The formal independence of EU agencies
An empirical analysis of the formal-institutional independence of 35 EU agencies

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1. Introduction

The proliferation of European Union (EU) agencies is undoubtedly one of the most remarkable institutional innovations of the EU (Groenleer, 2010; Busuioc, 2019). The expanding process of agency creation, often referred to as “agencification”, has especially gained momentum during the 1980s and 90s when European governments were being forced to transform their mode of governance, due to increasing international competition as well as deepening economic and monetary integration (Gilardi, 2002; Majone, 1997). During this time, many industrialized states adopted broad public sector reforms – often under the banner of ‘New Public Management’ (NPM) – that were primarily intended to shift the role of service delivery into the hands of private actors as well as to make service delivery more responsive to market forces (Yeung, 1996). As a result, the role and functions of the state shifted from that of “rowing to steering”, as argued by Osborne and Gaebler (1992: 25). This has led to an unprecedented number of national-level agencies as well as more than 30 EU agencies that are geographically dispersed across the European member states (Groenleer, 2010, Majone, 1997). These institutional developments have spurred researcher to study the creation, design and development of agencies around the world, resulting in an extensive agency literature.

Their independence, in particular, is often perceived by scholars and practitioners alike as the key raison d’être for their establishment (Busuioc, 2009), as their isolation from politics allows them to resolve so-called credible commitment problems (see e.g. Majone, 1997; Groenleer, 2010). More specifically, the literature strongly suggests that political actors are inevitably prone to short-term electoral interests. This may come at the expense of long-term economic interests and the stability of regulatory policies, which, in turn, may discourage private actors to invest in the EU’s internal market. (Majone, 1997; Gilardi, 2002, 2005; Bressman & Thompson, 2010). Another justification for their creation has been that independent agencies are supposedly better at solving certain social and economic problems, due to their superior expertise and technical competence (Bressman & Thompson, 2010). While the logic of these arguments is clear, one should consider that an agency’s formal independence does not necessarily correspond to its actual independence (Gilardi & Magetti, 2010). Moreover, both dimensions may evolve over time, e.g. due to agency mandate revisions or reputational developments (Verhoest, 2017), which re-emphasizes the fact that a careful distinction should be made whenever one draws on agency research.

Based on a rational-institutionalist framework, the objective of this study is to provide an empirical investigation of the independence of EU agencies, specifically their formal independence. To do this, the levels of formal independence among all EU agencies currently in operation are quantified and mapped using an independence index that captures several specific formal-institutional aspects (see e.g. Gilardi, 2002; Wonka & Rittberger, 2010). Exploring agencies’ formal independence is important because it adds to the understanding of how the EU is governed. In addition, scholars have stressed that assessing and explaining their formal independence is a crucial step towards the understanding of their potential level of influence on EU policies (Wonka & Rittberger, 2010; Hanretty & Koop, 2010). In other words, only by investigating formal independence properly, one could ascertain to what extent agencies’ actual independence can be attributed to their formal independence and what implications may follow accordingly (Hanretty & Koop, 2012). To account for the observed variation, four potential drivers are derived from the literature. These factors will be tested in terms of
significance and hypothesized impact. In short, this study attempts to answer the following research questions:

1. How independent are EU agencies?
2. To what extent does their independence vary from one another?
3. Which factors explain this variation?

Answering these questions contributes to the agency literature in at least three ways: Firstly, empirical research related to measuring and explaining varying levels of formal independence has been underexplored in recent years. In fact, the studies that do offer such accounts base their analyses solely on national-level agencies (see e.g. Gilardi, 2002, 2005; Elgie & McMenamin; Hanretty & Koop, 2012; Mediano, 2020), apart from a single study by Wonka & Rittberger (2010). While their study did center on EU agencies, it was conducted over a decade ago, and therefore, it fails to account for recent institutional developments, such as newly created agencies, agency mandate revisions as well as other institutional alterations. For instance, with the aftermath of the financial crisis, we have witnessed the rise of the most powerful EU agencies to date, such as the European Banking Authority (EBA) and the European Securities and Markets Authority (ESMA). In addition, the European Parliament’s has become increasingly involved in the creation of agencies, due to the fact that it has gained co-legislator rights by way of the ordinary legislative procedure, as of 2009. As a result of these institutional developments, one could expect that substantial changes may be identified compared to previous empirical work of Wonka and Rittberger (2010), which presses the need for a revised investigation. Secondly, previous scholars have failed to reach consensus on how agency independence should be conceptualized and measured (Gilardi, 2010). This study will, therefore, aim to provide clarification and consistency regarding the way in which agency independence can be investigated. Lastly, one could claim that agencification in the EU has concrete and wide-ranging consequences. As highlighted by Gilardi (2010), the spread of agencies means that an increasing number of aspects of our daily lives are shaped by decisions made by unelected regulatory institutions operating beyond direct control of elected officials. This has important implications for the democratic accountability of EU policy-making (Gilardi, 2010). Therefore, as mentioned earlier, illuminating and explaining their formal independence could add considerably to the current understanding of their potential level of influence on EU policies and their role in the EU’s institutional set-up (Wonka & Rittberger, 2010). This study thus builds on existing research as it provides a new exploration of EU agencies and it assess the explanatory power of several observed factors that are derived from the contemporary agency literature. While some of these factors, most notably the credible commitment argument, have been investigated in earlier studies, others such as the degree of political salience, have not been tested in this regard.

As a brief outline to the rest of the paper: chapter two presents the theoretical framework, which consists of an introduction to EU agencies, a detailed discussion of their independence as well as a conceptualization of the potential drivers. Chapter three discusses the research design, the applied methodology and the operationalization of the main variables. The fourth chapter presents the analysis where the explanatory power of the hypothesized drivers is tested and the main results are discussed in relation to prior theoretical expectations. The paper concludes with a summary of the main findings, some remarks on potential implications as well as a discussion on research limitations and directions for future studies.
2. Theoretical Framework

2.1 An introduction to EU agencies

2.1.1 Historic origins

As mentioned in the introduction of this paper, the proliferation of EU agencies, often referred to as ‘agencification’, is arguably one of the most remarkable institutional innovations of the EU in the last decades (Busuioc, 2009; Groenleer, 2010). Before delving into this, it is important to briefly zero in on the post-war mode of governance across Europe and the following rise of the regulatory state, which depicts the transformation of many European governance regimes during the closing decades of the twentieth century (Majone 1997; Yeung, 2010). To start off, after the Second World War, many Western European governments launched a series of redistributive policies and were actively involved in discretionary macroeconomic management in order to reconstruct their shattered economies (Majone, 1997: 141). During this period, the consensus was that the state should be heavily involved in macroeconomic planning, market stabilization and welfare provision as well as act as an employer of last resort (Yeung, 2010: 9). In practice, this meant that states took extensive control over major resources by nationalizing key industries and public utilities, such as electricity, gas, water, telecommunications and railways (Yeung, 2010: 2-3). This in turn extended their capacity to unilaterally influence macroeconomic policy and, accordingly, they became known as ‘Keynesian Welfare states’ or ‘positive states’ (Majone, 1997; Yeung, 2010). By the mid 1970s, however, this type of governance regime appeared to be ineffective or even counterproductive. As the world economies became more deeply integrated, industrialized nations struggled to boost their macroeconomic output using the strategies and instruments with which they had become accustomed to (Yeung, 2010: 14). At the same time, inflation and unemployment rates spiraled upwards, which raised concerns about the effectiveness of the prevailing Keynesian economic discourse that had laid at the foundation of these type of government regimes (Majone, 1997; Yeung, 2010).

