization. There, it is also difficult to establish meaningful comparative data since the definition of ‘public enterprise’ varies greatly across countries (Vickers and Wright 1988: 9).
programmes has continued to expand, total government outlays as a percentage of GDP have declined. The reason for this recent decline in government expenses are mainly ‘one-off factors’. But also the prolonged economic and employment boom over the second half of the 1990s, which resulted in lower transfers to households, contributed to this decline. In the future, pressures on social spending are likely to further intensify as a consequence of ageing populations. However, EU member countries have no scope for raising taxation or making new debts to finance higher expenditures. Thus, governments will need to curb public expenditure and at the same time raise its cost effectiveness. Currently, strategies of EU governments indeed foresee fundamental reforms in the budget process and public management, and the introduction of market instruments in social security systems (OECD 2004: 5).

We know from the analysis of regulatory reform in the OECD countries that infrastructure privatization has taken a rather different development across states and sectors in the past two decades. We find early movers and laggards as well as spontaneous and incremental privatizers (Schneider, Fink and Tenbücken 2005). Which reform patterns do we expect in the CEECs based on our knowledge about the general transition process, which among others included radical privatization programmes? Did privatization in the new member states proceed much faster in course of mass privatization than in the EU-15? Or did it possibly develop rather similarly across countries and sectors? This is the first puzzle, the paper seeks to answer.

The paper further seeks to answer whether we can observe diversity or similarity as regards the outcomes of privatization, liberalization and reregulation policies. One goal is to come up with a topology or categorization of regulatory regimes in the three infrastructure sectors. In this context, it will be interesting to analyze if there are any significant differences between the EU-15 and the CEEC-10. Especially interesting is the question as regards the regulatory situation in the new member states because this region has so far largely been excluded from systematic analysis. In addition, the paper also looks at cross-sectoral differences at an aggregate level. This in turn allows us to assess another mechanism that is heavily disputed in the regulation literature: the impact of internationalization or Europeanization pressures.

The third research question builds on the answers to the first two questions. By mapping differences and similarities of privatization patterns and regulatory regimes across the EU-25, we can single out those countries that call for a more detailed investigation. For some countries of Western Europe the role of domestic factors in the process of infrastructure reform has extensively been

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4 ‘One-off factors’ are transient effects that can be activated only once.

5 To enhance the efficiency of the budget process many countries have introduced or strengthened fiscal benchmarks. The reform of public management practices shows a tendency of result-orientation, whereby
discussed. In contrast, a systematic analysis of these factors for the CEECs on the basis of a macro-
data analysis is still missing. In this respect, the paper does not only provide empirical data for an
assessment of theoretical conceptions and hypotheses of the regulation literature. It further offers a
perspective on the mediating factors behind regulatory reform in the new EU member and applicant
countries.

2. Regulatory reform and the regime approach

The developments in the industrialized world over the past two decades confirm the shift from
direct state involvement to a greater reliance on market mechanisms, norms and incentives to pursue
industrial or employment objectives and consumer welfare. Traditional goals of public interest
regulation, i.e. access to universal services or safety and environmental concerns, are today
increasingly met within a competitive framework. The reform strategies in the classic infrastructures
in the light of European integration and globalization pressures comprise three different but
interrelated dimensions:

Privatization

Privatization is only one but probably the most visible variable in the reform process (Vickers
and Wright 1988; Wright 1994). Through privatization programs governments have fundamentally
reshaped the organization of network infrastructures. The term ‘privatization’ denotes a multitude of
different activities, from the private provision of public services over contracting out to joint capital
projects using public and private finance. In narrow terms and its most commonly used meaning, the
privatization concept captures changes in property rights of formerly state-owned enterprises, in other
words the sale of public assets (Jackson and Price 1994: 4-5). Not even 20 years ago, in almost all
countries around the world companies operating in network industries formed part of the public
administration or were either fully owned or controlled by the state. Today, we encounter a large
number of privately owned infrastructure companies, many of which are listed at the stock exchange.
The forerunner of the privatization development in Europe was Great Britain. Beginning with the
reform programme of the Thatcher administration in the early 1980s, the privatization wave
subsequently swept across Western Europe.

Liberalization

policy-makers define output or outcome objectives while leaving it to managers to decide how to best reach
them.
In many instances, privatization programs are accompanied by liberalization initiatives that aim at opening up the respective sectors for competition (Coen and Thatcher 2001). Also in network infrastructures, the breaking-up of monopolistic structures was based on the assumption that liberalized markets were a necessary prerequisite for the successful participation in the globalization process. Telecommunications as a network infrastructure was the first sector to be opened for competition on a broad scale. The liberalization wave was kicked off by the United States (Schneider 2001). With the break up of the private monopoly and the divestiture of AT&T in the year 1982 it was the first country to liberalize its national telecommunications market (Coll 1986). In the course of this event, all major industrialized countries followed suit, and by today far over 100 countries have liberalized their telecommunications markets.

Reregulation

In course of infrastructure reform, governments of Western industrialized countries have reorganized control over infrastructure provision but at the same time have not substantially reduced the level of regulation. Hence, the notion of rereregulation instead of deregulation (Vogel 1996). In most sectors, national regulatory authorities (NRAs) have been granted important powers such as the approval of mergers, the right to grant licences or the duty to prevent unfair competition. They define and interpret rules, monitor and supervise them, and even introduce sanctions if necessary, and thus combine legislative, executive and judicial functions (Baldwin and Cave 1999: 70). The basic difference between national competition authorities (NCAs) and NRAs is that the former are usually responsible for the regulation-of-competition on an *ex post* basis while the latter focus on regulation-for-competition on an *ex ante* basis. However, the legacy of the interventionist state seems to have caused a certain reluctance of governments to accept full agency independence and the corresponding danger of behind-the-scenes-pressure on the newly created sector regulator (Prosser 1989: 147).

