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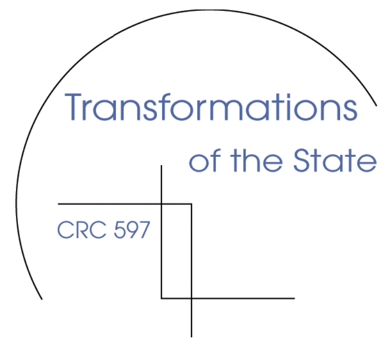

TranState Working Papers

The Retreat of the State from Entrepreneurial Activities: An Extended Survey

Andreas Etling
Karsten Mause
Herbert Obinger
Carina Schmitt
Katharina Schreeb
Philipp Schuster
Stefan Traub

No. 107

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The Retreat of the State from Entrepreneurial Activities: An Extended Survey

ABSTRACT

There is a huge body of literature in the social sciences that deals with the privatization of public enterprises in developed OECD countries after World War II. In the first part of this article, we present and critically examine empirical findings of comparative inquiries on the factors influencing cross-national differences in privatization efforts across the OECD world. Although these empirical studies provide valuable and interesting evidence, it turns out that these studies are incomplete insofar, as they mostly focus just on one dimension of privatization: the monetary or ‘material’ aspect typically measured with privatization proceeds raised by governments. Against this background, in the second part of this paper we point out that there are also formal privatization (i.e., ‘privatizing’ the legal form of a public enterprise) and functional privatization (i.e., contracting out public service production). Moreover it is emphasized that privatization does not automatically imply a retreat of the state from entrepreneurial activities. From there we plead for taking into account the development of regulatory policies and public subsidies to private enterprises over time as well, in order to get a more comprehensive picture of the development of the entrepreneurial state in the OECD world. Therefore, for each of these dimensions of entrepreneurial activity the current ‘state of the art’ regarding theory and empirics is surveyed and enriched by own empirical data.

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I. Introduction

In the social sciences, there is an ongoing debate about whether and, if so, to what extent we have been able to observe a transformation of the state in the OECD world during the last decades (see Schuppert, 2008; Genschel and Leibfried, 2008; Genschel and Zangl, 2008). There is a huge number of contributions to this debate including titles such as “The Retreat of the State” (Strange, 1996), “Shrinking the State” (Feigenbaum et al., 1998), “The Transformation of the State” (Sørensen, 2004), “Transformations of the State?” (Leibfried and Zürn, 2005), and “The Disappearing State?” (Castles, 2007). These and other contributions focus on different aspects of state activities and use different methods to describe and analyze the changing role of the state in several policy areas such as health care, education, economic affairs and defense. The fact that more recent inquiries have put a question mark behind their book titles indicates that the controversy on the nature and direction of state transformation is far from being settled.

A field, however, where the notion of a pronounced transformation of the state is largely uncontested is the interference of the state in economic affairs. This holds in particular true for the role of the state as an entrepreneur. With the notable exception of the U.S., energy and water, postal services, telecommunications and broadcasting were directly provided by public enterprises in the aftermath of World War II. The same holds true for aviation and railways and, more generally, the provision of infrastructures such as highways, ports, and airports. Moreover, public intrusion in entrepreneurial activities was not restricted to the provision of public utilities and infrastructures since parts of the heavy industry such as mining, ship-building and steel were nationalized in numerous countries for strategic reasons (Clifton et al., 2003, pp. 5-37). Even banks and insurance companies were controlled by the government in some countries.

This significant intrusion of the state in economic affairs was embedded in the so-called postwar Keynesian consensus which paved the way for an unprecedented enthusiasm for an activist role of the state in economic and social policy. During the three decades following World War II, virtually all governments in the Western world saw it as proper for the state to play a leading role in the co-ordination of economic reconstruction and development. Moreover, public enterprises were often politically utilized as employment buffers, social laboratories, or as instruments for promoting regional economic development (Fredman and Morris, 1990; Boycko et al., 1996; OECD, 2001; Tepe et al., 2008). Closely linked with the political steering of the economy were subsidy payments to the private sector and financial support of public enterprises as well as cross-subsidization across publicly controlled sectors. By means of cross-subsidization, public utilities fulfilled social-welfare functions by providing services equal in quality across the country. In addition, these were frequently adjusted to the consumers’ ability to pay. The public infrastructure state, in a sense, thus became an outer skin of the wel-

fare state or what German lawyer Ernst Forsthoff (1938) describes as “Staat der Daseinsvorsorge” (state of general interest service provision). In sum, the 1950s and 1960s can be characterized as the “Golden Age” of the entrepreneurial state in the OECD world (Castles, 2006).

In the 1970s and early 1980s, however, the optimistic faith in the beneficial effects of big government came to a halt. The post-war Keynesian consensus only remained acceptable to center-right parties as long as economic growth was robust and inflation moderate (Boix 1997, p. 479). The deteriorating economic performance in the wake of the oil shocks therefore led to mounting skepticism concerning the involvement of government and finally to a realignment of economic policy. The state was increasingly seen as a part of the economic difficulties rather than a tool for overcoming mounting macroeconomic imbalances. In the early 1980s, with first moves occurring in the English-speaking countries[1], right-wing governments therefore started to roll back the post-war intervention state. This attempt to unleash the dynamic of market forces by rolling-back the state to its core functions included the privatization of public enterprises.

The absence of a hard budget constraint; the trade-off between profit maximization and political pressure to pursue more general objectives of government policy, such as employment and industrial policies, and the resulting interference of welfare-maximizing politicians and self-serving bureaucrats into commercial decisions were seen as major reasons for the inefficiency of public enterprises. Moreover, it was argued that privatizations of public enterprises may improve the budgetary situation of governments and eliminate the need to cover their deficits without burdening the taxpayers or curbing public spending. In West Germany, three influential official bodies of scientific policy advice—the Scientific Advisory Boards of the Federal Ministry of Finance, the Federal Ministry of Economic Affairs, and the German Council of Economic Experts—dealt with the issues of privatization in 1975 and 1976. However, the decisive move towards the subsequent wave of privatizations was undoubtedly initiated by the Thatcher Government (Abromeit, 1988; Yergin and Stanislaw, 1998) with the initial public offerings of British Telecom (1984). Overall, OECD governments raised over $ 200 billion through the sale of state-owned enterprises in the 1980s (Boix, 1997).

The 1990s have finally witnessed an unprecedented run into privatization across the globe (see, for example, Toninelli, 2000; OECD, 2003, Bortolotti and Siniscalco, 2004; Schneider and Tenbücken, 2004; Obinger and Zohlnhöfer, 2005). The revenues accrued by selling-off state-owned enterprises almost amounted to $ 1 trillion in that decade (OECD 2003, p. 7). About 70 percent of these proceeds were accrued by OECD Mem-

[1] However, the first major privatizations in Europe were the initial public offerings of the motor company Volkswagen (1961) and VEBA (1965), a company producing chemicals, in Germany. These privatizations were initiated by the Adenauer government and were then denoted as “denationalization”.

ber States. In addition, governments started to retrench industrial subsidies across the entire OECD world. On average, subsidy payments to industry as a percentage of the GDP were reduced by more than 50 percent in the period between 1980 and 2004 (Obinger and Zohlnhöfer, 2007).

At present time, however, it seems that these processes are marking time or are even going to be reversed as first signs of a resurgence of public ownership are becoming evident. New Zealand, for example, has re-nationalized its railways in 2008. While this buyback perhaps might be seen as a single occurrence, the contemporary financial crisis has triggered a comeback of nationalizations and a revival of the state as a lender of last resort in virtually all advanced democracies. This significant watershed offers a good opportunity to take stock and provide an integrative survey of the retreat of the state from entrepreneurial activities. The depicted wave of privatization and subsidy retrenchment since the 1980s is indicative of a decline of the entrepreneurial state in advanced democracies. However, the sale of public enterprises cannot be simply equated with a demise of the intervention state since the transfer of property rights from the state to the public was often accompanied by increasing regulatory powers of the state (Vogel, 1996; Majone, 1997). This paper is therefore committed to a more integrative approach by taking into account not only the extent of privatization and subsidy retrenchment but also the emergence of the regulatory state. In addition, we take stock of basic concepts and definitions used in different disciplines, discuss measurement issues and offer a survey of the driving factors accounting for the cross-national differences in the state's intrusion in economic affairs. Hence, we neither discuss the pros and cons of privatization nor do we examine the consequences of privatization such as its impact on employment or economic performance. The primary concern of this paper is rather to find out what we (not) know about the processes that have triggered the run into privatization and subsidy retrenchment and those determinants which help to explain the cross-national variation of privatization patterns.

The paper proceeds as follows. Section II clarifies what is meant by the term "entrepreneurial state" and distinguishes between three types of privatization: *formal* (i.e., "privatizing" the legal form of a public enterprise), *material* (selling public enterprises to private actors), and *functional* (contracting out public service production). Section III presents and critically examines for each of these three types the findings of comparative inquiries on the factors influencing cross-national differences in privatization efforts across the OECD world. Although these empirical studies provide valuable and interesting evidence, it will turn out that these studies are incomplete insofar, as they mostly focus just on one dimension of privatization, namely the monetary or "material" aspect which, in addition, is typically measured with the privatization proceeds raised by governments. Section IV deals with the increasing role of regulatory policies which

have accompanied the privatization and liberalization of the public-enterprise sector (e.g., the rise of regulatory agencies), whereas Section V pays attention to the development of subsidy payments to the industrial sector. In the same way as in the previous sections, these parts of the paper critically review the “state of the art” in the respective research field. Section VI concludes.

II. DEFINING STATE ENTREPRENEURIAL ACTIVITIES

In our study, we are concerned with the apparent retreat of the state from entrepreneurial activities. We solely focus our attention on the national level; entrepreneurial activities of sub-national governments, such as municipal water supply, will not be considered. At the regional and local level, data availability is too limited, and the extent and the manner of entrepreneurial activities are too polymorphic to be entirely recorded. Activities are entrepreneurial if they serve the purpose to provide and/or produce market goods and services. This definition excludes activities that fall in a state’s sovereignty, such as legislation. It also excludes, in Musgrave’s (1959) terms, the “redistribution branch” of the state,[2] that is, taxation for redistributive purposes and the social security system. Though the term entrepreneurial, in principle, could also be associated with agriculture, fishing, and forestry, we will disregard primary sector activities, except for mining[3], from further consideration and focus only on the secondary sector (manufacturing and construction) and the tertiary sector (services like transport, insurance, banking, etc. and certain social services).

Unlike non-market goods, e.g. environmental quality and culture, market goods are usually tradable. Certain services such as health care and education would, in principle, belong to this category. However, to a large extent societies still consider the health sector, the education branch etc. as “non-economic”, and in most OECD countries we observe a strong predominance of public providers and producers with regard to these services. The dividing line between a state’s third-sector entrepreneurial activities in the health care system (which we do not consider) and, say, in the transport sector (which we do consider) is drawn by *paternalism*. Governments provide the lion’s share of “non-economic” services, for which Musgrave (1957, 1959) coined the term “merit goods”, because they do not believe in consumer sovereignty. More precisely, governments assume that economic agents are incapable of making rational choices, and underestimate or neglect the positive benefits of consuming merit goods for the society as a whole. Obviously, within the list of third sector activities to be included in our analy-

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[2] Musgrave’s (1959) famous triad comprises the allocation, (re-)distribution, and stabilization branches of the state.

[3] The assignment of mining is controversial anyway. According to the North American Industry Classification System (NAICS), mining (sector 21) belongs to a different sector than agriculture, forestry, fishing and hunting (11) and is at the same level as utilities (22) and construction (23).

sis, a special group is formed by those which were called "services of general economic interest" in the Treaties of Rome[4] and to a large extent are equivalent to Forsthoff's (1938) "Daseinsvorsorge", that is, the provision of the public infrastructure (e.g. gas and water supply, power generation and transmission, air and rail transport, and telecommunications).

The public provision of goods and services is usually justified by *market failure* (see, for example, Myles, 1995). Musgrave's (1959) "allocation branch" of the state is assumed to improve the allocation of resources in the presence of technological externalities, public goods, incomplete or asymmetric information, and imperfect competition. In particular, most of the aforementioned "services of general interest" belong to at least one of these categories. For example, a lot of general interest services (such as rail transport) have the character of providing an infrastructure (the railroad network) which is necessary to offer other services (transporting persons or goods). Such an infrastructure or network involves substantial fixed costs and thus implies increasing returns to scale, potentially creating a natural monopoly.[5] Hence, it has been consensus in most OECD countries after World War II that "services of general interest" should be provided by public enterprises. The "stabilization branch" virtually is the dynamic counterpiece of the "allocation branch" of public finance. Diverse forces may lead to business cycles which have a negative impact on macro-economic indicators like employment, economic growth, and the level of prices in the economy. Business cycles may call for state interventions to stabilize the economic development of a society. Therefore, during its "Golden Age", the democratic constitutional interventionist state (DCIS) owned strategically important industries (mining and steal production), exercised control over the financial sector (banking and insurance industry), used the public sector for steering the macro-economy and as an employment buffer (Boycko et al., 1996), and financially subsidized public as well as private firms.

Figure 1 outlines the retreat of the state from entrepreneurial activities. The state aims at improving the allocation of goods and services by intervening in the market economy in the presence of observed (or supposed) market failure. Generically, economic theory suggests three possible measures: first, the state may fulfill its allocative tasks in the most straightforward way by providing goods and services (*provision*) through public enterprises – in this case the state itself acts as an entrepreneur, or it may just organize the provision of the goods or service and let private firms produce the good. Second, the state may subsidize private firms or balance the deficits of public

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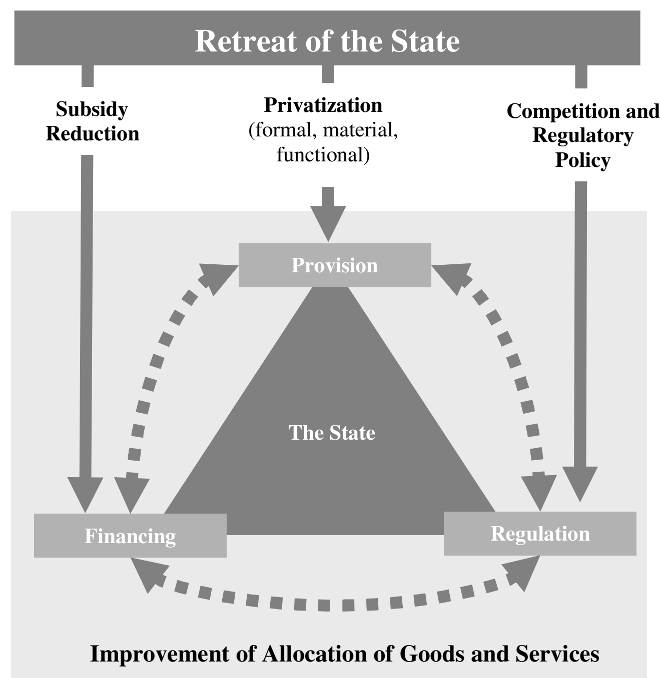
[4] Article 86 (2) of the Treaty Establishing the European Community which was signed on March 25, 1957, explicitly mentions "undertakings entrusted with the operation of services of general economic interest".

[5] For a welfare analysis of privatization and liberalization in vertically linked markets see Stähler and Traub (2009).

enterprises (*financing*). Third, it may regulate competition by fixing the norms and rules of the economy (*regulation*). The dashed arrows connecting the vertices of the triangle spanned by provision, financing, and regulation point to the mutual interrelationship between these interventions. In the case of a natural monopoly, for example, a government could completely abstain from public provision and setup a regulatory authority instead in order to improve the quality of supply. A different government might attempt to reach the same goal by state ownership.

Figure 1: The Retreat of the State from Entrepreneurial Activities



Source: Own illustration.

The retreat of the state from entrepreneurial activities can obviously take place along all three dimensions of intervention, and it may well involve oppositional movements (see below). As to provision, the state privatizes the provision and production of some services and goods. As a rule, we initially observe *formal privatization*, i.e. changing a public enterprise's legal status from a company under public law into a company under private law (see Section III.2). Formal privatization is followed by *material privatization*, roughly defined as the complete or incomplete sale of company shares, e.g. by IPO, to private investors (see Section III.3).[6] *Functional privatization* differs from material privatization by the fact that the respective task, e.g. waste disposal, remains within the responsibility of the (local) government. However, the task is produced and financed

[6] For a thorough treatment of the different possible forms of formal privatization see Brada (1996).

by private contractors (see Section III.4).[7] It should be noted that the presented distinction between the formal, material and functional dimension has its origin in the German-speaking literature on privatization (see e.g. Kämmerer, 2001, pp. 8-52; Mayer, 2006, pp. 19-21). At the level of financing, the retreat of the state happens by *subsidy reduction* (see Section V). In terms of regulation (*competition and regulatory policy*), the impact of the retreat of the state is more ambiguous (see Section IV). On the one hand, privatization may involve deregulation. International treaties and institutions (WTO, GATT, EU) have led to a significant reduction of subsidization, tariffs and other trade barriers. On the other hand, in areas where the state still feels allocative responsibility, privatization has regularly been accompanied by the establishment of regulatory authorities.

III. THE PRIVATIZING STATE

1. Determinants of Privatization

Based on arguments derived from property-rights theory and public-choice theory, most economists consider public enterprises as economically inefficient (see Megginson and Netter, 2001). This view became influential during the economic crisis of the 1970s and was part of a much more fundamental realignment of economic policy ideas during the 1980s when the hegemonic post-war Keynesian consensus was gradually replaced by supply-side oriented ideas. In the political-economy literature this paradigm shift has often been linked with the electoral success of conservative parties in the UK and the US (Hall, 1993). In an attempt to downsize the state to its core functions, the British government led by Margaret Thatcher launched large-scaled privatizations from the mid 1980s onwards. The British experience, so the argument goes further, then influenced other countries and ultimately triggered a run into privatization across the globe in the 1990s (Abromeit, 1988; Wright, 1994; Parker, 2004; Bortolotti and Siniscalco, 2004).

The worldwide recession, the change in economic ideas, and the pioneering role of Britain may have accounted for the global spread of this phenomenon, but these factors alone cannot explain cross-national differences in the timing and the extent of privatization programs. For a better understanding of the global rise of privatization policies it is necessary to distinguish between factors triggering privatization and structuring national privatization pathways.[8]

[7] Functional privatization, that is, contracting out the production of public tasks, is the dominant way of privatization in the US, where public entrepreneurship does not play a prominent role anyway (see Lopez de Silanes et al., 1997).

[8] In a similar vein, Mancur Olson (1982) suggested to distinguish between the fundamental causes and the sources of a particular economic phenomenon: Studies focusing on the sources of a phenomenon "trace the water in the river to the streams and lakes from which it comes, but they not explain the rain" (Olson, 1982, p. 4).

1.1 Triggers of Privatization

The *economic shock* caused by the Oil Crisis and the resulting rise of *supply-side oriented ideas* certainly were important factors that paved the way for the privatization of public enterprises from the 1980s onwards. State interventions in the economy were from then on considered as a major cause rather than a relief for business cycles and economic turbulences. According to economic theory, state ownership causes inefficiencies for several reasons. Most notably, politicians are assumed to maximize welfare rather than profit and bureaucratic managers are assumed to pursue different objectives than their principals (Boyko et al., 1996; Laffont and Tirole, 1991, 1993; Sappington and Stiglitz, 1987; Shleifer, 1998; Shapiro and Willig, 1990). Moreover, public enterprises are faced with “soft” budget constraints distorting their optimization calculus towards investments being too risky or unprofitable, because governments are legally or politically obliged to bail them out in case of losses (Schmidt, 1990; Sheshinsky and Lopez Calva, 2003).

Further impetus from economic theory in favor of privatization came from the *theory of contestable markets* which gained increasing importance in the wake of profound technological changes such as the introduction of mobile phones during the 1980s and 1990s. This theory has fundamentally put into question the existence of natural monopolies in public utility sectors (see Baumol et al., 1982).

The literature also emphasizes international factors triggering privatization, namely *European integration*, (economic) *globalization*[9], and the *collapse of communism*. The overthrow in Eastern Europe further discredited state ownership and fuelled a large wave of privatization. A number of studies highlight the role of the European Commission. The creation of the Common Market, the Commission’s competition policies, and the national budget constraints imposed by the Treaty of Maastricht (Schmidt, 1998; Scharpf, 1999; Clifton et al., 2003, 2006) surely triggered privatization. Other studies suggest that international organizations such as IMF and World Bank have been among the main advocates of the neo-liberal turn in economic policy.

1.2 Mediating Factors of Privatization

While globalization and mounting mistrust of the state’s capability to steer the economy are widely regarded as the major triggers of privatization, they cannot explain differences in the timing and the extent of privatization between countries. In this respect, the

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[9] The “efficiency hypothesis” holds that global competition induces national governments to reduce national regulatory standards, public spending (on social security and infrastructure), and tax rates (Scharpf and Schmidt, 2000; Strange, 1996). In contrast, the “compensation hypothesis” argues that the individual risks associated with globalization create additional demand for social security, being served by vote-maximizing politicians (Rodrik, 1998).

classic theories of comparative public policy research, which emphasize domestic determinants of public policy outcomes, might help to identify the mediating factors shaping distinct national privatization pathways.

Privatization might be seen as a political reaction of governments to pressing *economic problems* (Zohlnhöfer, 2005), suggesting an inverse relationship between economic performance and the scope of privatization. Cross-national differences in economic problem pressure such as low growth rates, high public debt, budget deficits or unemployment may therefore explain the variety of national privatization efforts.

A widely supported view is the *parties-do-matter* hypothesis. More specifically, party ideology plays a crucial role in determining national privatization paths since parties adopt the preferences of their social constituencies. Once in office, parties translate these preferences into public policies. Parties differ in particular with respect to their preferences towards the state and the market (Hibbs, 1977; Schmidt, 2002). Left wing governments favor higher levels of state intervention in economic and social affairs as compared to right-wing governments, which are seen as the strongest promoters of privatization. Parties may also rely on privatization for strategic reasons. According to Biais and Perotti (2002), right-wing governments may attempt to foreclose future redistribution policies by left governments by allocating financial assets to the population (“popular capitalism”). Their model predicts that right wing governments are more likely to privatize and that they do so by underpricing the shares in order to attract a sufficiently large constituency of voters. Another motive for strategic privatizations could be the attempt to roll-back trade unions from traditional power positions in public enterprises.

Power resources theory argues that the power of organized labor matters for public policy outcomes (Korpi, 1983). Since many employees in public enterprises enjoy privileges in terms of job security and social benefits (for example, due to their status as civil servants), it is likely that unions oppose the privatization of public enterprises. Power resources of unions are particularly strong since union density in the public sector excels the private sector in many countries.

