The independence of regulatory authorities*

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Abstract

This chapter offers a theoretical and empirical assessment of the distinctive feature of regulatory agencies, namely their independence. First, we discuss the formal and informal aspects of regulatory independence, their conceptualization, and their operationalization. Second, we present empirical research explaining the variation of formal independence across countries and sectors. We also point out that formal independence is neither a necessary nor a sufficient condition for regulators' de facto independence from political decision-makers and from the regulated industries. We conclude by highlighting the persistent relevance of regulatory independence for the study of the ongoing processes of re-regulation and agencification.

1 Introduction

The thesis of the "rise of the regulatory state," put forward most forcefully by Majone (1994, 1997) well over a decade ago, has proved to be more accurate than many sceptics thought. Regulation has indeed become one of the main governance forms, and the breadth of its spread, both across policy areas and countries, has led some authors to conclude that we are witnessing the rise of a new type of political economy, namely "regulatory capitalism" (Levi-Faur, 2005, 2006*a*).

This powerful trend is epitomized by the worldwide establishment and strengthening of independent regulatory agencies, that is, regulators that are not under the direct control of elected

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politicians. More precisely, they are highly specialized bodies that hold considerable public authority while enjoying the highest discretionality in the public sector (Majone, 1996), because they are institutionally and organizationally disaggregated from the ordinary bureaucracy (Verschuere et al., 2006) and constitutionally separated from elected politicians (Thatcher, 2002). This type of regulatory authority was once confined to specific sectors (such as financial markets) or countries (the United States), but it has now become common in many policy areas and all countries (Jordana, Levi-Faur and Fernandez i Marin, 2011). Prominent examples include the Financial Services Authority in Britain, the Food and Drug Administration in the United States, and the *Bundeskartellamt* in Germany. This phenomenon is not an academic curiosity; its consequences are concrete and wide-ranging. The spread of independent regulators means that more and more aspects of our lives are shaped by decisions made by institutions that are not elected and that are not under the direct control of elected officials, which has important implications for the democratic accountability of policy-making.

This chapter offers a theoretical and empirical assessment of the main feature of this type of regulatory institutions, namely their *independence*. We first discuss the distinction between formal and informal (or de facto) independence, and we show how they can be conceptualized and measured. We argue that both dimensions are important and capture different facets of the independence of regulators. We then present data on these two dimensions, and we discuss the main arguments that have been developed to account for cross-national and cross-sectional variations in European countries. In particular, we show that formal independence is not always associated with de facto independence and that, on the other hand, some regulators can be independent in practice without being independent on paper. The conclusion underlines the relevance of regulatory independence, and of its study, for enhancing our understanding of the ongoing processes of re-regulation and agencification in contemporary political economies.

2 Conceptualization and operationalization

There is no consensus on how independence should be conceptualized and operationalized, and studies use various strategies to capture the idea that some regulators are more strongly insulated from external influence (Verhoest et al., 2004). We consider that independence requires the presence of two components (Maggetti, 2007). First, independence means self-determination, namely the faculty of actors to judge their own interests and values (Dahl, 1989). When applied to political institutions, this dimension can be measured by the extent to which their interests and values are distinguishable from those of other social forces (Huntington, 1968). At the same time, the deployment of autonomy also requires the ownership of one's actions (Walzer, 1983), so that political institutions can be considered autonomous only when they can translate their own interests and values (e.g., preferences) into (authoritative) actions, without external constraints (Nordlinger, 1981). The concept of organizational autonomy should not be understood in an absolute but in a relative sense (Sartori, 1973). Organizations are not self-referential autopoietic systems (Teubner, 1988), but need to be considered open systems (Kickert, 1993). Thus, public sector agencies are neither fully autonomous from nor fully dependent upon their environment, and their preferences and behavior are always shaped by their social interactions with other actors. Our conceptualization of autonomy points out the extent to which preferences and consequent organizational activity are mostly endogenously formed or, conversely, externally affected. The underlying assumption is that these (relative) levels, situated on a continuum along the two extremes, may vary significantly among agencies. They are shaped by statutory provisions but are not fully determined by them. Accordingly, we distinguish between the *formal* and the *de facto* independence of regulators.

The concept of formal independence was originally developed in the literature on central banks (Rogoff, 1985). In its most encompassing version, central bank independence comprises two elements (Alesina and Summers, 1993): political independence, defined as the ability to select policy objectives without influence from the government, and economic independence, that is, the ability to use instruments of monetary policy without restrictions. The various existing indices of central bank independence are usually based on statutory prescriptions, such as the procedure for appointing of the members of the board, the approval requirements for monetary policy decisions, the prior definition of monetary objectives in the central bank statute, and the budgetary arrangements (Alesina and Summers, 1993; Cukierman, 1992; Cukierman, Webb and Neyapti, 1992).

Gilardi (2002, 2005*a*, 2008) drew inspiration from this approach to assess the formal independence of other regulatory agencies. To do so, he considered a series of prescriptions, enshrined in the constitutions of agencies, that should guarantee their independence from elected politicians.