Regulatory regimes

In political science, the ‘regime’ term developed prominently in the context of governance issues in international relations (cf. Keohane 1982; Krasner 1983). However, over time it became increasingly attractive also to students of regulatory policy-making. Today, we observe the existence of a variety of different regime definitions. One regime definition is given by Francis. According to

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6 Based on their organizational separation from the executive and autonomy from policy-makers the role of NRAs is to increase credible commitment of market reforms (Majone 1997: 152-155). Their autonomy helps them to focus on specific regulatory objectives and allows transparent policy-making while giving them a certain procedural legitimacy. With the exception of national competition authorities in Germany and the United Kingdom, in the 1970s regulatory authorities were rather rare in Europe. In most EU member states this changed.
him, a regulatory regime is a “reasonably enduring purposive arrangement […]”, embracing both formal and informal organizations, incorporating the relationship between private interests and public bodies that make governing decisions” (Francis 1993: 43). Francis argues that the nature of regulatory regimes is determined by two characteristics. First, by the location of regulatory authority. Whether regulation is exerted in an unitary or a federal system can have major consequences for the nature of a regulatory regime. In an unitary state, the formal regulatory authority rests with the national government, while in federal systems the subnational units retain regulatory powers. In addition, European states have to share regulatory competencies with EU institutions, i.e. the Commission or the European Parliament. In course of Europeanization much of the original regulatory authority of nation states has been transferred to the EU-level.

The second regime characteristic according to Francis is the division of regulatory responsibility between the state and private actors. We could imagine a continuum along which the extent of regulatory responsibility is placed. At one end, all regulatory power is delegated to private organizations and at the other, regulatory responsibility rests entirely with the government. Usually, the situation will lie somewhat in the middle of these two extremes. The interesting question is whether the relationship between the state and the regulatees is adversarial or collaborative in nature. This depends to a large degree on the role of private-sector groups in the formulation of regulatory structures and standards.\(^7\) In some regimes producer groups will play a more prominent role, while in others consumers and those that generally have a tougher stand articulating their interests, i.e. environmentalists, can possess considerable influence (Francis 1993: 49-64).

But let me point to some alternative definitions of regulatory regimes that are somewhat broader than the above discussed as they include the role of ideas and regulatory policies. Eisner (2000: 1), for instance, defines regulatory regimes as “a historically specific configuration of policies and institutions which structures the relationship between social interests, the state, and economic actors in multiple sectors of the economy”. In contrast to Francis, whose regime definition is based more on the international relations tradition, he takes on a more general regime perspective with less room for sector-specific variation.\(^8\) Although Eisner’s definition includes the individual role of ‘policies’, it still rests with an emphasis on the institutional linkages between regulatory authorities and private actors.

This emphasis is more or less transcended in other definitions of the regulation literature. Harris and Milkis (1996: 23), for instance, posit rather generally that a regime refers “to the system of ideas, with upcoming regulatory reform. Especially since the mid-1990s, the role of NRAs began to grow significantly (Doern and Wilks 1996).

\(^7\) According to corporatist theory, there are sustained relationships between the state and specific private-sector groups, i.e. peak organizations. Pluralism, on the other side, posits that the relationships between organized groups in a society are not fixed and often even competitive in nature (cf. Wilson 1990).

\(^8\) I am grateful to Frank Janning for this comment.
institutions, and policies that determine how a society is governed”. They go on and define it more precisely as “a constellation of (1) new ideas justifying governmental control over business activity, (2) new institutions that structure regulatory politics, and (3) a new set of policies impinging on business” (ibid.: 25). And Vogel (1996: 20) refers to regimes even more generally as “specific constellations of ideas and institutions”. Both of these two perspectives share the emphasis of the role of ideas for the shaping of a regulatory regime.⁹

Although the basic components of regulatory regimes can be exemplified in the regime perspective discussed above, the level of abstraction still creates problems for systematic comparison. It is, for example, rather difficult to measure political or economic ideas, the location of rule-making power between governmental entities or relationships between regulatory actors and private interests. We therefore need to investigate how these components materialize in form of measurable variables. A suitable operationalization provides the grounds for a systematic regime categorization. Based on such a categorization, we can in a second step conduct cross-national and cross-sectoral comparisons that constitute the basis for empirical analysis and case selection.

The elements that serve to define the process of regulatory reform can also help us to categorize a specific infrastructure regime. The variables that constitute such a regulatory regime are (1) ownership structure, (2) market liberalization and (3) regulatory institutions. They reflect the material outcomes of the three policy dimensions that constitute the process of regulatory reform: a distinct ownership structure is the result of privatization programmes, a certain level of market opening is the outcome of liberalization efforts and a certain degree of agency independence is caused by a strategy of reregulation. Depending on the specific configuration of these variables we are able to put forward five ‘ideal’ regime types (Table 1), which can be found across several different issues areas and sectors.

A sector-specific approach has repeatedly been propagated as the most appropriate level of analysis by studies on policy networks and policy communities.¹⁰ It has, for example, been applied in studies on industrial policy (Wilks and Wright 1991), corporatism (Gorges 1996), organized interests (Greenwood and Ronit 1994) or economic governance (Hollingsworth, Schmitter and Streeck 1994).

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⁹ A similar framework is adopted by Lehmbruch (1992: 31), who distinguishes between two dimensions of economic policy: the ideological interpretation of the state-economy relationship (ideas), and the linkages between state actors and the economy (institutions).

¹⁰ For a review on the literature, see Atkinson and Coleman (1992).
Similarly, a regulatory regime is not simply a copy of the larger political system but possesses distinct institutional characteristics.\textsuperscript{11} Therefore, the paper uses an approach that allows for cross-sectoral variation. The regime approach is a suitable framework also for the discussion of state retreat, since the state might be in retreat in some sectors while it is expanding in others. In specific, network infrastructures seem to have produced quite different regimes in course of regulatory reform, as the developments in the telecommunications and water sector, for instance, indicate.

3. The Europeanization of regulatory policy-making

Besides globalization pressures, processes of Europeanization play an important role for national developments of regulatory reform. In the literature, the term ‘Europeanization’ is used according to several different meanings. Two of these meanings are central for the discussion in this paper. The first focuses on processes at the EU-level and regards Europeanization as “the emergence and development at the European level of distinct structures of governance” (Cowles, Caporaso and Risse 2001: 3). The second meaning takes into account the member state level in the sense “that EC political and economic dynamics become part of the organizational logic of national politics and policy-making” (Ladrech 1994: 69). Both perspectives are important for the subject matter, and only in combination they will further our understanding of infrastructure reform in the EU.