As a result of these developments, significant changes began to occur in the way in which states envisaged their role, organizational structure and how they sought to discharge their functions (Yeung, 1996: 3). Specifically, many industrialized states adopted broad public sector reforms during the early 1980s – often under the banner of ‘New Public Management’ (NPM). These reforms were primarily intended to shift the role of service delivery out of the public sector and into the hands of private actors as well as to make service delivery more responsive to market forces (Yeung, 1996). In the words of Osborne and Gaebler (1992: 25): “the state’s functions had shifted from that of rowing to steering”. To regulate these structural economic changes, many countries created so-called ‘independent regulatory agencies’ (IRAs), which have been described as non-majoritarian institutions that possess and exercise a specific public authority, even though they are neither directly elected by citizens, nor directly managed by elected officials (Thatcher and Stone Sweet 2002: 2). These IRAs already had a long tradition in the United States, especially in the areas of banking and financial services. It was only since the mid-1980s that this institutional model was also widely adopted in various other regulatory fields across Western Europe (Gilardi, 2005). As mentioned, the notion of agencification has often been used by scholars to capture this (rapid) process of agency creation at the national-level. At the EU-level, however, a similar process occurred around the same period in which EU agencies rose across Europe. Early signs of agencification at the EU-level were first observed in 1975, with the creation of two agencies: the European Centre for the Development of Vocational
Training (Cedefop) and the European Foundation for the Improvement of Living and Working Conditions (EUROFOUND). This period is marked by scholars as the first wave of agency creation (Busuioc, 2013). However, the process of agencification really started to shape during the second generation of agencies, which began in the 1990s with the establishment of 11 EU agencies. Among other things, these agencies aimed to facilitate and smoothen the functioning of the EU’s internal market. Examples of these agencies include the European Environment Agency (EEA), the European Agency for Safety and Health at Work (EU-OSHA), and the European Medicines Agency (EMA).

The third wave was by far the most intensive, marking the period between 2000 and 2009, in which 24 new agencies were established. This was partly a response to criticism about the lack of transparency in the EU’s administrative system as well as about the Commission’s inability to deliver effective, credible and legitimate policies (Groenleer, 2010; Kim, 2018). A specific example of these concerns relates to the apparent lack transparency in the comitology procedure, which refers to a system of committees that is comprised of representatives of the EU member states, who must be consulted when the Commission adopts its implementing acts (Kim, 2018). These procedures, however, have been renounced and regarded as “negotiations behind closed doors” (Kim, 2018). The EU, therefore, aimed to enhance transparency and bring the EU closer to its citizens, by stationing EU agencies across the EU member states and by inviting interest groups to participate in agencies’ decision-making procedures. Agencification in the EU entered its fourth wave in 2010, with the creation of 7 agencies, including the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), the European Chemicals Agency (ECHA) and the European Border and Coast Guard Agency (Frontex). Their focus has been on rebuilding stability in the areas of banking and financial regulation, the management of public services (e.g. energy), as well as transnational cooperation and security (e.g. border protection). To date, although depending on the definition, more than 30 EU agencies currently operate across the European member states, impacting the lives of more than 500 million EU citizens.

2.1.2 Conceptualizing EU agencies
EU agencies have been an integral part of policy-making and governance in the EU. Similar to national agencies, they perform various tasks in a wide array of policy domains ranging from environmental protection, energy cooperation and food safety to financial regulation, fundamental rights and border security. Essentially, they provide technical, scientific or operational assistance which serves as policy input, while the EC remains in charge of developing and implementing European policies (Kim, 2018). As highlighted by Groenleer (2010) and others (see e.g. Barbieri and Ongaro, 2008), EU agencies cannot be studied properly without addressing their variety. They come in various names, shapes, sizes, functions, and rule-making competences, and they were created at different points in time. Their official names, for instance, vary considerably; most of them are called “Agency”, others are called “Centre”, “Office”, “Foundation”, “Institute, or “Authority”. As a result of these variations, many scholars have pointed to the difficulty in finding a clear-cut definition of the term (EU) agency as well as to the need to construct typologies that adequately capture their varying types and characteristics (Gilardi, 2002; Wonka & Rittberger, 2010).

While many definitions exist, this study follows Keleman (2005), who defines them as “EU level public authorities with a legal personality and a certain degree of organizational and financial autonomy that are created by acts of secondary legislation in order to perform clearly specified tasks”. This definition
concisely captures essential features of the types of organizations that both scholars and practitioners alike consider to be EU agencies. Using this definition, 35 agencies can be identified which are all officially referred to as “decentralized agencies”, apart from the Single Resolution Board (SRB). These agencies develop and implement policies alongside the EU institutions by carrying out technical, scientific or managerial tasks on a permanent basis, while also supporting cooperation between the EU institutions, member states and other partners by pooling technical and specialist expertise (European Commission, n.d.). They are thus what most would consider to be traditional types of agencies, as they strongly resemble national-level agencies in terms of their role and function. Other EU bodies such as joint undertakings and executive agencies are not investigated due to considerable differences with decentralized agencies. For instance, executive undertakings only have a temporary mandate and joint-undertakings are merely “set up to support the efficient execution of the EU’s research, technical development and demonstration programmes” (Groenleer, 2010). Among the various ways to differentiate agencies, the classification used in this paper distinguishes agencies in two ways. Firstly, a distinction is made between agencies that are involved in economic regulation/policy and those dealing with social regulation/policy. The second division of agencies considers their regulatory capabilities, i.e. a distinction is made between regulatory and non-regulatory agencies. To provide more clarity on the concept of regulation, Hanretty & Koop (2012) define regulation as “the promulgation and enforcement of an authoritative set of rules governing the private sector, excluding taxation, subsidization and public ownership, but including rule creation, the evaluation and scrutiny of economic behavior and the application of sanctions for non-compliance with rules”. Hence, regulatory agencies can simply be defined as “agencies that have the legal ability to adopt binding rules and decisions”.

2.1.3 Agency design characteristics

Other than discussing the various definitions and classifications of EU agencies, it is important to highlight some essential features that are linked to formal independence. First and foremost, it should be noted that there is no explicit legal basis for the creation of EU agencies, as the EU treaties do not specify a legal framework for their establishment and their design (Groenleer, 2010: 115). In fact, EU agencies are not explicitly mentioned in the Lisbon Treaty, apart from that they, like other EU institutions, “have to operate in accordance with certain principles of good governance, such as transparency” (Groenleer, 2010: 116). Their establishment, structure and operation as well as their tasks and objectives are rather formally specified in their constituent act, which requires the adoption of EU regulation via the ‘so-called’ Ordinary legislative procedure (OLP), as of 2009 (European Union, n.d.). This simply means that the establishment of new agencies, or any significant changes in their formal mandate, task, structure or objectives, requires the European Commission (EC) to draft a proposal that needs to be approved by both the European Parliament (EP) and the Council. With regard to their formal mandate, scholars have argued that most EU agencies have a relatively limited formal mandate, especially when compared to their national counterparts (Groenleer, 2010: 133). For instance, some claim that EU agencies differ from national agencies, as they are generally not equipped with sweeping regulatory powers (Majone, 1997, Groenleer, 2010: 118). In these cases, the Commission must take their opinions into account when considering to grant authorizations (Groenleer, 2010: 118). During the aftermath of the financial crisis, however, we have witnessed the creation of the most powerful EU agencies to date, with the establishment of the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Securities and Markets Authority (ESMA) (Busuioc, 2013). These agencies together form the
European Supervisory Authorities (ESAs) and were set up to regulate the banking and financial services sector.

As mentioned, their founding regulation also stipulates their objectives and tasks to a certain extent. Some acts, for instance, determine priority areas, while the agency remains in charge of translating their statutory objectives and legal tasks into more detailed priorities and concrete activities – often in the form of (multi-)annual work programmes (Groenleer, 2010: 119). The way in which these work programmes are adopted affects their autonomy. Specifically, agencies are regarded as more autonomous from the Commission when they only have to take account of the Commission’s priorities and not need its approval (Groenleer, 2010: 120). Moreover, several agencies have witnessed an expansion of their formal mandate and tasks, as a result of the EC, the Council and the EP’s legislative committees requesting agencies to perform new and adjusted tasks. However, Groenleer (2010) argues that, they did not receive the necessary additional funding to carry out these tasks. In addition, multiple agencies have taken up tasks in the past that were not specified in their work programmes, which has been considered problematic from the perspective of the EP’s budgetary committees.