The operationalization of formal independence put forward by Gilardi is summarized in the top panel of Table 1. The first dimension refers to the status of the agency head and/or management board. Crucial information here is the length of the term of office (longer terms increase independence), whether agency officials are appointed by a single actor such as a minister or by a more encompassing procedure, whether they can be dismissed, whether the appointment is renewable, whether it is compatible with other public offices, and finally whether the independence of officials is an explicit requirement. The second dimension is the relationship between the agency and elected politicians, namely whether the independence of the authority is formally stated, what its formal obligations are, and under which conditions its decisions can be overturned. The third dimension considers the financial and organizational independence of the agency, which depends on whether the budget comes from the government or from other sources (such as fees levied on the regulated firms) and on whether the agency is free to organize its internal structures and to determine its staff policy (for instance, salary structures). The final dimension captures the competencies that are delegated to the authority. The coding scheme put forward by Gilardi is to some extent arbitrary, and recent work has tried to improve upon it. Hanretty and Koop (2009), for instance, have used item-response methods to derive data-driven measures of independence. The resulting index is quite strongly correlated with Gilardi's, but such efforts to develop a more systematic way to measure independence are certainly welcome.

The formal aspects of independence are without any doubt important. In particular, they are the primary dimension that political principals can control when delegating powers to regulatory authorities. However, they are obviously not everything, and there is little reason to believe that formal independence automatically translates into independence in practice. Thus, it is important that the de facto independence of regulators is also taken into account. We use the term "de facto independence" to connote the extent of regulators' effective autonomy as they manage their day-to-day regulatory actions. The term "independence" is thus intended to stress both the extent and the degree of the institutionalization of the discretionality conveyed to these agencies. It is important to add that the level of agencies' de facto independence should be conceived not only with reference to elected politicians, but also with respect to representatives of the sectors targeted by regulation, which constitute the "second force" in regulation (Thatcher, 2005), and which also has both incentives and resources to mold the regulatory ac-

Table 1: *Operationalizing the independence of regulatory authorities (Gilardi, 2008; Maggetti, 2007, 2009)*

Formal	Chairperson and management board	- Term of office - Appointment procedure - Dismissal procedure - Renewability of appointment - Compatibility with other offices - Formal requirements of independence
	Relationship with elected politicians	- Independence formally stated - Formal obligations - Overturning of decisions
	Finances and organization	- Source of the budget - Agency's internal organization - Control of human resources
	Regulatory competencies	- Rule-making - Monitoring - Sanctioning
De facto	From politicians	- Frequency of revolving door - Frequency of contacts - Influence on budget - Influence on internal organization - Partisanship of nominations - Political vulnerability - External influence on regulation
	From regulatees	- Frequency of revolving door - Frequency of contacts - Adequacy of budget - Adequacy of internal organization - Professional activity of chairperson/board members - External influence on regulation

tion of agencies, as argued most forcefully by the "capture theory" of regulation (Stigler, 1971). Independent regulators can thus be considered "intermediary organizations" that act as mediators between the heterogeneous and conflicting interests of the politicians and the regulatees (Braun, 1993). Therefore, we suggest that the de facto independence of formally independent regulatory agencies can be seen as the combination of two necessary components, namely the (relative) self-determination of agencies' preferences and the (relative) lack of restrictions when enacting their regulatory activity, both with respect to elected politicians and regulatees. The operationalization of this concept, which cannot be reported in detail here due to space constraints, requires assigning indicators to assess the position of each component on an ordinal scale of de facto independence, for each one of the two dimensions, to obtain one aggregate measure that accounts for each double relationship (Maggetti, 2007). The main information is summarized in the bottom panel of Table 1.

3 Empirical research

Empirical research on the formal independence of regulators has examined the sources of cross-national and cross-sectoral variations on this dimension (Gilardi, 2002, 2005*a*, 2008). The top panel of Figure 1 shows that there are indeed considerable differences between countries, both for the average independence of regulators within the country and for their heterogeneity. While the median independence score of regulators is less than 0.3 in Germany and Austria, it is over 0.6 in Ireland and Italy, with the other countries in-between. On the other hand, the formal independence of regulatory authorities tends to be much more similar in Norway, France, and the UK than in Austria, Italy, and Portugal, which points to a greater coherence of the institutional structures of regulators in the former than in the latter group of countries. The bottom panel of Figure 1 shows that significant variations also exist across sectors. Regulatory authorities in the energy, telecom, and financial sectors are quite uniformly more independent than their counterparts in food safety and environmental protection. Interestingly, some pharmaceuticals regulators are quite independent while others are not, and competition authorities tend to have an average degree of independence, with a few exceptions.

Why does the formal independence of regulators differ so much, both across and within countries? While national specificities and historical legacies are certainly important (see, e.g.,