First efforts to promote EU-level action in infrastructure regulation started in the mid 1970s when competition between Europe, Japan and the United States began to grow and a common industrial policy in the EC was regarded as indispensable.\textsuperscript{12} Based on institutional reforms inherent in the Single European Act of 1987, the Community institutions, mainly the Commission, were able to advance integration and to expand their regulatory tasks into new policy fields, i.e. telecommunications and electricity. As several studies have shown, policy-making at the EU-level can have considerable impact on national legislatures and executives (cf. Knill 2001; Lodge 2000). Thus, one question that arises in the context of the debate is whether the emergence of European structures of regulatory policy-making does indeed push the member countries on the same development path. If this was true, we should expect similar outcomes of the regulatory reform process, and thus similar regulatory regimes, at least within the EU-15 and the CEEC-10.\textsuperscript{13}

\textsuperscript{11} This is one reason why the author favours Francis’ regime definition over that of Eisner.

\textsuperscript{12} A further reason for EU-level action was the creation of mutual commitment to support in situations of energy supply shortage. This policy goal was based on experiences from the two oil crises in 1973 and 1981/82.

\textsuperscript{13} In the following, the abbreviation EU-15 will be used for those countries which were EU members already before the last enlargement round in 2004. The abbreviation CEEC-10 will be used for the eight new EU members from Central and Eastern Europe (the three Baltic States, Poland, Hungary, the Czech Republic, the Slovak Republic and Slovenia) plus the two accession candidates Bulgaria and Romania. Cyprus and Malta will not be analyzed here.
The emergence of distinct forms of regulatory governance at the EU-level is especially important for reform developments in Central and Eastern European Countries (CEECs). In course of the Union’s eastern enlargement, whose first round was completed in 2004, the applicant countries were required to meet the Copenhagen Criteria. A central element of these criteria was the complete takeover of the acquis communautaire, the Communities’ Secondary law (Schimmelfennig 2001: 59). If we assume that the pressure which was exerted on the applicant CEECs to completely take over all Directives and Regulations was similar across countries, it should depend on the impact of diffusion processes and national categories whether these countries show similar regulatory regimes after 15 years of market-oriented reform.

The enlargement rounds prior to the one in 2004 have demonstrated that EU provisions with regard to regulatory alignment are both rigid and flexible. They are rigid because the acquis can only be modified with great difficulties due to institutional constraints at the EU-level. But at the same time, EU law is flexible because it can, to a certain degree, accommodate regulatory systems that foresee comparable or higher levels of protection. Looking, however, at the enlargement round in 2004, we notice that all countries that joined the Union had a much lower level of regulatory standards prior to accession. Because the EU system is less tolerant towards lower standards of regulation and since more economic interests were threatened by Eastern enlargement, it was quite correctly predicted that the negotiating position of the EU would be more rigid than it was in earlier enlargement rounds (Young and Wallace 2000: 123-124).

McGowan and Wallace (1996: 573) argue that the necessity of national implementation will lead to a two-tiered system of EU regulation, in which there remains scope for variation across countries as regards style and substance of this regulation. They predict that the new member countries may prove to be more susceptible to pressures of regulatory alignment than old members due to national mechanisms which are less resilient and also lacking in established procedures. According to this line of argumentation, the Europeanization of regulatory governance would exert an uneven effect on the countries in the EU. Thus, some authors claim that the role of the Commission and of EU-level policies promoting liberalization in general were stronger in the CEEC-10 than in countries of Western Europe (cf. Mayhew 1998; Nunberg 2000).

As regards EU enlargement, it is often asked how it affects the distribution of power and interests within the organization, and how it impacts on the effectiveness and efficiency of the organization. A dimension that is extremely relevant for the study of horizontal institutionalization but that has so far largely been neglected in studies on enlargement refers to the question, how

14 In the following the term ‘old member countries’ is used for the EU-15 while the term ‘new member countries’ denotes stands for the eight CEECs that acceded in May 2004.
enlargement changes the identity, the interests, and the behaviour of governmental and societal actors. As Schimmelfennig and Sedelmeier (2002: 507) state,

“with regard to eastern enlargement, there is little cross-fertilization between theoretical studies of the impact of international organizations, the Europeanization literature, the more theoretical literature on the transformations in the Central and East European countries (CEECs), and the mainly descriptive literature on the effect of the EU on the candidates which is often limited to single countries and single policy areas.”

The authors (ibid.: 524) go on and claim that

“the state of research on enlargement demonstrates once more the limits of single-case studies [...] and the need for an enlargement of enlargement research – to more comparative analysis and to the integration of under-researched dimensions such as member state politics, substantive politics and the impact of enlargement.”

The paper aims at closing this research gap somewhat further by combining quantitative macro-data analysis with focussed cross-country comparison: while the former aims at broadening the scope of descriptive analysis of the outcomes of EU-wide regulatory reform, a more detailed cross-country comparison helps us to further understand the mechanisms behind Europeanization and its interaction with domestic processes of transformation.

**The Transition Process in the CEECs**

In the CEECs, first infrastructure reform steps became possible only after the demise of the Soviet Union and the regaining of national independence in 1989. For all countries the major challenge was the transition of a Centrally Planned Economy (CPE) into a market economy. This implied the creation of markets and the establishment of legal, commercial, and socio-political institutions that are necessary to safeguard market reforms. In addition, the CEECs began to prepare for global competition with states from the West. Regulatory reform in infrastructures thus occurred in the context of fundamental institutional transition and mass privatization. This general transition

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15 The collapse of the Socialist regimes in the CEECs came more or less as “a surprise” (cf. Huntington 1991). Theories of convergence expected the democratic and the Socialist systems to align themselves. Theories of totalitarianism predicted that the Socialist regimes gain legitimacy over time and will thus stabilize. These hypotheses, however, were based on the assumption that the CPEs had a fair chance of survival.