Other institutions may matter for privatization, too. In general, governments facing a high number of *veto players* are much more constrained in their room for maneuver than governments in countries where political power is strongly concentrated (Tsebelis, 2002; Lijphart, 1999). Another variant of institutional theory is corporatism. In countries where interest mediation is based on corporatist practices, organized labor de facto holds informal veto powers helping unions to defend the status quo (Schneider and Tenbücken, 2004). Institutions are also important for guaranteeing credible commitments to certain economic policies – an aspect that gains increasing importance in the contemporary globalized context. Eshafani and Arkadani (2002), for example, show that

privatization becomes more likely in countries where governments are committed to restrictive budget policies (such as in the European Monetary Union); privatization can thus be seen as a substitute to tax money or public debt. Credibility remains important in the aftermath of privatizations. Political uncertainty in connection with the time-inconsistency problem is seen as a major reason for the emergence of non-majoritarian agencies where quasi-legislative powers are delegated to independent bodies responsible for the regulation of private economic activities. The main idea is to create a credible commitment for private investors by insulating economic regulation from the “dirty world of politics” (Lodge, 2008, p. 286; see also Gilardi, 2005).

Last but not least, the *policy legacy* from the past may influence privatization. Though trivial, it is important to acknowledge that the extent of privatization is likely to be a function of the stock of public enterprises inherited from the past (Rose, 1990).

2. Formal Privatization

Much of the discussion about privatization focuses on the transfer of stakes in public enterprises from the public hand to private owners, that is, *material privatization*. However, privatization has many different faces and includes more than just selling out public enterprises (Daintith, 1994; Graham, 2003; OECD, 2003; Megginson and Netter, 2003). *Formal privatization* is a phenomenon on its own that is not necessarily linked with the sale of public enterprises. More often than not, the state remains the unique stakeholder after formal privatization because governments consider this instrument to be sufficient to attain efficiency goals. In some OECD-countries, formal privatization even dominates the privatization process (OECD, 2005a, 2005b; Lane, 1997, 2000; Thynne, 1994).

A variety of privatization instruments are at the state’s disposal. An instrument applied widely by governments all over the OECD-world, is “the shutting down or radical restructuring of major government departments dealing with enterprises such as railways, energy, post office, telecommunications, and public works” (OECD, 2005b, p. 107). The traditional way of providing goods and services was the in-house production by means of bureaus and public enterprises closely linked to the state. In contrast, “modern governance displays a preference for the use of the joint-stock company…” (Lane, 2000, p. 5). Therefore, in the 1990s, most governments transformed their departmental agencies or public enterprises into joint-stock or limited-liability companies (which are subject to general company law). This transformation implies the change of the legal status and is often labeled formal privatization (Lane, 1997, 2000; Kämmerer, 2001; Schuppert, 1997). Governments using the instrument of formal privatization strive for multiple goals such as a more flexible and effective business management and, in consequence, better macroeconomic performance (Clifton, et al., 2003, 2006).

2.1 State of the Art

Jurisprudence, economics, and political science focus on different aspects of formal privatization. In the juridical literature, formal privatization is defined as the transformation of a company's *legal status* from an organizational form liable to public law to one subject to private law (Kämmerer, 2001; Storr, 2001; Blanke and Trümmer, 2008; Lindow, 1998). Hence, the juridical debate focuses on the legal characteristics of the different organizational forms of public entities and the general legal institutional framework in which the change of the legal status takes place. For instance, the German law literature perceives formal privatization as a discrete phenomenon due to the constitutionally codified content of the public sector. The respective literature encompasses various general legal considerations on formal privatization as well as studies on specific cases (Kämmerer, 2001; Storr, 2001; Blanke and Trümmer, 2008; Fabry and Augsten, 2002; Püttner, 1985; Gramm, 2000; Waffler, 2002). In contrast to this, public law does not exist in common law countries. Hence, formal privatization is not dealt with as a discrete phenomenon. If at all, formal privatization refers to the transformation of an organisational form liable to special law to one subject to common law (Ogus, 2004).

Generically, the transformation of an entity means a discontinuity in its legal existence. Rights and duties have to be transferred from the old enterprise to the new one. Contractual and other rights possessed against the old legal person must be made applicable to the new entity (Daintith, 1994; Kämmerer, 2001). An obvious example is the transfer of the rights and duties of the employees of public enterprises, where we usually come across civil servants. These, however, are subject to special working terms and conditions, and regularly they are endowed with sovereign rights (Lindow, 1998; Blanke and Trümmer, 2008; Kämmerer, 2001; OECD, 2005a; Kroker, 1982). As the transformation process into a joint-stock company disentangles the public enterprise from the civil service and salary law, separate treatment has to be given to the existing workforce (Daintith, 1994; Waffler, 2002; Fabry, 2002).[10] In this respect, it should be noted that some public enterprises such as departmental agencies do not own a legal personality at the outset. Hence, such a "firm's" transformation into an autonomous public enterprise at arm's length involves the creation of a discrete legal status, giving the firm the ability to involve third parties and to bind other firms to contracts. Not till then, the enterprise is capable to execute basic entrepreneurial activities on its own (Fabry, 2002; Kämmerer, 2001).

Quite naturally, economists are less interested in the legal aspects of formal privatization; rather they focus on organizational aspects. There is an extensive literature in public economics paying attention to the performance of public enterprises as compared

[10] See also Tepe et al. (2008) on the changing role of the state as an employer.

to private enterprises (Bös, 1986, 1988; Blankart 1980, 2008; Mühlenkamp, 1994, 2006, Brede, 2005; Stiglitz, 2000). After being formally privatized, a public enterprise’s corporate governance is characterized by a delegated management which is embedded in a board structure exercising the decision-making power for operational activities. In sum, a commercial management as the central organ of the new entity replaces a group of bureaucrats (Bös, 1986; Seidel, 2002). The theoretical literature stresses that the change in a formally privatized firm’s *objective function* from welfare maximization towards profit maximization is likely to involve efficiency gains (Perotti, 2004; Boycko et al., 1996; Bös, 1986, 1987, 1991; Blankart 1987; for an overview see Schimmelpfennig, 1994; see also Lindow, 1998; Kroker, 1982).[11]

Apart from changing the objective function, formal privatization obviously has implications for a firm’s budget constraint. Revenues and expenditures of departmental bodies appear in the budget of the respective jurisdiction while the finances of public enterprises liable to private law are strictly separated from the public budget. In the latter case, the public budget simply reports the firm’s balance of revenues and expenditures (Brede, 2005). Accordingly, traditional public enterprises are *soft budget constraint* organizations, given their theoretically unlimited access to government funds “no matter how inefficient its management [is]” (OECD, 1998, p. 15). Operating losses are usually covered by the public. Formal privatization, thus, can also be seen as an attempt to harden the budget constraint (Brada, 1996; Hansmann and Kraakman, 2000).[12] Of course, this process must also include the restructuring of a firm’s finances. Departmental agencies operate with public money while the financial basis of private-law companies is made up by equity (Bös, 1986). Furthermore, the creation of an autonomous enterprise often goes along with a turn from a fiscal to a financial accounting system which is more concerned with efficiency, effectiveness and cost savings (Ogden, 1995; Jann, 1997).

In political science, the creation of joint-stock companies has extensively been treated within the *New Public Management* (NPM) literature (Pollitt and Bouckaert, 2004a, 2004b; Pollitt et al., 2007; Schedler and Proeller, 2006; Thynne, 1994; Lynn, 2005). NPM emphasizes the changing influence of administrative and political actors as well as the distinctive governance modes in traditional and modern forms of public administration (Lane, 2000; Döhler, 2006; König, 1997; Frederickson, 2005). Traditional public enterprises are characterized by a top-town-implementation of government decisions in its producing units. Often, there is ex ante control, steering and obedience as to

[11] There is also a large empirical literature as to the performance of public enterprises for several countries (Mühlenkamp, 2001; Kroker, 1982; Seidel, 2002; OECD, 2005a).

[12] Hard budget constraints are not given in a strict sense because public joint stock companies might eventually receive support to avoid bankruptcy (Kornai, 1980; Kornai et al., 2003).

directives laid down in public-law documents (Lane, 2000). The transformation into a joint-stock company comes along with a replacement of bureaucrats through a commercial management and, therefore, a liberalization of the administrative and economic processes from political decisions (Seidel, 2002; Meier and Hill, 2005; Thynne, 1994; Döhler, 2006; Pollitt and Bouckaert, 2004a, 2004b). Liberated contract managers who are solely responsible for the interests of the company (rather than ministers or bureaucrats with political responsibilities) have the organizational decision-making rights over the entity and the financial as well as the personnel management (OECD, 2005b; Rainey and Chun, 2005; Lindow, 1998; Thynne, 1994; Meier and Hill, 2005; Seidel, 2002; Lane, 2000; OECD, 2005b).

Formal privatization does not only change the governance modus, the actors, and their room to maneuver, but also the incentive structures for the actors. The clear assignment of rights and obligations in companies liable to general law allows for the implementation of monitoring and financial incentive systems (Meier and Hill, 2005). Managers in joint-stock companies are evaluated by benchmarking and performance standards (Lane, 2000; Rainey and Chun, 2005; Seidel, 2002). In respect of the personnel, classical modes of public administration usually employ civil servants with long-term or tenured contracts. In joint-stock companies, labor contracts are usually subject to notice and tend to be shorter in term (Lane, 2000). In sum, short-term or performance based contracts provide strong incentives for the management and the employees to run the commercial business efficiently (Seidel, 2002; Lindow 1998; Thynne, 1994).

Summarizing the juridical, political, and economic literature on formal privatization, the following shortcomings can be identified: First, there is a large heterogeneity of labels used for the processes of formal privatization within and between the different disciplines such as “corporatization”, “restructuring”, “commercialization,” and “formal privatization” (Lane, 1997, 2000; UN, 1995; OECD 2005b; Daintith, 1994; Graham, 2003). The abundance of labels for basically the same concept does not only apply to formal privatization itself, but also to the object of privatization (OECD, 2005a, p. 25).[13] “Public enterprise”, “state-owned enterprise”, “public corporation”, and “government corporation” are some of the many terms used in the literature to address public entities providing goods and services (Thynne, 1994; Starr, 1988; Savas, 1987; OECD, 2003, 2005a). As the OECD (2005b) puts it: “There is no universally accepted classification of arm’s-length bodies” (p. 114). Overall, the exchange between different disciplines is only weakly developed.

Second, empirical research is dominated by case studies (Mascarenhas, 1991; Wettenhall, 1992; Mayer, 2006; Waffler, 2002; Mühlenkamp, 2001; Jane and Dollery,

[13] In 2003, the OECD compiled questionnaire data on public enterprises, yet avoiding to define the term public enterprise (OECD, 2005d).

2006; Kämmerer, 2001; Blanke and Trümmer, 2008) while international comparisons of formal privatization are completely lacking. Quantitative studies typically focus on material privatization and therefore neglect the restructuring process of public enterprises (Kämmerer, 2001). Like the other disciplines, political science misses conceptual or empirical international comparisons of formal privatization – perhaps with the exception of Thynne (1994) who compares the basic characteristics of different types of incorporated companies. Beyond that, there is a number of case studies describing existing instruments of NPM (Jane and Dollery, 2006; Kickert, 1997; Naschold, 1996; OECD 2005a; for Germany, see Bogumil et al., 2006; Naschold and Bogumil, 2000). To state briefly, a comprehensive internationally comparative analysis of formal privatization as one essential dimension of the retreat of the state from entrepreneurial activities is still missing.

2.2 Three Types of Public Enterprises

In this section, we will present a more integrative view of formal privatization, beginning with a definition of the term *public enterprise*. In fact, we shall identify three distinct types of public enterprises:

- The first type is governed by administration bodies liable to public or special law (Seidel, 2002). *Departmental agencies* usually do not exhibit a separate legal personality. Their employment structure is dominated by civil servants (Fabry, 2002). Furthermore, political actors execute the business management in a hierarchical manner. The agency’s revenue account is part of the respective public budget (Bös, 1986).
- *Public corporations* form a second category of public enterprises. Typically, they are liable to public law, too. However, they possess a discrete legal status, which usually is created by a specific law or by decree. In most cases, the law or decree defines a public corporation’s mission (Bös, 1986; Parris et al., 1987). Public corporations operate at arms length of the government and have more autonomy than departmental agencies (Berne and Pogorel, 2006). They finance themselves by loans or capital allotments, and they apply a financial accounting system.
- The third type is made up by *state companies* liable to ordinary company law. State companies represent discrete legal personalities and usually have the organizational form of a limited liability company or a joint-stock company. The state company is led by a fully responsible central management with the necessary decision-making power for operational activities. State companies have their own assets and liabilities, and they cover expenses completely on their

own (Seidel, 2002). The influence of the government is indirect and limited by the share ownership (Bös, 1986).

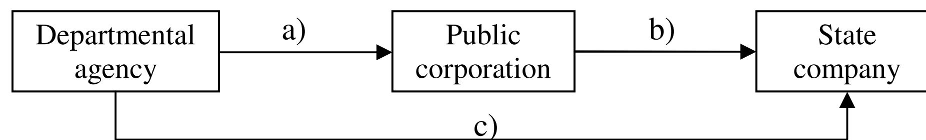
Table 1: The Three Types of Public Enterprises

	Type of public enterprise		
Feature	*Departmental agency*	*Public corporation*	*State company*
Law in force	Public law/special law	Public law/special law	Private law
Legal identity	No own legal	Own legal status	Own legal status
Governance modus	Hierarchical modus	At arms length	By ownership
Business management	Political actors	Bureaucratic managers	Commercial managers
Employment structure	Civil servants	Civil servants/employees	Employees
Business focus	Political objectives	Administrative objectives	Commercial objectives
Financing	Taxes and fees	Loans and allotments	Shares
Accounting	Fiscal accounting	Cost accounting	Cost accounting

Source: Own compilation.

Table 1 summarizes the main features of the three types of public enterprises. The first row denotes the general features for the distinction of departmental agencies, public corporations and state companies. The other rows list the specific characteristics of these features of the three main types of public enterprises.[14]

Figure 2: A Scheme of Formal Privatization



Source: Own illustration.

Figure 2 illustrates that formal privatization refers *a)* to the transformation of a departmental agency into a public corporation regulated by special or public law. The transformation of a public corporation into a state company represents *b)* a second form of formal privatization. Both transformations imply a move towards organizational forms more closely resembling those used in the private sector, and they are linked with a

[14] The terms are used in accordance with Bös (1986).

change of the legal status (Daintith, 1994). It is also practicable, to transfer *c)* a departmental agency directly into a state company.

2.3 Empirics

In 1990, the French government transformed the PTT (post, telecom and telegraph) administration bodies, these were called "Établissements public administratifs", into public corporations. The resulting "Établissements Publics Industriels et Commerciaux (EPIC)" were labeled "La Poste" and "France Telecom" and operated under special legislation until 1995. Since then, "La Poste" and "France Telecom" have been traded on the stock exchange as joint-stock companies liable to general company law (Berne and Pogorel, 2006). In Germany, the formal privatization of the postal sector also took place in a two-staged process. Starting with the first postal reform in 1989, three public corporations ("Deutsche Bundespost", "Postdienst" and "Postbank") replaced the "Deutsche Bundespost", the former administration body. A constitutional amendment was necessary to enable the second postal reform in 1994, by which the transformation of the three public corporations into joint-stock companies was passed (Thiem, 2004).

New Zealand also extensively relied on formal privatization (Graham, 2003). The government converted businesses operating in various departments into state companies very early, but remained the unique stakeholder in a significant number of cases (OECD, 1998, 2005a). New Zealand and Norway have been identified as the latecomers with regard to the electricity sector (Ehni et al., 2004, p. 136), but this finding only applies to material privatization. In fact, although keeping its shareholdings in the "Electricity Corporation of New Zealand" (ECNZ)[15] until 1999, New Zealand was one of the "early birds" which had radically restructured its electricity provision by transforming a departmental agency into a state company in 1987. Likewise, Norway's "Statskraftverkene" already became an autonomous public electricity corporation in 1986. In 1992, it was split into "Statnett" and "Statkraft", two state companies responsible for power generation and for operating the national grid. Until now, however, no shares have been sold.

Figure 3 below visualizes formal privatization activities in 21 OECD-countries. Exemplified for the telecommunications sector, it gives an overview of formal and material privatizations[16]. The vertical axis shows the cumulated number of countries which have formally privatized their telecommunication provider or have begun with the mate-

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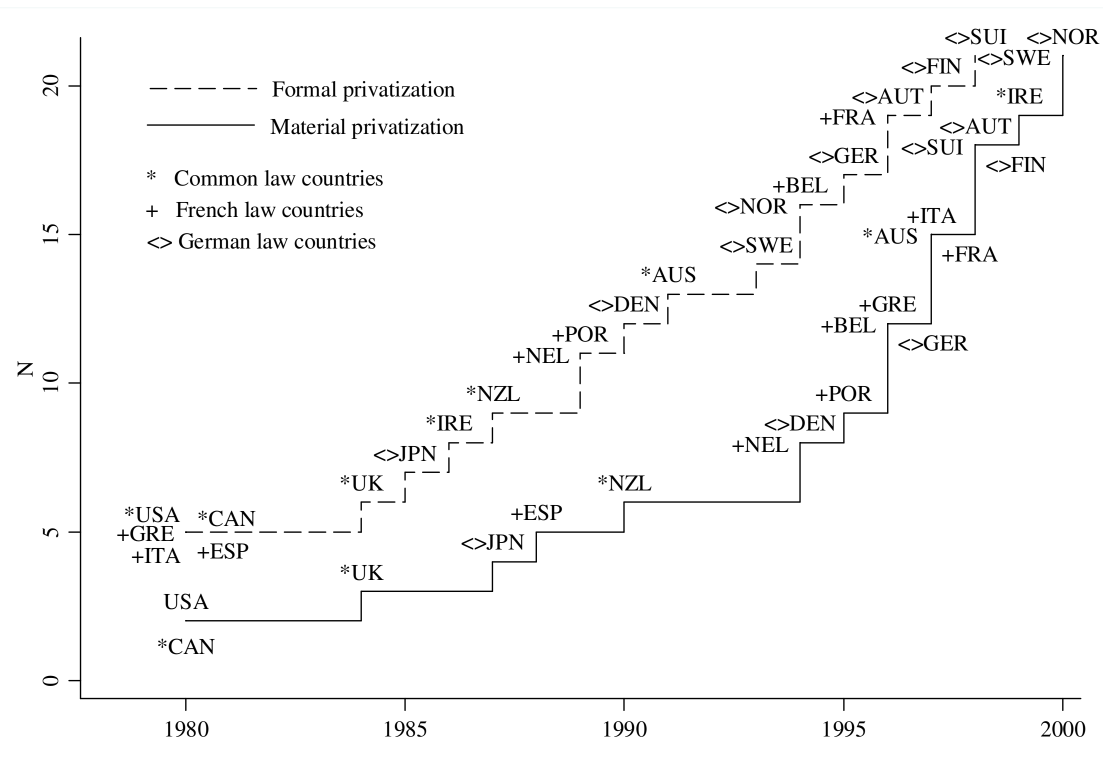
[15] The ECNZ was split in 1999 into Meridian Energy Limited, Genesis Power Limited, and Might River Power Limited.

[16] Material privatization will be discussed in more detail in the following section.

rial privatization process. The horizontal axis illustrates the development over time.[17] Additionally, the affiliation of countries to different legal traditions is marked.[18]

Figure 3: Formal and Material Privatization in the Telecommunication Sector



Notes: N denotes the number of countries with formally and/or materially privatized telecommunication provider. Figures on formal privatization reflect only transformations into state corporations liable to private law. Source: Own compilation.

The figure shows that, in particular in the 1990s, most OECD countries replaced their public corporations or departmental agencies by state companies (OECD, 1998, 2003; Bellini, 2000; Hellermann, 2001). As noted above, formal privatization has not always been accompanied by material privatization. For example, Norway and Sweden are located in the midfield with respect of formal privatization while these nations started to sell out their telecommunication companies very late. Germany, by contrast, restructured its telecommunication sector later than other countries, but formal privatization then was quickly followed by material privatization. Overall, the figure suggests that countries with a similar law tradition are characterized by similar privatization paths (Zweigert and Kötz, 1996). In Common law countries, the telecommunication provider has always been private (such as Canada Bell) or was privatized at a relatively early

[17] The scale ranges from 1980 to 2000, because in 2000 the last of the 21 OECD-countries (Norway) began with the disposal of its telecommunication provider.

[18] The classification of the OECD-countries in Common Law, French civil law and German is based on Zweigert and Kötz (1996).

stage (such as British Telecom), whereas civil-law countries typically sold out their public enterprises much later, regularly several years after having transformed the telecommunications providers into joint-stock companies. One reason might be that many civil-law countries maintained a large public sector which, in addition, has been protected against privatization by constitutional provisions (Bortolotti and Siniscalco, 2004). Within the group of civil-law countries, German law countries launched material privatization later than French civil-law countries. Bortolotti and Siniscalco (2004) argue that "German civil law countries possibly have fewer incentives to privatize since they are not forced to sell inefficient firms" (p. 51) due to the better economic performance of their governments.

Overall, formal privatization is in theoretical and empirical terms a clearly understudied domain. The preceding analysis, however, should have shown that formal privatization is an import dimension of privatization which should not be neglected in comparative inquiries.

3. Material Privatization

In general, material privatization refers to the transfer of ownership by selling public enterprises (Sheshinski and Lopez Calva, 2003). Although selling assets appears to be the most intuitive form of material privatization, the way in which state property changes its ownership can vary substantially.

3.1 Definitions, Forms, and Implications

The literature distinguishes between four basic forms of material privatization, namely, privatization through restitution, mass or voucher privatization, the sale of state property, and insider privatization (Brada 1996).[19] Privatization through restitution refers to expropriated private property, usually in former communist countries. Mass or voucher privatization is similar to an auction. Certain groups of citizens receive vouchers entitling them to bid for the shares of a public enterprise. Vouchers can be advantageous regarding the speed, transparency, and the (insider) acceptance of privatizations (Brada, 1996). However, the most prominent form of material privatization has been the sale of public enterprises with (initial) public offerings (IPO) and trade sales as the most common subtypes. An IPO means that the state sells the shares of the public enterprise (which has previously been formally privatized into a joint-stock company) on the stock market. A trade sale works differently. Here, shares are sold to private investors, bypassing the stock market. Finally, insider privatization refers to the sale of shares to "a

[19] Note that the first two forms have been more common in former communist countries during their transformation period, while the sale of state property has been the most common form of government divesture in OECD countries.

new legal entity in which a significant, or a majority, stake is owned by the employees and managers” (OECD, 2003, p. 101). During the last two decades, about 62% of all material privatizations in the OECD were IPOs, and 20% were trade sales (OECD, 2003).