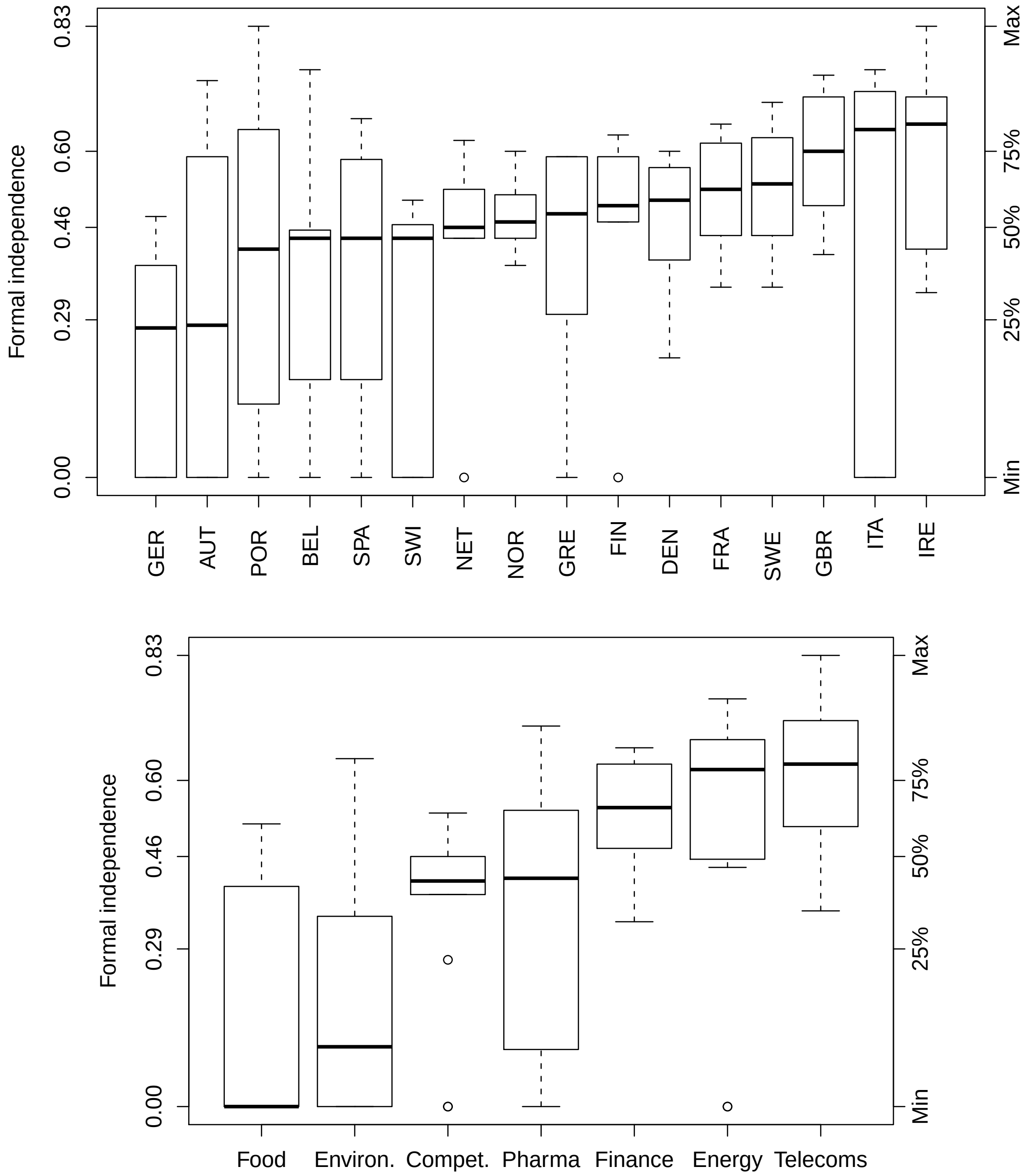

Figure 1: *The formal independence of regulators in 16 countries and 7 sectors. The solid line indicates the median value; boxes and whiskers extend, respectively, from the 25th to the 75th percentile and from the minimum to the maximum. The y-axis labels correspond to the minimum, maximum, and 25th, 50th, and 75th percentiles in the whole sample. Source: Gilardi (2008).*

Thatcher, 2002), it has also been argued that three more general explanations may be relevant, namely the (perceived) need for policy-makers to improve the credibility of their regulatory commitments, their desire to cope with political uncertainty, and the constraints set by the institutional framework (Gilardi, 2008). The credibility argument considers that policy-makers may be unable to achieve their goals unless their regulatory promises are credible. This applies especially in the case of utilities reforms, the goal of which was to create a market in sectors previously characterized by the presence of a state-owned monopolist. The achievement of this goal presupposes that private investors can be persuaded to enter the newly-opened market, which requires certain assurances that the regulatory set-up will be unbiased and protected from political manipulation. Delegation of regulatory competencies to independent regulatory agencies can be a means to achieve this goal. Relatedly, policy-makers may be interested in preventing political alternation in government to affect regulatory policies. Again, granting independence to regulators can a means to this end. Finally, the institutional context may affect these two dynamics. Because veto players make policy change more difficult (Tsebelis, 2002), they could be a functional equivalent of regulatory independence with respect to both credibility and political uncertainty pressures.

Using the data shown in Figure 1 as the dependent variable, Gilardi (2002, 2005*a*, 2008) found empirical support for these arguments. The strongest finding is that utilities regulators, and to a lesser extent other economic regulators, are on average significantly more independent than authorities in so-called social regulation (food safety, pharmaceuticals, environment). Furthermore, regulators tend to be more independent in countries with fewer veto players and where political uncertainty is high. These findings support the argument that credibility, political uncertainty, and veto players are important factors for the formal independence of regulators. However, an important problem is that the data capture a only a snapshot of the formal independence of regulatory agencies. While it does not vary dramatically from year to year, formal independence can nevertheless change, and longitudinal data on this dimension would be extremely useful. The new survey by Hanretty and Koop (2009) covering 175 regulators worldwide is thus extremely welcome.