16 At the outset of transition, privatization was frequently regarded as the central means to achieving the key goals of reform, i.e. general political support for a market economy, macro-economic stabilization or the establishment of efficiently operating enterprises. In other words, it was hoped that large-scale privatization programmes would catalyze the transition process. Basically, we can observe three privatization paths in the CEECs. First, privatization as it occurred shortly after 1989 when small-scale service enterprises, such as shops or restaurants, were sold to private investors. For larger companies, i.e. network industries, other means of privatization had to be found. In these sectors, privatization occurred through capitalization. The third form of privatization took place through liquidation, in which case the assets of bankrupt companies are either sold off
process was much bigger in scope than sector-specific reform projects in West European countries, which took place in the context of a functioning market environment framed by solid legal and political institutions.

This process of ‘grass-root’ state-building brought about a variety of challenges for the CEECs. First of all, it required the development of a reliable constitutional framework: before new economic policies could become effective, potential distribution conflicts among competing societal groups had to be framed by dependable rules of the game. A second prerequisite for successful economic reform was the establishment of new economic institutions and actors, i.e. central banks, Ministries of Economy and of Finance or independent expert organizations. While this implied much leeway for the new states concerning institutional design, it also posed big challenges as regards the political decision-making process. A third challenge of state-building refers to the upsurge of nationalism which in several CEECs shaped the course of economic reform. The nationalist resurgence was not only a by-product of economic crisis and transition. Rather it was an integral element of the political transformation from Communist states into Western-style democracies.

Before transition began in 1989, state, society and economy were strongly intertwined. Despite differences in the degree of authoritarianism among the CEECs, the general discrepancy to the market-oriented, democratic state model of the Western hemisphere was clearly evident (Sturm et al. 2000: 17-18). In course of transition, the old system promoting the primacy of politics had to be eliminated and the interrelations between the newly separated subsystems had to be defined from scratch. A widely held view at the beginning of the transition process was that CEECs should rapidly introduce Western regulatory mechanisms in order to quickly internationalize their economies. This strategy of emulation or copying was based on the assumption that no elements of the status quo ante were to be preserved because most CEECs could not draw on a distinct regulatory culture or certain regulatory preferences prior to the Second World War. The strategy was basically to quickly modernize the economic system and to move from lower to higher standards of regulation (Young and Wallace 2000: 117).

Vertical policy transfer through international organizations or the EU was another promising channel for the diffusion of Western regulatory structures to the CEECs. Shortly after 1989,
governments of the CEECs began to copy economic models of the West. As Przeworski’s (1991: 183) states

“[m]arket-oriented economic reforms are an application of a technical blueprint based on theories developed inside the walls of North American universities and often forced on governments by the international lending agencies”.

Today, EU institutions are the dominant actors in determining the reform agenda of CEEC governments. In course of the enlargement process and corresponding accession negotiations, the CEECs were required to take over large parts of the acquis. Thus, the criteria set by the European Council in 1993 in Copenhagen have fundamentally influenced the process of regulatory alignment. Since then, the alignment process has been considered as preparation for the membership responsibilities and as test for their acceptance as an auspicious candidate (cf. Sedelmeier 1998).18

In the Socialist economies infrastructure sectors were only poorly developed, except for some military applications. However, with the transition towards a decentralized and market-oriented economic system the importance of infrastructures began to increase. This is not only due to the need for national and international co-ordination and execution of business transactions, but also for satisfying fast-growing private consumer demands (Müller 2000: 185-186). Shortly after the general political and economic transition process had started, first reform steps began to set in also in the infrastructure sectors. Regulatory reform in the CEECs was part of the so called ‘big transformation’ in which large state-owned companies were privatized formally and materially.

Today, network infrastructures make up at least 5 per cent of European GDP (Coen and Doyle 2000: 21). Two of them, telecommunications and electricity, have experienced high degrees of Europeanization over the past two decades. The transformation in these two sectors is obviously more remarkable than in any other infrastructure. The case looks different for the transportation or postal sector, in which reform initiatives at the supranational level have been comparatively weaker so far (Conant 2003). The following section provides a brief overview of the reform developments at the EU-level in the two sectors under study. This overview shall not only demonstrate the emergence of regulatory competencies at the supranational level, it shall also mirror the status quo of the Community acquis at the time the eight CEECs acceded the Union.

4. The situation after two decades of reform: state retreat and regime similarity

18 In several declarations after Copenhagen, the Council emphasized the significance of regulatory approximation of the CEECs. However, in a corresponding White Paper, the Commission made clear that
The analysis of the privatization, liberalization and reregulation data allows us to answer the first and second research questions that were formulated at the beginning of this paper. The first question concerned the extent and pattern of state retreat in the enlarged EU. The privatization of state owned infrastructure companies can be used as proxy for this retreat. The second research question focuses on the similarity of regulatory regimes among the EU-15 and the CEEC-10 and across the two sectors. The comparison of regime similarity allows us to single out those countries among the CEEC-10 which show contrasting regime configurations. These findings in turn provide the basis for the discussion of the factors that might have caused regime dissimilarity in the final section of this paper.

< Table 2 about here >

The analysis of privatization, liberalization and reregulation outcomes in the telecommunications and electricity sector has revealed interesting findings which are summarized in Table 2. First of all, for the EU-15 the results do not differ very much across the two sectors; in average, reforms have produced comparatively similar outcomes along all three reform dimensions. While privatization was more encompassing in telecommunications, liberalization has progressed a little further in electricity. As regards reregulation, the EU-15 show a medium level of reform in both sectors. In the CEEC-10, the progress of reform is weaker than in the EU-15 for both sectors on all three reform dimensions. We nevertheless find differences also within this group of countries: while the scope of privatization and liberalization is significantly more encompassing in the telecommunications sector, NRAs are in average stronger in the electricity sector. Striking is the small scope of liberalization in the CEECs’ electricity sector.