From the juridical perspective, selling public enterprises is not as simple as it seems at first glance. In some countries like, for example, Germany, the constitution obliges the state to guarantee the provision of “universal services”, such as postal services, telecommunication, and railway transport.[20] Thus, if the government of such a country wishes to change the mode of provision of a “universal service”, it might have to change the constitution. Changing a state’s constitution is a delicate undertaking in political terms, as it usually requires supermajorities. Apart from that, the EU Member States are also restricted in their privatization policies by EU guidelines as to the provision of general interest services (European Union, 2009). Under these circumstances, material privatization can involve complex legal and political processes. Figure 3 already visualized that national privatization paths are also affected by legal traditions, where differences are most obvious between common-law and civil-law countries (David and Brierley, 1985).

3.2 Empirics

A survey of empirical studies on the determinants of material privatization is presented by Table 2. One of the first international comparative studies, conducted by Boix (1997), highlights the role of political factors. For a sample of OECD countries, he demonstrates that the presence of a left-wing government decreases the likelihood of privatization, while majority governments appear to speed-up the privatization process. He also finds a negative correlation between economic performance in terms of growth and the extent of privatization.

Using a comprehensive set of dependent variables such as privatization proceeds, Bortolotti et al. (2001, 2003) examine material privatization for two large international samples of 34 and 49 countries, respectively. They find that slow economic growth accelerates the material privatization process. Furthermore, Bortolotti et al. provide some evidence that the number of transactions is independent from the size of the economy and the initial size of the public sector. As to the political dimension, they demonstrate that right-wing governments are more inclined to privatize than left-wing governments. As to the privatization proceeds, the liquidity of stock markets and government credibility are of great importance. Moreover, budget deficits enlarge the size of the stake sold, where more serious fiscal problems make trade sales instead of IPOs likelier. Conserva-

[20] Germany’s constitution (the *Grundgesetz*) grants equal assess to these “services of general interest” to every citizen (see *Grundgesetz*, Articles 83ff).

tive governments prefer IPOs. Their studies confirm our observation (see Figure 3) that the legal tradition of a country significantly affects the way countries privatize.

The relevance of the IMF for material privatization activities is examined by Brune et al. (2003) for a sample of 96 countries which received support by the IMF at least once in the past. “For every dollar outstanding debt to IMF in the 1980-1984 period, a recipient country privatized assets worth almost 50 cents over the next 15 years” (p.15). This rather robust result provides supporting evidence for international institutions and economic problems being triggers of privatization processes. Furthermore, Brune et al. (2003) find a positive effect of stock market quality, budgetary deficits, and initial public sector size on material privatization.

Table 2: Empirical Studies on the Determinants of Privatization

Authors	Year	Privatization Indicator	Sample	Period	Design	Determinants (significant)	Type of indicator
Boix	1997	Privatization Proceeds To GDP	OECD countries (population > 1 mio. inhabitants)	1979-1992	Cross Section	Left-Wing Government (-) Government Coalitions (-) Economic Growth (-) Majority Governments (+)	Quantitative
Bortolotti el al.	2003	Privatization Dummy	34 countries	1977-1999	Panel	GDP Per Capita (+) Right Wing Government (+) Democratic Institutions (+) Previous Year Deficit (+) Previous Year Financial Market Capitalisation (+) Previous Year Turnover Ratio (+) German Law (-)	Qualitative
		Privatization Proceeds To GDP	34 countries	1977-1999	Panel	Turnover Ratio (+) Public Offerings To Total Deals (-)	Quantitative
		Weighted Average % Of Capital Sold	34 countries	1977-1999	Panel	Finacial Market Capitalisation (+) French Law (-) German Law (-) Public Offerings To Total Deals (-) Proximity Of Elections (-)	Quantitative and Qualitative
Bortolotti el al.	2001	Privatization Sales To Number Of Domestic Listed Firms	49 countries	1977-1996	Panel	Economic Growth (-) Deficit (+) Right-Wing Governments (+)	Quantitative
Bortolotti el al.	2001	Privatization Proceeds To Population	49 countries	1977-1996	Panel	Economic Growth (-) Credibility (+) Stock Market Liquidity (+)	Quantitative
		Country Average Of Cumulative Privatized Stock	49 countries	1977-1996	Panel	Economic Growth (-) Deficit (-) Stock Market Liquidity (+) Restrictions Of Credits (-) Law Enforcement (+) German Law (-)	Quantitative and Qualitative

Authors	Year	Privatization Indicator	Sample	Period	Design	Determinants (significant)	Type of indicator
		Public Offerings To Total Sales	49 countries	1977-1996	Panel	Economic Growth (-) Deficit (+) Right-Wing Governments (+) French Law (-)	Quantitative and Qualitative
Belke et al.	2006	Privatization Proceeds To GDP	14 EU Countries	1989-2000	Panel	Previous Year Economic Growth (-) Previous Year Unemployment Rate (+) Previous Year Deficit (+) Economic Freedom (-) Right Wing Parties (+) Level of Federalism (-) Previous Year Share Of Exports And Imports Over GDP (+) Initital State Sector Size in 1990 (+)	Quantitative
Brune et al.	2003	Privatization Proceeds As A Proportion Of 1985 GDP	96 countries	1985-1999	Cross Section	Initial State Sector Size (+) Deficit (+) IMF obligations (+) East Asia And Pacific (+)	Quantitative
Brune et al.	2003	Privatization Transactions	96 countries	1985-1999	Cross Section	GDP Per Capita (+) Initial State Sector Size (+) Functioning Stock Market (+) IMF Obligations Eastern Europe And Central Asia (+) Middle East And North Africa (-)	Quantitative
		Annual Privatization Proceeds	95 countries	1985-1999	Panel	Initial State Sector Size (+) Functioning Stock Market (+)	Quantitative
Fink/Schneider	2004	Infrastructure Ratio	18-26 OECD countries	1970-2000	Cross Section; Pooled OLS	Right Wing Governments in 1980s (+) Corporatism (-) for Telecommunications Financial Market Openness (+)	Qualitative
Zohlnhöfer et al.	2008	Sum of Privatization Proceeds scaled to GDP	EU 14; 21 OECD countries	1990-2000	Cross Section; Panel (EU)	Left-wing government (-) OECD, excluding Australia Deficits (+)	Quantitative

Authors	Year	Privatization Indicator	Sample	Period	Design	Determinants (significant)	Type of indicator
Schneider/Häge Häge/Schneider	2008 2004	Infrastructure Ratio	20 OECD Countries	1983-2000	Cross Section	Economic Growth (-): OECD Strike (-) Initial State Sector Size (+) Institutional Fragmentation (-) Left Wing Governments (-): not robust EU Membership (+)	Qualitative

Zohlnhöfer et al. (2008) analyse the determinants of privatization activities both, for EU Member States and for a sample of OECD countries. For the EU-14, their results indicate that party ideology does not have a significant effect on privatization, a result that is consistent with an earlier study by Obinger and Zohlnhöfer (2005) showing that the importance of party differences decreases over time. Apart from budgetary deficits, political and economic factors do not exhibit statistical significance. The initial size of state owned sector and the militancy of unions appear to be significant determinants of privatization. The findings for the OECD sample are insofar different as party differences turn out to be significant. Moreover, their results suggest that economic factors have triggered privatization activities, notably below-average growth rates. In both samples they find that institutional pluralism negatively affects privatization, thus, corroborating veto-player theory (Tsebelis, 2002).

Empirical studies focusing on the infrastructure sector of OECD countries and EU Member States, respectively, were conducted by Fink and Schneider (2004), Häge and Schneider (2004), Schneider et al. (2005), and Schneider and Häge (2008). Schneider et al. (2005) provide further evidence that party differences with respect to privatization have diminished over time. They also demonstrate that veto players have been an important institutional factor for privatization paths in the electricity sector; yet they conclude that “institutional factors cannot sufficiently explain differences in privatization between countries” (p. 718). Interestingly enough, “the openness to capital flows of a country seems to explain a significant part of privatisation activity between countries” (p. 719).

All in all, the empirical studies listed in Table 2 provide evidence that political, legal, and economic factors have been influencing the national privatization processes, though some results are contradictory. However, a direct comparison between these studies is complicated by the fact that different samples, time periods, and indicators have been used by the various authors.

3.3 A Critical Assessment

In this section, we critically discuss measurement and estimation issues concerning the empirical privatization studies presented in the previous section. It is tempting, for example, to use changes in the government’s share of GDP as a proxy for the retreat of the state from entrepreneurial activities. Unfortunately, this rather convenient indicator is an aggregate measure which comprises many public economic activities and does not adequately reflect privatization activities (Schneider and Häge, 2004). Some economists have investigated privatization by means of event-history analysis, where material privatization is captured by a dummy variable. The indicator is then used to study the impact of privatization events on variables like employment, operating profits, and financial-market development (Dewenter and Malatesta, 2001; D’Souza and Megginson,

1999; Megginson et al., 1994). Event-history analysis has become a popular method for testing privatization theories, particularly with regard to the hypothesis that privatization involves efficiency gains at the firm level. Bortolotti et al. (2003) also use a binary indicator, in order to analyse the determinants of privatization.

For properly measuring the *extent* of privatization, a continuous index is required, which additionally should be normalized (for example, to the unit interval) in order to facilitate international comparisons. Brune et al. (2003) measure the extent of privatization by the number of privatization deals per country and year. Such an index obviously neglects the economic value of the transactions (and is not normalized). Bortolotti et al. (2001) examine the number of private and public sales in relation to the number of listed domestic firms, that is, they control for the size of the respective domestic market in order to enable cross-country comparisons. Again, however, the index focuses only on the pure number of sales rather than the size of the divestment. In contrast to this, Bortolotti et al. (2003) weight each deal by its share in total privatization proceeds before counting the number of deals per year and country. Using such a weighted average is reasonable, given the different size of privatized firms.

A significant number of studies utilizes the yearly sum of privatization proceeds, either in absolute terms or as a percentage of GDP, for measuring material privatization (see, for example, Bortolotti et al., 2003; Obinger and Zohlnhöfer, 2005; Zohlnhöfer et al., 2008; Brune et al., 2003; Belke et al., 2006). While privatization proceeds may represent a useful indicator for measuring the financial impact of privatization and for evaluating the success of privatization programs in terms of revenue generation for the national budget, this indicator also has its drawbacks because privatization proceeds are influenced by several factors. In particular, several studies show that the stock-price formation is biased by political strategies in favor of underpriced shares (Perotti, 1995; Jones et al., 1999; Biais and Perotti, 2002). Furthermore, stock-market prices are formed by expectations about future revenues which may be influenced by a government’s credibility, i.e. its ability to commit to a certain privatization path (Perotti, 1995; Jones et al., 1999). Hence, prices do not necessarily reflect the (expected) “real” economic value of the shares of a privatized company. Therefore, the use of privatization proceeds may suffer from serious measurement error (if privatization proceeds are used as a weighting variable, the same critique applies).

Several studies investigating network-based industries use the “infrastructure ratio” as dependent variable. The ratio is computed as the average share of state ownership in the dominant enterprises in aviation, telecommunication, and electricity (Fink and Schneider, 2004; Häge and Schneider, 2004; Schneider at al., 2005). On the one hand, as a ratio, the indicator is comparable across countries, making it a possible candidate for an internationally comparative study. On the other hand, the indicator has two draw-

backs. First, since it averages percentages (!), it is a rather crude proxy for the extent of privatization (Bortolotti et al. 2003). Second, it merely provides information on the change of ownership but neglects the quantitative dimension of privatization in terms of the volume privatized.

An econometric issue of empirical privatization studies that is often ignored or not sufficiently controlled for is endogeneity. For instance, the effect of stock-market performance on privatization activities should be considered with caution as other studies have shown that privatization programs were launched to bolster stock-market growth and to promote equity culture (Boutchkova and Megginson, 2000; OECD, 2003). Accordingly, it is questionable to use stock-market data in order to explain privatization activities without explicitly controlling for endogeneity. The same argument holds for economic growth (see, for example, Bacchiocci and Florio, 2008; Barnett, 2000). Among the studies mentioned above, controlling for endogeneity comes at best in form of using lagged variables (Belke et al., 2006; Brune et al, 2003; Bortolotti, 2003). Still, a structural treatment is missing, for instance, in terms of a structural-equations model that produces more valid regression coefficients. Note, however, that it is often hard to effectively control for endogeneity when examining non-experimental data.

It should also be mentioned that privatization data usually shows clear trends (Bortolotti, 2003; Schneider and Häge, 2008) which cause statistical problems in terms of serial correlation in the error terms. This makes hypothesis testing of individual coefficients imprecise (Greene, 2008). Autoregressive structures should be taken into account when estimating coefficients from such data sets. Instead of their absolute values, variables should enter the regression in terms of their first or higher-order differences in order to obtain stationarity of the times series.

Some authors use pooled OLS (for example, Brune et al., 2003; Schneider and Häge, 2008) or cross-sectional designs (for example, Boix, 1997). The pooled OLS estimation strongly rests on the assumption of random sampling which is violated if only certain countries are included in the sample. Therefore, if pooled OLS is used nevertheless, several restrictions must be considered to guarantee unbiasedness (Wooldridge, 2002, 2003). Regarding cross-sectional designs, we know that their results should be interpreted with caution due to unobserved heterogeneity, while panel estimation methods offer powerful tools to deal with this issue (Wooldridge 2002). Indeed, Belke et al. (2006) show for a sample of EU member countries that unobserved heterogeneity is a problem and not explicitly controlling for unobserved heterogeneity in the context of privatization would mean that “the effects of political and institutional factors on privatization revenues are independent of any non-controlled differences across countries” (p. 17). This result suggests that caution is in order when cross-sectional designs are employed. Apart from this critique, it should still be acknowledged that cross-sectional

designs are helpful to analyse variations between countries. Moreover, pooled OLS is often the only way to examine the effect of time invariant factors such as institutions.

Among the studies presented in Table 2, only Bortolotti (2001, 2003), Belke et al. (2006), and Schneider and Häge (2008) explicitly control for heteroscedasticity by using robust estimation techniques. Many studies using different combinations of the independent variables forget to theoretically justify their proceeding (and therefore violate the assumption that the model is fully specified; on this issue see Greene 2008); similar objections can be raised against the use of stepwise regression techniques (Wooldridge 2003). Our brief discussion of modelling and estimation issues suggests that there is much leeway for improving empirical privatization studies.

4. Functional Privatization

Apart from formal and material privatization, there is a third form that can be observed in the OECD world, namely, *functional* privatization. The term functional privatization refers to the case that some public service (for example, waste disposal) or some public infrastructure (for example, a highway) is no longer produced ‘in-house’ by a governmental body but by a private-sector company. The term “functional privatization” is mainly used in the German social-science literature and in the public debate on privatization,[21] while the English literature denotes the phenomenon as “outsourcing” or “contracting out” of in-house production (Ferris and Graddy, 1986; Lopez de Silanes et al., 1997; Domberger and Jensen, 1997; Guttman, 2002).

4.1 Defining Functional Privatization

In order to analyze the functional dimension of privatization, it makes sense to apply the usual distinction in textbook public finance between the provision, production, and financing of goods and services (Stiglitz, 2000; Rosen, 2008). In the case of functional privatization, a public task or public function still is publicly provided but is privately produced and/or financed by private-sector bodies. Consequently, contracting out differs from traditional public procurement by which governmental bodies purchase certain resources needed for in-house production from private suppliers. The crucial difference between the functional and the material dimension of privatization is that in the case of contracting out the provision of the respective public task (refuse collection, water supply, etc.) is not privatized. Thus, in the above-cited German literature material privatization (i.e. the complete or partial sale of public enterprises producing some public service/task) is usually denoted as “task privatization” in order to demarcate this phenomenon from functional privatization (see Figure 4). Moreover, in the case of functional

[21] Compare, for example, Burgi (1999), and Kämmerer (2001, pp. 23, 38-40), each with further references to the German legal-science and administrative-science literature where the term “functional privatization” was coined.

privatization, as a rule there is no transfer of ownership rights from public to private actors.[22] In this respect, note that private producers of public services often receive public co-financing, for example, in terms of subsidy payments, tax exempts, or vouchers granted to citizen-consumers of public services. Apparently, there is a link between functional privatization and public subsidization (see Section V below).

Figure 4: Disentangling Formal, Material and Functional Privatization

Departmental Agency (e.g., Post Office Department, Municipal Building Authority) providing public services via in-house production (e.g., postal services, waste disposal)	
▼ *founding / separating out* = ***Formal P. Type I***	▼
Public Corporation under public/special law (e.g. Deutsche Bundespost) providing and producing public services	*contracting out (i.e., private production of public services)* = ***Functional P.*** [2)]
▼ *'privatizing' legal form* = ***Formal P. Type II***	
State Company under private law (e.g. Deutsche Post AG) providing and producing public services	
▼ *sale of shares / transfer of ownership rights* = ***Material P.***	▼
Private Company [1)] providing and producing services formerly provided publicly (= privatizing public tasks)	**Private Company** [1)] producing public services formerly produced in-house

Notes: [1)] Private-sector company with *x* % public shares, *n* public regulations, and *y* $ public subsidies. [2)] As mentioned in the text, in the case of functional privatization also private-public production of public services is possible (e.g., via PPP and mixed-enterprises). Source: Own illustration.

In what follows the terms functional privatization, outsourcing, contracting out, and public-private partnership (PPP) are used as synonyms. PPP arrangements typically occur in areas where the state is responsible by law for the provision of a public task but the production and financing of task provision takes place in some kind of joint venture. That is, public and private partners contractually agree upon a certain division of labor in order to produce and finance certain services and infrastructures (European Commission, 2004; Grimsey and Lewis, 2007; OECD, 2008). Such arrangements may take a variety of forms depending on which task in the chain of producing and financing a certain service or infrastructure is exerted by the private partner. For example, there is the DBFO model in which the private-sector company *d*esigns, *b*uilds, *f*inances, and *o*perates, say, a bridge, tunnel, or another infrastructure (see Yescombe, 2007; Grimsey and Lewis, 2007, for overviews of further PPP models).

[22] Since there are exceptions from this rule (for example, the sale of public infrastructure to the new private providers of public services), ownership change is not the decisive demarcation criterion.

Due to this great variety, there is currently no generally accepted definition of PPP. For example, in the “Green Paper on public-private partnerships and Community law on public contracts and concessions” the European Commission (2004, p. 3) writes: “The term public-private partnership (PPP) is not defined at Community level. In general, the term refers to forms of co-operation between public authorities and the world of business which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service”. Moreover, it has to be pointed out, that co-operative arrangements between public and private partners predated the introduction of the label PPP to the public and scientific discussion. Using examples from Australia, Italy, Singapore, and the UK, Wettenhall (2003, pp. 91-92) highlights the existence of so-called “mixed enterprises”, founded by public and private actors in order to jointly produce public services (often at the local level).

Figure 4 depicts possible privatization paths. To the left, formal and material privatizations are illustrated; to the right, functional privatization is displayed. It should be noted that *private provision* of goods and services frequently is accompanied by *public regulation* (which is considered in Section IV below). This applies, in particular, to the network-based sectors (telecommunications, electricity supply, railways, and so on), where the state directly or indirectly controls the important market parameters (quantities, qualities, and prices). In other words, there are sectors of the economy in which the state preserves its “ultimate responsibility” (Reichard, 2004; Schuppert, 1997; Genschel and Zangl, 2007; Heidbrink and Hirsch, 2007).

4.2 Theoretical Perspectives on Functional Privatization

In the social sciences, different disciplines have analyzed the phenomenon of functional privatization. The *legal science* literature discusses the legal barriers or limits of functional privatization (Burgi, 1999; Kämmerer, 2001). The constitution of many jurisdictions stipulates that certain tasks are public and, hence, must not, or only to a certain extent, be contracted out. It also has to be clarified from a legal point of view which duties and responsibilities a private-sector company has to fulfill within a PPP or another arrangement of functional privatization (Weber et al., 2006). In *administrative science* the different forms of functional privatization are analyzed in the literature on New Public Management (Lane, 2000; Hoeppner and Gerstlberger, 2003; Schedler and Proeller, 2006). This literature focuses, among other things, on the potential efficiency gains from “contracting in” a commercial management as compared to civil servants.

In the *economics* literature, apart from the normative discussion about “The Proper Scope of Government” (Hart et al., 1997), there is a branch that deals in a model-theoretic way with the private production of public goods and services (see, for example, Demsetz, 1970; Wigger, 2004). Hart et al. (1997), Wettenhall (2003), De Bettignies and Ross (2004), Grimsey and Lewis (2005), and Välilä (2005) investigate the eco-

nomic problems involved by PPPs and other forms of functional privatization. In particular, the contractual allocation of risks between private and public partners is awkward. The danger that profit-maximizing private entrepreneurs, vote-seeking politicians, and self-interested public bureaucrats make a deal at the expense of the taxpayers in a jurisdiction should not be disregarded.

In *political science* and *sociology*, there is an ongoing debate about the symptoms and likely consequences of the transformation of statehood. The respective literature regards the different forms of functional privatization as manifestations of a fundamental change, first, of the role of the state as an entrepreneur and, second, of the division of labor between public and private-sector bodies in the provision, production, and financing of goods and services (Reichard, 2004; Budäus, 2006; Genschel and Zangl, 2007; Risse and Lehmkuhl, 2007). In this context, political scientists have emphasized that the delegation of certain tasks to private actors may be accompanied by a serious loss in democratic control (Rügemer, 2004; Börzel and Risse, 2005; Grande and Pauly, 2005). Mittendorf (2008) discusses issues of legitimation and public acceptance of contracting-out agreements.

4.3 Available Data and Existing Empirical Studies

Why functional privatization at all? The main reason stated by policy makers is the expectation that certain public services will be produced by private enterprises in a more cost-efficient way than in the case of public production. The delegation to private actors may also aim at producing the respective goods and services faster and in a better quality (Hart et al., 1997; Wigger, 2004; Sadka, 2007). Borcherding et al. (1982) analyze 52 quantitative studies covering 19 different public services (refuse collection, hospitals, utilities, etc.) from five countries. In 43 of the surveyed empirical studies private production of public services turned out to be the cheaper option; in three studies public production was more cost-efficient; and six studies found no significant cost differences between public and private production. A meta-analysis conducted by Hodge (1999) including 28 studies published between 1976 and 1994 and covering different sectors (refuse collection, bus transport, etc.) in different countries (Australia, Canada, Switzerland, UK, USA) ends up with a similar conclusion. The European Commission (2004) concludes that the success of functional privatization in terms of increasing cost-efficiency and cheaper and better services can only be judged ex post at a case-by-case basis. However, normative issues and the consequences of functional privatization are beyond the scope of this paper,[23] but we again concentrate on the literature depicting,

[23] See, e.g., the report “London Underground PPP: Were they good deals?”, report by the Comptroller and Auditor General HC 645 Session 2003-2004: 17 June 2004, National Audit Office, London.

analyzing, and explaining the rise and development of functional privatization in the OECD world in the last decades.