While the organizational structure of EU agencies differs from one to another, they are generally composed of a management board and an executive director. The management board mainly formulates the strategic objectives, but also adopts the agency’s work programmes, annual reports, budget and establishment plans, and it is responsible for appointing the director. These decisions are based on a specific voting rule; either simple or qualified majority. Board members generally cannot be dismissed and their term typically ranges between 2.5 and 5 years, which is rather short compared to national agencies (see e.g. Thatcher, 2002; Gilardi, 2002). From a theoretical point of view, one could argue that a longer term of office increases the independence of board members from political influences and enhances the continuity of their activities (Groenleer, 2010). Unlike board members, executive directors can be dismissed. Their tenure is usually 4 or 5 years, which can be renewed at the discretion of the management board. Agency directors are primarily responsible for the daily operations of the agency, such as managing and recruiting staff, preparing draft budgets, annual work programmes and reports as well as implementing the budget. With regard to recruitment, staff members are often selected based on their scientific and technical knowledge as well as on their administrative and managerial expertise.

Lastly, a few remarks can be noted with regard to the financial structure of EU agencies. In the early years, agencies received EU funding to cover most of their expenses (Groenleer, 2010: 128). While some agencies have developed different sources of funding, most of them are financed from the general EU budget, which renders them less autonomous than if they would acquire their own or additional sources of funding. Nevertheless, given the wide variety of tasks, some agencies, even though they are primarily funded by EU subsidies, have acquired additional financial resources to fund their activities, such as levied fees for their services as well as voluntary grants from member states (Groenleer, 2010: 128). Moreover, a few agencies can be identified that are almost entirely self-financed. For example, the European Intellectual Property Office (EUIPO), the Community Plant Variety Office (CPVO), and the Single Resolution Board (SRB) primarily cover their expenses by charging fees for their activities, according to the latest report of the European Court of Auditors (ECA-report 2018).
2.1.4 Unravelling agency creation: the credible commitment problem

While the literature offers many theoretical explanations for the rise of regulatory agencies, one of the most prevalent motivations has been the need for elected officials to solve so-called credible commitment problems (Majone, 1997; Gilardi, 2002; 2005; Yeung, 2010; Busuioc, 2013). This argument usually starts from the proposition that governments and politicians often struggle to credibly commit to a specific policy or future course of action. This is because political actors generally have the discretion to deviate from their regulatory plans as well as the ability to unilaterally introduce new policies (Kydland and Prescott, 1977; Majone, 1996; Gilardi, 2002; Ennser-Jedenastik, 2015). Moreover, scholars have stressed that politicians are often constrained by their relatively limited time horizon (i.e. the period until the next election), which makes them rather sensitive to short-term policy options that are often tempting from an electoral point of view (Groenleer, 2010; Koop, 2011). Private actors may, in turn, anticipate such behavior and adapt their own behavior accordingly. In practice, this could mean, for instance, that they might be discouraged to invest their private capital, which governments and politicians desperately aim to avoid. This change in behavior could then be an incentive for the government to not go forward with its original plans, which turns this whole process of strategizing back and forth into a self-fulfilling prophecy (Ennser-Jedenastik, 2015). In other words, such expectations of strategic and time-inconsistent behavior could in practice have severe implications for, among other things, the capacity of political actors to effectively conduct regulatory policies. In order to overcome these credible commitment problems or time-inconsistency issues, many countries have extensively delegated authority to so-called Independent Regulatory Agencies (IRAs), which often operate at arm’s length from their parent government. Their independence, in particular, is often regarded as their key “raison d’etre” (Busuioc, 2009) as well as one of the main conditions under which these agencies are able to signal credibility on behalf of their government (Majone, 1997). In the context of the EU, the same argument has been made for EU agencies, as their independence from the EU’s main governing institutions (i.e. the EC, EP and the Council) is considered to be enhancing the credibility of EU policies (see e.g. Majone 1997, Yeung, 2010; Groenleer, 2010; Busuioc, 2013). For instance, Wonka & Rittberger (2010) suggest that EU agencies are designed such that they are able to send strong signals of regulatory stability to firms and consumers, implying that their course of action should not be threatened by political overhaul, which could occur due to changes in the political majorities of the EU’s legislative institutions.

2.1.5 Agency independence as a policy instrument

EU agencies can be independent from a range of actors, including political officials and institutions, regulated industries, civil groups and the public at large (Hanretty & Koop, 2012). This study exclusively examines agencies’ political independence from the main EU’s legislative institutions, i.e. the European Commission (EC), The European Parliament (EP), and the Council. In this sense, the political independence of EU agencies can be defined as the degree to which their daily decisions and operations are formed without interference of these institutions (Hanretty & Koop, 2012). This is warranted because their independence allows them to resolve credible commitment problems or time inconsistency issues, as was mentioned in the previous section. Agency independence can thus be understood as a policy tool that allows governments, or in this case the main EU institutions, to create credible commitments, such as long-term assurances of regulatory stability or promises to guarantee a level playing field for businesses in the EU’s internal market. To further untangle the concept of agency independence, various scholars have made an important analytical distinction between de jure (i.e. legal or formal) independence and de facto (i.e. actual) independence. Where the
latter refers to the notion that agencies partly self-determine their preferences as well as their autonomy over the use of regulatory competences; formal independence, on the other hand, means that agencies are to a certain extent formally placed outside the chain of command and thus not bound to follow directives from their government (Magetti, 2007; Ennser-Jedenastik, 2015). In other words, formal independence refers to an agency’s legal ability to make decisions without political interference (Hanretty & Koop, 2012). The following sections identify several factors that may account for the varying levels of formal independence among EU agencies.

### 2.2 Hypotheses

#### 2.2.1 Economic vs. social agencies

Many scholars have suggested that the credible commitment problem is especially prevalent in economic matters (see e.g. Gilardi, 2002, 2005; Mediano, 2010). In fact, Gilardi (2005: pg. 143) claims that the capacity to make credible commitments is one of the preconditions to successfully liberate key industries, such as the telecommunications or electricity industry. Empirical studies substantiate this claim implicitly by showing that, for instance, infrastructure investment is positively influenced by institutions that limit the possibility of policy change (Henisz, 2002) or that uncertainty in economic policy may cause significant outflows of financial capital (Stasavage, 2002). While some scholars have suggested that the credible commitment problem is a general issue that afflicts both economic and social regulation alike (see e.g. Majone, 1997; Wonka & Rittberger, 2010), it seems very likely that a lack of credible commitment has particularly adverse consequences when the objective is to attract private investments by means of economic regulation rather than when the goal is protecting consumers through social regulation (Gilardi, 2005: pg. 145). One could therefore expect that, in the case of economic matters, such as banking, financial services or utilities, EU member states especially have strong incentives not to deviate from their regulatory plans, or at least not unilaterally. This would imply that agencies that address economic matters, such as the price, entry, exit and service of an industry as well as the smooth functioning of the internal market, may be established with a higher level of formal independence than agencies involved in social matters, such as health, safety and security issues. This leads to the first hypothesis.

**Hypothesis 1:** Agencies involved in economic regulation exhibit higher levels of formal-institutional independence than agencies involved in social regulation.

#### 2.2.2 Regulatory vs. non-regulatory agencies

As mentioned in the previous section, scholars have suggested that the credible commitment problem is a general issue in regulatory policy-making, which especially arises when the objective is to attract foreign capital investments (Gilardi, 2002; 2005). Thus, one could expect that regulatory agencies, which have the legal ability to adopt binding rules, are likely to be designed more independently than non-regulatory agencies. This argument has been explored in previous studies that were focused on national-level agencies and it could also be applied in the context of the EU. Specifically, one could argue that EU agencies that have sweeping regulatory powers are likely to be designed more independent that their non-regulatory counterparts, as their independence, in particular, allows them to signal their credible commitment to ‘sound’ and expertise-based regulation on behalf of the EU’s governing institutions. Moreover, scholars have claimed that the credible commitment problem is likely to be less pertinent for political actors when they design agencies that
will predominantly perform executive or informational functions (Yataganas, 2001; Keleman, 2005). As a result of these insights, one could thus expect that EU agencies that are directly involved in regulatory policy-making may be established with a relatively high level of formal independence because this especially allows them to attract private investments in the EU’s internal market, which leads to the second hypothesis.