Patterns of State Retreat

The first research question of this paper relates to the pattern of state retreat in the EU-15 and CEEC-10. This pattern is expressed through the timing and scope of privatization in the respective sector. Both aspects of infrastructure privatization can be used as a proxy for the material retreat of the state. One prominent position in the literature assumes that CEECs are more radical privatizers than their Western neighbours because of the dynamic that resulted from general economic transition. Any scrutiny of that position must therefore focus on the question whether the dynamic of the processes of mass privatization has indeed sparked a powerful and sustainable retreat of the state in network
infrastructures. Since privatization serves as a good proxy for state retreat, the latter can similarly be measured using the indicator ‘level of state ownership’.

The analysis of the privatization data for PTOs and NECs in the 25 countries revealed several interesting findings: first, while we can indeed speak of a significant retreat of the state in the telecommunications sector for both groups of countries, in the electricity sector this does only apply to the EU-15 (Figure 1). Although in electricity the retreat of the state has in general been less dynamic than in telecommunications, the large sectoral discrepancy for the CEEC-10 is nevertheless striking. However, the position that the CEECs are more radical privatizers than the old member states does not even hold for the telecommunications sector. Also in the latter they did not manage to achieve a bigger scope of reform than the old member states. Only between 1997 and 2000 it looked as if the CEECs’ reform agenda would indeed justify the assumption of them being more radical privatizers than the EU-15. However, after this phase of active reform initiatives the privatization dynamic slowed down significantly.

What do these results imply for the answer to our first research question? According to timing and scope of privatization in both sectors, we can indeed ascertain an encompassing retreat of the state in the EU-15 countries. Although in the past two decades the reform development in the electricity sector was somewhat less dynamic, at the end of 2003 the level of state ownership was comparable to that in the telecommunications sector. In case of the CEEC-10, in contrast, it seems not to be adequate to ascertain a retreat of the state. This is due to the development of state ownership in the electricity sector which stagnates at a very high level even after further divestiture in Slovenia. Whether the acquisition of majority shares of Slovenské Elektrárne by ENEL for 840 Mio. Euros in 2004 brings in a new dynamic into the process of infrastructure privatization of other CEECs remains to be seen.

What follows from this is the question why in the CEECs the privatization of electricity companies was so much less dynamic than privatization in the telecommunications sector. Has the stagnation of the electricity privatization process been caused by dominant political-economic ideas in the CEECs that blocked further divestiture in that sector? And was reform stagnation in the past maybe facilitated by a specific constellation of veto-players? These and other possible factors for cross-sectoral difference of infrastructure privatization in the CEEC-10 will be discussed in more detail in the final section of the paper.

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Regime Similarity

The second research question focuses on regime similarity. The similarity of regulatory regimes can be assessed for each sector across both groups of countries, individually for the EU-15 and the CEEC-10 across both sectors, and, thirdly, for both groups of countries across both sectors. As outlined above, regulatory regimes reflect a distinct configuration of privatization, liberalization and reregulation outcomes. These configurations have been depicted in two separate POSAC profile plots. The result we obtain from systematic cross-sector, cross-country comparison is that the similarity of all 25 regulatory regimes is higher in electricity than in telecommunications (Figure 2).

If we then compare the country profiles individually for each infrastructure, we find that for both sectors regime similarity is higher among the EU-15 than among the CEEC-10. This implies that the outcomes of the regulatory reform process in network infrastructures are more homogenous among the EU-15 than among the CEEC-10 countries. In other words, regulatory regimes are more diverse among the new member and applicant countries than among the old EU member states. This difference in regime similarity is again slightly more pronounced in the telecommunications than in the electricity sector. In addition to greater regime similarity, Western EU members also show a significantly larger scope of reform than the CEEC-10. In average, telecommunications and electricity regimes in the EU-15 more closely resemble the characteristics of a private competition regime than the regimes in the CEEC-10. These conclusion are confirmed by the variance values for the regime structuples in the two sectors (Table 3).

How does the situation look like within each group of countries? First of all, among the EU-15 the reform outcomes in the telecommunications and in the electricity sector are almost identical: among the most advanced reformers are in both sectors Spain, Ireland, the United Kingdom, Austria and Italy; and among the laggards are in both sectors Luxembourg, Germany, Greece and Sweden. Although the latter do in most cases significantly lag behind the fast reforming countries, their overall scope of reform is nevertheless on a relatively high level. Especially their progress in privatization and liberalization is high compared to the CEEC-10.
Among the CEEC-10 the situation looks quite different. Except for very few cases, a general distinction between fast and slow reforming countries is difficult to make. And indeed, in cross-country perspective the picture is almost reversed: strong reformers in one sector are often laggards in the other, i.e. Latvia or Lithuania. Two countries, however, do show strikingly dissimilar outcomes in both sectors: first, Hungary is among the top reformers and its national telecommunications and electricity sectors both possess strong features of a private competition regime. And second, Slovenia’s reform achievements are in both sectors among the weakest of the CEEC-10 countries. Except for liberalization achievements in electricity, all regime characteristics in the two sectors clearly diverge from those of the Hungarian infrastructure regimes.

The results of the macro-empirical analysis are largely confirmed by recent evaluations of the European Bank for Reconstruction and Development (EBRD). In telecommunications, Hungary is among the four countries that achieve a good reform level (EBRD indicator of 4.0).\(^{19}\) According to the EBRD scale (Table 4), this includes the partial privatization of the dominant operator as well as comprehensive regulatory and institutional reforms. In addition, the telecommunications market has substantially been liberalized. Slovenia achieved a medium level of reform (EBRD indicator of 3.0). This means that commercialization and regulation have progressed substantially and that there is full separation of telecommunications from postal services, with a reduction in the extent of cross-subsidization. In addition, the indicator value expresses that some liberalization has occurred in the market for mobile telephony and in value-added services. The average reform level across all CEEC-10 for the year 2003 was 3.4 (EBRD 2003: 32).\(^{20}\)

According to the EBRD, Hungary is the only country that achieves a good reform level not only in the telecommunications but also in the electricity sector with an EBRD indicator of 4.0. An indicator of 4.0 or 4.3 expresses that the national electricity industry in the respective country was

\(^{19}\) The classification system for the transition indicators ranges from 1 to 4+. The values of countries on the borderline between two categories are indicated with pluses and minuses. For the calculation of the average reform level in a sector, a 3+, for instance, is counted as 3.3. The values for the average reform level thus ranges from 1.0 to 4.3.