There are numerous case studies which describe and explain the emergence of contracting-out arrangements and PPPs using a set of plausible explanatory factors like fiscal stress or government ideology (see, for example, DIFU, 2005; Hodge and Greve, 2005; Yescombe, 2007; Grimsey and Lewis, 2007; HM Treasury, 2008). EIB (2004), AECOM Consult (2005), and PWC (2005) survey the extent of private-sector involvement in infrastructure provision for different countries and subsectors. Unfortunately, to our best knowledge there is no publicly available dataset or database compiling *systematically* collected and *comprehensive* country data on PPP deals, a fact that renders an internationally comparative analysis of functional privatization in the OECD world over the last decades almost impossible. The lack of data seems to results from the fact that most functional privatizations are implemented at the sub-national level and there is no systematic registration of these deals at the national level.

Table 3: Top Ten Countries with the Largest PPP Deals, 2003 and 2004

Rank 2004	Country	Value USD millions	Deals	% share	Rank 2003	Value USD millions	Deals	% share
1	UK	13 212	81	32.6	1	14 694	59	56.7
2	Korea	9 745	9	24.1	3	3 010	3	11.6
3	Australia	4 648	9	11.5	7	611	4	2.4
4	Spain	2 597	7	6.4	2	3 275	8	12.6
5	USA	2 202	3	5.4	4	927	2	3.6
6	Hungary	1 521	2	3.8	11	251	1	1.0
7	Japan	1 473	15	3.6	10	274	5	1.1
8	Italy	1 269	2	3.1	5	714	3	2.8
9	Portugal	1 095	2	2.7	n.a.	n.a.	n.a.	n.a.
10	Canada	746	3	1.8	n.a.	n.a.	n.a.	n.a.

Source: OECD (2008, p. 29).

In a recent study, the OECD (2008) reports a rising trend towards PPPs during the last two decades. Table 3 shows that the United Kingdom ranks first with regard to the amount of PPP deals in the field of infrastructure provision (during the time period 2003-2004). In sum, 140 deals were conducted, representing a value of about 28 billion US-dollars. The OECD (2008) admits, however, that the figures are problematic "…consistent international statistics based on agreed definitions do not currently exist. The overview in this chapter draws on several sources to obtain an indication of the

scope of PPPs. As such, the statistics reported in different sources are not necessarily comparable" (p. 33). Studies dealing with the topic of PPP provided by the European Investment Bank (EIB, 2004) and the United States Department of Transportation (AECOM Consult, 2005)—more or less explicitly—come to a similar conclusion regarding the quality of the used data.

Due to the lack of consistent and internationally comparable data at the *national* level it is unsurprising that there are currently no quantitative empirical studies which have tried to identify the triggers and mediating factors of functional privatization in the OECD world in a cross-country perspective. The USA has a relatively long experience with contracting out and PPP at the *sub-national* level. Hence there are some empirical studies for this level using survey data of cities, counties, and states which aim at identifying determinants for cross-sectional differences regarding functional privatization (see Table 4). Though our focus is on the national level, we give a brief survey of some of these studies in the following.

Ferris and Graddy (1986) give a purely descriptive overview of the "contracting patterns" of a sample of 1433 US cities and 347 US counties in 1982. Information is provided about the relative frequencies of internal production, external production (contracting out), and joint production (similar to PPP). Four categories of public services are analyzed: public works (waste disposal, street repair, etc.), public safety (patrol, fire prevention, etc.), health and human services (hospital, public housing, etc.), and recreation and arts (museums, libraries, etc.). For example, about 57 percent of the cities and counties operated residential waste disposal public while 36 percent contracted it out.

Lopez de Silanes et al. (1997) analyze the decision to produce either "in-house by government employees" or via "contracting out to private suppliers" for a sample of public services (hospitals, libraries, fire protection, etc.) for all 3,042 U.S. counties. In their cross-sectional multiple regression analysis for the years 1987 and 1992 they find that "state clean-government laws" (i.e., laws to prevent political patronage and corruption) as well as "state laws restricting county spending" promote privatization by contracting out, whereas "strong public unions" make privatization less likely.

Table 4: Empirical Studies on the Determinants of Functional Privatization

Author(s)	Year	Privatization Indicator(s)	Sample	Period	Design	Determinants (significant)
Ferris/Graddy	1986	Government production choices: % solely public % public employees + contracting out, % solely contracting	1433 U.S. cities, 347 U.S. counties (survey data)	1982	Cross Section, descriptive statistics	--
Lopez de Silanes et al.	1997	Service provision by private contractor 1987	3042 US counties (survey data)	1987	Cross-sectional regressions	*Clean-government variables:* State law requires merit system for the county (+) State law sets purchasing standards for the county (+) State law forbids political activity for government employees (+) *Labor-market laws and conditions:* State law does not allow county employees to strike (+) Fraction of county employees in unions (–) Unemployment rate in the county (–) Wage premium of county employees over private-sector employees (+) *Budget constraints:* State law does not allow counties to issue short-term debt (+) State law imposes debt limits on counties (+) State law mandates balanced budget for counties (–) State law does not allow the state to take over county finances (+) *Ideology:* Fraction of county votes for Republican governor (+)
		Switched to private contractor provision in 1992	3042 US counties (survey data)	1992	Cross-sectional regressions	State law sets purchasing standards for the county (+) State law does not allow county employees to strike (+) State law does not allow counties to issue short-term debt (+) *Ideology:* Fraction of county votes for Republican governor (+)

Author(s)	Year	Privatization Indicator(s)	Sample	Period	Design	Determinants (significant)
Kodrzycki	1998	Municipality switched to outside contractors, 1987 to 1992	750 US municipalities (survey data)	1987, 1992	Cross-sectional regressions	Number of services contracted out 1987 (+) Change in number of services provided between 1987-1992 (+) Expenditures on basic services relative to income 1987 (–) Percentage change in per capita expenditures on basic services between 1987-1992 (–)
Boyne	1998	Meta-analysis referring to empirical results from 12 quantitative studies published between 1981 and 1996 (not cited here) on the determinants of contracting out across different samples of US local governments				*Fiscal stress:* Tax burden (+ in 4 studies, – in 2 studies) Tax limits (+ in 6 studies, – in 1 study) Intergovernmental grants (+ in 3 studies, – in 1 study) *Scale and market structure:* Population size (+ in 6 studies, – in 4 studies) Metropolitan status (+ in 4 studies, – in 3 studies) *Public preferences:* Income of local population (+ in 3 studies, – in 1 studies) % Poor population (+ in 0 study, – in 3 studies) % Black population (+ in 3 studies, – in 1 study) % Elderly (+ in 1 study, – in 2 studies) *Power of public employees* Public employees per capita (+ in 0 study, – in 6 studies) Level of unionization (+ in 3 studies, – in 5 studies) Public labor costs (+ in 2 studies, – in 1 study)
Pallesen	2004	Volume of contracting out measured as a percentage of total local expenditure	275 Danish municipalities	1985-1997	Pooled regressions; Cross-sectional regressions for each year; Time-series regressions	Economic Prosperity measured by local government tax base (+) Local government size measured by No. of inhabitants (–) Metropolitan Status (–)
Brudney et al.	2005	Percentage of agency's budget allocated to contracts for delivering services to the public	1175 state agencies from 50 US states (survey data)	1998	Cross-sectional regressions	Agency budget expansion attitude (+) Effect of previous experiences with contracting out on service quality and cost savings (+)

Brudney et al. (2005) were the first to present an empirical study on the contracting-out patterns of the 50 American states. According to their survey data for the year 1998, about 70 percent of the 1,175 responding state agencies make use of contracting out for delivering public services. In order to identify factors that might explain the extent of contracting out by state agencies, a multiple regression analysis using hierarchical linear modeling techniques is conducted. The authors find that political variables like "government ideology" and "public employee strength" at the state level as well as "agency head ideology" do not have a statistically significant effect on the dependent variable, where the latter was defined as "the percentage of the agency's budget that is allocated to contracts for delivering services to the public (as reported in deciles by the agency heads)" (p. 399). By contrast, the independent variables "fiscal revenue" (state's revenue capacity) and "fiscal demand" (state's need for expenditures), which were constructed for measuring the impact of "fiscal stress" on the decision to contract out, have the expected signs (negative for revenues, positive for expenditures) and are statistically significant at the 10% and 7% level, respectively.

IV. The Regulatory State: The Case of Network-Based Industries

Privatization in the various forms discussed above considers just one dimension of the retreat of the state from entrepreneurial activities. The previous sections have shown that the state privatized many firms and tasks in the OECD world since the 1980s. However, recent years have also witnessed increasing regulation or what Majone (1994, 1997) has described as the rise of the regulatory state. To put it more vividly, in many economic sectors the state retreated or even disappeared as entrepreneur but emerged as a regulator.

Network based industries[24] such as electricity and gas transmission, fixed line telecommunications, rail infrastructure as well as postal and water services provide an excellent example to analyze such rearrangements in state intervention. Due to specific market imperfections or market failures in the utility sector, privatization has not automatically led to competitive markets. The most important market failure associated with the utility sector is the *natural monopoly*. A natural monopoly is, simply speaking, characterized by economies of scale and scope, that is, long run average and marginal cost curves decline. Accordingly, a large single firm can provide goods and services at lower costs than any combination of smaller firms. Due to the logic of market imperfections, public-interest theory legitimizes regulation in one form or another to avoid the misuse of market powers and to promote competition (Baldwin and Cave, 2002; Kahn, 1988).

[24] We use the term network based industry and the term utility interchangeably.

1. Definitions and Types of Regulation

Even though regulation is a concept that can be encountered everywhere in daily life, a generally accepted definition is missing. The term has been used to refer to broad concepts of coordination of societies as well as to narrow views such as the application of a binding set of rules. According to Baldwin et al. (1998) the broadest form of regulation describes “all forms of social control or influence” (p. 4), exercised by state or non-state actors. A middle range definition covers “all state actions designed to influence industrial or social behaviour” (p. 3). The narrowest description defines regulation as “the promulgation of a binding set of rules to be applied by a body devoted to this purpose” (p. 3).

Defining regulation is also a matter of historical context and scientific backgrounds. Hence, in the US where independent regulatory authorities (IRA) have been a defining feature of the relationship between the state and the market for a long time, definitions are focused on the public control of aspects of private transactions or economic activities mostly executed by a public agency (Noll, 1985; Selznick, 1985, Spulber, 1989). However, with the spread of the agency model of regulation, these definitions have become more widely accepted (Majone 1996, p. 9). For example, Eberlein (2000, p. 94) defines regulation as a specific form of state control over private market participants including case-specific intervention into the market. An almost identical definition has been given by Lütz and Czada (2000, p. 15). Finally, the OECD (1997) refers to regulation as “(…) the diverse set of instruments by which governments set requirements on enterprises and citizens. Regulations include laws, formal and informal orders and subordinate rules issued by all levels of government, and rules issued by non-governmental or self-regulatory bodies to whom governments have delegated regulatory powers.“ (p. 6).

A further distinction can be drawn between economic and social regulation. Economic regulation is concerned with issues of pricing, competition, and market entry or exists. Social regulation on the other hand deals, for example, with public health, the environment, safety issues, social cohesion or public well-being (May, 2002, p. 157; OECD, 1997, p. 6). To conclude, regulation is not a homogeneous concept. It varies in scope and content, depending on specific historical, spatial and scientific contexts.

In retrospect, we can find two dominant types of regulation that emerged in the US and Europe, respectively. In the U.S. ownership of enterprises was left in private hands and IRAs were set up, interfering only in the case of market failures. In Europe, the public opinion was more skeptical about the free market. Hence, governments gradually nationalized industries in order to directly exert control and correct market failure (Majone, 1996, p. 10). The differences between these two models not merely lie in their organizational characteristics, but were deeply rooted in the thinking at the respective time. As to this issue, Shleifer (1998) points out: „Half a century ago, economists were

quick to favor government ownership of firms as soon as any market inequities or imperfections, such as monopoly power or externalities, were even suspected” (p. 133). Public enterprises were not only to provide consumers with the respective goods and services but also responsible to guarantee universal services and supply security. Furthermore, they were obliged to fulfill objectives of broader interests.[25]

Since the 1980s, regulatory structures have changed dramatically. Starting in the UK, almost all OECD countries have liberalized utility markets and begun to privatize public enterprises. At first glance, this development has led to a radical decline in the state’s capacity of intervention. But looking at privatization in its various forms just tells us half of the story. Transforming public enterprises has been accompanied by a countermovement of re-regulation. A comprehensive dataset on the non-manufacturing sector (post, telecommunication, energy, etc.) in OECD countries compiled by Conway and Nicoletti (2006) shows how market regulation has changed over time. The data also demonstrates that utility markets are still under a considerable influence of the state. What has changed, however, is the content of state interference. Instead of the direct provision of goods and services, the political creation and protection of markets is an important objective of the state (Lütz and Czada, 2000). This has been labeled as “regulation for competition” by Levi-Faur (1998). The sketched development has been captured by Vogel (1996), who suggests to speak of a process of liberalization combined with re-regulation rather than just of de-regulation (Vogel, 2007).

Majone (1994, 1997) argues that the depicted changes represent a transformation of the positive state, which was characterized by state intervention in the form of income redistribution, macroeconomic stabilization, and market regulation. The positive state as a planner and producer of goods and services came under fierce critique when the performance of public enterprises seemed to fail their economic as well as their societal objectives. Although most states are committed to these ends in one way or another, Majone (1997, p. 141) argues that the relative importance of these objectives varies between countries and historic periods. What has emerged is called the “regulatory state”[26], in which rule making has replaced direct state intervention as well as the public provision of goods and services (compare Grande and Eberlein, 1999; Hermes, 2005). Levi-Faur (2005) describes the changed relationship between the state and society with the metaphor of “steering and rowing”. While after World War II in Europe the state was responsible for steering (leading, thinking, guiding) and “rowing” (enterprise and service provision) a separation of the two has taken place. Whereas “steering” still rests with the state, “rowing” has been transferred to the society.

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[25] For a critical assessment of public ownership as a mode of regulation see Müller (2002, p. 20).

[26] For a critical review see Moran (2002).

2. Who Regulates in the Regulatory State?

2.1 National and Supra-National Regulators: Diffusion of Competencies?

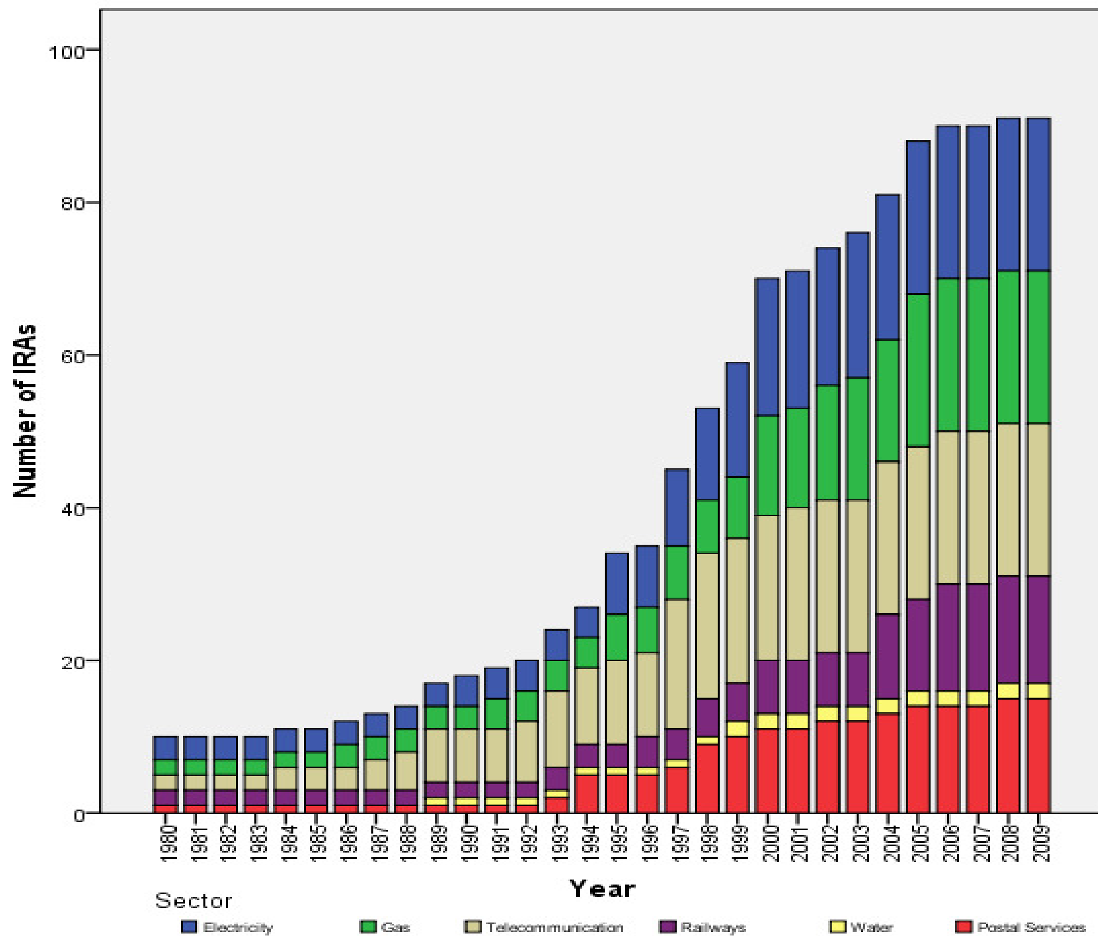
While the question of deregulation or re-regulation has been answered and widely accepted in favor of the latter, the question of who regulates in the regulatory state is much harder to seize. In the utility sector, for example, new governance structures have emerged. Whereas regulatory powers in the period of public ownership rested almost exclusively with the central government, a process of diffusion has taken place (Grande and Hartenberger, 2008; Ogus, 2003, p. 521). Today, regulatory powers are more widely distributed between the horizontal as well as the vertical axis. The *horizontal* axis describes shared regulatory competencies between different authorities, such as general competition authorities, courts, ministries and independent regulation authorities (IRAs), within a country. Böllhoff (2005) explains how regulatory powers of IRAs at the centre point of telecommunication regulation in Germany and the UK are constrained by organizational structures within the IRA and through interaction with other institutions. However, mostly a clear line of distinction can be drawn between IRAs and general competition authorities. Whereas the former are concerned with ex ante regulation of market entry and prices etc., the latter are usually concerned with ex post regulation of market power (Tenbücken, 2004; OECD, 1998).

On the *vertical* axis, it has been discussed to which extent diffusion between different actors in a multi-level system has taken place. It is argued that, on the one hand, supranational legislation has an increasingly important influence at the national level and, on the other hand, nation states have delegated significant powers to the supranational level (see Majone, 1994, 1996). For the utility sector, empirical results in this regard are not clear. For example, Levi-Faur (2004) states that EU membership has no significant influence on the liberalization process of telecommunication and energy markets. Even without the European agents such as the Commission, liberalization would have occurred anyhow. On the other hand, V. Schmidt (2002) and S. Schmidt (1998) find some evidence for European influences on liberalization, while Gilardi (2005) as well as Thatcher and Stone Sweet (2002) consider Europeanization as influential for the creation and diffusion of IRAs.

As for the delegation of power to the European level, Eberlein and Grande (2005, pp. 95-98) argue that the supranational-level agencies are less important because of their lack of classical powers (rule setting, implementation, dispute settlement) enjoyed by their American counterparts. Moreover, when it comes to economic regulation in general and utilities in particular, the European level lacks the institutional settings to perform broader regulatory functions. Supranational regulatory agencies have not been established due to national resistance. Nowadays, only the general regulatory *frame-*

work is set at the European level, while *implementation* is with the Member States (Nicolaides, 2005).

Figure 5: Number of IRAs in 21 OECD Countries in Six Utility Sectors



Notes: Considered were only IRAs at the national level. Some countries have also regulatory authorities at the state level. Included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, UK, and USA. Source: Own compilation.

2.2 The Rise of IRAs

Despite the diffusion of regulatory competencies on the *horizontal* and *vertical* axis, a central institution at the heart of utility regulation has emerged ubiquitously in recent years: independent regulatory agencies (IRAs). According to Coen and Thatcher (2005), non-majoritarian institutions such as IRAs “… are central actors in their own right in the governance of markets, holding and applying major powers, engaging with other market participants, and subject to particular and evolving norms and behaviours” (p. 329) created to regulate specific parts of an industry IRAs are independent from federal or central government departments and enjoy their own powers as well as responsibilities. IRAs act on behalf of the (central) government, but independently from daily po-

litical influence (Baldwin and Cave, 2002, p 69; Döhler, 2002, p. 101; OECD, 2001, p. 13; Thatcher, 2002, p. 127). Creating independent, sector specific authorities was supposed to strengthen regulators against political interference. IRAs protected from arbitrary government action are supposed to attract private investment into the sector. Furthermore, more complex technical and social issues demanded technical expertise, which could not be achieved within general public bureaucracy. Independent agencies were seen as the solution to these problems (Ogus, 2003, p. 522; Tenenbaum, 1995).

Even though their number has increased rapidly during the last two decades (see Figure 5), IRAs are a phenomenon that can be traced back to the nineteenth century. Yet, in Europe, IRAs are of a more recent vintage. Starting in the UK in the 1980s, independent authorities were created in most other European countries peaking the late 1990s. While the telecommunications sector was most dynamic and preceded this process, other sectors have caught up by now. Today, most European countries have IRAs in the energy (electricity and gas) as well as in the telecommunications sector. IRAs can also be found to some lesser extent in postal services and the rail sector. Clearly, the water sector is a “laggard”, since only a few countries have set up a regulatory authority. This development reflects the local organization of the water sector which, in addition, still is mainly under public control (OECD, 2004).

Nevertheless, it is difficult to depict a uniform picture of the objectives and functions regulatory agencies typically exhibit. As mentioned above, independence from the central government is one of the crucial characteristics of a regulatory authority. However, as IRAs are created by politicians, they consequently are never fully autonomous from politics. Nevertheless, IRAs are usually empowered to make decisions concerning the regulatory process independent from daily political intervention (Tenenbaum, 1995). On a formal basis, however, different levels of independence from government can be found (Gilardi, 2002; Johannsen et al., 2004).[27]

Under the keyword “regulatory capture” some economists point out that regulators’ decisions may not only be influenced by political interests but also by the regulated industries. While welfare economics argues in favor of regulation to correct market failures, private interest theory doubts that regulation is able to enhance economic welfare, because of regulators being captured by the regulated industries. According to the Chicago School, industries may unfold *demand for regulation* in order to raise profits at the expense of consumers. As small and homogeneous groups, regulated industries face relatively low costs when attempting to organize for collective action as compared to large and heterogeneous groups of consumers. In addition, small groups gain larger per capita benefits from lobbying than large groups. Moreover, regulated industries are able to influence regulatory outcomes to their own advantage by financially supporting poli-

[27] For a discussion of de-facto independence see Thatcher (2005).

ticians in their (re-)election campaign. In sum, regulation is *captured* by private interests rather than serving public interest (Baldwin and Cave, 2002, p. 22; Stigler, 1971).