A second question is why formally independent regulators have spread so widely, especially since the 1990s. While many countries have experienced similar pressures, such as technological changes and wide-ranging market reforms (Levi-Faur, 2003), that may have led them to adopt similar solutions, recent studies have stressed that the adoption of regulatory independence has been strongly influenced by a horizontal process of interdependent diffusion, in which the introduction of an independent regulator in one country and sector has been shaped by prior decisions in other countries and/or sectors, leading to observe both national and sectoral patterns of diffusion (Levi-Faur, 2006*b*). In this perspective, Gilardi (2005*b*, 2008) emphasized that, despite the rationalistic considerations outlined above, the idea of regulatory independence has progressively acquired considerable legitimacy as a socially approved means to organize regulatory policies. This argument essentially means that the burden of proof has shifted. While at the beginning of the process it is the introduction of an independent regulator that needed to be more strongly justified, later on this became the default solution, at least in some sectors such as utilities, and a stronger argument was needed to prevent the setting up of independent regulators rather than for their introduction.

Gilardi (2008) based his analysis on a rather crude operationalization (though quite standard in the earlier diffusion literature) of these normative dynamics, namely the number of prior adoptions. Controlling for many factors, the probability that a independent regulatory authority is introduced increases with the number of existing independent regulators in other countries and sectors. Recently, these arguments have been expanded by Jordana, Levi-Faur and Fernandez i Marin (2011), who distinguished explicitly between diffusion patterns within and across both countries and sectors, as well as between different stages in the process (i.e., incubation, take-off, and saturation). Their analysis relies on the most comprehensive dataset to date (48 countries and 16 sectors since the 1920s) and shows that while some channels of diffusion, such as national transfer (within countries, across sectors), matter at all stages, others play a role only in some. In particular, sectoral (within sectors, across countries) and supranational (across sectors, across countries) channels matter more in the incubation and take-off stages, some intergovernmental channels (all sectors in other OECD countries) in only the take-off stage, and others (all sectors in European Union member states) in the take-off and saturation stages. Although the interpretation of these findings is not entirely straightforward, it is a definite step forward for our understanding of how regulatory independence has diffused worldwide. Specifically, they permit us to delimit more precisely the scope of credible commitment theory, which Christensen (2011) discusses critically elsewhere in this volume. Credibility arguments seem to be relevant not so much for the creation of independent regulators, which takes place in an international diffusion process, but rather for the variation in the level of formal independence granted to regulatory agencies. This distinction can address some of the concerns raised by Christensen (2011), for instance the fact that the independent regulator model, contrary to credibility arguments, has also spread within social regulation.

These findings pertain only to the formal aspects of independence, but as we argued earlier, the informal dimensions of independence should also be taken into account. Because any organizational framework allows a certain amount of discretion (Friedberg, 1997; March and Sutton, 1997), there exists a potential gap between formal and informal structures, and the latter may be more important than the former for organizational outcomes (Downs, 1967). Bureaucratic delegation of regulatory competencies from political decision-makers (the "principal" or the "trustor") to agencies (the "agent" or the "trustee"), though backed by law and highly formalized, invariably relies upon an incomplete contract, since it is impossible to spell out in explicit detail all the precise obligations of the agent throughout the life of the contract, and the cost of monitoring the whole process would be prohibitive (Williamson, 1985; Balla, 2011). In fact, a number of studies suggested that statutory prescriptions correspond only partially to regulators' actual practices (Stern, 1997; Stern and Holder, 1999; Thatcher, 2002; Wilks and Bartle, 2002; Yesilkagit and van Thiel, 2008).

In particular, Maggetti (2007) demonstrated that formal independence is neither a necessary nor a sufficient condition for explaining variations in regulators' de facto independence from political decision-makers and from the regulated industries. The disjuncture between formal and de facto independence is evident in Figure 2, which shows the relationship between these two dimensions for 16 regulators. There is a weakly positive but statistically non-significant relationship between the two dimensions,[1] and, with a couple of exceptions, regulators tend to be either formally more than de facto independent or, interestingly, the other way around. Thus, the German finance regulator (BAFIN) and the Swedish competition authority (KKV) seem to be more independent in reality than they are on paper, while the Swedish finance regulator (FI) and the Dutch telecom agency enjoy high formal independence, which however does not seem

[1] De facto independence $= 0.32(0.23) + 0.37(0.43)\times$ formal independence (OLS estimates, standard errors in parentheses, $R^2 = 0.05$).