\(^{20}\) Recently, developments in telecommunications reform have slowed down. While the average EBRD indicator for the sector increased by almost one point between 1995 and 1999, the increase between 1999 and 2003 was only 0.2 points. This is largely due to the difficult global business environment. Privatization, for example, has been delayed because of a lack of interest from the side of (foreign) strategic investors. Nevertheless, many countries are already in an advanced stage of privatization. Many countries made strong commitments to short term privatization through the use of public tendering. Nevertheless, in 2003 with 3.4 points the average
separated into generation, transmission and distribution and that a NRA was set up. What is more, rules for cost-effective tariff-setting have been formulated and implemented, and there is heavy private sector involvement in the generation or distribution of electricity. Finally, arrangements for network access, i.e. negotiated third-party access, have been found. Slovenia, in contrast, is again below the CEEC-10 average: as regards electricity reform, it achieves 3.0 on the EBRD scale. (EBRD 2003: 33).

Sector Comparison

The findings above further demonstrate that in sum the scope of privatization in the electricity sector is significantly lower than in the telecommunications sector. If we compare the average levels of state ownership in 1990 and in 2003, we find that in electricity the dynamic of privatization has not yet fully developed. Not only are in average still more than 50 per cent of the former NECs still owned by the state. What is more, since the mid-1990s the average level of state ownership was reduced by only 15 percentage points. In addition, whereas telecommunications privatization in the EU-15 and the CEEC-10 ran remarkably parallel since the early 1990s, it diverged significantly in the electricity sector.

The most striking difference between regulatory reform in the telecommunications and the electricity sector is that in telecommunications the former PTO in most instances continued as a vertically integrated entity even after liberalization. In the electricity sector of most EU countries, in contrast, the activities of the former public monopolist were vertically separated. As a consequence, business layers such as power production, transmission, distribution and supply were put in the hands of legally separate companies. Some of these companies were subsequently privatized, others usually remained state-owned: whereas almost all governments have chosen state ownership for the natural monopoly of electricity transmission, power generation and electricity distribution companies are today mostly private.

5. Hungary and Slovenia: the reasons for diversity

The fifth section of this paper focuses on the factors that have caused the diversity of telecommunications and electricity regimes in Hungary and Slovenia. The central question here is: why did reforms in Hungary proceed faster and in a considerably bigger scope than in Slovenia? Table 5 outlines once more the significant differences between the regulatory regimes in the two countries that were already expressed graphically by the POSAC profile plots (Figure 2). As regards the telecommunications sector, the difference in the scope of privatization, liberalization and reregulation indicator for telecommunications reform was still higher than the average for electricity reform which recorded only 3.2 points.
outcomes are striking. Only as regards electricity liberalization, Slovenia shows slightly more reform progress than Hungary.

In the telecommunications sector, Hungary possesses the characteristics of a private competition regime while in Slovenia sector regulation comes close to a semi-liberalized public service regime. Hungary has privatized 100 per cent of Matáv and opened the largest part of the market to competition. And the Hungarian telecommunications NRA, the HIF, shows a medium level of independence. In contrast, the majority of Telekom Slovenije was still state owned at the end of 2003, the market was fairly closed to competition and the NRA showed the lowest independence level of all authorities analyzed. These characteristics make Slovenia a real laggard as regards regulatory reform in telecommunications.

We get a similar but not identical picture for reforms in electricity. Although in total the reform achievements of the CEECs in the electricity sector have so far been less than average, Hungary resembles the typical characteristics of a mixed economy competition regime. It undertook the most advanced privatization steps of all CEEC-10, shows considerable liberalization achievements and possesses a medium strong NRA. Once again the developments in Slovenia stand in contrast to these outcomes. The Slovenian electricity sector shows slightly advanced characteristics to a semi-liberalized public service regime only because of good liberalization achievements, which are even bigger than in Hungary. However, Elektro Slovenija was still 100 per cent state owned and the NRA possessed only very weak regulatory functions at the end of 2003.

There exists a variety of factors that may explain differences in cross-national regime characteristics. First of all, top-down pressures might vary across countries due to different expectations or time schedules. For instance, towards the end of the 1990s in many CEECs top-down pressures of international monetary agencies, i.e. the IMF or EBRD, were replaced by pressures of Europeanization. Second, diffusion processes, i.e. policy learning or emulation, might be more pronounced in some countries than in others due to a stronger international intertwining of the economy or a better compatibility of existing domestic structures with new policies. However, as it should become clear it does not suffice to merely focus on vertical mechanisms of coercion or horizontal processes of policy diffusion. While Europeanization or diffusion theories might tells us why and when countries decided to reform their infrastructures, they can hardly explain the scope of these reforms.
In course of transition, many CEECs opted for the take-over of Western blueprints (Przeworski 1991: 183). Such policy emulation became necessary because recourse on own experiences was in many instances impossible due to economic modernization, i.e. new technologies in telecommunications and electricity, but also because of the need to legitimize political decisions. However, the mere copying of Western models did not suffice to master all aspects of the complex transition process. Similar to West European countries, national traditions, country-specific culture and the public mentality seem to have played an important role in course of the reform processes. We therefore need additional concepts and theories that are able to explain the magnitude of reform and, thus, cross-national differences as regards the three policy dimensions.

*Vertical policy transference and diffusion*

If we look at the reform process in the two countries, it becomes clear that exogenous factors alone can not account for the observable differences in reform outcomes. Although the logic of Europeanization helps us to explain why and when the two countries liberalized their markets, neither of the two sub-mechanisms – policy imposition and domestic preference change – can explain why Hungary started to privatize much earlier than Slovenia, and why Hungary had already established NRAs long before the acquis required it. What is more, by analyzing vertical mechanisms we can not understand why Hungary has progressed substantially further than Slovenia as regards the scope of reforms. For instance, although both countries began to liberalize their telecommunications sector in 2001, Hungary managed to almost completely open its market by the end of 2003 while at that time the Slovenian market was still largely closed.