Capture Theory criticizes regulation for its unwanted redistribution of consumer rents in favor of regulated industries (which is a zero-sum game at best); the Virginia School emphasizes the inefficiency of regulation itself due to *rent seeking*. In an effort to achieve monopoly rents, interest groups strive for regulation. However, parts of the (expected) rents are wasted from a society’s point of view because the expenditures on lobbying do not contribute to GDP (Bauer 2004, p. 69; Hertog 2000, p. 237).

Advocates of IRAs expect that they foster competition and to protect customers from firms abusing market power. Other duties and responsibilities may include quality of services, promotion of investment, security of supply, as well as social and environmental issues. Some of the non-commercial issues can be found in EU directives, which, for example, set standards for *universal services*. Most OECD countries have set up a universal service obligation for the telecommunications sector by now. Often, this is supported by funding mechanisms (for example, universal services are levied on all services providers) or by delegating the universal service obligation exclusively to the incumbent (OECD, 2006). A simultaneous implementation of these partly antagonistic goals is difficult, if not impossible. For example, regulators may face a trade off between setting low prices in order to protect consumers and setting high prices in order to stimulate investments (Nicolaides, 2005, pp. 28-29).

The regulatory competences of an IRA depend on its objectives and its position in the institutional structure, that is, whether the IRA shares regulatory functions with other institutions such as ministries or general competition authorities. In principle, its competencies can embrace the following:[28]

- unbundling of vertically integrated monopolies,
- network pricing and access conditions,
- regulation of entry (licensing),
- rules for system operation and reliability,
- setting of retail prices,
- regulation of quality and performance standards,
- enforcement of rules,
- advising the government,
- dispute settlement, and
- estimation and allocation of universal service costs.

[28] Compare Baldwin and Cave (2002, p. 193), OECD (2001, p. 24); OECD (2005, p. 33). A detailed “technical” discussion of the different functions can be found, for example, in Baldwin and Cave (2002).

Empirical research as to the electricity and telecommunications sectors has shown significant differences regarding the objectives and functions of IRAs (Johannsen et al., 2004; Tenbücken, 2004). Some IRAs possess very limited competencies while others are covering a broad spectrum of tasks and are endowed with strong regulatory instruments. Despite these differences, regulatory authorities also share some common characteristics. In the telecommunications sector, for example, most IRAs are concerned with the ex-ante control of licenses, prices, and the quality of services (Johannsen et al., 2004; OECD, 2000, 2006; Tenbücken, 2004).

Arguing from an institutional economic perspective, Majone (2001) emphasizes that the credibility of long term policy commitments plays a substantial role in the delegation of powers from government institutions to IRAs.[29] He argues that IRAs at arm’s length of government guarantee long term credibility in terms of market-oriented policies. Due to their independence from daily politics and because of their relatively stable policies in times of changing political majorities, IRAs signal reliability and consistency to potential investors. Long term credibility is especially important in markets like the utility sector, where costs are sunk and significant long term investments are necessary to guarantee the appropriate level of service provision.

By compiling structural data of IRAs in seventeen countries and seven sectors, Gilardi (2002, 2005, 2008) shows that the policy credibility thesis plays a crucial role in the delegation process, indeed. Other factors speaking on behalf of setting up an IRA are, for instance, increasing technical demands on regulation and the desire of legislators to shift blame for unpopular decisions or failed implementation of certain policies to independent authorities. However, functional pressures do not work uniformly on all countries and sectors, and cannot explain observed differences. In fact, contextual factors such as state traditions and structures influence policy decisions and mediate functional pressures. Moreover, policy learning and institutional isomorphism have played a crucial role in the spread of IRAs since the 1980s (Gilardi, 2008; Thatcher, 2002; Thatcher and Stone Sweet, 2002).

A recent field of research is the emergence of European coordination bodies in utility regulation. Although there is national resistance to supranational regulatory authorities in the utility sector, a trend to closer international coordination between national IRAs can be observed. Starting in the late 1990s as informal meetings (for example, the Madrid Forum on gas) for discussing and the exchanging views and knowledge, these meetings of national regulators have been institutionalized. Today, formalized regulatory groups at the European level exist in many sectors. These groups are supposed to support the Commission in the implementation of the common market in the respective sectors and to coordinate the consistent application of a regulatory framework in the

[29] Majone restricts his discussion not to IRAs but to non-majoritarian institutions in general.

member countries (Eberlein and Grande, 2005; Thatcher and Coen, 2008). Even though these meetings have been institutionalized, they remain far from replacing national regulatory authorities. In fact, European regulators have been given few resources and powers, so that national institutions remain central in the field (Coen and Thatcher, 2008).

While economic theory casts some general doubts about the potential success of regulation, there is more narrowly targeted criticism raised on IRAs' democratic legitimacy and public accountability. Characteristically, IRAs are neither elected nor directly accountable to democratically elected officials or bodies. A common answer to the critique is that IRAs acquire legitimacy by their ability to generate efficient outcomes in the Pareto sense (which elected politicians do not achieve). This argument is restricted to regulation in line with Pareto efficiency and neglects that IRAs also engage in redistributive regulations, such as universal service obligations. Another line of argument is that IRAs, even though not directly accountable to democratic bodies, are embedded in a wider institutional framework designed by elected officials limiting the discretion of the regulators. In contrast to the politicians, regulatory institutions are obliged to take their decisions within this transparent framework and to justify their decisions (Eberlein, 2000, pp. 100-101; Thatcher and Stone Sweet, 2002, pp. 18-19).

3. Accounting for Cross-national Differences: Existing Studies

Knowing that an IRA exists in a particular sector or country does not tell us about cross-sector or cross-country differences in the *intensity* of regulation. In other words, the emergence of IRAs as key actors in utility regulation does not indicate to what extent the considered sectors in a certain country are still under state influence. Hence, for analyzing regulatory policies and patterns of regulation in comparative perspective, there is a need for sector-specific measures that provide more information than those revealed by the use of simple dummy variables.

It has to be noted, however, that comparative data on regulation and state intervention in the utility sector is scarce. Most authors so far have relied on case studies or small-N studies (Humphreys and Padgett, 2006; Moran, 2003; Müller, 2002, 2006; Thatcher, 2002; Wilks and Bartle, 2002). Yet, there are (few) exceptions from the rule. Concerning utility regulation and IRAs, cross-country data is available for the telecommunications sector and the energy sector (Gilardi, 2008; ITU Database, 2009; Johannsen et al., 2004; OECD, 2000, 2006; Tenbücken, 2004). The selected studies present information on organizational and structural issues as well as on the objectives and functions of IRAs in OECD and EU countries, respectively. The data set contains information on the formal level of political independence, regulation of retail and network access prices, market entry regulations and licensing, vertical separation, universal services financing instruments and so on. Data is, however, limited to the year of examina-

tion and does not provide a historical overview of the development of regulation and state intervention.

For an internationally comparative analysis of differences in state intervention via regulatory policies, it would be helpful to have an index for each country and each year that provides information about the depth and breadth of regulation of certain sectors. To our best knowledge, the most comprehensive dataset in this respect is provided by the OECD (Conway and Nicoletti, 2006). These authors construct an index mapping anti-competitive market intervention from 1975 to 2003 for 21 countries for the non-manufacturing sector. The non-manufacturing sector includes electricity, gas, post, rail, and telecommunications. The aim is to give an overview of market-prohibiting regulation, that is, regulation that restricts competition. Hence, the natural monopoly parts of the network sector are not considered since competition is not feasible. The huge data set collected by the OECD reveals considerable differences across the OECD world. For example, in 1980, France, Germany, and the UK were more restrictively regulated compared to the US. All countries reduced barriers to competition in the 1980s and 1990s, but the UK abolished regulations to the greatest possible extent and ranks as the least regulated country in the non-manufacturing sector in 2003. Surprisingly, hardly any social scientist has ever made use of the OECD data set in order to identify factors which may explain the observable differences. We are aware of just one empirical study which used the OECD regulation index as the dependent variable. Siegel (2007) reports evidence indicative of a race to the bottom since 1980s. Bourgeois parties started deregulation in the 1980s, while left governments followed in the 1990s.

To sum up, cross-country data on state intervention and regulation of the utility sector is available though limited. Detailed information is only available for specific years whereas historical data remains restricted to limited parts of the utility sector and to a few broad indicators. What is missing is a comparable dataset on specific market regulations and state intervention and how it developed over time. Collecting such details is certainly an ambitious undertaking but it would reveal more detailed information on the transformation of the state over time and across countries with regard to the utility sector.

V. Industrial Subsidies: The State as Financier

So far, we have considered privatization and regulation. Now we complete the triad of provision, regulation, and financing depicted in Figure 1 by considering the state as *financier*. More specifically, we focus on industrial subsidies and start with some conceptual issues and definitions. As we shall see, neither in the political debate, nor in the social sciences there is a single, universally accepted definition. Hence, some pragmatism is required.

1. Definition and Measurement Issues

In economics, the term subsidy refers to a unilateral transfer of purchasing power from the public sector in support of households or firms. There are many possible ways to classify public subsidies (direct vs. indirect, cash vs. in-kind, input vs. output related, general vs. sector-specific, and so on), and the application of a specific subsidization instrument depends on the policy objective (Rodi, 2000). Subsidies may be granted in cash as direct payments to producers and consumers, respectively; they may appear as a reduction in tax liabilities, or as a low-interest government loan. Governments may purchase goods and services at below-market prices (in-kind subsidies) or above-market prices (procurement subsidies). They may execute different types of regulatory actions that alter market prices or market access (regulatory subsidies). Certainly, this list is not exhaustive but rather gives a brief overview of the most typical economic instruments of subsidization policy.[30]

This overview shows that a clear legal definition of the term "public subsidy" is required. Since 1947, the General Agreement on Tariffs and Trade (GATT) has dealt with government subsidies without defining the term explicitly (Rodi, 2000). The first legal definition of subsidies was outlined in the Agreement on Subsidies and Countervailing Measures (ASCM), which was one of the major achievements of the Uruguay-Round (1994) of the World Trade Organization (WTO), the successor organization of GATT. This agreement defines a subsidy as a financial contribution from a government (or governmental unit) which confers a financial advantage (Hernandez de Madrid, 2007).

WTO law does not involve a categorical ban of subsidies but introduces a "traffic-light" classification. This concept is based on the premise that some subsidies are distorting international trade *per se* (red light), while other subsidies presumably are harmless (yellow light) or even noble (green light). Of course, the WTO Subsidies Agreement assigns export subsidies and the like to the category of prohibited red light subsidies. In contrast, "Pigouvian" subsidies, which are designed to improve environmental quality, are considered as "non-vulnerable" green-light subsidies. Finally, yellow light subsidies are "vulnerable" in terms of being actionable by the WTO on behalf of its members (Rodi, 2000; Gross, 2004; Hernandez de Madrid, 2007).

At the European level, the Treaty establishing the European Coal and Steel Community (ECSC, 1951), which regulated the production of steel and coal, was the first to provide a legal framework to govern the national subsidization policies (Hernandez de Madrid, 2007). According to the ECSC Treaty, coal and steel subsidies in principle were prohibited. Yet, in times of economic crisis, state intervention was allowed, for

[30] For a detailed treatment of different types of subsidies, see, for example, Harzem (1987), Bruce (1990), Schwarz and Clements (1999), Boss and Rosenschon (2008) and Deutscher Bundestag (2008).

instance, in the form of minimum or maximum prices (Arts. 4 and 60 ECSC). In 1958, the Treaties of Rome founding the European Economic Community (see EEC, 1957) and the European Atomic Energy Community (EURATOM) came into effect. Art. 92 of the EEC Treaty regulates “state aids” with respect to their compatibility with the common market.

With the Treaty of the European Union signed in 1992 (the Maastricht Treaty), ECSC, EURATOM and EEC (which was renamed into EC) were united in form of the European Union (EU). Since then, the legal framework for the EU Member States national subsidization policies has been regulated in Art. 87 EC Treaty. It considers state aid as “…any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the common market”.

How broadly should the term “industrial subsidy” be defined? A narrow definition would only include direct sector-specific cash transfers to firms. The practical advantage is that cash transfers can be easily measured. However, employing such a narrow definition potentially neglects all the other types of support that are more or less equivalent to direct cash subsidies (Obinger and Zohlnhöfer, 2007). Comparative empirical studies, therefore, are likely to give a delusive picture if firms that predominantly receive cash subsidies and firms that predominantly receive equivalent non-financial support are mixed.

Note that the actual manifestation of a subsidy is influenced by the legal or political definition of the term (Bruce, 1990; Ford and Suyker, 1990). In other words, if a narrow definition applies, governments face strong incentives to substitute cash subsidies for less visible forms of subsidization. A broader definition involves comparatively low incentives to hide subsidies, but inevitably leads to measurement problems, in particular, with respect to implicit and indirect subsidies. Furthermore, the broader the definition is, the more likely is a costly dispute among the countries involved about whether or not to include certain subsidies (Bruce, 1990). Hence, we are facing a trade off between practicability and comparability. Empirical research on aid payments has to conform with practical criteria, such as data availability and computational feasibility, anyhow (Bruce, 1990; Schwartz and Clements, 1999; Lee, 2002).

Apart from the problem of “correctly” defining the term subsidy, there are also several ways to measure subsidies, each having its advantages and disadvantages. The standard data sources on government subsidies (System of National Accounts and Government Finance Statistics) measure subsidies in terms of *gross budgetary outlays* (or

gross cost to government).[31] This is by far the easiest way to measure subsidies. However, budget data provides only an incomplete picture of the full extent of subsidy outlays. Other categories of (indirect) subsidies, say, tax incentives are not captured by the national accounts.

Ideally, the different direct and indirect instruments of subsidization policy should be expressed in terms of a "*grant equivalent*" also known as the *net benefit to the recipient*. The advantage of the grant-equivalent approach is that it measures the economic value of current subsidy programs. Unfortunately, the net benefit is very difficult to be calculated. For example, one would require the details of the terms of each government loan. While such information is known to the agencies granting the loans, it is typically not available to the public (or not in a usable form) (Ford and Suyker, 1990; Schwartz and Clements, 1999).

An alternative to the grant-equivalent measure is the "*net cost to the government*". It is calculated by subtracting repayments to the government from the cost of the subsidy program. The net costs include both, the disbursement and administrative costs, for example, loan repayments and user fees (Lee, 2002; Zahariadis, 2001; Zahariadis, 2005). Its simplicity is the advantage of the net-cost measure. For example, it can be calculated from total interest payments in place of individual loans. Its disadvantage is that it measures past rather than current subsidies because a government that quits subsidizing loans still has an obligation overhang (Bruce 1990; Ford & Suyker 1990, Schwartz & Clements 1999).

The *marginal subsidy rate* is designated to capture economic incentive effects of subsidies (Ford and Suyker, 1990). It is calculated along the lines of a marginal tax rate as the subsidy assigned to the incremental unit of production. Therefore, the marginal subsidy rate measures how the presence of subsidies influences or changes economic behavior at the margin. Detailed knowledge as to the specific subsidy program is required. Ford and Suyker (1990) prefer the *average subsidy rate* over the marginal subsidy, that is, the total amount of subsidies divided by total production (see also Schwartz and Clements, 1999; Obinger and Zohlnhöfer, 2007). The main advantage of the average subsidy rate is that it takes into account differences in size of the economy (Zahariadis 1997). However, it should be clear that the incentive effects of subsidies cannot be captured by this measure.

2. Rationales for Subsidization

In normative public economic theory, subsidies serve the purpose to manipulate economic activity to the benefit of allocative efficiency (Färber, 1995; Schwartz and

[31] Note that most monetary transfers are taxable (Bruce, 1990; Schwartz and Clements, 1999; Lee, 2002; Obinger and Zohlnhöfer, 2007). Hence, net budgetary outlays would give a better picture.

Clements, 1999). Pigouvian subsidies (taxes) internalize external benefits (costs). By equating social marginal costs with social marginal benefit, economic agents choose the socially optimal level of activity.[32] All other types of subsidies and taxes (except, of course, for lump-sum subsidies and taxes) distort economic activity and, therefore, involve a deadweight loss.

Houthakker (1972) argues that political vote seeking is one of the most important driving forces for providing subsidies (see also Bohling, 1989; Rodi, 2000; Aydin, 2007). Subsidies enable politicians to take decisive action and to demonstrate paternalism (Noto, 1991) at low political risk. On the one hand, in case of business failure, politicians can shift the blame on adverse economic circumstances, unforeseeable market forces, or dysfunctional boards. On the other hand, political dividends during economic upswings are significant because policy makers can claim credit (Buss, 2001; Aydin, 2007). It has also been noted in the literature that entrepreneurs are incorporated into stable policy networks by subsidization policies (Bohling, 1989; Verdier, 1995; Zahariadis, 1997; Rodi, 2000).

It is thus hardly surprising that economists frequently point out that (non-Pigouvian) subsidies impose a substantial burden on the economy, both in terms of fiscal costs and direct adverse effects on efficiency. Moreover, industrial subsidies impede international trade (Bruce, 1990) and cause a prisoner’s dilemma. Seemingly, each country serves its own national interest by granting subsidies. If, however, all countries act in this way, every single country is made worse off (Bruce, 1990; Baskerville, 2007). Likewise, there is no incentive for a country to cut subsidies unilaterally because it creates a positive externality to the rest of the world. A solution to this dilemma is international cooperation. In fact, several international agreements were implemented in the second half of the 20th century in order to control (export) subsidization policies.

3. International Agreements on Subsidy Control: History and Effects

In 1947, the General Agreement on Tariffs and Trade (GATT) was launched.[33] Since then, various GATT trade rounds took place at irregular intervals. The primary goal was the reduction of tariffs and quantitative trade restrictions. On behalf of its Member

[32] The Pigou tax (subsidy) is equivalent to the difference between private and social marginal cost (benefits) in the optimum. In case of a negative (positive) externality, the tax is positive (negative, i.e., a subsidy), and the resulting optimum allocation involves a lower (higher) level of activity. However, the identification of the “correct” subsidy will be impossible in most real-world cases for lack of information on costs and benefits (Rodrik, 1987).

[33] The 23 founding members, which participated in that negotiation, were Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, China, Cuba, Czechoslovakia, France, India, Lebanon, Luxembourg, New Zealand, the Netherlands, Norway, Pakistan, Southern Rhodesia, South African Union, Syria, the United Kingdom, and the USA (Irwin, 1994).

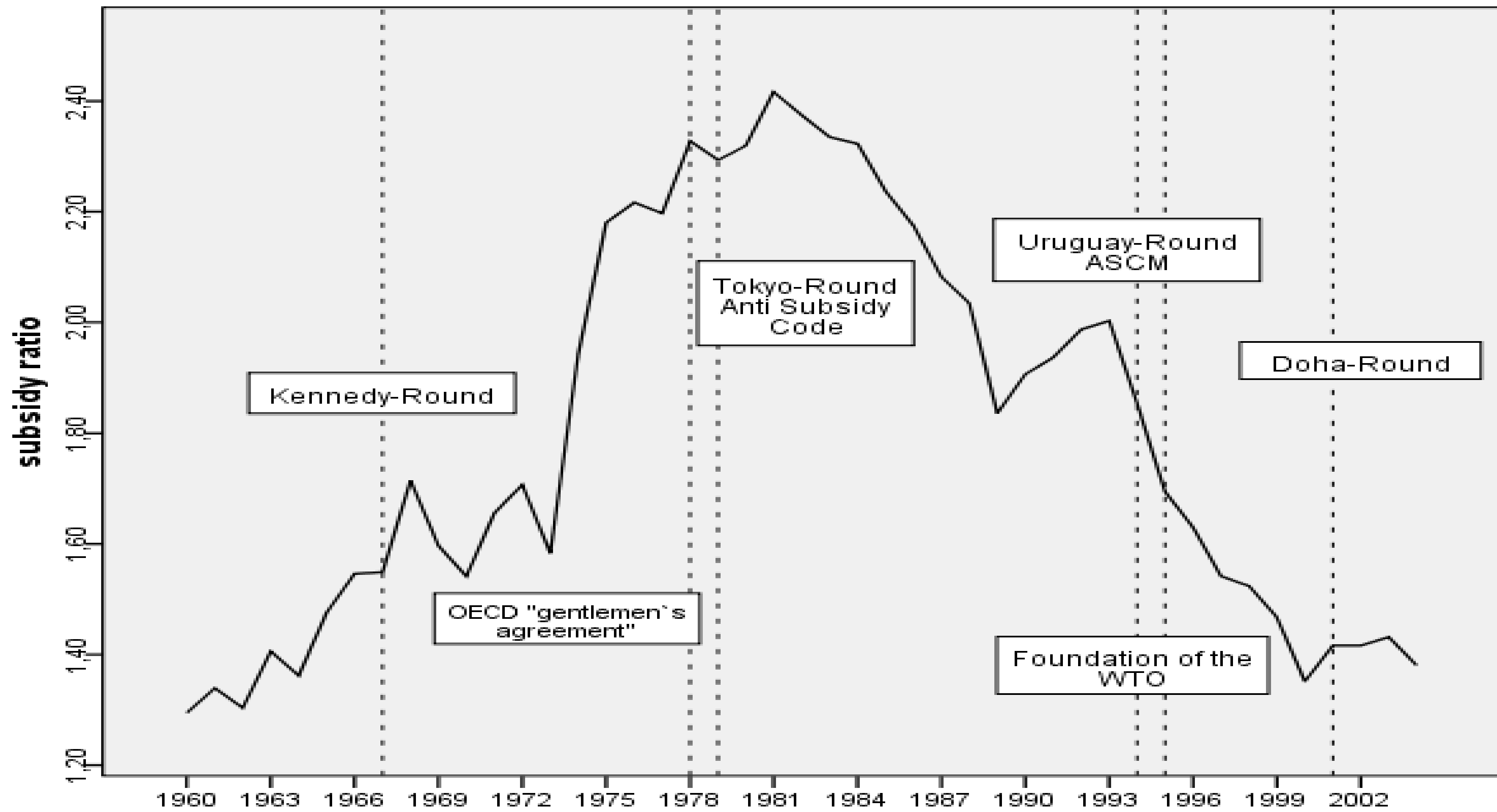
States, the subsidy code basically and essentially banned all export subsidies (Gross, 2004; Hernandez de Madrid, 2006). In the course of the GATT reforms of 1955, a first international codification of anti-subsidy legislation was reached. Since then, GATT member countries were obliged to notify the granted subsidies.[34]

However, subsidies became an important tool of industrial policy in the 1960s, initially as a response to trade liberalization. As a consequence, the *subsidy ratio*, i.e. subsidies as percentage of GDP, steadily increased in the period from 1960 to 1980 across the entire OECD world (see Figure 6). The next GATT trade rounds were characterized by protracted negotiations. The Kennedy-Round (1964-1967) failed to come up with a legally binding subsidy agreement. In the 1970s, subsidies were more frequently directed towards sectors in decline, such as the steel or shipbuilding industries, or were, mainly in an effort to create national champions, allocated to strategically important sectors such as aviation (Buss, 2001; Aydin, 2007). From 1973-1979, the Tokyo-Round[35] was held which agreed upon an Anti-Subsidy Code (Johnston, 1979). In addition, an OECD convention on guidelines for public supported export credits was adopted in 1978. The agreement, however, did not provide a binding directive but was rather handled as a “gentlemen’s agreement”. Its objective was again to terminate export credits (Jirousek, 2007).

