Administrative reorganization as a means to improve the public governance of European higher education

A comparative case study of Austria and Norway

Philipp Emanuel Friedrich

A DISSERTATION

SUBMITTED TO THE DEPARTMENT OF EDUCATION

FACULTY OF EDUCATIONAL SCIENCES

UNIVERSITY OF OSLO

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

2021

Abstract

Reorganizing the bureaucracy is expected to improve public sector governance. In line with other policy sectors, the modernization of European higher education was characterized by such reform attempts during the past decades. The national reform agendas of most European countries in the late 1990s and early 2000s included, amongst other things, organizational changes in the ministerial bureaucracy, the establishment of public agencies in key policy areas such as quality assurance and internationalization, and in general a focus on reorganizing the governance arrangements in the higher education sector. Although considerable research has been conducted on different aspects of the governance reforms in this sector, such as institutional autonomy, funding mechanisms, or academic freedom, evidence on how the ministerial bureaucracy itself changed as an organization is still limited. The aim of this thesis is to address organizational change in the ministerial bureaucracy—in the literature defined as the process of administrative reorganization—and its effects on the sector's governance by studying, amongst others things, the establishment of public agencies in this policy sector.

To this end, this study makes use of conceptual and analytical approaches from the fields of public administration, public policy, and higher education research and is grounded in an organizational theory approach. The starting point is the assumption that effective governance arrangements can be determined via the organizational design of central administrative organizations. The analytical concepts developed and applied are ministerial authority, agency autonomy, organizational capacity, and bureaucratic accountability.

The study is designed as a comparative case study of two higher education ministries undergoing a comprehensive reorganization process. The empirical context of this study is the Austrian and Norwegian higher education policy sectors, where administrative reorganization and the establishment of public agencies were key components in the governance reforms of the early 2000s. The collection and analysis of statistical data on organizational developments, legal frameworks, policy documents, and key expert interviews with bureaucrats, policymakers, and academics provides the empirical evidence for this study.

The theoretical framework and empirical analysis of this study are outlined in three journal articles, each addressing different aspects of the organizational changes and governance reforms in the respective higher education administrations. Article 1 examines the organizational transformations in the Austrian and Norwegian ministries and the subsequent agencification processes with a focus on developments in ministerial authority, agency autonomy, and organizational capacity. Article 2 addresses the governance relationship between ministries and agencies and how areas of responsibility between the two bureaucratic levels are defined. Article 3 focuses on the effectiveness

of the organizational changes by studying how agencies are held accountable for their operations in the sector.

The findings show that the ministerial bureaucracy in Austria and Norway rearranged the governance structures of their respective higher education sectors in different ways. The ministerial bureaucracy can choose among different governance options based on how organizational mandates are shaped and how resources are distributed between the ministerial and agency levels. In Austria, the ministry reduced its organizational capacity and strengthened the capacity at the agency level in the areas of quality assurance and internationalization with delay. In Norway, the ministry maintained stable capacity parameters and continuously strengthened the agency level in the areas of quality assurance and internationalization after the reforms. In both contexts, one can observe enhanced bureaucratic accountability through more political control and new administrative procedures. These changes are more visible in the Norwegian than in the Austrian case owing to the different autonomy/capacity developments and the possibility for the ministry to follow up on the agency's accountability more effectively. The Austrian approach can thus be considered as more minimalistic but with less systemic coordination, whereas the Norwegian approach can be considered as more comprehensive and control-oriented with enhanced systemic coordination.

The study helps to clarify how administrative reorganization influences public sector governance based on how organizational mandates are designed and resources are distributed between the ministerial and agency levels. These findings provide important insights into the governance of higher education, as they shed light on the underlying reform dynamics of this policy sector. In this way, the study makes relevant contributions to the study of both governance reforms in higher education and organizational changes in the bureaucracy.