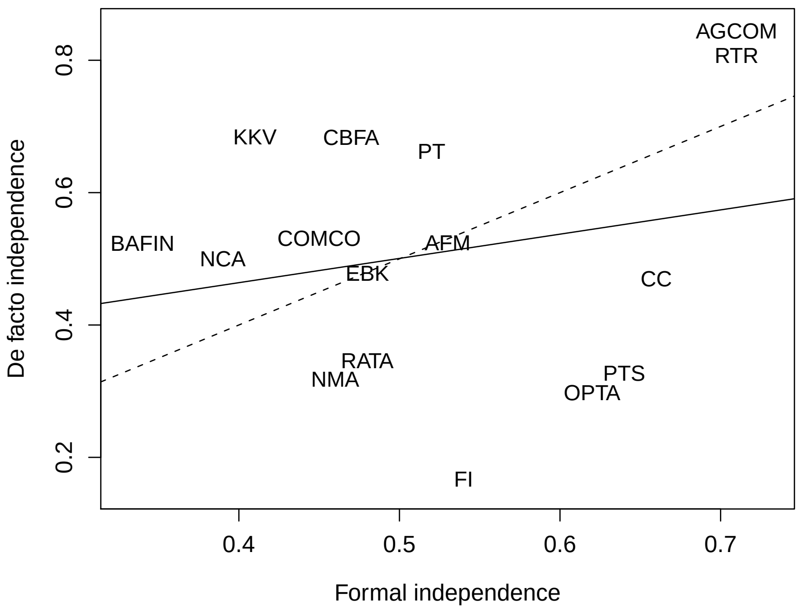

Figure 2: *Formal and informal independence from elected politicians for 16 regulatory authorities. The solid line is the regression line; the dashed line is the $y = x$ line. AFM: finance (Netherlands); AGCOM: telecom (Italy); BAFIN: finance (Germany); CBFA: finance (Belgium); CC: competition (UK); COMCO: telecom (Switzerland); EBK: finance (Switzerland); FI: finance (Sweden); KKV: competition (Sweden); NCA: competition (Norway); NMA: competition (Netherlands); OPTA: telecom (Netherlands); PT: telecom (Norway); PTS: telecom (Sweden); RATA: finance (Finland); RTR: telecom (Austria). Source: Maggetti (2009).*

to translate into real independence in practice.

Our knowledge of the determinants of de facto independence is still in its infancy. However, there are indications of a systematic association between agencies' high de facto independence from politicians and their institutional age or the presence of several veto players in the political system, the latter element in combination with high formal independence. This means that the presence of multiple veto players fosters the formal independence of agencies, as it becomes more difficult for divided principals to sway their regulatory action, which is what veto players theory expects (Tsebelis, 2002). Moreover, independent regulators may follow a process of autonomization as they age, in line with the literature about the life cycle of agencies (Martimort, 1999). Concerning the relationship with regulatees, it appears that the most de facto independent regulators are those that participate intensely in European networks of regulators. These agencies are reinforced by the diffusion of expertise and information coming from other regulators, while gaining potential allies when dealing with third parties. Finally, the relationship between agencies and politicians and, respectively, the relationship between agencies and those being regulated are mutually related. An agency cannot be a servant of two masters: if it is scarcely independent from the politicians, it should be highly independent from those being regulated.

To sum up, the analysis shows that regulators are neither systematically under direct political control nor are they systematically captured by the regulated industries. These findings challenge a crucial argument of the economic theory of regulation (Stigler, 1971) and corroborate the critical assessment of this theory by both Croley (2011) and Christensen (2011) elsewhere in this volume. Furthermore, they lend support to the view that independent regulators are key actors in the context of regulatory capitalism (Levi-Faur, 2005).

The development of the regulatory state, and especially the process of agencification, is also expected to have an impact on the transformation of policy-making styles in Europe (Majone, 1997; Moran, 2002). A common finding is that the expansion of regulatory governance leads to unintended consequences and to the alteration of the modes of political interaction (McGowan and Wallace, 1996; Pollitt and Bouckaert, 2004). For instance, Wilks and Bartle (2002) show that the design of competition agencies had a symbolic component. They were not expected to be factually dynamic in rule-making or implementation, yet they gradually redefined their roles so as to exert a material impact on market economies. There is also evidence that contextual factors shape the functioning of agencies and the effectiveness of regulatory reforms, implying potential implementation problems (Christensen and Laegreid, 2006; Hood, Rothstein and Baldwin, 2001; Pollitt et al., 2001). Finally, some studies emphasized the changes introduced by independent regulators in national decision-making processes, which have dramatically opened up, in contrast to closed processes before delegation (Coen and Thatcher, 2005; Thatcher, 2005).

Evidence from our previous research, based on a comparison of financial and competition regulators in the Netherlands, Sweden, and Switzerland (Maggetti, 2009), reveals that independent regulators play a central role in law-making related to their area of competence (more than expert commissions, organized interest representatives, and ordinary agencies subordinated to the ministerial level). Not only are agencies in charge of implementing the new rules, but they also affect the entire policy-making process, especially agenda-setting and pre-parliamentary negotiations. This point corroborates the arguments about the rise of an age of "regulocracy" (Levi-Faur, 2005) and "agencification" (Christensen and Laegreid, 2006). At the same time, it suggests that the activity of independent regulators is not limited to market supervision and technical regulatory functions, but that they also are developing a key political role. Moreover, it appears that the level of de facto independence from politicians may positively affect their influence in policy-making, in combination with other variables, namely the non-professionalization of the legislature. This is the case of the Swiss Federal Banking Commission during the revision of the Stock Exchange Act of 2006 and the Swiss Competition Commission during the revision of the Act on Cartels of 2003. When non-professional legislators, who suffer from a lack of material and symbolic resources, have to cope with an independent regulator that might challenge the later stages of the policy-making process, they will have strong incentives to include ex-ante this agency in policy-making for obtaining relevant information and to overcome any possible conflict or resistance during the implementation process.