**Hypothesis 2:** Regulatory agencies display higher levels of formal-institutional independence than their non-regulatory counterparts.

### 2.2.3 Policy Complexity

Given the wide variety in the level of complexity across policy domains, the third argument in this paper considers the relationship between formal independence and policy complexity. In recent years, policy-making has become increasingly complex and scholars have suggested that delegating authority to independent agencies may resolve problems of information asymmetry. For example, Elgie & McMenamin (2005) claim that, as technical issues are usually of little interest to voters, politicians often require input of policy experts, since they generally have little incentive to develop the necessary expertise for themselves, nor do they have the time and resources to do so. In the words of Thatcher (2002): “Increased information requirements made it more difficult for elected politicians to produce clear benefits for voters from their regulatory decisions”. Hence, one could argue that politicians may anticipate that they will be less involved in the activities of agencies that operate in highly technical and relatively complex policy areas, not only because of their own lack of expertise but also due to little electoral incentives to acquire such expertise. Wonka & Rittberger (2010) have also explored this argument and they presumed that EU agencies operating in more technical and complex policy areas tend to show higher levels of formal independence than agencies operating in less complex areas. This leads to the third hypothesis.

**Hypothesis 3:** Agencies operating in more technical and complex policy areas display higher levels of formal-institutional independence than agencies operating in less complex policy areas.

### 2.2.4 Political Salience

Political salience is another important explanation proposed by the agency literature. Although the concept is not systematically defined in existing studies, it has traditionally been used to denote the importance attributed to a policy issue, which is often reflected by the amount of political attention and public discussion it raises (Koop, 2011; Font & Duran, 2015). From a theoretical perspective, it has been argued that the more political officials attach relevance to a policy area, the lower the amount of discretion an agency has (Koop, 2011; Calvert et al., 1989). Various empirical studies have supported this argument by demonstrating that agencies attract varying levels of political attention and public debate as well as that politicians tend to be more concerned with agencies dealing with highly salient issues (Font & Duran, 2015). One would thus expect that political officials tend to set-up more stringent control and accountability arrangements on activities related to highly salient issues. This indicates that political salience may affect the institutional design of agencies, particularly their degree of formal independence that is incorporated into their governing statutes (Koop, 2011), which leads to the last hypothesis.

**Hypothesis 4:** Agencies involved in more salient tasks display lower levels of formal-institutional independence than agencies involved in tasks that are less salient.
3. Methodology

3.1 Research design

The previous chapter offered an introduction to EU agencies and it proposed four main factors that may explain variation in their level of formal independence. This has laid the foundation to answer the main research questions: How independent are EU agencies? To what extent does their independence vary from one another? And, which factors can be observed that account for this variation? This chapter outlines the research design and the applied method of analysis, followed by a detailed operationalization of the main variables. To start off, this study follows a large-N design that is structured into two parts: The first part involves a process of measuring and mapping the levels of formal independence among all EU agencies. This will be done by means of an independence index, which quantifies a range of formal-institutional aspects and, in turn, produces ‘formal independence scores’. After these scores are calculated and mapped, the next part involves performing statistical tests in which the identified factors are assessed in terms their significance and impact on the derived independence scores. These tests are performed using the STATA software package. Employing such a design has a few benefits. For instance, given the fact that this study concerns the whole population of decentralized EU agencies (N=35), as was mentioned in the previous chapter, it naturally follows a comparative large-N design, which enables one to quantitatively capture variation in their formal design as well as rigorously test explanations of this variation in a quantitative fashion. In addition, such a design allows one to produce an original dataset that is easily adaptable and can serve as a valuable input for other research.

3.2 Operationalization

3.2.1 Formal independence index

In this study, the dependent variable — formal independence — is measured using an independence index that calculates independence scores (ranging from 0 to 1) for each of the 35 agencies. To calculate these scores, the index takes account of various types of accountability and control mechanisms, which were presented in the previous chapter. The information used to construct this index is taken from the agencies’ constituent act, which formally establishes their existence, role and formal mandate as well as their tasks, objectives or other legal provisions. The index used in this paper draws heavily on the index developed by Wonka & Rittberger (2010), who constructed an index to capture the formal-institutional independence of EU agencies. In recent years, however, the agency landscape has changed considerably, particularly due to agency mandate revisions and the establishment of several new agencies. The independence index used in this study consists of the following four dimensions:

1. Agencies’ formal mandate (D1)
2. Appointment of the agency head (D2)
3. Appointment of the management board members (D3)
4. Regulations on agencies’ internal decision-making (D4).

Each of these dimensions encompasses several indicators (29 in total) that capture a range of formal-institutional features that vary from one agency to another. Each indicator is assigned with a value on a scale of 0 to 1, where ‘1’ indicates the highest level of independence. To demonstrate the logic of this method, the second dimension (D2), for example, contains 8 indicators (V2, V3..., V9) that quantify varying legal provisions and procedures related to the appointment of agency directors. For
instance, one indicator of this dimension, V2, evaluates the director’s term of office by specifying that a longer term is associated with a higher level of independence. Similarly, V5 captures the rules for removing the director: if removal is impossible, the agency receives a score of 1; otherwise, the agency receives a lower score. After these indicators are coded, a single independence score is calculated for each agency in the following two steps: First, each dimension will be assigned with the average value of its corresponding indicators. Then, dimensional-level index values are aggregated into single independence scores, which are the means of the dimensional-level index values. This calculation can be formulated as follows:

$$\text{Formal Independence}_i = \frac{D1 + D2 + D3 + D4}{4}, \quad \text{where e.g. } D2 = \frac{V2 + \ldots + V9}{8}$$

It is important to point out, however, that each dimension is attributed the same weight as result of this calculation, which implies that they implicitly receive the same relevance. As Gilardi (2002: 880) highlights, one could reasonably argue that, as a result of this method, some dimensions receive more weight than they perhaps should. Yet, one could argue that combining these dimensions is nonetheless an unavoidable arbitrary process. Thus, a standardized way is chosen in which all four dimensions receive equal weight, following Gilardi (2002). For more information about the index, a complete overview of all its attributes can be found in the appendix. A more thorough breakdown of the index can be found in Wonka & Rittberger (2009). The data set is available upon request. The following sections of this chapter explain the operationalization of the identified factors that were discussed in the previous chapter.

### 3.2.2 Classifying agencies
The first hypothesis of this study considered that the need for credible commitments is particularly prevalent for agencies involved in economic matters. Therefore, a distinction is made between agencies that contribute to either social or economic policy/regulation. This means that agencies dealing with issues related to the environment, human health as well as safety and security, are classified as social agencies, whereas agencies that address the price, entry, exit and service of an industry as well as the smooth functioning of the internal market, are labelled as economic agencies. Based on this distinction, 23 social agencies and 12 economic agencies are identified. While other scholars have made similar classifications, they have not been used to explain variation in the level of formal independence of EU agencies. For instance, Wonka & Rittberger (2010) made a distinction between economic and social regulators. However, they claimed that there are “no sound theoretical arguments” that would allow them to derive expectations of systematic differences, which can be debated considering the arguments made in the previous chapter.

To operationalize the next variable, a distinction is made between regulatory and nonregulatory agencies. As discussed, regulatory agencies are regarded as agencies that are legally able to adopt binding rules or decisions. As a result, 11 regulatory agencies can be identified that fit this criterion, including e.g. the European Banking Authority (EBA), the European Railway Agency (ERA), and the European Union Intellectual Property Office (EUIPO). Examples of the 24 identified non-regulatory agencies include: the European Asylum Support Office (EASO), the European Institute for Gender Equality (EIGE), and the European Police Office (EUROPOL). Such a distinction is analogous to previous attempts of other authors (see e.g. Gilardi, 2002; Wonka & Rittberger, 2010; Rimkute, 2018). However, given that their interpretations of ‘regulation’ and ‘regulatory agencies’ vary considerably, it should be noted that these authors have come to different conclusions as to which agencies qualify as
‘regulatory agencies’. The following table and figure below provide an overview and classification of the 35 identified agencies. After glancing at the figure, one immediately notices that all agencies that are involved in economic matters, apart from the ELA and BEREC, possess regulatory competences. This may lead one to expect that these agencies may also have been equipped with a higher level of independence than agencies dealing with social issues.