Sammendrag

Omorganiseringen av byråkratiet forventes å bedre styringen av offentlig sektor. I tråd med andre politiske sektorer har moderniseringen av europeisk høyere utdanning vært preget av slike reformforsøk de siste tiårene. De nasjonale reformagendaene i de fleste europeiske land på slutten av 1990-tallet og begynnelsen av 2000-tallet omfattet blant annet organisatoriske endringer i kunnskapsdepartementer, etablering av offentlige etater på sentrale politikkområder som kvalitetssikring og internasjonalisering, og generelt et fokus på å omorganisere styringsordningene i sektoren. Selv om det tidligere er forsket på ulike aspekter ved styringsreformene som institusjonell autonomi, finansieringsmekanismer og akademisk frihet, er det fortsatt begrenset kunnskap om hvordan kunnskapsdepartementene selv har endret seg organisatorisk. Formålet med denne avhandlingen er å undersøke organisatoriske endringer i kunnskapsdepartementene – i litteraturen definert som administrativ omorganisering – og hvilke effekter disse endringene har betydd for styringen av sektoren. Dette er gjort ved blant annet å undersøke etableringen av offentlige etater på dette politikkområdet.

Studien er forankret i organisasjonsteori og baserer seg på konseptuelle og analytiske tilnærminger fra offentlig forvaltning, offentlig politikk og høyere utdanningsforskning. Utgangspunktet for studien er antagelsen om at effektive styringsordninger er forankret i den organisatoriske utformingen av den offentlige forvaltningen. De analytiske verktøyene som brukes for å undersøke organisasjonsendringer tar utgangspunkt i teorier om departementets myndighet, autonomi av statlige etater, organisatorisk kapasitet og byråkratisk ansvarlighet.

Denne studien er en komparativ casestudie av to kunnskapsdepartementer som begge gikk gjennom en omfattende omorganiseringsprosess. Den østerrikske og den norske sektoren for høyere utdanning utgjør den empiriske konteksten for studien, der administrativ omorganisering og etablering av offentlige etater ble en sentral del i styringsreformene tidlig på 2000-tallet. Det empiriske grunnlaget for denne studien er innsamling og analyse av statistiske data om organisasjonsutvikling, juridiske rammeverk, policy- dokumenter og ekspertintervjuer med byråkrater, beslutningstakere og akademikere.

Det teoretiske rammeverket og den empiriske analysen er sammenfattet i tre tidsskriftartikler, som undersøker ulike aspekter ved de organisatoriske endringene og styringsreformene i Østerrike og Norge. I Artikkel 1 undersøkes organisatoriske endringer i de to departementene og etableringen av de underliggende etatene. Tema for denne artikkelen er utviklingen i departementets myndighet, statlige etaters autonomi og organisatorisk kapasitet. I Artikkel 2 er tema styringsforholdet mellom departementer og etater, og hvordan ansvarsområder mellom disse to byråkratiske nivåene defineres. I Artikkel 3 ser vi på om organisasjonsendringene som har funnet sted har vært effektive ved å studere hvordan etater holdes ansvarlig for sin virksomhet i sektoren.

Funnene viser at byråkratiet i Østerrike og Norge omorganiserte styringsstrukturen i sine høyere utdanningssektorer på ulike måter. I Østerrike reduserte departementet sin egen organisatoriske kapasitet og styrket etatene etter hvert. I Norge opprettholdt departementet sin organisatoriske kapasitet og styrket etatene kontinuerlig etter reformene. I begge kontekster observerer man økt byråkratisk ansvarlighet gjennom mer politisk kontroll og nye administrative prosedyrer. Disse endringene er mer synlige i den norske enn i den østerrikske konteksten på grunn av at de to departementene har utviklet seg ulikt når det gjelder autonomi og kapasitet, og når det gjelder departementenes mulighet til å følge opp etatenes ansvarlighet på en effektiv måte. Den østerrikske tilnærmingen ansees som mer minimalistisk med redusert mulighet til systemisk koordinering, mens den norske tilnærmingen ansees som mer omfattende med økt mulighet til systemisk koordinering.