And also diffusion theory cannot explain the striking differences in the timing and scope of reform, especially along the privatization and re regulation dimension. Basically, policy emulation from Western countries was highly appealing because of the need to fully take over the acquis and a parallel lack of own regulatory traditions. In Hungary, social emulation and later policy learning played an important role, but also Slovenia engaged in horizontal policy transference furthered by the country’s early openness to the West. Hence, the example of Hungary and Slovenia demonstrates that similar diffusion mechanisms, i.e. social emulation based on common cultural ties, do not necessarily lead to similar results. The reason for this is twofold: first, the capability to implement foreign policy concepts and the propensity to learn can vary considerably across countries; and second, domestic factors, i.e. the political system, might mediate exogenous input in a way that eventually only fragments of the original policy are adopted.
The role of domestic factors

In sum, the attempt to use exogenous forces for the explanation of regime diversity among the CEEC-10 revealed several shortcomings. These insufficiencies of the analysis, however, could be compensated by looking more closely at the impact of domestic variables. First, the institutional environment in Hungary was much more favourable for reforms than in Slovenia. In the latter, the preference was put on state building and not so much on infrastructure reform. In addition, slow parliamentary processes and a high number of actors involved in the processes of decision-making, characterized by weak or almost no coordination, posed a severe obstacle to rapid and fundamental regime change. In Hungary, in contrast, a governance structure with a low level of fragmentation and relatively strong central coordination bodies facilitated the implementation of reform measures.

A second difference was the role of civil society. The consensus-orientation of the Slovenian society demanded a gradual reform approach organized around the goal of finding a just balance between winners and losers of the process. In addition, in Slovenia there existed a general mentality against radical reforms, mainly because of the relatively good economic situation in the past and general agreement of the public with a continued involvement of the old elite in politics. In Hungary, in contrast, the civil society was rather weak, and especially trade unions have constantly lost influence over time. Hence, the lack of opposition from the public explains why reforms were more easily realizable. In addition, the early establishment of NRAs allowed the general public better access to and influence on decision-makers.

A third difference between Hungary and Slovenia was the high continuity of party rule in the latter and the breaks in government constellations in Hungary. In Slovenia, the LDS continued as the dominant political party even after 1989 and stayed in power throughout the 1990s and beyond. Since the old elite was mainly content with the progress their country made on the way to EU membership, the ruling party did not signal any need for fundamental infrastructure reform. Again, the picture looked different in Hungary, where constantly changing majorities and shifting party constellations were characteristic of the political developments between 1990 and 2003. These changing constellations led to new reform impulses after each election when the winning parties tried to implement their political goals. In later years, this became more difficult because the realization of these goals was severely contained by imperatives of EU enlargement.

Fourth, we found that differences in party ideology played a role in regulatory reform. In Slovenia, the dominant belief was that protection against Western companies, especially in the electricity sector, would only be possible through vertical integration of the incumbent. There existed a general reluctance of all major parties towards FDI because of the potential danger of destabilization
of the consensus-oriented Slovenian society. However, due to strong pressure from the EU, party lines became less important over time. In Hungary, reforms depended to a large degree on the colour of the government, but inversely as one might have expected: while the Socialist Horn (MSZP) privatized actively, the centre-right Prime Minister Orbán (FIDESZ) opposed major infrastructure reforms. However, in course of the enlargement negotiations the Orbán government also had to abide to the acquis, mainly in the areas of liberalization and reregulation.

Finally, strong unionization in Slovenia prevented major reform efforts while a weak civil society in Hungary facilitated reforms. The high fragmentation of the union landscape in Hungary and the resulting decentralization of wage bargaining resulted in complex systems with many different organizations and policy positions. The relatively good economic development and the general consensus about market-oriented reforms made unions less attractive for workers. As a consequence, the representation of business interests was dominant in the policy-making process. In sharp contrast to the Hungarian situation we found a high level of unionization and a high pace of civil society development in Slovenia. In addition, major decisions about privatization in the electricity and liberalization in the telecoms sector was blocked due to the continued influence of public corporations.

6. Conclusion

The analysis employed a research design that proved fruitful for answering the questions that were raised at the beginning of this paper: a combination of quantitative and qualitative analysis. While the former provided a structuration of the sectoral regime landscape in the EU-15 and CEEC-10, a systematic cross-country comparison of central domestic variables, such as actor characteristics or formal institutions, revealed the origins of regime diversity. We could once more see that exogenous forces such as Europeanization or policy diffusion are necessary but in no way sufficient elements of an explanation for regime dissimilarity in infrastructures. In sum, the evaluation confirmed the assumption that domestic factors need to be considered for an exhaustive analysis of regulatory reform also in the CEECs.

Although the CEEC-10 might have been more exposed to direct Europeanization and globalization pressures than the old member countries, exogenous mechanisms alone are not powerful enough to explain regime diversity. Similar to studies on the EU-15, investigations of differences in reform outcomes across the new and applicant countries need to entail the decision to compare thoroughly the role of domestic variables. Hence, it should be most promising if future studies continue to focus not only on the independent role of domestic variables but also on their mediating influence, especially in processes of policy imposition and diffusion. This will help us to further refine
our understanding of the central factors and mechanisms behind regime change in the CEECs in course of enlargement.
References


European Commission. 1995b. Preparation of the Associated Countries of Central and Eastern Europe for Integration in the Internal Market of the Union.