Table 1. List of 35 decentralized EU agencies

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Official name</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-OSHA</td>
<td>European Agency for Safety and Health at Work</td>
</tr>
<tr>
<td>FRONTEX</td>
<td>European Border and Coast Guard Agency</td>
</tr>
<tr>
<td>EU-LISA</td>
<td>European Agency for the operational management of large-scale IT systems in the area of freedom, security and justice</td>
</tr>
<tr>
<td>EASO</td>
<td>European Asylum Support Office</td>
</tr>
<tr>
<td>EASA</td>
<td>European Union Aviation Safety Agency</td>
</tr>
<tr>
<td>ECDC</td>
<td>European Centre for Disease Prevention and Control</td>
</tr>
<tr>
<td>CEDEFOP</td>
<td>European Centre for the Development of Vocational Training</td>
</tr>
<tr>
<td>GSA</td>
<td>European GNSS Agency</td>
</tr>
<tr>
<td>EDA</td>
<td>European Defense Agency</td>
</tr>
<tr>
<td>EEA</td>
<td>European Environment Agency</td>
</tr>
<tr>
<td>EFSA</td>
<td>European Food Safety Authority</td>
</tr>
<tr>
<td>EUROFOUND</td>
<td>European Foundation for the Improvement of Living and Working Conditions</td>
</tr>
<tr>
<td>EIGE</td>
<td>European Institute for Gender Equality</td>
</tr>
<tr>
<td>EMSA</td>
<td>European Maritime Safety Agency</td>
</tr>
<tr>
<td>EFCA</td>
<td>European Fisheries Control Agency</td>
</tr>
<tr>
<td>EMCDDA</td>
<td>European Monitoring Centre for Drugs and Drug Addiction</td>
</tr>
<tr>
<td>CEPOL</td>
<td>European Union Agency for Law Enforcement Training</td>
</tr>
<tr>
<td>EUROPOL</td>
<td>European Police Office</td>
</tr>
<tr>
<td>ETF</td>
<td>European Training Foundation</td>
</tr>
<tr>
<td>FRA</td>
<td>European Union Agency for Fundamental Rights</td>
</tr>
<tr>
<td>EUROJUST</td>
<td>European Union’s Judicial Cooperation Unit</td>
</tr>
<tr>
<td>CDT</td>
<td>Translation Centre for the Bodies of the European Union</td>
</tr>
<tr>
<td>ACER</td>
<td>Agency for the Cooperation of Energy Regulators</td>
</tr>
<tr>
<td>ELA</td>
<td>European Labour Authority</td>
</tr>
<tr>
<td>BEREC</td>
<td>Body of European Regulators for Electronic Communications</td>
</tr>
<tr>
<td>CPVO</td>
<td>Community Plant Variety Office</td>
</tr>
<tr>
<td>EBA</td>
<td>European Banking Authority</td>
</tr>
<tr>
<td>EMA</td>
<td>European Medicines Agency</td>
</tr>
<tr>
<td>ECHA</td>
<td>European Chemicals Agency</td>
</tr>
<tr>
<td>EIOPA</td>
<td>European Insurance and Occupational Pensions Authority</td>
</tr>
<tr>
<td>ERA</td>
<td>European Union Agency for Railways</td>
</tr>
<tr>
<td>ENISA</td>
<td>European Union Agency for Network and Information Security</td>
</tr>
<tr>
<td>ESMA</td>
<td>The European Securities and Markets Authority</td>
</tr>
<tr>
<td>EUIPPO</td>
<td>European Union Intellectual Property Office</td>
</tr>
<tr>
<td>SRB</td>
<td>Single Resolution Board</td>
</tr>
</tbody>
</table>

Figure 1. Classification of EU agencies

REGULATORY AGENCIES

Social agencies

Economic agencies

NON-REGULATORY AGENCIES

ACER CPVO EASA EBA ECHA EIOPA ERA EUIPPO SRB ESMA EMA

ELA, BEREC
3.2.3 Measuring complexity and political salience
To measure the level of policy complexity, the literature offers an established indicator, namely staff size. According to Wonka & Rittberger (2011), one could expect that member states only agree on a large staff size if there are appropriate reasons to spend money on it. For instance, it could well be that some agencies require a relatively large staff size because they need a lot of expertise and information to cope with the complexity involved in their field of operation. Hence, one could expect that the more expertise and information an agency requires, due to the complexity of its task, the more staff it needs to fulfil its duties. The complexity of an agency’s field of activity can thus be operationalized by using staff size as a proxy. Before using this, it should be noted that any unit increase in staff size does not automatically correspond to a greater need for expertise and therefore complexity. The complexity variable is thus scaled down to seven categories (0-6), i.e. from 0-99, 100-199, 200-299 etc.

To capture the degree of political salience, the literature suggests that the size of the agency budget may be a viable indicator (Verhoest, 2017). Budget size can be considered as a component of political salience, as it can reasonably be assumed that public organizations equipped with a relatively large budget are more likely to be under strict scrutiny by their government (e.g. due to their potential to significantly impact public expenditures) (Verhoest, 2017). Small budget agencies, on the other hand, are considered to be less able to affect the overall level of public spending and thus more likely to be kept out of such strict control (Verhoest, 2010). Hence, one way to operationalize the degree of political salience is to list the budget sizes of each agency. Similar to the complexity variable, a unit increase in the agency budget does not necessarily mean that its tasks have received more political spotlight or increased public attention. The political salience variable is thus scaled down to 5 categories. Information on both staff and budget sizes are collected from agency websites and from the most recent report of the European Court of Auditors (ECA-report 2018).

3.3 Empirical model
To evaluate the extent to which the identified factors have an impact on the formal independence of EU agencies, the parameters of the empirical model below are estimated.

\[ Formal\ Independence_i = \beta_1 Regulatory_i + \beta_2 Economic_i + \beta_3 Staff_i + \beta_4 Budget_i + \epsilon_i \]

or more formally:

\[ y_i = \alpha_i + \beta_1 \theta_i + \beta_2 \delta_i + \beta_3 \phi_i + \beta_4 \lambda_i + \epsilon_i \]

where,

- \( y_i \) is a continuous variable (ranging from 0 to 1) indicating the independence score of the \( ith \) agency.
- \( \theta_i \) is a dummy variable capturing regulatory competences (1 for regulatory agencies; 0 for non-regulatory agencies).
- \( \delta_i \) is a dummy variable capturing the agency’s field of activity (1 for economic regulation; 0 for social regulation).
- \( \phi_i \) is a categorical variable that scales the staff size of the agency down to 7 categories.
- $\lambda_i$ is a categorical variable that scales the size of the agency budget down to 5 categories.
- $a_i$ is the model intercept which may reflect a certain “base” level of formal independence.
- $\beta_1$ ... $\beta_4$ capture the slope of the model parameters
- $\epsilon_i$ is an error term capturing residual uncertainty in the model.

4. Analysis

4.1 Mapping formal independence

Now that the theoretical framework and the applied method have been discussed, the following step involves mapping the degrees of the independence of the 35 EU agencies. These levels are expressed as independence scores ranging between 0 and 1, as was mentioned in detail in the previous chapter. Table 2 below provides an overview of these independence scores in descending order. At first glance, the table reveals some preliminary results. Firstly, it appears that there is considerable variation in the level of formal independence. The SRB, for instance, has the highest level of independence (0.75). This is almost three times as high as the CDT, which has the lowest score (0.22).