[34] Until 1955 the trade rounds were joined by Austria, Colombia, Denmark, Dominican Republic, Finland, Germany, Greece, Guatemala, Haiti, Italy, Korea, Liberia, Nicaragua, Peru, Philippines, Sweden, Turkey and Uruguay. We have to note that not all participants became Contacting Parties to the GATT (Irwin, 1994).

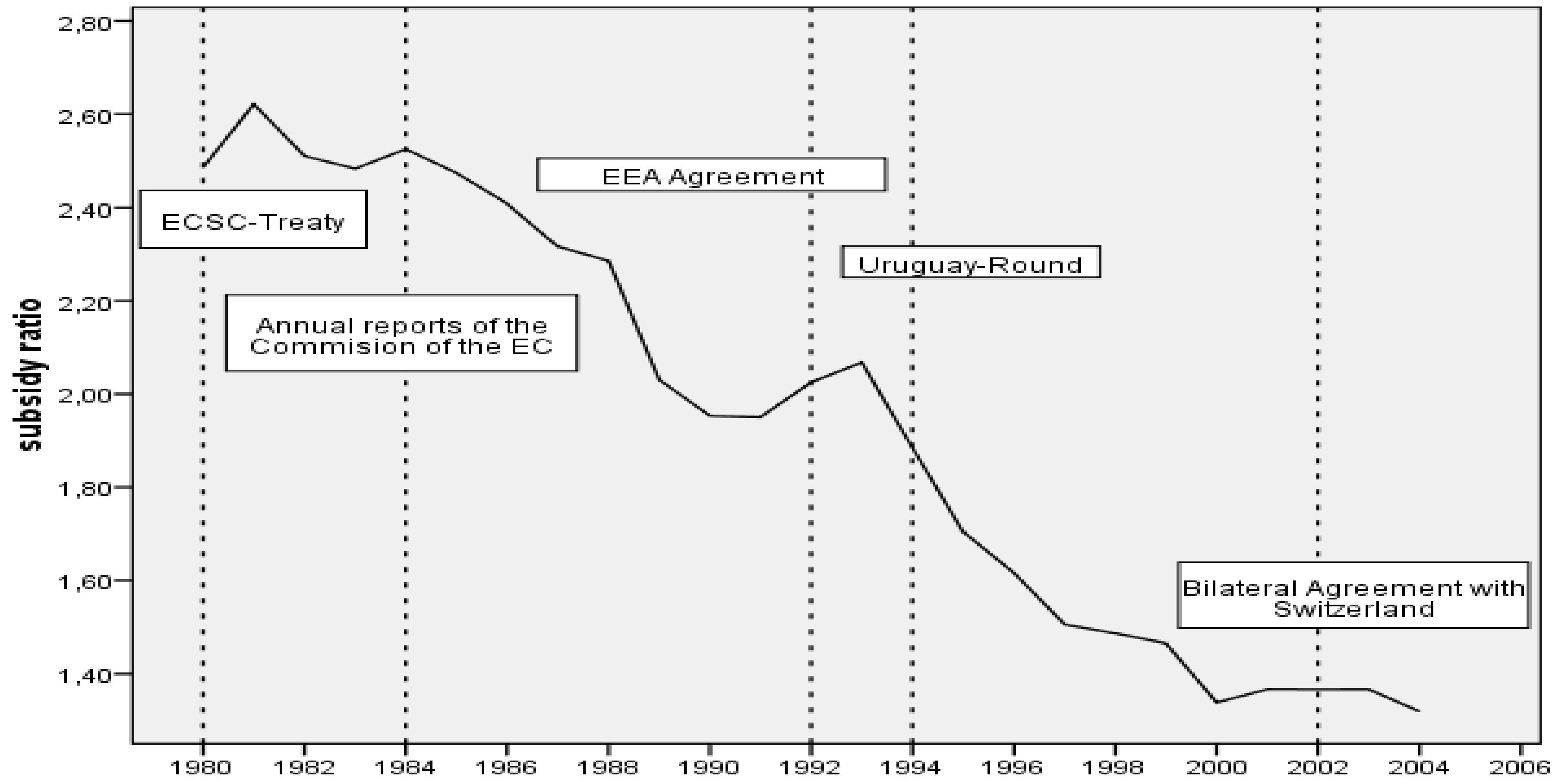
[35] The Tokyo-Round was open to all contracting parties and developing non-contracting parties who whish to participate in the preparatory work for the negotiations. Finally participated had 102 countries (GATT, 1986).

Figure 6: Subsidies as a Percentage of GDP in the OECD-22, 1960-2004



Data sources: OECD Economic Outlook Database (OECD, 2005c) supplemented by Economic Outlook No. 63 (June 1998) for some missing observations. Own compilation.

Figure 7: Subsidies as a Percentage of GDP in the EU-15, 1980-2004



Data sources: OECD Economic Outlook Database (OECD, 2005c) supplemented by Economic Outlook No. 63 (June 1998) for some missing observations. Own compilation.

From the early 1980s onwards, subsidy levels began to decline. It is striking that this demise occurred in the aftermath of the Tokyo round (see Figure 6). From 1986 to 1994, the Uruguay-Round[36] was held. At the end of this trade round, the World Trade Organization (WTO) was founded. The objective of the Uruguay-Round was to push back the state from private sector activities and, thus, to eliminate distortions of competition (Hoekman, 1993). After all, the international community came up with a clear result: the *Agreement on Subsidies and Countervailing Measures* (ASCM), which replaced the GATT Anti-Subsidy Code. As mentioned before, the most important novelty of this agreement was a classification of subsidies by the traffic light approach (Hernandez de Madrid, 2006). Figure 6 shows that the Uruguay-Round gave fresh impetus to the decline of subsidies that started with the Tokyo-Round. Figure 7 depicts that basically the same development can be observed for the EU-15.

As of January 1995, the WTO took up its work. The WTO has to monitor, strengthen, and institutionally improve the ASCM rules (Hoekman, 1993; Jirousek, 2007) and to promote the reduction of trade barriers and the liberalization of international trade. The individual member countries have been obliged to implement the respective rules on their own. Figure 7 suggests that the subsidy control within the EU-15 was relatively successful in terms of reducing the subsidy/GDP ratio after 1995. In 2001, the Doha-Round[37] followed. It was envisaged to further contain subsidies by reviewing the ASCM rules (Jirousek, 2007) and, in particular, to settle the argument between the industrialized and the developing countries on the elimination of customs duties. Yet, the Doha-Round did not reach an agreement until now.

4. Paths of Subsidization Policy: Cross-Country Evidence

Despite the availability of official data for the long-term OECD member countries, the number of empirical studies examining the determinants of cross-national differences in subsidy payments is low. In this section, we briefly review the most important empirical findings.

Verdier (1995) analyzes subsidies in OECD countries for the period from 1986 to 1989 and identifies differentiated partisan effects. More specifically, he finds that left-leaning governments primarily offer subsidies to labor-intensive sectors, whereas right-leaning governments grant subsidies favoring capital-intensive sectors of the economy. Another empirical finding is that the intensity of electoral competition has an influence on the structure of subsidy payments: the less competitive electoral competition is, the

[36] It is possible to access and examine the list of the 125 Participants, which joined the Uruguay-Round at GATT 1994 (see GATT, 1994).

[37] The number of participants rose again to 142 countries which attended at the Doha-Round.

more likely it is that governments use their discretionary leeway to grant subsidies to particular sectors and, hence, particular interests.

Zahariadis (2005) also investigates the impact of electoral competition on the provision of subsidies in industrialized democracies (13 OECD countries, 1990-1993). His empirical results, however, are opposed to and more differentiated than Verdier’s findings. Zahariadis’ analysis suggests that the degree of electoral competition varies subject to a country’s balance of trade: the combination of a trade deficit and a low degree of electoral competition leads to an increase of sector-specific and general subsidies, but reduces regional subsidies. Going beyond the analysis of Verdier (1995), he includes time dummies, though the cross-country perspective turned out to be more fruitful.

In another paper, Zahariadis (1997) seeks to explain why the EU members spent a relatively high share of the GDP on industrial subsidies in the period from 1981 to 1986 (see Figure 7). He examines three competing hypotheses and finds that (i) left-leaning parties have a positive impact on the volume of subsidies and discounted loans, (ii) trade deficits make cash subsidies and tax incentives more likely, and (iii) unemployment has no significant effect on subsidization.

Garrett (1998) assesses the effects of left corporatism and government partisan preferences on subsidies in 14 OECD countries during the period from 1966 to 1990. He reports that the combination of high trade openness and left corporatism (i.e., left-wing governments and strong trade unions) leads to higher subsidy expenditures. This finding can be interpreted as further empirical evidence supporting the compensation hypothesis in international political economy which argues that globalization generates a demand to compensate the ‘losers’ of globalization: in left-governed countries with corporatist systems of interest intermediation this demand is met by means of of subsidy payments. Moreover, Garrett (1998) shows that unemployment has a negative impact on subsidy payments.

Based on a sample of 13 OECD countries in the period from 1990 to 1993, Zahariadis (2001) focuses on the impact of asset specificities on subsidy levels. Asset specificities denote “the costs incurred from moving factors (assets) across industries” (604). He hypothesizes that firms producing with high asset specificity are facing high costs of adapting production to the necessities of a global economy. Therefore, these firms lobby for subsidies. Politicians respond to this demand if the owners of the factors of production have sufficient resources for collective action. The empirical findings obtained by Zahariadis (2001) basically support his hypothesis but reveal considerable differences depending on the type of subsidy (sector-specific, regional, etc.) considered.

Zahariadis (2002) examines the reasons behind public aid to industry in 12 European countries, including both EU members and non-EU members during the period 1990-1993. For this purpose, he builds a demand-side model capturing producers’ demands

for industrial subsidies, and a supply-side model considering the willingness and the constraints of national governments to provide such subsidies. In contrast to his theoretical expectations, he finds that more corporatist countries tend to grant more industrial subsidies (see also Garrett 1998; Obinger and Zohlnhöfer 2007, Zahariadis 2008). In addition, Zahariadis (2002) finds no partisan effects but his analysis reveals a significant relationship between fiscal pressure and subsidization. More specifically, a high public budget deficit and high debt-interest payments lead to a decrease of industrial subsidies (see also Obinger and Zohlnhöfer 2007).

Using a sample of 16 OECD countries, Aydin (2007) analyzes why subsidy levels vary across countries in the period between 1989 and 1995. A central hypothesis of political economy claiming that politicians seek to increase their chances of getting re-elected by granting subsidies is not supported by the empirical findings as governments do not pay more subsidies in pre-election periods. Moreover, in contrast to Garrett (1998), Aydin's regression results show that unemployment positively affects subsidy levels, whereas trade openness and EU-membership have a statistically significant negative effect.

Similar to Aydin (2007), Obinger and Zohlnhöfer (2007) analyze differences in the amount of public subsidies paid to the industry using a sample of 20 OECD countries (1980-2004). In their study, the dependent variable is the sum of industrial subsidies as percentage of the GDP. The authors provide a series of descriptive statistics which show a remarkable decline in industrial subsidy expenditures since the early 1980s. In order to identify factors determining the observable retreat of the "subsidizing state", Obinger and Zohlnhöfer employ a two-step approach: First, the determinants of subsidy *levels* are analyzed at three different points in time (1980, 1990, and 2004). Among other things, it turns out that left-wing governments (only in the 1980 cross-section), corporatism (only 1990), and the subsidy ratio of the respective previous period have a statistically significant positive effect on the subsidy ratio. In a second step, the determinants of *changes* in subsidy levels between these time points (i.e., 1980-1990, 1990-2004, and 1980-2004) were considered. The authors present different cross-sectional regression models for each of the dependent variables. Their most striking result is the presence of strong downward convergence in subsidy levels and a declining role of political parties over time.

Table 5: Main Empirical Studies on Subsidization in the OECD-World

Author(s)	Year	Indicator(s)	Sample(s)	Period	Design	Determinants (significance)
Verdier	1995	Subsidies differentiated by type (grants, tax deductions, cheap loans, loan guarantees, equity) and purpose (regional, sectoral, etc.)	21 OECD Countries	1986-1989	Cross-section	Left-wing governments (+): labor-intensive sectors, (-): capital-intensive sectors and vice versa Electoral competition influences the type of subsidy: low degree of electoral competition favors subsidies to particular interests
Zahariadis	1997	Total subsidies in % of GDP (subsidy level); and 4 subsidy instruments (budgetary outlays, tax incentives, loans, grants) in % of GDP (subsidy level)	9 EC Countries	1981-1986	Panel	*Total subsidies*: Left-wing governments (+) *Total budgetary outlays*: Trade deficit (-) *Tax incentives*: Trade deficit (+) *Loans*: (Pre-)Election year (+)
Garrett	1998	Industrial subsidies in % of GDP	14 OECD Countries	1966-1990	Panel	GDP growth (-) Unemployment (-) Left corporatism (-) Trade openness x left corporatism (+)
Zahariadis	2001	Industrial subsidies in % of GDP a) total b) sectoral c) regional d) horizontal	13 OECD Countries	1990-1993	Panel	*Total and sectoral subsidies*: physical-capital-based specificity (+ [curvilinear]), exports in % of imports (+) *Horizontal subsidies*: human-capital-based specificity (-), exports in % of imports (-)
Zahariadis	2002	Industrial subsidies in % of GDP	12 European Countries	1990-1993	Panel	Corporatism (+) Public Budget Deficit (-)
Zahariadis	2005	a) general (R&D, investment, energy, environment, SME) b) regional c) sector-specific	13 OECD Countries	1990-1993	Panel	*Sector-specific subsidies*: Low degree of electoral competition (-), Trade deficit (-), Trade deficit x Low degree of electoral competition (+) *Regional subsidies*: Trade deficit (+), Trade openness (+), Trade deficit x Low degree of electoral competition (-) *General subsidies*: Trade deficit x Low degree of electoral competition (+)

Author(s)	Year	Indicator(s)	Sample(s)	Period	Design	Determinants (significance)
Aydin	2007	Industrial subsidies in % of GDP	16 OECD Countries	1989-1995	Panel	Unemployment (+) Election year (-) Trade openness (-) EU membership (-)
Obinger and Zohlnhöfer	2007	Industrial subsidies in % of GDP	20 OECD Countries	Level 1980, 1990, 2004	Cross section (different periods)	*Level*: Left-wing governments (+), Corporatism (+), Veto points (+/-), Subsidy ratio previous period (+)
				Change (Cutback) 1980-1990 1990-2004 1980-2004	Cross section (different periods)	*Change (Cutback)*: Right-wing governments (+ [1980s]) Veto points (-) Debt interest payments (+) Initial subsidy ratio (+) Corporatism (-)
Zahariadis	2008	State aid in % of GDP	14 EU Countries	1992-2004	Panel	Labor specificity (+) Interest group power (+) Trade openness (+) Portfolio investments (-) Pluralism (-)/Corporatism (+) Veto points (+) various interaction effects

Source: Own compilation.

The most comprehensive study is presented by Zahariadis (2008) who investigates the determinants of subsidies in the period 1992-2004 using a large set of different explanatory variables for a sample of 14 EU countries. Basically, he replicates his earlier studies (Zahariadis, 1997, 2001, 2002, 2005) and finally concludes that globalization increases national governments' propensity to grant horizontal subsidies. Furthermore, he examines political influences on subsidies to the benefit of specific industries or sectors. Among other things, he finds that powerful producer lobbying groups have a significant positive effect on subsidization and a high number of veto players have a significant positive effect on the subsidy level (see also Obinger and Zohlnhöfer 2007).

VI. Conclusion: Where Are We Now?

Based on the evidence presented, we finally draw some lessons and sketch promising avenues for future research. The entrepreneurial state, which reached its heyday during the Golden Age, relied on a broad set of interventionist activities, ranging from the direct control of enterprises, subsidy payments to regulation. To understand its demise and to gauge the extent to which the state has retreated from entrepreneurial activities therefore requires an integrated analysis, which takes all these dimensions simultaneously into account. The first lesson to be learned from our survey is that such a comprehensive and interdisciplinary analysis is still lacking. There is little cross-fertilization across different disciplines, while the bulk of existing studies has only focused on single aspects of the phenomenon such as subsidy retrenchment or privatization. Hence there exists no study which examines all the relevant dimensions of the state's entrepreneurial activities in a systematic manner and from different disciplinary angles. The only realm where interactions between several dimensions are explicitly addressed is the nexus between privatization and regulation. An empirically well-documented finding in this respect is that (material) privatization in the network-based service sectors routinely was paralleled by increasing regulatory activities of the state.

Moreover, privatization itself is a multi-faceted concept which involves three different dimensions. Once more, no study exists which examines all these dimensions systematically and even the existing literature on each of these dimensions is characterized by major shortcomings. To begin with, the bulk of the existing empirical research has mainly focused on material privatization. In addition, this dimension is typically measured through the revenues accrued from divestures. We have pointed out that this operationalization is likely to be misleading and must be seen as a proxy at best. In terms of formal privatization, the situation is even worse. We have argued that formal privatization represents an important step in the privatization process in civil-law countries. However, comparative studies are lacking at all. We therefore know very little as to the reasons for the political process of formal privatization being much more protracted in some countries than in others. Moreover, it remains an open question why some coun-

tries terminate their privatization efforts once the legal status of a public enterprise is transformed from a departmental agency into a joint stock company.

The picture for functional privatization is gloomy, too. Cross-national studies are rare, not at least because functional privatization is typically a matter of local governments. It therefore comes as no surprise that the existing comparative inquiries are restricted to the sub-national level of single countries, notably the US.

All these shortcomings of the privatization literature have in common that they can only be addressed with better data. First and foremost, future research must give priority to the compilation of new data sets. This precept does also apply to the regulatory activities of the state, though research has achieved the greatest progress in this area. The rise of the regulatory state can be regarded as a stylized fact now and there are numerous studies which offer a comprehensive analysis of the driving factors explaining this outcome.

Concerning the determinants accounting for cross-national differences and similarities in state transformation of entrepreneurial activities, our knowledge about the *mediating factors* is better than our understanding of the determinants triggering the changes in the state’s entrepreneurial activities. Numerous studies have examined the role of domestic factors such as political parties, political institutions and economic problem-pressure such as deficits or dismal economic growth. Even though the findings are to some extent inconsistent, the empirical evidence is much more nuanced compared to findings related to those international factors which are assumed to be important *triggers* of state transformation. The impact of economic globalization, European integration and changing ideas has been neither explored systematically nor measured properly so far. For example, the role played by the European Union is often captured by a simple EU-membership dummy, while measures of trade and financial openness have been typically utilized as indicators mapping globalization. The lesson to be drawn is that we not only need a much better theoretical conceptualization of the interactions between international and domestic factors, but also more sophisticated methods to examine the interactions between international and domestic factors. More specifically, the notion that privatizations or the retrenchment of subsidies result from policy diffusion, European integration or globalization requires methods which take Galton’s problem seriously, that is, which explicitly and systematically take the interdependence between countries as well as the interactions between the national level and international contexts into account. Once again, the literature on regulation and liberalization is more advanced than the studies focusing on privatization (see Simmons and Elkins, 2004; Gilardi, 2004).

The aforementioned shortcomings and open questions are in need of much more sophisticated empirical inquiries. Overall, there is still a lot to be done in order to get a

comprehensive understanding of the driving forces and consequences of the change role of the state in economic affairs. The compilation of new data is to be seen as a conditio sine qua non in this respect.

REFERENCES

Abromeit, H. (1988): “British Privatisation Policy”, *Parliamentary Affairs* 4: 1, 68-85.

AECOM Consult (2005): *Synthesis of Public-Private Partnership Projects for Roads, Bridges and Tunnels from Around the World, 1985-2004*, United States Department of Transportation, Washington DC.

Aydin, U. (2007): “Subsidies in OECD Countries, 1989 to 1995”, *Journal of European Public Policy* 14:1, 115-132.

Bacchiocci, E., and M. Florio, (2008): “Privatisation and Aggregate Output: Testing for Macroeconomic Transmission Channels”, *Empirica* 35, 525-545.

Baldwin, R. and M. Cave (2002): *Understanding Regulation – Theory, Strategy and Practice*, Oxford University Press, Oxford.

Baldwin, R., C. Scott, and C. Hood (1998): “Introduction”, in: R. Baldwin, C. Scott, and C. Hood (eds.): *A Reader on Regulation*, Oxford University Press, Oxford, 1-55.

Barnett, S. (2000): *Evidence on the Fiscal and Macroeconomic Impact of Privatization*, IMF Working Paper, Washington.

Baskerville, R. F. (2007): *A Game Theory Approach to Research on Lobbying Activities in Accounting Regulation: Benefits and Issues*, Victoria University Centre for Accounting, Governance and Taxation Research, Working Paper No. 42, Wellington.

Bauer, J. M. (2004): “Die Privatisierung von Infrastruktur aus wirtschaftswissenschaftlicher Sicht“, in: V. Schneider and M. Tenbücken (eds.): *Der Staat auf dem Rückzug - Die Privatisierung öffentlicher Infrastruktur*, Campus, Frankfurt/New York, 53-84.

Baumol, W.J., J.C. Panzar, and R.D. Willig (1982): *Contestable Markets and the Theory of Industry Structure*, San Diego.

Belke, A., F. Baumgärtner, R. Setzer, and F. Schneider, (2006): “*The Different Extent of Privatisation Proceeds in EU Countries: A Preliminary Explanation Using a Public Choice Approach*”, Department of Economics, University of Hohenheim, Hohenheim.

Bellini, N. (2000): “The Decline of State-Owned Enterprise and the New Foundations of the State-Industry Relationship”, in: P.A. Toninelli (ed.): *The Rise and Fall of State Owned Enterprise in the Western World*, Cambridge University Press, Cambridge, 25-48.