Having said that, it is necessary to ask whether and to what extent independent regulators can still deliver what they promise. In this context, we should adopt the presumed benefits of delegation as an analytical benchmark, namely the increase of policy credibility (through independence) and the enhancement of decision-making efficiency (through expertise) (Majone, 2001). The problem is that the study of agencies' performances has proved to be inconclusive (Verhoest, 2005). First, it is difficult to assess the impact of independent regulators because their constitutional goals are varied, mixed, broad, unclear, or at least blurred, in short, less intelligible than those of central banks; they indeed constitute the type of public sector organizations that display the highest level of goal ambiguity (Chun and Rainey, 2005). Second, the concepts of "regulatory quality" and "public interest" have to be considered empirically sensitive to the subjective understandings of the different actors involved, such as political decision-makers, civil servants, experts, producers, consumers, and citizens (Radaelli and De Francesco, 2007). Third, the study of agencies' outcomes suffers from crucial identification problems, mainly due to the disregard of the complex causal structure behind correlational findings and to the limits of existing and available data, which is largely based on retrospective and subjective recalls of informants (March and Sutton, 1997).

To contribute to this debate, and given the difficulty of directly measuring regulatory performances, another, indirect, type of regulatory outcome can be examined: the evaluation of agencies in the media (Maggetti, 2010). Media coverage cannot be equated to regulatory performance, but it is a condition for accountability and, eventually, legitimacy. The media provide information to citizens, enhance transparency, and perform a fire-alarm function for policy-makers by constituting a linkage mechanism between the bureaucracy and its principal (Hopenhayn and Lohmann, 1996; Waterman, Rouse and Wright, 1998). A most likely case—the British Competition Commission—and a least likely one—the Swiss Competition Commission—were examined in terms of the media evaluation of their credibility and efficiency, with a content analysis of the major national newspapers during the years 2006–2007 (Maggetti, 2010). Results show that, against some pessimistic expectations, factually independent independent regulators can benefit from a positive media evaluation of credibility, as was the case of the British Competition Commission. However, even de facto independence from elected politicians—entailing a broad delegation of regulatory competencies, extensive regulatory discretion vis-à-vis the elected politicians, and relative freedom from ex-post controls—seems insufficient to secure credible commitments towards the media: the case of the Swiss Competition Commission suggests that perceived autonomy from the regulated industries is another plausibly necessary condition. In addition, even in the very favorable case of the British Competition Commission, the media evaluation of efficiency is negative, casting doubts on the new public management's ambition of reconciling bureaucratic autonomy with decision-making efficiency gains.

4 Conclusions

In this chapter, we discussed the conceptualization, operationalization, and measurement of the formal and de facto independence of regulatory agencies. We also provided theory and empirical evidence for several arguments about the determinants of independence and the relationship between its two dimensions. Formal independence represents the key variable for explaining the process of delegation of regulatory authority from governments to independent regulators and for examining the shapes and colors of the worldwide diffusion of this particular type of public sector organization. On the other hand, de facto independence is a decisive factor—complementary to the former—for investigating the consequences of establishing of independent regulators on the effectiveness of regulatory governance and the transformation of policy-making.

In particular, the main insights are as follows. On the one hand, the formal independence of regulators tends to be greater in economic regulation than in social regulation, in countries where there is higher political uncertainty due to frequent alternation between governments with different preferences, and few veto players, suggesting that an institutional context protecting the status quo is a functional equivalent of delegation (Gilardi, 2002, 2005*a*, 2008). Beyond these common pressures, it is worth noting that independent regulators have diffused across countries and sectors following a mechanism of emulation, as they have become a socially valued organization for implementing regulatory governance (Gilardi, 2005*b*, 2008). On the other hand, de facto independence from politicians and from those being regulated appears to be positively affected by the age of agencies and the presence of several veto players, as well as by the participation in European networks of regulators (Maggetti, 2007). De facto independence from politicians, in turn, positively affects the influence of independent regulators in domestic law-making (Maggetti, 2009) and possibly represents a necessary but insufficient condition for a positive media evaluation of credibility (Maggetti, 2010).

These insights shed considerable light on the unfolding of regulatory governance by independent regulators. Nonetheless, further research is needed, especially to refine and adapt our measures of independence and to better understand the effects of formal and de facto independence on regulatory outcomes. In particular, to what extent formal and de facto independence influence the performance of regulators remains a largely unanswered question. Even the conceptualization and operationalization of agencies' performance is problematical, given the high level of goal ambiguity characterizing regulatory mandates (Chun and Rainey, 2005). Furthermore, the concepts of "regulatory quality" and "public interest" are sensitive to the subjective understandings of the different actors involved, such as political decision-makers, civil servants, experts, producers, consumers, and citizens (Radaelli and De Francesco, 2007; Christensen, 2011). In that regard, if we take the "crucial case" of the British Financial Services Authority (FSA), it seems that independence is insufficient to prevent regulatory failure. The FSA is a formally and factually independent regulatory agency that employs more than 2,500 people and possesses important regulatory powers. It regulates a crucial sector of a leading country that is widely recognized as a trend-setter in regulatory governance, at least in Europe. Yet, not only was it publicly blamed for its alleged "light-touch" regulatory approach and failure to prevent the 2008–2010 financial crisis, but according to the envisaged reform of financial supervision, it will be dismembered and its competencies will be divided between a number of new and old agencies. In fact, the performance of integrated supervisors with broad and consolidated competencies—fiercely independent from the ministry—proved to be not up to expectations. Structural weaknesses stemming from unclear objectives and extended moral hazard seem to surpass efficiency gains (Abrams and Taylor, 2000). However, a number of elements suggest that policy-makers will rather reinforce regulatory governance by independent regulators, by improving their design and coordination. On the one hand, new and more appropriate sector-specific agencies are being created. On the other, the trend of agencification continues with the recent institutionalization of European networks of independent regulators, and with the establishment of numerous independent agencies at the European level (Wonka and Rittberger, 2010).