Table 2. EU Agencies - Year of establishment, budget, staff size, and Formal-Institutional Independence

<table>
<thead>
<tr>
<th>ID</th>
<th>Agency Name</th>
<th>Year</th>
<th>Location</th>
<th>Budget 2018 (in €)</th>
<th>Staff size</th>
<th>Regulatory competences</th>
<th>Task</th>
<th>Independence Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Single Resolution Board (SRB)</td>
<td>2015</td>
<td>Brussels, Belgium</td>
<td>104.0</td>
<td>334</td>
<td>Yes</td>
<td>ER</td>
<td>0.75</td>
</tr>
<tr>
<td>2</td>
<td>European Banking Authority (EBA)</td>
<td>2011</td>
<td>Paris, France</td>
<td>42.6</td>
<td>190</td>
<td>Yes</td>
<td>ER</td>
<td>0.66</td>
</tr>
<tr>
<td>3</td>
<td>European Chemicals Agency (ECHA)</td>
<td>2007</td>
<td>Helsinki, Finland</td>
<td>119.0</td>
<td>572</td>
<td>Yes</td>
<td>ER</td>
<td>0.65</td>
</tr>
<tr>
<td>4</td>
<td>European Union Aviation Safety Agency (EASA)</td>
<td>2002</td>
<td>Cologne, Germany</td>
<td>198.0</td>
<td>767</td>
<td>Yes</td>
<td>ER</td>
<td>0.65</td>
</tr>
<tr>
<td>5</td>
<td>The European Securities and Markets Authority (ESMA)</td>
<td>2011</td>
<td>Paris, France</td>
<td>43.8</td>
<td>231</td>
<td>Yes</td>
<td>ER</td>
<td>0.64</td>
</tr>
<tr>
<td>6</td>
<td>European Union Agency for Railways (ERA)</td>
<td>2006</td>
<td>Valenciennes, France</td>
<td>29.0</td>
<td>165</td>
<td>Yes</td>
<td>ER</td>
<td>0.63</td>
</tr>
<tr>
<td>7</td>
<td>European Union Intellectual Property Office (EUIPO)</td>
<td>1994</td>
<td>Alicante, Spain</td>
<td>403.0</td>
<td>1050</td>
<td>Yes</td>
<td>ER</td>
<td>0.63</td>
</tr>
<tr>
<td>8</td>
<td>Agency for the Cooperation of Energy Regulators (ACER)</td>
<td>2012</td>
<td>Ljubljana, Slovenia</td>
<td>13.6</td>
<td>90</td>
<td>Yes</td>
<td>ER</td>
<td>0.61</td>
</tr>
<tr>
<td>9</td>
<td>European Insurance and Occupational Pensions Authority (EIOPA)</td>
<td>2011</td>
<td>Frankfurt, Germany</td>
<td>25.1</td>
<td>146</td>
<td>Yes</td>
<td>ER</td>
<td>0.60</td>
</tr>
<tr>
<td>10</td>
<td>Community Plant Variety Office (CPVO)</td>
<td>1995</td>
<td>Angers, France</td>
<td>16.2</td>
<td>50</td>
<td>Yes</td>
<td>ER</td>
<td>0.52</td>
</tr>
<tr>
<td>11</td>
<td>Body of European Regulators for Electronic Communications (BEREC)</td>
<td>2010</td>
<td>Riga, Latvia</td>
<td>4.3</td>
<td>27</td>
<td>No</td>
<td>ER</td>
<td>0.52</td>
</tr>
<tr>
<td>12</td>
<td>European Medicines Agency (EMA)</td>
<td>1995</td>
<td>Amsterdam, the Netherlands</td>
<td>338.0</td>
<td>781</td>
<td>Yes</td>
<td>ER</td>
<td>0.52</td>
</tr>
<tr>
<td>13</td>
<td>European Labour Authority (ELA)</td>
<td>2019</td>
<td>Bratislava, Slovakia</td>
<td>50.0</td>
<td>140</td>
<td>No</td>
<td>ER</td>
<td>0.51</td>
</tr>
<tr>
<td>14</td>
<td>European Border and Coast Guard Agency (FRONTEX)</td>
<td>2004</td>
<td>Warsaw, Poland</td>
<td>288.7</td>
<td>630</td>
<td>No</td>
<td>SR</td>
<td>0.49</td>
</tr>
<tr>
<td>15</td>
<td>European GNSS Agency (GSA)</td>
<td>2004</td>
<td>Prague, Czech Republic</td>
<td>1174.2</td>
<td>170</td>
<td>No</td>
<td>SR</td>
<td>0.41</td>
</tr>
<tr>
<td>16</td>
<td>European Training Foundation (ETF)</td>
<td>1994</td>
<td>Turin, Italy</td>
<td>20.1</td>
<td>124</td>
<td>No</td>
<td>SR</td>
<td>0.41</td>
</tr>
<tr>
<td>17</td>
<td>European Union's Judicial Cooperation Unit (EUROJUST)</td>
<td>2002</td>
<td>The Hague, The Netherlands</td>
<td>38.4</td>
<td>238</td>
<td>No</td>
<td>SR</td>
<td>0.40</td>
</tr>
<tr>
<td>18</td>
<td>European Foundation for the Improvement of Living and Working Conditions (EUROFOUND)</td>
<td>1975</td>
<td>Dublin, Ireland</td>
<td>21.0</td>
<td>101</td>
<td>No</td>
<td>SR</td>
<td>0.39</td>
</tr>
</tbody>
</table>
Secondly, economic agencies appear to be far more independent than social agencies. In fact, the average independence score of the economic agencies (0.61) is almost twice as high as the average score of social agencies (0.33). Thirdly, all regulatory agencies appear to be economic agencies as well, which implies that these economic regulators are, on average, also more formally independent than social/non-regulatory agencies. This variation is further illustrated in Figure 2 below.

![Figure 2. Formal independence by agency type](image-url)
Again, social agencies, which are all non-regulatory, score far lower than economic regulators. Although these results are in line with our initial expectations, it is nevertheless interesting to further assess this strong variation in independence scores.

4.2 Statistical analysis
This section presents the results of six estimated OLS regression models, which can be found in Table 3 below. Before moving to the results, let us briefly recall our main hypotheses. Based on the credible commitment argument, two hypotheses were derived, namely that both economic and regulatory agencies are expected to have a higher level of formal independence than social or non-regulatory agencies. The third hypothesis considered whether the level of policy complexity is positively related with formal independence. Lastly, the fourth hypothesis presumed a negative relationship between political salience and formal independence. As mentioned in the previous chapter, the last two hypotheses were operationalized using staff size as a proxy for policy complexity and budget size as an indicator for political salience. To test the significance and impact of these variables, six models have been estimated using STATA. The first four models test the relationship between the explanatory variables and the independence index. The last two models separately measure the credible commitment variables, while incorporating the effect of policy complexity and political salience. As mentioned in the chapter 2, EU agencies were created during four separate waves of agencification. To account for these trends, their year of establishment is added to all models as a control variable, which is scaled down to 4 categories (0-3). So, if the agency was set up during the first wave, such as the CPVO (in 1975), it gets the value 0; if the agency was established during fourth wave, such as the EBA (2011), it gets the value 3, and so forth.