Berne, M. and G. Pogorel (2006): “Privatization Experiences in France”, in: M. Köthenbürger, H.-W. Sinn, and J. Whalley (eds.): *Privatization Experiences in the European Union*, MIT Press, Cambridge MA, 163-198.

Biais, B., and E. Perotti (2002): “Machiavallian Privatization”, *American Economic Review* 92: 1, 240-258.

Blankart, C. (1980): *Ökonomie der öffentlichen Unternehmen. Eine institutionelle Analyse der Staatswirtschaft*, München: Vahlen.

Blankart, C. (1987): “Limits to Privatization”, *European Economic Review* 31:1-2, 346-351.

Blankart, C. (2008): *Öffentliche Finanzen in der Demokratie. Eine Einführung in die Finanzwissenschaft*, München: Vahlen.

Blanke, T., and R. Trümmer (eds.) (2008): *Handbuch Privatisierung*, Baden-Baden, Nomos.

Bogumil, J., W. Jann, and F. Nullmeier (eds.) (2006): *Politik und Verwaltung*, PVS-Sonderheft 37, VS-Verlag, Wiesbaden.

Bohling, W. (1989): *Wirtschaftspolitische und wirtschaftsverfassungsrechtliche Probleme staatlicher und kommunaler Subvention*, Peter Lang, Frankfurt am Main.

Boix, C. (1997): “Privatizing the Public Business Sector in the Eighties: Economic Performance, Partisan Responses and Divided Governments”, *British Journal of Political Science* 27:4, 473-96.

Böllhoff, D. (2005): *The Regulatory Capacity of Agencies - A Comparative Study of Telecoms Regulatory Agencies in Britain and Germany*, Berliner Wissenschafts-Verlag, Berlin.

Borcherding, T.E, W.W. Pommerehne, and F. Schneider (1982): “Comparing the Efficiency of Private and Public Production: The Evidence from Five Countries”, *Zeitschrift für Nationalökonomie* 82:2 (Supplementum), 127-156.

Bortolotti, B., and D. Siniscalco (2004): *The Challenges of Privatisation. An International Analysis*, Oxford University Press, Oxford.

Bortolotti, B., M. Fantini, and D. Siniscalco, (2001): “Privatisation: Politics, Institutions, and Financial Markets”, *Emerging Marktes Review* 2, 109-136.

Bortolotti, B., M. Fantini, and D. Siniscalco, (2003): “Privatisation around the World: Evidence from Panel Data”, *Journal of Public Economics* 88, 305-332.

Börzel, T., and T. Risse (2005): “Public-Private Partnerships: Effective and Legitimate Tools of International Governance?”, in: E. Grande, and L.W. Pauly (Eds.): *Complex Sovereignty: On the Reconstitution of Political Authority in the 21st Century*, University of Toronto Press, Toronto, 195-216.

Bös, D. (1986): *Public Enterprise Economics: Theory and Application*, North Holland, Amsterdam.

Bös, D. (1987): “Privatisation of Public Enterprises”, *European Economic Review* 31:1-2, 352-360.

Bös, D. (1988): “Welfare Effects of Privatizing Public Enterprises”, in: D. Bös, M. Rose, and C. Seidl (eds.): *Welfare and Efficiency in Public Economics*, Springer, Heidelberg, 339-362.

Bös, D. (1991): *Privatization: A Theoretical Treatment*, Clarendon Press, Oxford.

Boss, A., and A. Rosenschon (2008): *Der Kieler Subventionsbericht: eine Aktualisierung*, Kieler Diskussionsbeiträge Nr. 452 / 453, Institut für Weltwirtschaft, Kiel.

Boutchkova, M.K., and W.L. Megginson (2000): “Privatization and the Rise of Global Capital Markets”, *Financial Management* Winter, 31-76.

Boycko, M., R.W. Vishny, and A. Shleifer (1996): „ A Theory of Privatisation”, *Economic Journal* 106, 309-319.

Boyne, G.A. (1998): "The Determinants of Variations in Local Service Contracting: Garbage In, Garbage Out?", *Urban Affairs Review* 34:1, 150-163.

Brada, J.C. (1996): "Privatization is Transition –Or is it?", *Journal of Economic Perspectives* 10:2, 67-86.

Brede, H. (2005): *Grundzüge der Öffentlichen Betriebswirtschaftslehre*, München et al: Oldenbourg.

Bruce, N. (1990): *Measuring Industrial Subsidies: Some Conceptual Issues*, OECD Department of Economies and Statistics, Paris.

Brudney, J.L., S. Fernandez, J.E. Ryu, and D.S. Wright (2005): "Exploring and Explaining Contracting Out: Patterns among the American States", *Journal of Public Administration Research and Theory* 15:3, 393-419.

Brune, N.E., G. Garrett, and B. Kogut, (2003): *The International Monetary Fund and the Global Spread of Privatization*, UCLA International Institute Occasional Papers, Los Angeles.

Budäus, D. (ed.) (2006): *Kooperationsformen zwischen Staat und Markt*, Nomos-Verlag, Baden-Baden.

Burgi, M. (1999): *Funktionale Privatisierung und Verwaltungshilfe: Staatsaufgabendogmatik, Phänomenologie, Verfassungsrecht*, Mohr Siebeck, Tübingen.

Buss, T.F. (2001): "The Effect of State Tax Incentives on Economic Growth and Firm Location Decisions", *Economic Development Quarterly* 15:1, 90-105.

Castles, F.G. (2006): "The Growth of the Post-war Public Expenditure State. Long-Term Trajectories and Recent Trends", *Transtate Working Paper No 35, SfB 597*, Universität Bremen, Bremen.

Castles, F.G. (ed.) (2007): *The Disappearing State? Retrenchment Realities in an Age of Globalisation*, E. Elgar, Cheltenham.

Clifton, J., F. Comín, and D. Díaz Fuentes (2003): *Privatisation in the European Union, Public Enterprises and Integration*, Kluwer, Dordrecht.

Clifton, J., F. Comin, and D. Diaz Fuentes (2006): "Privatizing Public Enterprises in the European Union 1960-2002: Ideological, Pragmatic, Inevitable?", *Journal of European Public Policy* 13:5, 736-56.

Coen, D., and M. Thatcher (2005): "The New Governance of Markets and Non-Majoritarian Regulators", *Governance* 18:3, 329-346.

Coen, D., and M. Thatcher (2008): "Network Governance and Multi-Level Delegation: European Networks of Regulatory Agencies", *Journal of Public Policy* 28:1, 49-71.

Conway, P., and G. Nicoletti (2006): *Product Market Regulation in Non-Manufacturing Sectors in OECD Countries: Measurement and Highlights*, OECD Economics Department Working Paper, Paris.

D'Souza, J., and W.L. Megginson, (1999): "The Financial and Operating Performance of Privatized Firms During the 1990s", *The Journal of Finance* 54:4, 1397-1438.

Daintith, T. (1994): "The Legal Techniques of Privatisation", in: T. Clarke (ed.): *International Privatisation. Strategies and Practices*, De Gruyter, Berlin, 43-77.

David, R., and J. Brierley (1985): "*Major Legal Systems in the World Today: An Introduction to the Comparative Study of Law*"; Stevens, London.

De Bettignies, J.-E., and T.W. Ross (2004): "The Economics of Public-Private Partnerships", *Canadian Public Policy* 30:2, 135-154.

Demsetz, H. (1970): “The Private Production of Public Goods”, *Journal of Law & Economics* 13:2, 293-306.

Deutscher Bundestag (Hrsg.) (2008): *Bericht nach § 99 der Bundeshaushaltsordnung über die Transparenz von Steuersubventionen*, Bundestagsdrucksache 16/8800, Berlin.

Dewenter, K.L., and P. Malatesta, (2001): “State-owned and Privately Owned Firms: An Empirical Analysis of Profitability, Leverage, and Labor Intensity”, *The American Economic Review* 91:1, 320-334.

DIFU (2005): *Public Private Partnership Projekte. Eine aktuelle Bestandsaufnahme in Bund, Ländern und Kommunen,* Deutsches Institut für Urbanistik, Berlin.

Döhler, M. (2002): “Institutional Choice and Bureaucratic Autonomy in Germany”, *West European Politics* 25:1, 101-124.

Döhler, M. (2006): „Regulative Politik und die Transformation der klassischen Verwaltung“, in: J. Bogumil, W. Jann, and F. Nullmeier (eds.): *Politik und Verwaltung. Auf dem Weg zu einer Postmanagerialen Verwaltungsforschung* (*Politische Vierteljahresschrift* Sonderheft 37), VS Verlag, Wiesbaden, 208-227.

Domberger, S., and P.H. Jensen (1997): “Contracting Out by the Public Sector: Theory, Evidence, Prospects”, *Oxford Review of Economic Policy* 13:4, 67-75.

Eberlein, B. (2000): “Regulierung und die Konstitution von Märkten in Europa“, in: S. Lütz and R. Czada (eds.): *Die politische Konstitution von Märkten*, Westdeutscher Verlag, Wiesbaden, 89-106.

Eberlein, B., and E. Grande (2005): “Beyond Delegation: Transnational Regulatory Regimes and the EU Regulatory State”, *Journal of European Public Policy* 12:1, 89-112.

ECSC (1951): *Treaty Establishing the European Coal and Steel Community and Annexes I-III*, Paris.

EEC (1957): *Treaty Establishing the European Economic Community*, Paris.

Ehni, C., S. Fink, A. Jäger, and J. Thiem (2004): „Privatisierungsverläufe in drei Infrastruktursektoren im internationalen Vergleich“, in: V. Schneider, and M. Tenbücken (eds.): *Der Staat auf dem Rückzug: Die Privatisierung öffentlicher Infrastrukturen,* Campus, Frankfurt, 115-153.

EIB (2004): *The EIB’s Role in Public-Private Partnerships (PPPs)*, European Investment Bank, Luxembourg.

Eshafani, H.S. & Arkadani, A. T. (2002): “What determines the extent of public ownership?”, Working Paper.

European Commission (2004): *Green Paper on Public-Private Partnerships and Community Law on Public Contracts and Concessions*, Commission of the European Communities, Brussels.

European Union (2009): “Summaries of Legislation”, http://europa.eu/scadplus/index.htm; Stand: 14.01.2009.

Fabry, B. (2002): „Organisationsformen öffentlicher Unternehmen“, in: B. Fabry, and U. Augsten (eds.): *Handbuch Unternehmen der öffentlichen Hand*, Nomos, Baden-Baden.

Fabry, B. and U. Augsten (eds.) (2002): *Handbuch Unternehmen der öffentlichen Hand*, Nomos, Baden-Baden.

Färber, G. (1995): *Binnenmarktgerechte Subventionspolitik in der Europäischen Union - Strukturen, Normen, Defizite*, Campus, Frankfurt am Main u. a.

Feigenbaum, H., Henig, J., and C. Hamnett (1998): *Shrinking the State. The Political Underpinnings of Privatization*, Cambridge University Press, Cambridge.

Ferris, J.M., and E. Graddy (1986): “Contracting Out: For What? With Whom?”, *Public Administration Review* 46:4, 332-344.

Fink, S. and V. Schneider (2004): „Die Determinanten nationaler Privatisierungspfade. Parteipolitik, Globalisierungsdruck und institutionelle Rahmenbedingungen“, in: V. Schneider and M. Tenbücken (eds.): *Der Staat auf dem Rückzug. Die Privatisierung öffentlicher Infrastrukturen*, Frankfurt/New York: Campus, 209-40

Ford, R. and W. Suyker (1990): *Industrial Subsidies in the OECD Economies*, OECD Economic Working Papers 74, OECD, Paris.

Forsthoff, E. (1938): *Die Verwaltung als Leistungsträger*, Kohlhammer, Stuttgart.

Frederickson, G. (2005): “Whatever Happened to Public Administration? Governance, Governance Everywhere”, in: E. Ferlie, L. Lynn, and C. Pollitt (eds.): The *Oxford Handbook of Public Management*, Oxford University Press, Oxford, 282-304.

Fredman, S., and G. Morris (1990): „The State as Employer: Is it Unique?“, *Industrial Law Journal* 19:3, 142-153.

Garrett, G. (1998): *Partisan Politics in the Global Economy*, Cambridge University Press, Cambridge.

GATT (1986): *Participation in the Tokyo Round*, Note by the Secretariat, Preparatory Committee (86) W/33.

GATT (1994): *Uruguay Round List of Participants*, Trade Negotiations Committee, Morocco.

Genschel, P., and B. Zangl (2007): „Die Zerfaserung von Staatlichkeit und die Zentralität des Staats“, *Aus Politik und Zeitgeschichte* 20-21, 10-16.

Genschel, P., and B. Zangl (2008): „Metamorphosen des Staates – vom Herrschaftsmonopolisten zum Herrschaftsmanager“, *Leviathan* 36:3, 430-454.

Genschel, P., and S. Leibfried (2008): „Schupperts Staat. Wie beobachtet man den Wandel einer Formidee?“, *Der Staat* 47:3, 359-380.

Gilardi, F. (2002): “Policy Credibility and Delegation to Independent Regulatory Agencies: A Comparative Empirical Analysis”, *Journal of European Public Policy* 9:6, 873-893.

Gilardi, F. (2005): “The Institutional Foundation of Regulatory Capitalism: The Diffusion of Independent Regulatory Agencies in Europe”, *Annals of the American Academy of Political and Social Science* 598, 84-101.

Gilardi, F. (2008): *Delegation in the Regulatory State - Independent Regulatory Agencies in Western Europe,* Edward Elgar, Cheltenham.

Graham, C. (2003): “Methods of Privatization”, in: D. Parker, and D. Saal (eds.): *International Handbook on Privatization*, Edward Elgar, Cheltenham, 87-104.

Gramm, C. (2000): *Privatisierung und notwendige Staatsaufgaben*, Duncker und Humblot, Berlin.

Grande, E., and B. Eberlein (1999): “Der Aufstieg des Regulierungsstaates im Infrastrukturbereich“, *Leviathan - Zeitschrift für Sozialwissenschaften*, Sonderheft 19, 631-650.

Grande, E., and L.W. Pauly (eds.) (2005): *Complex Sovereignty: On the Reconstitution of Political Authority in the 21st Century*, University of Toronto Press, Toronto.

Grande, E., and U. Hartenberger (2008): “Regulatory Governance im europäischen Mehrebenensystem“, in I. Tömmel (ed.): *Die Europäische Union - Governance und Policy-Making,* VS-Verlag, Wiesbaden, 209-230.

Greene, William (2008): *Econometric Analysis*, Prentice Hall, New Jersey.

Grimsey, D., and M.K. Lewis (2007): *Public Private Partnerships: The Worldwide Revolution in Infrastructure Provision and Project Finance*, Edward Elgar Publishing, Cheltenham.

Grimsey, D., and M.K. Lewis (eds.) (2005): *The Economics of Public Private Partnerships*, Edward Elgar Publishing, Cheltenham, UK.

Gross, I. (2004): *Das Europäische Beihilfenrecht im Wandel - Probleme, Reformen, Perspektiven*, Nomos Verlagsgesellschaft, Baden-Baden.

Guttman, D. (2002): “Privatisation, Public Purpose and Private Service: The Twentieth Century Culture of Contracting Out and the Evolving Law of Diffused Sovereignty”, *OECD Journal on Budgeting* 2:4, 85-154.

Häge, F. M., and V. Schneider (2004): „Hauptachsen staatlicher Redimensionierung. Die Rolle von Europäisierung und Globalisierung,“ in: V. Schneider, and M. Tenbücken (eds.) (2004): *Der Staat auf dem Rückzug. Die Privatisierung öffentlicher Infrastrukturen*, Frankfurt/New York, Campus, 280-313.

Hall, P.A. (1993): “Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain”, *Comparative Politics* 25: 3, 275-296.

Hansmann, H., and R. Kraakman (2000): *The End of History for Corporate Law*, Discussion Paper No. 280, Harvard Law School, Harvard.

Hart, O., A. Shleifer, and R.W. Vishny (1997): “The Proper Scope of Government: Theory and Application to Prisons”, *Quarterly Journal of Economics* 112:4, 1127-1161.

Harzem, K. (1987): *Subventionen aus Sicht der neuen politischen Ökonomie*, Dissertation, Köln.

Heidbrink, L., and A. Hirsch (Eds.) (2007): *Staat ohne Verantwortung? Zum Wandel der Aufgaben von Staat und Politik*, Campus-Verlag, Frankfurt/Main.

Hellermann, J. (2001): „Daseinsvorsorge im europäischen Vergleich“, in: *Die Zukunft der Daseinsvorsorge. Öffentliche Unternehmen im Wettbewerb*, Schader-Stiftung, Darmstadt, 78-100.

Hermes, G. (2005): “Gewährleistungsverantwortung als Infrastrukturverantwortung“, in: G. F. Schuppert (ed.): *Der Gewährleistungsstaat - Ein Leitbild auf dem Prüfstand,* Nomos-Verlag, Baden-Baden, 111-131.

Hernandez de Madrid, G. E. L. (2007): Regulation *of Subsidies and State Aids in WTO and EC Law - Conflicts in International Trade Law*, Kluwer Law International, New York.

Hertog, J. d. (2000): “General Theories of Regulation” in: B. Bouckaert, and G. De Geest, (eds.): *Encyclopaedia of Law and Economics, Volume III. The Regulation of Contracts*, Edward Elgar, Cheltenham, 223-270.

Hibbs, D.A. (1977): “Political Parties and Macroeconomic Policy“, *American Political Science Review* 71:4, 1467-87.

HM Treasury (2008): *Infrastructure Procurement: Delivering Long-Term Value*, HM Treasury, London.

Hodge, G.A. (1999): “Competitive Tendering & Contracting Out: Rhetoric or Reality?”, *Public Productivity and Management Review* 24:2, 455-469.

Hodge, G.A., and C. Greve (Eds.) (2005): *The Challenge of Public-Private Partnerships: Learning from International Experience*, Edward Elgar Publishing, Cheltenham.

Hoekman, B. M. (1993): “New Issues in the Uruguay Round and beyond”, *Economic Journal* 103:11, 1528-1539.

Hoeppner, R.-R., and W. Gerstlberger (2003): *Public Private Partnership: Ein Leitfaden für öffentliche Verwaltung und Unternehmer* (2nd ed.), Arbeitsgemeinschaft für wirtschaftliche Verwaltung, Eschborn.

Houthakker, H. S. (1972): “The Control of Special Benefit Programs”, in U.S. Congress, Joint Economic Committee (ed.): *The Economics of Federal Subsidy Programs – A Compendium of Papers*, Government Printing Office, Washington, 7-10.

Humphreys, P., and S. Padgett (2006): “Globalization, the European Union, and Domestic Governance in Telecoms and Electricity”, *Governance* 19:3, 383-406.

Irwin, D. A. (1994): *The GATT’s Contribution to Economic Recovery in Post –War Western Europe*, NBER Working Paper No. 4944, Cambridge, MA.

ITU Database (2009): “Regulatory Knowledge Centre”; http://www.itu.int/ITU-D/ICTEYE/Regulators/Regulators.aspx; access: 19.01.2009.

Jane, A., and B. Dollery (2006): “Public Sector Reform in Australia: An Evaluation of the Corporatisation of Sydney Water, 1995 to 2002”, *Australian Journal of Public Administration* 65:4, 54-67.

Jann, W. (1997). “Public Management Reform in Germany: A Revolution without a Theory?”, in: W. Kickert, (ed.): *Public Management and Administrative Reform in Western Europe,* Edward Elgar, Cheltenham, 83-102.

Jirousek, A. (2007): *Die subventionsrechtlichen Systeme der Welthandelsorganisation, der Europäischen Gemeinschaft und der Nordamerikanischen Freihandelszone : Einfluss der Qualität der überstaatlichen Rechtsordnungen auf die Ausgestaltung des Subventionsschutzes*, Nomos, Baden-Baden.

Johannsen, K. S., L. H. Pedersen, and E. M. Sorensen (2004): *Independent Regulatory Authorities - A Comparative Study of European Energy Regulators*, AKF Forlaget Report, Copenhagen.

Johnston, C. R. Jr. (1979): “Developments in the Tokyo Round of the Multilateral Trade Negotiations”, *American Journal of International Law* 73:3, 520-522.

Jones, S. L., W.L., Megginson, R.C. Nash, and J.M. Netter, (1999): “Share Issue Privatization as Financial Means to Political and Economics Ends”, *Journal of Financial Economics 53*, 217-253.

Kahn, A. E. (1988): *The Economics of Regulation - Principles and Institutions*, MIT Press, Cambridge.

Kämmerer, J. (2001): *Privatisierung. Typologie – Determinanten – Rechtspraxis – Folgen*, Mohr Siebeck, Tübingen.

Kickert, W. (1997): “Public Management in the United States and Europe“, in: W. Kickert (ed.): *Public Management Administrative Reform in Western Europe*, Edward Elgar, Cheltenham, 15-38.

Kodrzycki, Y.K. (1998): “Fiscal Pressures and the Privatization of Local Services”, *New England Economic Review* January/February, 39-50.

König, K. (1997): “Entrepreneurial Management or Executive Administration: The Perspective of Classical Public Administration”, in: W. Kickert (ed.): *Public Management Administrative Reform in Western Europe*, Edward Elgar, Cheltenham, 213-232.

Kornai, J. (1980): *The Economics of Shortage*, North-Holland, Amsterdam.

Kornai, J., E. Maskin, and G. Roland (2003): “Understanding the Soft Budget Constraint”, *Journal of Economic Literature* 41:4, 1095-1136.

Korpi, W. (1983): *The Democratic Class Struggle*, Routledge Kegan & Paul, London.

Kroker, R. (1982): *Öffentliche Unternehmen in der EG: Bedeutung und Problematik*, Deutscher. Instituts Verlag, Köln.

Laffont, J.J. & Tirole, J. (1993), “A Theory of Incentives in Procurement and Regulation”, MIT Press, Cambridge MA.

Laffont, J.J., and J. Tirole (1991): “Privatization and Incentives”, *Journal of Law, Economics and Organization* 7, 84–105.

Lane, J.-E. (1997): “Why Public Joint Stock Companies?” in: K. König, and A. Benz (eds.): *Privatisierung und staatliche Regulierung: Bahn, Post und Telekommunikation, Rundfunk,* Nomos, Baden-Baden.

Lane, J.-E. (2000): *New Public Management*, Sage, London.

Lee, F. (2002): *OECD Work on Defining and Measuring Subsidies in Industry*, OECD, Paris.

Leibfried S., and M. Zürn (eds.) (2005): *Transformationen des Staates?*, Suhrkamp, Frankurt a.M.

Levi-Faur, D. (1998): “The Competition State as a Neo-Mercantilist State”, *Journal of Socio-Economics* 27:6, 665-685.