Funnene bidrar til å avklare hvordan administrativ omorganisering påvirker offentlig styring basert på hvordan organisatoriske mandater utformes og ressursene fordeles mellom departements- og etatsnivå. Disse funnene gir viktig innsikt i styringen av høyere utdanning og er et viktig bidrag til litteraturen om både styringsreformer i høyere utdanning og organisatoriske endringer i byråkratiet.

Acknowledgements

Si meg hvem du omgås med, og jeg skal si deg hvem du er.
(Tell me with whom you associate, and I will tell you who you are.)

My journey as a doctoral student has been tremendously exciting, with the typical highs and lows that every earnest scholar eventually experiences. Still, despite all obstacles, I must admit that I never seriously doubted my ability to complete this endeavor successfully. I would like to think that the reason for this determination was not only my strong interest in the research field to which I have been attached for so long time but also my work that provided me with a professional identity and made me part of a community. Most importantly, it was due to the tremendous help and support I received from my supervisors, colleagues, friends, and family. It may almost sound cliché, yet if one thing can be said with certainty about this thesis, it is that it would have not been possible to complete it without their continuous support. With these words, I want to acknowledge the people who had such a significant impact on my dissertation and—more importantly—who made my life worth living. Any genius thoughts one finds in this thesis are clearly inspired by them. Any flaws in the implementation of the thesis are my responsibility alone.

To my supervisors and mentors, Peter Maassen and Jens Jungblut. Both have provided me with constant feedback, support, and guidance throughout the years. They have pushed me, questioned me, and always required from me to go one step further. They brought the best out of the thesis and the best out of me. Without them, I would have never made it this far.

To Tobias Bach, Bjørn Stensaker, Lukas Graf, and Åse Gornitzka, who provided me with valuable feedback and assistance when it was needed. Their intellectual capacity and constructive feedback always made a huge impression on me, and their work as scholars has been a great source of inspiration.

To the research group HEDWORK and especially Monika Bærøe Nerland, who always encouraged me in my endeavors and who were an anchor in turbulent times. Being part of HEDWORK cultivated my scholarly interest, and I tremendously enjoyed being part of our intellectual discussions and joint projects.

To my interview partners and the numerous peer-reviewers and editors for their input, constructive feedback, corrections, and support in creating something novel and exciting. To all the scholars whom I got the chance to meet at conferences, summer schools, and academic seminars. Their ideas and input provided me with a deeper understanding of my research and academic work.

To my work family from IPED, especially Kristi Lynette Barcus-Sævareid, Olga Mukhina, Ulf Tero Grefsgård, Kari-Anne Ulfsnes, Elin Østbø Sørensen, and Camilla Bakke. Thank you for

Table of Contents

Part I: Extended abstract

List of tables and figures

Part II: Articles

Article 1

Friedrich, P. E. (2019). Organizational change in higher education ministries in light of agencification: Comparing Austria and Norway. *Higher Education Policy*, 1–22.

Article 2

Friedrich, P. E. (2020). Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education. *Studies in Higher Education*, 1–14.

Article 3

Friedrich, P. E. (submitted). Who is accountable for what? The effects of administrative reorganization on bureaucratic accountability in Austrian and Norwegian higher education governance. *Policy Studies*

Part I: Extended abstract

1 Introduction

Administrative reorganization is a common strategy in governance reforms, as new organizational boundaries in the ministerial bureaucracy are expected to positively influence the outcomes of future policymaking processes (Egeberg & Trondal, 2018; Hong & Park, 2019). In the early 2000s, multiple governance reforms were introduced in European higher education, leading to several changes in the national public governance matrices of this policy sector (Maassen & Musselin, 2009; Paradeise, 2009). The underlying reform agendas in the different countries were motivated by the increased importance of higher education in the knowledge society, its vital role in educating future labor forces, as well as the need to find solutions to the pressing challenges of today's societies (Amaral et al., 2009; Maassen & Olsen, 2007). As part of the public administration and with the intention to strengthen and improve the sector's public governance, the European higher education sector underwent comprehensive transformations through, amongst other things, changes in the ministerial bureaucracy (Capano, 2011; Jungblut & Woelert, 2018).