Table 3. OLS regression models on agency independence

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.242*** (0.058)</td>
<td>0.314*** (0.049)</td>
<td>0.318*** (0.027)</td>
<td>0.029*** (0.030)</td>
<td>0.284*** (0.035)</td>
</tr>
<tr>
<td>Year</td>
<td>0.072** (0.027)</td>
<td>0.061** (0.026)</td>
<td>0.009 (0.013)</td>
<td>0.032* (0.016)</td>
<td>0.017 (0.015)</td>
</tr>
<tr>
<td>Policy Complexity</td>
<td>0.028** (0.011)</td>
<td>0.010* (0.006)</td>
<td>0.007</td>
<td>0.018 (0.027)</td>
<td>0.018** (0.007)</td>
</tr>
<tr>
<td>Political Salience</td>
<td>0.018 (0.027)</td>
<td>0.267*** (0.024)</td>
<td>0.255*** (0.024)</td>
<td>0.263*** (0.024)</td>
<td>0.252*** (0.024)</td>
</tr>
<tr>
<td>Economic vs. Social</td>
<td>0.267*** (0.024)</td>
<td>0.255*** (0.024)</td>
<td>0.263*** (0.024)</td>
<td>0.252*** (0.024)</td>
<td></td>
</tr>
<tr>
<td>Regulatory vs. Non-regulatory</td>
<td>0.263*** (0.024)</td>
<td>0.252*** (0.024)</td>
<td>0.263*** (0.024)</td>
<td>0.252*** (0.024)</td>
<td></td>
</tr>
</tbody>
</table>

| N  | 35 | 35 | 35 | 35 | 35 | 35 |
| R² | 0.270 | 0.136 | 0.805 | 0.786 | 0.834 | 0.801 |

*Significant at 10% (P < 0.10); **significant at 5% (P < 0.05); ***significant at 1% (P < 0.01).
Note: Unstandardised (OLS) regression coefficients with robust standard errors in parentheses.
Moving over to the results, the first model shows that the policy complexity variable is positively related to the independence variable at a 5% significance level. This is in accordance with our theoretical expectation, namely that agencies involved in highly complex areas tend to show a relatively high level of formal independence. Model 2, on the other hand, does not find a significant relationship between political salience and the independence variable. Moving over to credible commitment variables, a significant and strong positive relationship has been found between regulatory agencies and formal independence in model 4. This means that regulatory agencies are associated with a higher level of independence than their non-regulatory counterparts. A similar result is also found for economic agencies in model 3. Apart from BEREC and the ELA, these agencies are all regulatory agencies and thus have a higher level of independence than social agencies, which are not responsible for regulatory duties. The last two models (5 and 6), which include more variables, confirm these results. Model 5 estimates a positive relationship between economic agencies and formal independence at a 1% significance level. It also estimates a significant, though weak positive impact of policy complexity and political salience. Model 6 finds a similar relationship for regulatory agencies and it also estimates a significant positive effect of political salience and formal independence. This, however, does not correspond with our previous expectation, which considered a negative relationship between political salience and formal independence. Moreover, since both model 5 and 6 have a very high R-squared (0.834 and 0.801), one could argue that these two empirical models both greatly account for the variation in formal independence.

All in all, it seems that strong evidence has been found that supports the credible commitment hypotheses, which suggested that both regulatory and economic agencies are associated with a higher level of independence than non-regulatory or social agencies. These findings are in direct accordance with the results of Wonka & Rittberger (2010). However, given that all regulatory agencies also qualify as economic agencies, the question arises whether their high levels of formal independence emerge because of their regulatory competences or because of their involvement in economic matters, which is not entirely clear based off these results. Therefore, future empirical research is warranted to further disentangle these effects. With regard to the third hypothesis, the results also provide satisfactory support by showing a weak but nevertheless significant positive relationship between policy complexity and formal independence. This therefore confirms the argument that the level of complexity of an agency’s field of operation is an important determinant of its level of formal independence. The last hypothesis, which considered a negative association between political salience and formal independence, is not supported by these findings. In fact, a significant positive relationship is estimated. To explain this, one could argue that the degree of political salience may fluctuate considerably over time, since EU agencies may attract varying levels of political spotlight, which may change rather quickly in the short-run. Therefore, one could claim that the staff budget may not be sufficient to capture these dynamic patterns of political salience. Moreover, given that the observed association is rather weak, one could argue that the degree of political salience may not be an important determinant of formal independence at all. Instead, its impact could perhaps translate into de facto control over the activities of agencies, exercised by the EU’s legislative institutions, in particular by the European Parliament.
4.3 Validity and Reliability

Now that regression results have been reported, it is important to discuss a few validity and reliability concerns. This study has explored the formal independence of EU agencies from their political principals, following an important strand of research within the agency literature (see e.g. Gilardi, 2002, 2008; Elgie and McMenamin, 2015; Wonka and Rittberger, 2010). As mentioned in the introduction, previous scholars have failed to reach consensus on how agency independence should be conceptualized and measured (Gilardi, 2010). This has been addressed extensively by Hanretty & Koop (2012), who have noted that existing studies suffer from several conceptual and methodological flaws. They argue, for instance, that previous attempts to construct indices erroneously conflate the breadth of powers with the degree of independence. In other words, they mean that the scope of formal powers of an agency should not be equated with its degree of formal independence, implying that some agencies may possess limited powers but are nonetheless able to exercise them independently, whereas other agencies may possess a wide range of powers but without the ability to exercise them at their own discretion. While some scholars (see e.g. Mediano, 2020) have tried to account for these concerns by eliminating the scope of regulatory competences from the index, one could suggest that these conclusions are merely the result of having a different interpretation of the concept of formal independence.

Another critique of this method may be that it overestimates the weights of ancillary statutory provisions while underestimating key provisions. However, combining these dimensions and indicators is an unavoidable arbitrary process nonetheless, which is why a standardized way is chosen in which the index dimensions and the corresponding indicators are equally weighted, as was explained in the previous chapter. Hence, one could suggest that further adjustments of the index may increase its internal validity (i.e. the accuracy of its estimates of formal independency), but it is not entirely clear how this could be done. With regard to reliability concerns, it seems unlikely that substantially different outcomes would be found if the analysis of this study would be repeated, assuming that other authors use the same classifications of agencies (i.e. economic vs social as well as regulatory vs. non-regulatory). This is because the information used to construct the dataset comes from distinct official sources, namely from the agencies’ constituent acts (in order to construct the independence index) and from the 2018 ECA-report (to collect staff and budget sizes). The information on their formal design is thus not likely to change considerably in the short-term as this would require an agreement over new EU regulation, which is often a lengthy process. Hence, this study does not suffer from apparent reliability issues.

5. Conclusion

The objective of this study was to provide an empirical investigation of the formal independence of EU agencies. This has been done by quantifying and mapping the degree of formal independence among all decentralized EU agencies, using an independence index that captures several formal institutional features. As a result, this study found that there is substantial variation in the degree of formal independence among agencies, which is arguably not surprising given that a large number of researchers already came to this conclusion. Moreover, while some scholars (see e.g. Groenleer, 2010) had argued that EU agencies generally have a limited degree of independence, especially when compared to their national-level counterparts, this study has found that with the aftermath of the financial crisis, we have witnessed the creation of the most powerful EU agencies to date. These so-
called economic regulators, such as the EBA, ESMA and EUIOPA, appear to be far more independent than non-regulatory or social agencies, which emphasizes the importance of the credible commitment arguments. To recall: both economic and regulatory agencies were expected to have a relatively high level of formal independence because their independence, in particular, allows them to enhance the credibility of EU policies (see e.g. Majone 1997, Yeung, 2010; Groenleer, 2010; Busuioc, 2013). This is especially the case for agencies involved in economic matters, such as banking, financial services or utilities, where the objective is to attract private capital investments to the EU’s internal market. This study has also provided supports for the third hypothesis by showing a weak but nevertheless significant relationship between policy complexity and formal independence, which confirms the argument that the level of complexity of an agency’s field of operation is an important determinant of its level of formal independence. To understand what this result implies, one could consider that, over the years, EU agencies have become increasingly involved in highly technical and complex policy issues. To cope with these issues, the EU’s legislative institutions may thus grant them with more regulatory capabilities, which in turn increases their level of formal independence. The last hypothesis, which considered a negative association between political salience and formal independence, was not supported by results of this study.

Although these explanations did offer insights to the justifications for delegating authority to independent agencies, they do not provide a complete picture of the various decisions behind their design. Instead, the focus of this paper was to explore the degree to which agency independence varies, and how this can be explained according to commonly associated factors that were derived from the agency literature. Indeed, this study has relied primarily on functional reasons to describe variation in the level of independence. However, the literature also suggests a few other political motives. For instance, Groenleer (2010) argued that agency creation also stems from political conflict, bargaining and compromise between the EU institutions. In fact, it has been claimed that the tensions between these actors not only explain the existence of EU agencies but also how they are designed and governed (Busuioc, 2010). More specifically, their establishment has been regarded as strongly motivated by political considerations, which have been internalized into their governance structures and organizational configurations (Busuioc, 2010).