References

Abrams, Richard K. and Michael W. Taylor. 2000. *Issues in the unification of financial sector supervision.* Washington, DC: International Monetary Fund.

Alesina, Alberto and Lawrence H. Summers. 1993. "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence." *Journal of Money, Credit, and Banking* 25(2): 151–162.

Balla, Steven J. 2011. "Agency Discretion and Oversight: Instruments for Managing Delegation to the Bureaucray." In *Handbook of Regulation*, ed. David Levi-Faur. Cheltenham: Edward Elgar, .

Braun, Dietmar. 1993. "Who Governs Intermediary Agencies? Principal-Agent Relations in Research Policy-Making." *Journal of Public Policy* 13(2): 135–162.

Christensen, Jørgen Grønnegaard. 2011. "Public Interest Regulation Reconsidered: From Capture to Credible Commitment." In *Handbook of Regulation*, ed. David Levi-Faur. Cheltenham: Edward Elgar, pp. xx–xx.

Christensen, Tom and Per Laegreid, eds. 2006. *Autonomy and Regulation: Coping With Agencies in the Modern State.* Cheltenham: Edward Elgar.

Chun, Young Han and Hal G. Rainey. 2005. "Goal Ambiguity and Organizational Performance in U.S. Federal Agencies." *Journal of Public Administration Research and Theory* 15(4): 529–557.

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

Croley, Steven. 2011. "Beyond Capture: Towards a New Theory of Regulation." In *Handbook of Regulation*, ed. David Levi-Faur. Cheltenham: Edward Elgar, .

Cukierman, Alex. 1992. *Central Bank Strategy, Credibility, and Independence: Theory and Evidence.* Cambridge (MA): MIT Press.

Cukierman, Alex, Steven B. Webb and Bilin Neyapti. 1992. "Measuring the Independence of Central Banks and Its Effect on Policy Outcomes." *World Bank Economic Review* 6(3): 353–398.

Dahl, Robert A. 1989. *Democracy and Its Critics.* New Haven: Yale University Press.

Downs, Anthony. 1967. *Inside Bureaucracy.* Boston: Little/Brown.

Friedberg, Erhard. 1997. *Le pouvoir et la règle: dynamiques de l'action organisée.* Paris: Seuil.

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

Gilardi, Fabrizio. 2005*a*. "The Formal Independence of Regulators: A Comparison of 17 Countries and 7 Sectors." *Swiss Political Science Review* 11(4): 139–167.

Gilardi, Fabrizio. 2005*b*. "The Institutional Foundations of Regulatory Capitalism: The Diffusion of Independent Regulatory Agencies in Western Europe." *Annals of the American Academy of Political and Social Sciences* 598: 84–101.

Gilardi, Fabrizio. 2008. *Delegation in the Regulatory State: Independent Regulatory Agencies in Western Europe*. Cheltenham: Edward Elgar.

Hanretty, Chris and Christel Koop. 2009. "Statutory interpretation, appointment method, and agency independence." European University Institute.

Hood, Christopher, Henry Rothstein and Robert Baldwin. 2001. *The Government of Risk: Understanding Risk Regulation Regimes*. Oxford: Oxford University Press.

Hopenhayn, Hugo and Susanne Lohmann. 1996. "Fire-Alarm Signals and the Political Oversight of Regulatory Agencies." *Journal of Law, Economics, and Organization* 12(1): 196–213.

Huntington, Samuel P. 1968. *Political Order in Changing Societies*. New Haven: Yale University Press.

Jordana, Jacint, David Levi-Faur and Xavier Fernandez i Marin. 2011. "The Global Diffusion of Regulatory Agencies: Channels of Transfer and Stages of Diffusion." *Comparative Political Studies* p. forthcoming.

Kickert, Walter J.M. 1993. "Autopoiesis and the Science of (Public) Administration: Essence, Sense, and Nonsense." *Organization Studies* 14(2): 261–278.

Levi-Faur, David. 2003. "The Politics of Liberalisation: Privatisation and Regulation-for-Competition in Europe's and Latin America's Telecoms and Electricity Industries." *European Journal of Political Research* 42: 705–740.

Levi-Faur, David. 2005. "The Global Diffusion of Regulatory Capitalism." *Annals of the American Academy of Political and Social Sciences* (598): 12–33.

Levi-Faur, David. 2006*a*. "Regulatory Capitalism: The Dynamics of Change beyond Telecoms and Electricity." *Governance* 19(3): 497–525.