Reorganization of the ministerial bureaucracy generally occurs along the two axes of vertical and horizontal specialization (Bezes et al., 2013). Vertical specialization usually implies the structural devolution and differentiation of bureaucratic responsibility, for instance, through the establishment of public agencies (a process also described as agencification), in which ministerial tasks and authority are allocated to subordinate entities. Horizontal specialization usually implies the splitting of responsibility at the same hierarchical level, for example, by dividing policy areas among different ministries. Such responsibility shifts can also go the other way (called de-specialization): bureaucratic responsibility is moved upward (for instance, from agency to ministerial level) or organizational units at the same administrative level are merged (Bezes et al., 2013; Egeberg & Trondal, 2018).

Despite the acknowledgement and expectation that such reorganization will have a positive impact on governance and policymaking in this sector, more evidence about how the ministerial bureaucracy itself is affected by the reorganization is needed (Capano, 2011; Hong & Park, 2019). Recent literature on changes in public administration often focuses on how the establishment of agencies affects public sector governance. However, research that takes into account the changes at both the ministerial and agency levels is limited (see, e.g., Cingolani & Fazekas, 2020; Hong & Park, 2019; Sześciło, 2020). This study aims to deepen the understanding of the effects of organizational design and structure on public governance by explicitly focusing on organizational changes in the ministerial bureaucracy in the European higher education sector—that is, the organizational changes in the responsible ministry and recently established agencies as well as the relationships between them.

1.1 Research questions

For addressing administrative reorganization and governance reforms in the higher education sector, this study has selected two empirical contexts—Austria and Norway—in which transformations of the ministerial bureaucracy played a major role. The following is the overarching research question of this study: *How have central administrative organizations responsible for higher education in Austria and Norway changed since the introduction of national governance reforms in the early 2000s?*

To systematically investigate these change processes, this study is anchored in organizational theory and has paid close attention to the concepts of ministerial authority, agency autonomy, organizational capacity, and bureaucratic accountability (as will be described in more detail in section 1.3). These concepts are widely considered as key dimensions in the organizational transformations of the bureaucracy, with far-reaching implications for public sector governance (Egeberg & Trondal, 2018; Fukuyama, 2013).

The concepts have been applied to the two empirical contexts of this study. Austria and Norway introduced extensive higher education governance reform initiatives in the early 2000s, in line with several other European countries. This study investigates in particular the evolution of the Austrian and Norwegian ministerial bureaucracy over a period of two decades (from 2000 to 2018), starting with the initiation and implementation of governance reforms in the early 2000s and the establishment of public agencies responsible for quality assurance and internationalization. For addressing the overarching research question, the thesis is composed of three interrelated articles, each with its own research question:

Article 1:
- How have ministries responsible for higher education changed organizationally?

Article 2:
- How are ministry and agencies in the area of higher education in Austria and Norway related to each other? How far can a focus on the concepts of autonomy and capacity contribute to an explanation of their relationship?

Article 3:
- How does the ministry hold agencies in Austria and Norway accountable in light of administrative reorganization and higher education governance reforms?

The three articles represent the pillars of this thesis; each article emphasizes different aspects of and analytical approaches to the overall research problem. The extended abstract of this study will bring together the findings of the three articles, explain their different analytical angles, and outline their summarized contribution to the study of administrative reorganization in higher education governance.

1.2 Rationale and relevance

Governance reforms have been an integral part of European bureaucracies over the past decades (Brunsson, 2009; De Vries & Nemec, 2013; Pollitt & Bouckaert, 2011). Under the umbrella terms of new public management (NPM) and new public governance (NPG), the reforms were motivated, amongst other things, by the need for better efficiency, enhanced organizational structures in public administration, better policy output, and improved public service delivery (Bezes et al., 2013; Christensen & Lægreid, 2006; Pollitt & Bouckaert, 2011). These reforms have also been affecting the governance of European higher education, given that this policy sector is highly regulated and governed by public authorities. A reorganization of the ministerial bureaucracy as a result of governance reforms can thus be assumed to have a significant impact on the governance of this policy sector (Braun, 2008).