### Table 1: Regime Types

<table>
<thead>
<tr>
<th>Regime Type</th>
<th>Ownership Structure</th>
<th>Market Liberalization</th>
<th>Regulatory Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public ownership regime</td>
<td>Public</td>
<td>Monopoly</td>
<td>Government, departmental administration</td>
</tr>
<tr>
<td>Semi-liberalized public service</td>
<td>Public</td>
<td>Limited</td>
<td>Governmental regulation to maintain public service; some regulation to ensure ‘fair and effective competition’; weak or no NRAs</td>
</tr>
<tr>
<td>regime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protected competition regime</td>
<td>Public or private</td>
<td>Formally liberalized (no effective competition)</td>
<td>Governmental reregulation for industrial policy purposes or public service maintenance</td>
</tr>
<tr>
<td>Mixed economy competition regime</td>
<td>Partially public and private</td>
<td>Liberalized</td>
<td>NRAs ensuring ‘fair and effective competition’</td>
</tr>
<tr>
<td>Private competition regime</td>
<td>Private</td>
<td>Liberalized</td>
<td>Strong and effective NRAs (ex ante, sector-specific regulation) or NCAs (ex post, general competition law)</td>
</tr>
</tbody>
</table>
Table 2: Summary of Reform Outcomes

<table>
<thead>
<tr>
<th>Sector</th>
<th>Privatization</th>
<th>Liberalization</th>
<th>Reregulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EU-15</td>
<td>CEEC-10</td>
<td>EU-15</td>
</tr>
<tr>
<td><strong>Telecoms</strong></td>
<td>Large</td>
<td>Medium</td>
<td>Large</td>
</tr>
<tr>
<td><strong>Electricity</strong></td>
<td>Medium</td>
<td>Small</td>
<td>Large</td>
</tr>
</tbody>
</table>

*Note: The values in the boxes indicate the scope of reform for each sector and reform policy until the end of 2003.*
Table 3: Basic Statistics of Electricity Regime Similarity

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Telecoms EU-25</th>
<th>Telecoms EU-15</th>
<th>Telecoms CEEC-10</th>
<th>Electricity EU-25</th>
<th>Electricity EU-15</th>
<th>Electricity CEEC-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>0.263</td>
<td>0.462</td>
<td>0.263</td>
<td>0.257</td>
<td>0.583</td>
<td>0.257</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.939</td>
<td>0.939</td>
<td>0.858</td>
<td>0.953</td>
<td>0.953</td>
<td>0.798</td>
</tr>
<tr>
<td>Mean</td>
<td>0.681</td>
<td>0.739</td>
<td>0.594</td>
<td>0.679</td>
<td>0.777</td>
<td>0.533</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.184</td>
<td>0.146</td>
<td>0.209</td>
<td>0.179</td>
<td>0.113</td>
<td>0.160</td>
</tr>
<tr>
<td>Variance</td>
<td>0.034</td>
<td>0.021</td>
<td>0.044</td>
<td>0.032</td>
<td>0.013</td>
<td>0.026</td>
</tr>
<tr>
<td>Coefficient of Variance</td>
<td>0.271</td>
<td>0.197</td>
<td>0.351</td>
<td>0.263</td>
<td>0.145</td>
<td>0.301</td>
</tr>
</tbody>
</table>

Note: The analysis is based on the values for the joint dimension in the POSAC. The latter are the result of data reduction and determine the location of each regime in the two-dimensional space of Figure 2.
Table 4: EBRD Infrastructure Reform Analysis

<table>
<thead>
<tr>
<th>Country</th>
<th>Telecommunications</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>2.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>3.3</td>
<td>4.0</td>
</tr>
<tr>
<td>Estonia</td>
<td>3.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Hungary</td>
<td><strong>3.3</strong></td>
<td><strong>4.0</strong></td>
</tr>
<tr>
<td>Latvia</td>
<td>2.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Poland</td>
<td>2.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Romania</td>
<td>1.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Slovenia</td>
<td><strong>1.0</strong></td>
<td><strong>2.3</strong></td>
</tr>
</tbody>
</table>

Average

CEEIC-10

|                  | 2.3    | 3.2  | 3.4  | 2.2    | 2.9  | 3.2  |

Table 5: Regime Comparison Hungary – Slovenia

<table>
<thead>
<tr>
<th>Policy</th>
<th>Country</th>
<th>State Ownership (%)</th>
<th>Market Opening (%)</th>
<th>Agency Independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecom.</td>
<td>Hungary</td>
<td>0</td>
<td>87,1</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td>62,5</td>
<td>41</td>
<td>26</td>
</tr>
<tr>
<td>Electricity</td>
<td>Hungary</td>
<td>43,8(^1)</td>
<td>67</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td>100</td>
<td>75</td>
<td>24</td>
</tr>
</tbody>
</table>

\(^1\) The state ownership figure for MVM recognizes the privatization of the six distribution and seven power generation companies between 1995 and 1998. These companies were an integral part of the old MVM structure before 1995. After these privatizations, the remainder of MVM continued as a grid company (plus the nuclear power plant Paks) and was still 100 per cent state owned at the end of 2003.

*Note:* The table shows the difference in reform outcomes at the end of 2003 for all three policy dimensions. The bold figures indicate in which country the scope of reform was bigger for the respective sector. In the whole sample of the CEEC-10, we cannot find one constellation in which country A shows better reform outcomes in both sectors on all three dimensions than country B.
Figure 1: State Expenditure (1960-2005)

Note: The diagram depicts the development of state expenditure between 1960 and 2005 for two founding members of the EU (Germany and Italy), one member of southern enlargement in the 1980s (Spain) and two members of enlargement in the 1990s (Austria and Sweden).

Figure 2: Privatization Patterns EU-15 and CEEC-10

Telecommunications

Electricity
Figure 3: Regime Comparison EU-25 (POSAC Profile Plots)

Notes: POSAC orders the countries along three dimensions according to each facet, reduces the data and depicts them in a two-dimensional space. The Euclidean distance between each pair of structuples represents the similarity of the 25 regulatory regimes on the basis of the initial partial ordering along the three dimensions. Countries that lie closer to the upper right corner show characteristics of a private competition regime (PrCR), whereas those closer to the lower left corner possess characteristics of a public ownership regime (PuOR). DIM(1) and DIM(2) are the result of data reduction calculated by the POSAC when the three dimensions are reduced to two in order to represent the structuples in an Euclidean space. The Stress Factor indicates the percentage of structuples not correctly represented in course of this reduction. In general, a stress factor of < 0.20 is considered to be acceptable for the POSAC. Hence, DIM(1) and DIM(2) are artificial or constructed dimensions and do not necessarily represent one of the facets privatization, liberalization or reregulation. They are comparable to those factors in a factor analysis which load high for the variables.