Lastly, a few suggestions can be offered for future research. For instance, the methodology of this study was strongly inspired by previous attempts to quantify the degree of agency independence. However, given that this is just one way of analyzing formal independence, developing complementary or alternative methods may improve the accuracy of current estimations or offer contrasting perspectives. Moreover, this study has only focused on a few drivers, using a rational institutional framework. Future research should therefore also examine other sets of factors such as policy learning, institutional isomorphism, and the broader institutional context, including its development (see Thatcher, 2002). In addition, future research should focus on other perspectives, such as historical frameworks (Thatcher, 2002) or sociological approaches (McNamara, 2002). Such attempts could provide new insights and therefore advance our understanding of agencification in the EU.
Acknowledgements

I would like to express my gratitude to my supervisor Dr. E.M. Busuioc for the useful comments, remarks and engagement throughout the process of this master thesis. Your wisdom and knowledge as well as your continuous support have been invaluable to me during this journey. Furthermore, I would like to thank my family and friends for giving me the love and support throughout my academic years. I am forever grateful.

Bibliography:


### Appendix 1. Independence index

<table>
<thead>
<tr>
<th>Variable</th>
<th>Content</th>
<th>Values</th>
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<tbody>
<tr>
<td><strong>D1: Formal mandate of agency</strong></td>
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</table>
| V1 | Competence EU Agency | 1.00 = taking binding decisions  
0.50 = preparing proposals for decisions  
0.00 = issuing opinions and information |
| **D2: Appointment 1: Agency Head (AH)** |
| V2 | Term of agency head (AH) | 1.00 = over 8 years  
0.80 = to 8 years  
0.60 = to 6 years  
0.40 = to 4 years  
0.20 = to 2 years  
0.00 = no fixed term |
| V3 | Selectorate/appointees of AH | 1.00 = members of management board select and appoint agency head  
0.67 = members of management board select AH; governments and/or Commission and/or EP appoints AH  
0.33 = governments and/or Commission and/or EP selects candidates; management board appoints agency head  
0.00 = governments and/or Commission and/or EP select and appoint agency head |
| V4 | Quorum appointment AH | 1.00 = simple majority  
0.50 = qualified majority or 2/3 majority  
0.00 = unanimity |
| V5 | Rules for AH dismissal | 1.00 = dismissal impossible  
0.67 = dismissal possible for reasons not related to policy (fraud etc.)  
0.33 = no specific provisions for dismissal  
0.00 = dismissal at appointers’ discretion |
| V6 | Other offices AH | 1.00 = explicitly ruled out  
0.50 = only with permission of appointees  
0.00 = yes |
| V7 | Reappointment of AH | 1.00 = no  
0.50 = yes, once  
0.00 = yes, more than once or no specific provisions explicated |
| V8 | (Formal) AH independence | 1.00 = yes  
0.00 = no |
| V9 | Formal requirement for AH qualification | 1.00 = yes  
0.00 = no |
Appendix 1. (continued)

<table>
<thead>
<tr>
<th>Variable</th>
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<th>Values</th>
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</table>
| V10      | Term of office MMB | 1.00 = over 8 years  
          |          | 0.80 = to 8 years  
          |          | 0.60 = to 6 years  
          |          | 0.40 = to 4 years  
          |          | 0.20 = to 2 years  
          |          | 0.00 = no fixed term |
| V11      | Selectorate/appointees of MMB | 1.00 = governments and Commission and EP  
          |          | 0.50 = governments and Commission or EP  
          |          | 0.00 = governments or Commission or EP |
| V12      | Rules for MMB dismissal | 1.00 = dismissal impossible  
          |          | 0.67 = dismissal possible for reasons not related to policy (fraud, etc.)  
          |          | 0.33 = no specific provisions for dismissal  
          |          | 0.00 = dismissal possible at appointers’ discretion |
| V13      | Other offices MMB | 1.00 = no other offices  
          |          | 0.50 = only with permission of appointees  
          |          | 0.00 = yes |
| V14      | Reappointment of MMB | 1.00 = no  
          |          | 0.50 = yes, once  
          |          | 0.00 = yes, more than once or no specific provisions explicated |
| V15      | (Formal) MMB independence | 1.00 = yes  
          |          | 0.50 = yes, but not all  
          |          | 0.00 = no |
| V16      | Formal requirement MMB qualification | 1.00 = yes  
          |          | 0.50 = yes, but not all  
          |          | 0.00 = no formal requirement |

**D4: Regulations on agencies’ (internal) decision-making**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Content</th>
<th>Values</th>
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</table>
| V17      | Formal independence of agency | 1.00 = yes  
          |          | 0.00 = no |
| V18      | Agency’s formal reporting obligations – annual reports (retrospective) | 1.00 = no formal reporting obligations  
          |          | 0.50 = presentation of annual report – for information  
          |          | 0.00 = presentation of annual report – for approval |
| V19      | Agency’s formal reporting obligations – annual working programme (prospective) | 1.00 = no formal reporting obligations  
          |          | 0.50 = presentation of annual working programme – for information  
<pre><code>      |          | 0.00 = presentation of annual working programme – for approval |
</code></pre>
<table>
<thead>
<tr>
<th>Variable</th>
<th>Content</th>
<th>Values</th>
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</table>
| V20      | ‘Exclusiveness’ of agency’s competencies in its field of responsibility  | 1.00 = agency holds exclusive competencies  
0.67 = agency and another independent agency  
0.33 = agency and/or Commission/EP/Council  
0.00 = agency has only consultative competencies |
| V21      | Agency discretion to decide on activities                                | 1.00 = agency decides autonomously on when to act  
0.50 = Governments, Commission and EP can request agency to act  
0.00 = Governments, Commission and EP can commit agency to act |
| V22      | Agency’s external consultation practice                                  | 1.00 = no consultation obligations laid down in agency statute  
0.67 = agency must consult external private actors after it has decided on a proposal  
0.33 = agency consults external actors during the preparation of proposals  
0.00 = agency consults external actors before it drafts its proposals |
| V23      | Agency appeals board                                                    | 1.00 = agency does have an appeals board  
0.00 = agency does not have an appeals board |
| V24      | Competent bodies to appeal agency decisions                              | 1.00 = no body  
0.80 = agency’s own appeals board  
0.60 = another agency (EU or domestic)  
0.40 = court (EU and/or national)  
0.20 = governments and/or Commission and/or EP – with qualifications  
0.00 = governments and/or Commission and/or EP – without qualifications |
| V25      | Competence to design agency’s internal organisation                      | 1.00 = agency (MMB + AH)  
0.50 = agency + governments, Commission and EP  
0.00 = governments, Commission and EP |
| V26      | Recruitment of agency’s (permanent) staff                                | 1.00 = agency (MMB + AH)  
0.50 = agency (MMB) and governments and/or Commission and/or EP  
0.00 = management board – on proposal of governments and/or Commission and/or EP |
| V27      | Resource dependency of agency                                            | 1.00 = agency levies fees for its services and exclusively finances itself with these  
0.67 = agency is run on mixed financial resources (EU budget, member state contributions, fees)  
0.33 = agency is run on the EU’s (yearly) budget plan  
0.00 = agency is run on a budget which needs to be approved by governments and/or Commission and/or EP on a yearly basis |
Appendix 2. List of hyperlinks of agency constituent acts

22. European Maritime Safety Agency: 
23. European Medicines Agency: 
24. European Monitoring Centre for Drugs and Drug Addiction: 
25. European Union Agency for Network and Information Security: 
26. European Union Agency for Law Enforcement Training: 
27. European Police Office: 
28. European Union Agency for Railways: 
29. The European Securities and Markets Authority: 
30. European Training Foundation: 
31. European Union Agency for Fundamental Rights: 
32. European Union Intellectual Property Office: 
33. Single Resolution Board: 
34. European Union’s Judicial Cooperation Unit: 
35. Translation Centre for the Bodies of the European Union: 