Levi-Faur, David. 2006*b*. "Varieties of Regulatory Capitalism: Getting the Most Out of the Comparative Method." *Governance* 19(3): 367–382.

Maggetti, Martino. 2007. "De Facto Independence after Delegation: A Fuzzy-Set Analysis." *Regulation & Governance* 1(4): 271–294.

Maggetti, Martino. 2009. "The Role of Independent Regulatory Agencies in Policy-Making: A Comparative Analysis." *Journal of European Public Policy* 16: 445–465.

Maggetti, Martino. 2010. "Are Regulatory Agencies Delivering What They Promise?" In *Governance of Public Sector Organizations: Autonomy, Control and Performance*, ed. Per Laegreid and Koen Verhoest. Palgrave Macmillan, p. forthcoming.

Majone, Giandomenico. 1994. "The Rise of the Regulatory State in Europe." *West European Politics* 17(3): 77–101.

Majone, Giandomenico. 1996. "Temporal Consistency and Policy Credibility: Why Democracies Need Non-Majoritarian Institutions." European University Institute.

Majone, Giandomenico. 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, Giandomenico. 2001. "Two Logics of Delegation. Agency and Fiduciary Relations in EU Governance." *European Union Politics* 2(1): 103–121.

March, James G. and Robert I. Sutton. 1997. "Organizational Performance as a Dependent Variable." *Organization Science* 8(6): 697–706.

Martimort, David. 1999. "The Life Cycle of Regulatory Agencies: Dynamic Capture and Transaction Costs." *Review of Economic Studies* 66: 920–947.

McGowan, Francis and Helen Wallace. 1996. "Towards a European Regulatory State." *Journal of European Public Policy* 3(4): 560–576.

Moran, Michael. 2002. "Review Article: Understanding the Regulatory State." *British Journal of Political Science* 32: 391–413.

Nordlinger, Eric A. 1981. *On the Autonomy of the Democratic State.* Cambridge (MA): Harvard University Press.

Pollitt, Christopher and Geert Bouckaert. 2004. *Public Management Reform: A Comparative Analysis.* Oxford: Oxford University Press.

Pollitt, Christopher, Karen Bathgate, Janice Caulfield, Amanda Smullen and Talbot. 2001. "Agency Fever? Analysis of and International Policy Fashion." *Journal of Comparative Policy Analysis* 3(3): 271–290.

Radaelli, Claudio M. and Fabrizio De Francesco. 2007. *Regulatory Quality in Europe: Concepts, Measures, and Policy Process*. Manchester: Manchester University Press.

Rogoff, Kenneth. 1985. "The Optimal Degree of Commitment to an Intermidiate Monetary Target." *Quarterly Journal of Economics* 100: 1169–1189.

Sartori, Giovanni. 1973. "What is 'Politics'." *Political Theory* 1(1): 5–26.

Stern, Jon. 1997. "What Makes an Independent Regulator Independent?" *Business Strategy Review* 8(2): 67–74.

Stern, Jon and Stuart Holder. 1999. "Regulatory Governance: Criteria for Assessing the Performance of Regulatory Systems." *Utilities Policy* 8(1): 33–50.

Stigler, George J. 1971. "The Theory of Economic Regulation." *Bell Journal of Economics and Management Science* 2(1): 1–21.

Teubner, Gunther. 1988. *Autopoietic Law: A New Approach to Law and Society*. New York: W. de Gruyter.

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

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

Tsebelis, George. 2002. *Veto Players: How Political Institutions Work*. Princeton: Princeton University Press.

Verhoest, Koen. 2005. "Effects of Autonomy, Performance Contracting, and Competition on the Performance of a Public Agency: A Case Study." *Policy Studies Journal* 33(2): 235–258.

Verhoest, Koen, B. Guy Peters, Geert Bouckaert and Bram Verschuere. 2004. "The Study of Organizational Autonomy: A Conceptual Review." *Public Administration and Development* 24: 101–118.

Verschuere, Bram, Koen Verhoest, Falke Meyers and B. Guy Peters. 2006. "Accountability and Accountability Arrangements in Public Agencies." In *Autonomy and Regulation: Coping With Agencies in the Modern State*, ed. Tom Christensen and Per Laegreid. Cheltenham: Edward Elgar, .

Walzer, Michael. 1983. *Spheres of Justice: A Defense of Pluralism and Equality.* New York: Basic Books.

Waterman, Richard W., Amelia Rouse and Robert Wright. 1998. "The Venues of Influence: A New Theory of Political Control of the Bureaucracy." *Journal of Public Administration Research and Theory* 8(1): 13–38.

Wilks, Stephen and Ian Bartle. 2002. "The Unanticipated Consequences of Creating Independent Competition Agencies." *West European Politics* 25(1): 148–172.

Williamson, Oliver E. 1985. *The Economic Institutions of Capitalism.* New York: The Free Press.

Wonka, Arndt and Berthold Rittberger. 2010. "Credibility, complexity and uncertainty: Explaining the institutional independence of 29 EU agencies." *West European Politics* 33(4): 730–752.

Yesilkagit, Kutsal and Sandra van Thiel. 2008. "Political Influence and Bureaucratic Autonomy." *Public Organization Review* 8(2): 137–153.