Levi-Faur, D. (2004): “On the “Net Impact“ of Europeanization: The EU’s Telecoms and Electricity Regimes between the Global and the National”, *Comparative Political Studies* 37:3, 3-29.

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

Lijphart, A. (1999): *Patterns of Democracy. Government Forms and Performance in Thirty-six Countrie*s, Yale University Press, New Haven.

Lindow, Y. (1998). *Die Privatisierung öffentlicher Unternehmen in der Europäischen Union unter besonderer Berücksichtigung der notwendigen Anpassungen im Bereich der Rechnungslegung: eine Darstellung anhand von Beispielen aus Großbritannien, Frankreich und der Bundesrepublik Deutschland*. Dissertation, St. Gallen.

Lodge, M. (2008): “Regulation, the Regulatory State and European Politics”, *West European Politics* 31: 1-2, 280-301.

Lopez de Silanes, F., A. Shleifer, and R.W. Vishny (1997): “Privatization in the United States”, *Rand Journal of Economics* 28:3, 447-471.

Lütz, S., and R. Czada (2000): “Marktkonstitution als politische Aufgabe: Problemskizze und Theorieüberblick“, in: S. Lütz, and R. Czada (eds.): *Die politische Konstitution von Märkten*, Westdeutscher Verlag, Wiesbaden, 9-37.

Lynn, L. (2005): “Public Management: A Concise History of the Field”, in: E. Ferlie, L. Laurence, and C. Pollitt (eds.): *The Oxford Handbook of Public Management*, Oxford University Press, Oxford.

Majone, G. (1994): “The Rise of the Regulatory State in Europe”, *West European Politics* 17:3, 76-101.

Majone, G. (1997): “From the Positive to the Regulatory State: Causes and Consequences of Changes in the Mode of Governance”, *Journal of Public Policy* 17:2, 139-167.

Majone, G. (2001): “Nonmajoritarian Institutions and the Limits of Democratic Governance: A Political Transaction-Cost Approach”, *Journal of Institutional and Theoretical Economics* 157, 57-78.

Majone, G. (ed.) (1996): *Regulating Europe*, Routledge, London and New York.

Mascarenhas, B. (1991): “State-Owned Enterprise”, in: J. Boston, J. Martin, J. Pallot, and P. Walsh (eds.): *Reshaping the State: New Zealand’s Bureaucratic Revolution*, Oxford University Press, Oxford.

May, P. J. (2002): “Social Regulation”, in: L. M. Salamon (ed.): *The Tools of Government - A Guide to the New Government*, Oxford University Press, Oxford, 156-185.

Mayer, F. (2006): *Vom Niedergang des unternehmerisch tätigen Staates. Privatisierungspolitik in Großbritannien, Frankreich, Italien und Deutschland*, VS Verlag, Wiesbaden.

Megginson, W.L., and M. J. Netter (2003): “History and Methods of Privatization”, in: D. Parker, and D. Saal (eds.): *International Handbook on Privatization*, Edward Elgar, Cheltenham, 25-40.

Megginson, W.L., and M.J. Netter (2001): “From State to Market: A Survey of Empirical Studies on Privatization”, *Journal of Economic Literature* 39, 321-389.

Megginson, W.L., R.C. Nash, and M. Van Randenborgh (1994): „The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis”, *The Journal of Finance* 69:2, 403-452.

Meier, K., and G. Hill (2005): “Bureaucracy in the Twenty-First Century”, in: E. Ferlie, L. Lynn, and C. Pollitt (eds.): *The Oxford Handbook of Public Management*, Oxford University Press, Oxford, 51-71.

Mittendorf, V. (2008): “Bürgerbegehren und Volksentscheide gegen Privatisierungen und die Rolle der Gewerkschaften”, in: T. Brandt (Ed.): *Europa im Ausverkauf. Liberalisierung und Privatisierung öffentlicher Dienstleistungen und ihre Folgen für die Tarifpolitik*, VSA-Verlag, Hamburg, 310-329.

Moran, M. (2002): “Review Article: Understanding the Regulatory State”, *British Journal of Political Science* 32:2, 391-413.

Moran, M. (2003): *The British Regulatory State - High Modernism and Hyper-Innovation*, Oxford University Press, Oxford.

Mühlenkamp, H. (1994): *Öffentliche Unternehmen. Einführung unter Berücksichtigung betriebswirtschaftlicher, volkswirtschaftlicher und rechtlicher Aspekte*, München: Oldenbourg.

Mühlenkamp, H. (2001): „Rechtform, Trägerschaft und Effizienz öffentlicher Unternehmen – Eine Untersuchung der Auswirkungen formeller Privatisierungsmaßnahmen am Beispiel öffentlicher Theater mit Hilfe von Panel-Daten“, *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen* 24:2, 152-169.

Mühlenkamp, H. (2006): „Öffentliche Unternehmen aus der Sicht der Neuen Institutionenökonomik“, *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen* 29:4, 390-417.

Müller, M. M. (2002): *The New Regulatory State in Germany*, University of Birmingham University Press, Birmingham.

Müller, M. M. (2006): “Consolidating the New Regulatory State in Germany? The New Energy Regime of 2005”, *German Politics* 15:3, 269-283.

Musgrave, R.A. (1957): “A Multiple Theory of Budget Determination“, *Finanzarchiv* 17:3, 331-343.

Musgrave, R.A. (1959): *The Theory of Public Finance*, McGraw-Hill, New York.

Myles, G.D. (1995): *Public Economics*, Cambridge University Press, Cambridge, MA.

Naschold, F. (1996): *New Frontiers in Public Sector Management. Trends and Issues in State and Local Government in Europe*, De Gruyter, Berlin, New York.

Naschold, F., and J. Bogumil (2000): *Modernisierung des Staates. New Public Management und Verwaltungsreform*, Leske und Budrich, Opladen.

Nicolaides, P. (2005): “Regulation of Liberalised Markets: A New Role for the State (or How to Induce Competition Among Regulators)”, in: D. Geradin, R. Munoz, and N. Petit (eds.): *Regulation through Agencies in the EU - A New Paradigm of European Governance*, Edward Elgar, Cheltenham, 23-46.

Noll, R. (1985): “Government Regulatory Behaviour. A Multidisciplinary Survey and Synthesis”, in: R. Noll (ed.): *Regulatory Policy and the Social Sciences*, University of California Press, Berkeley, 9-63.

Noto, N. A: (1991): “Trying to Understand the Economic Development Official’s Dilemma”, in: D.A. K. Kenyon, and J. Kincaid (eds.): *Competition among States and Local Governments*, Washington, 251-258.

Obinger, H., and R. Zohlnhöfer (2005): “Selling Off the ‘Family Silver’: The Politics of Privatization”, *World Political Science Review* 2:2, 30-52.

Obinger, H., and R. Zohlnhöfer (2007): „Abschied vom Interventionsstaat? Der Wandel staatlicher Subventionsausgaben in den OECD-Ländern seit 1980“, *Swiss Political Science Review* 13: 2, 203-236.

OECD (1993): *Public Management Developments*, OECD, Paris.

OECD (1997): *The OECD Report on Regulatory Reform*, Paris.

OECD (1998): *Relationship between Regulators and Competition* Authorities, Paris.

OECD (2000): *The Implementations and Effects of Regulatory Reform. Past Experience and Current Issues.* Paris.

OECD (2001): *Regulatory Institutions in Liberalised Electricity Markets*, Paris.

OECD (2003): *Privatising State-owned Enterprises. An Overview of Policies and Practices in OECD-Countries*, OECD, Paris.

OECD (2004): *Competition and Regulation in the Water Sector*, Paris.

OECD (2005a): *Corporate Governance of State-owned Enterprises. A Survey in OECD Countries*, OECD, Paris.

OECD (2005b): *Modernising government*, OECD, Paris.

OECD (2005c): *Economic Outlook Dataset*, Paris: OECD.

OECD (2005d): *Designing Independent and Accountable Regulatory Authorities for High Quality Regulation*, Paris.

OECD (2006): *Telecommunication Regulatory Institutional Structures and Responsibilities*, Paris.

OECD (2008): *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*, OECD, Paris.

Ogden, S. (1995): “Transforming Frameworks of Accountability: the Case of Water Privatisation”, *Accounting, Organizations and Society* 20:2-3, 193-218.

Ogus, A, (2003):”Comparing Regulatory Regimes” in: D. Parker, and D. Saal (eds.): *International Handbook on Privatization,* Edward Elgar, Cheltenham, 514-537.

Ogus, A. (2004): *Regulation: Legal Form and Economic Theory*, Hart, Oxford.

Olson, M. (1982): *The rise and decline of nations: Economic growth, stagflation and social rigidities*, New Haven, Conn.: Yale University Press.

Pallesen, T. (2004):”A Political Perspective on Contracting Out: The Politics of Good Times. Experiences from Danish Local Governments”, *Governance* 17:4, 573-587.

Parker, D. (2004), “The UK´s Privatisation Experiment: The Passage of Time Permits a Sober Assessment”, *CESifo Working Paper 1126*, Munich.

Parris, H., P. Pestieau, and P. Saynor (1987): *Public Enterprises in Western Europe*, Croom Helm, London.

Perotti, E. (2004): *State Ownership: A Residual Role?*, World bank Policy Research Paper, Washington.

Perotti, E.C. (1995): “Credible Privatization”, *American Economic Review 85:4*, 847-859.

Pollitt, C., and G. Bouckaert (2004a): *Public Management Reform. A Comparative Analysis,* Oxford University Press, Oxford.

Pollitt, C., and G. Bouckaert (2004b): *Public Management Reform. An International Comparison*, Oxford University Press, Oxford.

Pollitt, C., S. van Thiel, and V. Homburg (2007): *New Public Management in Europe. Adaption and Alternatives*, Palgrave, Basingstoke.

Püttner, G. (1985): *Die öffentlichen Unternehmen: ein Handbuch zu Verfassungs- und Rechtsfragen der öffentlichen Wirtschaft,* Boorberg, Stuttgart.

PWC (2005): *Delivering the PPP Promise: A Review of PPP Issues and Activity*, PricewaterhouseCoopers, London.

Rainey, H., and Y. H. Chun (2005): “Public and Private Management Compared”, in: E. Ewan, L. Lynn, and C. Pollitt (eds.): *The Oxford Handbook of Public Management*, Oxford University Press, Oxford, 72-102.

Reichard, C. (2004): “Das Konzept des Gewährleistungsstaates”, in: GÖW (ed.): *Public Private Partnership: Formen - Risiken – Chancen,* Gesellschaft für Öffentliche Wirtschaft, Berlin, 48-60.

Risse, T., and U. Lehmkuhl (2007): “Governance in Räumen begrenzter Staatlichkeit”, *Aus Politik und Zeitgeschichte* 20-21, 3-9.

Rodi, M. (2000): Die *Subventionsrechtsordnung: die Subvention als Instrument öffentlicher Zweckverwirklichung nach Völkerrecht, Europarecht und deutschem innerstaatlichem Recht*, Mohr Siebeck, Tübingen.

Rodrik, D. (1987): “Policy targeting with endogenous distortions: Theory of optimum subsidy revisited”, *Quarterly Journal of Economics* 102:4, 903-911.

Rodrik, D. (1998): “Why Do More Open Economies Have Bigger Governments?”, *Journal of Political Economy* 106:5, 997-1032.

Rose, R. (1990): “Inheritance Before Choice in Public Policy”, *Journal of Theoretical Politics* 2:3, 263-291.

Rosen, H.S. (2008): *Public Finance*, 8th ed., McGraw-Hill/Irwin, Boston, MA.

Rügemer, W. (2004): “Maut und Mehr. Toll Collect oder der Ausverkauf der Politik”, *Blätter für deutsche und internationale Politik* 4, 415-426.

Sadka, E. (2007): “Public-Private Partnerships - A Public Economics Perspective”, *CESifo Economic Studies* 53:3, 466-490.

Sappington, D.E., and J. Stiglitz (1987): “Privatization, Information, and Incentives”, *Journal of Policy Analysis and Management* 6, 567–582.

Savas, E. (1987): *Privatization: The Key to Better Government*, Chatham House, Chatham.

Scharpf, F. W. (1999): *Regieren in Europa. Effektiv und demokratisch?* Campus, Frankfurt a.M./New York.

Scharpf, F.W., and V. Schmidt (eds.) (2000): *Welfare and Work in the Open Economy*, 2 Volumes, Oxford.

Schedler, K., and I. Proeller (2006): *New Public Management*, 3rd. ed., Haupt Verlag, Bern.

Schimmelpfennig, J. (1994): *Theorien öffentlicher Unternehmen unter besonderer Berücksichtigung des institutionellen Arrangements*, Lit-Verlag, Münster.

Schmidt, K. (1990), *The Costs and Benefits of Privatization: An Incomplete Contracting Approach*, Discussion Paper no. A-287, University of Bonn, Bonn.

Schmidt, M.G. (2002): “The Impact of Political Parties, Constitutional Structures and Veto Players on Public Policy”, in: H. Keman (ed.): *Comparative Democratic Politics*, Sage, London, 166-184.

Schmidt, S.K. (1998): *Liberalisierung in Europa. Die Rolle der Europäischen Kommission*, Campus, Frankfurt/New York.

Schmidt, V. (2002): “Europeanization and the Mechanics of Economic Policy Adjustments”, *Journal of European Public Policy* 9:6, 894-912.

Schneider, V, and M. Tenbücken (ed.)(2004): *Der Staat auf dem Rückzug. Die Privatisierung öffentlicher Infrastrukturen*, Campus, Frankfurt a.M./New York.

Schneider, V., and F.M. Häge (2008): “Europeanization and the Retreat of the State”, *Journal of European Public Policy* 15:1, 1-19.

Schneider, V., S. Fink, and M. Tenbücken (2005): “Buying Out the State”, *Comparative Political Studies* 38:6, 704-727.

Schuppert, G. F. (1997): „Vom produzierenden zum gewährleistenden Staat: Privatisierung als Veränderung staatlicher Handlungsformen“, in: K. König, and A. Benz (eds.): *Privatisierung und staatliche Regulierung: Bahn, Post und Telekommunikation, Rundfunk*, Nomos, Baden-Baden, 539-575.

Schuppert, G. F. (2008): „Was ist und wie misst man Wandel von Staatlichkeit“, *Der Staat* 47:3, 325-358.

Schwartz, G. and B. Clements (1999): “Government Subsidies”, *Journal of Economic Surveys* 13:2, 119-147.

Seidel, B. (2002): *Government Involvement in the Commercial Sector: Best Practice from an International Perspective*, DIW Berlin, Berlin.

Selznick, P. (1985): “Focusing Organizational Research on Regulation”, in: R. Noll (ed.): *Regulatory Policy and the Social Sciences*, University of California Press, Berkeley, 363-367.

Shapiro, C., and R. Willig (1990): “Economic Rationales for the Scope of Privatization”, in: Suleiman and Waterbury (eds.): *The Political Economy of Public Sector Reform and Privatization*, Westview Press, San Francisco, CA.

Sheshinski, E., and L. F. López-Calva (2003), “Privatization and its Benefits: Theory and Evidence”, *CESifo Economic Studies* 49:2, 429-459.

Shleifer, A. (1998): “State versus Private Ownership”, *Journal of Economic Perspectives* 12:4, 133-150.

Siegel, N. A. (2007): “Moving beyond Expenditure Accounts: The Changing Contours of the Regulatory State, 1980-2003”, in: F. G. Castles (ed.): *The Disappearing State? Retrenchment Realities in an Age of Globalisation*, Edward Elgar, Cheltenham, 245-272.

Simmons, B.A., and Z. Elkins (2004): “The Globalization of Liberalization: Policy Diffusion in the International Political Economy”, *American Political Science Review* 98:1, 171-189.

Sørensen, G. (2004): *The Transformation of the State: Beyond the Myth of Retreat*, Basingstoke/Hampshire/New York: Palgrave Macmillan.

Spulber, D. (1989): *Regulation and Markets*, MIT Press, Cambridge.

Stähler, F., and S. Traub (2009): *Privatization and Liberalization in Vertically Linked Markets*, Economics Discussion Paper 001-2009, Bremen.

Starr, P. (1988): “The Meaning of Privatization”, *Yale Law and Policy Review* 6, 6-41.

Stigler, G. J. (1971): “The Theory of Economic Regulation”, *Bell Journal of Economics and Management Scie*nce 2:1, 3-21.

Stiglitz, J. (2000): *Economics of the Public Sector*, Norton, New York.

Storr, S. (2001): *Der Staat als Unternehmer. Öffentliche Unternehmen in der Freiheits- und Gleichheitsdogmatik des nationalen Rechts und des Gemeinschaftsrechts*, Mohr Siebeck, Tübingen.

Strange, S. (1996): *The Retreat of the State: The Diffusion of Power in the World Economy*, New York: Cambridge University Press.

Tenbücken, M. (2004): "Divergente Konvergenz - Die Verbreitung nationaler Regulierungsbehörden im Telekommunikationssektor", in: V. Schneider and M. Tenbücken (eds.): *Der Staat auf dem Rückzug - Die Privatisierung öffentlicher Infrastruktur*, Campus, Frankfurt/New York, 180-209.

Tenenbaum, B. (1995): "The Real World of Power Sector Regulation", *Public Policy for the Private Sector Note No*. 50, World Bank, Washington.

Tepe, M., K. Gottschall, and B. Kittel (2008): „Marktwirtschaftsmodelle und öffentliche Beschäftigungsregimes in der OECD“, *der moderne staat (dms)*, 2/2008, 377-397.

Thatcher, M. (2002): "Delegation to Independent Regulatory Agencies: Pressures, Functions and Contextual Mediation", *West European Politics* 25:1, 125-147.

Thatcher, M. (2005): "The Third Force? Independent Regulatory Agencies and Elected Politicians in Europe", *Governance* 18:3, 347-373.

Thatcher, M. and A. Stone Sweet (2002): "Theory and Practice of Delegation to Non-majoritarian Institutions", *West European Politics* 25:1, 1-22.

Thatcher, M. and D. Coen (2008): "Reshaping European Regulatory Space: An Evolutionary Analysis", *West European Politics* 31:4, 806-836.

Thiem, J. (2004): „Institutionelle Konfigurationen in der Privatisierung des Postsektors - Ein internationaler Vergleich“, in: V. Schneider, and M. Tenbücken (eds.): *Der Staat auf dem Rückzug: Die Privatisierung öffentlicher Infrastrukturen,* Campus, Frankfurt, 154-179.

Thynne, I. (1994): "The Incorporated Company as an Instrument of Government: A Quest for a Comparative Understanding", *Governance* 7:1, 59-82.

Toninelli, P.A. (ed.) (2000): *The Rise and Fall of State-owned Enterprise in the Western World*, Cambridge University Press, Cambridge.

Tsebelis, G. (2002): *Veto Players. How Political Institutions Work*, Princeton University Press, Princeton.

UN (1995): Comparative Experiences with Privatization. Policy Insights and Lessons Learned, UN, New York.

Välilä, T. (2005): "How Expensive are Cost Savings? On the Economics of Public-Private Partnerships", *European Investment Bank Papers* 10:1, 94-119.

Verdier, D. (1995): "The Politics of Public Aid to Private Industry", *Comparative Political Studies* 28:1, 3-43.

Vogel, S. (1996): *Freer Markets, More Rules*, Cornell University Press, Ithaca and London

Vogel, S. (2007): "Why Freer Markets Need More Rules", in: M. K. Landy, M. A. Levin, and M. Shapiro (eds.): *Creating Competitive Markets - The Politics of Regulatory Reform*, Brookings Institution Press, Washington DC, 25 - 42.

Waffler, B. (2002): *Formalprivatisierung kommunaler Aufgaben zwischen Hierarchie, Kooperation und Vertrauen: eine Institutionenökonomische Analyse von Gesellschafts- und Vertragsrecht*, Peter Lang, Frankfurt.

Weber, M., M. Schäfer, and F.L. Hausmann (2006): *Praxishandbuch Public Private Partnership. Rechtliche Rahmenbedingungen, Wirtschaftlichkeit, Finanzierung*, Verlag C.H. Beck, München.

Wettenhall, R. (1992): “The Globalisation of Public Enterprise: Some Australian Evidence”, *Australian Journal of Public Administration* 51:2, 184-197.

Wettenhall, R. (2003): “The Rhetoric and Reality of Public-Private Partnerships”, *Public Organization Review* 1:3, 77–107.

Wigger, B.U. (2004): “Public versus Private Production of Government Services“, *Zeitschrift für Betriebswirtschaft* 74:1, 53-67.

Wilks, S. and I. Bartle (2002): “The Unanticipated Consequences of Creating Independent Competition Agencies”, *West European Politics* 25:1, 148-172.

Wooldridge, J. M., (2003): *Introductory Econometrics: A Modern Approach*, Second Edition, South Western College Publishing.

Wooldridge, J.M., (2002): *Econometric Analysis of Cross Section and Panel Data*, MIT Press, Cambridge, MA.

Wright, V. (1994): “Industrial Privatization in Western Europe. Pressures, Problems, and Paradoxes”, in: V. Wright (ed.): *Privatization in Western Europe, Problems, and Paradoxes*, Pinter, London, 1-43.

Yergin, D., and J. Stanislaw (1998): *The Commanding Heights: The Battle between Government and the Marketplace that is Remaking the Modern World*, Simon and Schuster, New York.

Yescombe, E.R. (2007): *Public-Private Partnerships: Principles of Policy and Finance*, Butterworth-Heinemann, London.

Zahariadis, N. (1997): “Research Notes Why State Subsidies? Evidence from European Community Countries, 1981-1986”, *International Studies Quarterly* 41, 341-354.

Zahariadis, N. (2001): “Asset Specificity and State Subsidies in Industrialized Countries”, *International Studies Quarterly* 45, 603-316.

Zahariadis, N. (2002): “The Political Economy of State Subsidies in Europe”, *Policy Studies Journal* 30:2, 285-298.

Zahariadis, N. (2005): “Policy Networks, Elections, and State Subsidies”, *Review of Political Research* 22:2, 115-131.

Zahariadis, N. (2008): *State Subsidies in the Global Economy*, Palgrave, New York.

Zohlnhöfer, R. (2005): „Globalisierung der Wirtschaft und nationalstaatliche Anpassungsreaktionen. Theoretische Überlegungen“, *Zeitschrift für Internationale Beziehungen* 12:1, 41-75.

Zohlnhöfer, R., H.Obinger, and F. Wolf (2008): “Partisan Politics, Globalization and the Determinants of Privatization Proceeds in Advanced Democracies 1990-2000”, *Governance 21:2*, 195-121.

Zweigert, K., and H. Kötz (1996): *Einführung in die Rechtsvergleichung auf dem Gebiete des Privatrechts*, Mohr Siebeck, Tübingen.

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