Over the past decades, the political importance of the higher education sector has increased, and it is thus subject to major governance reforms (Capano, 2011; Maassen & Musselin, 2009). The reforms were considered necessary, among other things, because of the increasing number of different political, economic, and social actors involved in the sector's governance (Chou et al., 2017; Gornitzka & Maassen, 2014; Maassen & Olsen, 2007). The reforms also addressed the ministerial bureaucracy: the establishment of public agencies that operate at arm's length of the ministry presented an important link between the ministerial agendas in key policy areas, such as quality assurance and internationalization, and the sector's governance (Beerkens, 2015; Capano, 2011).

However, it remains unclear how administrative reorganization and the establishment of agencies affect the sector's governance and how the governance relationship between the ministry and the newly established agencies has developed (Capano, 2011; Capano et al., 2017; Jungblut & Woelert, 2018). Note that although the reforms were motivated by the same set of reform objectives across the various European higher education systems, their new governance approaches significantly vary owing to the different national and institutional framework conditions (Painter & Peters, 2010) In addition, empirical evidence on the "real" outcomes of administrative reorganization in the area of higher education is rather limited (Christensen, 2011). Based on the assumption that organizational design and structure plays a key role in determining policy output (Egeberg, 1999), this sector would thus benefit from more conceptual and empirical work on the ministerial bureaucracy in light of the recent agencification trends and governance reforms in European higher education.

1.3 An organizational approach to the study of public governance in higher education

The study takes organizational theory as its theoretical and conceptual starting point, beginning from the premise that policymaking and the influence of public authorities in relation to each other depend on their organizational format (Egeberg, 2019; Egeberg & Trondal, 2018). As mentioned earlier, key

organizational changes occur along a vertical and horizontal axis, wherein the governance responsibilities of the public administration can be shifted upward or downward and can be spread or merged across bureaucratic organizations at the same hierarchical level (Bezes et al., 2013; Egeberg, 2019). The changes usually occur through the redefinition of organizational mandates and by equipping these mandates with appropriate resources (Fukuyama, 2013; Wu et al., 2018). For example, a vertical specialization in the governance of the higher education sector would be the establishment of a public agency responsible for internationalization policy issues. To unfold its potential, the agency would need both a mandate that is legally secured as well as human and material resources to carry out the mandate. A horizontal specialization would imply that governance responsibilities for specific policy issues, such as research, innovation, or quality assurance, are transferred from one ministry to another.

Against this background, this thesis developed an analytical framework comprising three dimensions that allowed to systematically address organizational changes in the public governance structure of higher education. Administrative reorganization itself is conceptualized as redefining the areas of responsibilities for bureaucratic organizations in the higher education sector, with an analytical focus on developments in organizational autonomy[1], organizational capacity, and bureaucratic accountability. The concept of autonomy has been selected as a relevant analytical dimension because it determines the public authorities' new room to maneuver and provides insights into how the mandate of bureaucratic organizations develops (Maggetti & Verhoest, 2014). Organizational capacity has been selected to investigate how actively reorganized public governance organizations or units can pursue their new mandate (Fukuyama, 2013). Bureaucratic accountability has been selected to determine how new governance arrangements owing to autonomy/capacity changes played out in practice (Bovens, 2007). Special attention is also given to the implications of differing degrees of organizational autonomy with corresponding capacity levels—that is, whether some autonomy–capacity constellations are more effective than others in implementing ministerial and agency agendas.

1.4   Methodological choices and empirical context

The study is designed as a multiple case study (Yin, 2014) and employs a qualitative, comparative research approach, which is defined by elaborate conceptual work and in-depth case investigations (Maxwell, 2013; Patton, 2014). The two cases of interest are the Austrian and Norwegian ministries with governance responsibility for higher education that are undergoing comprehensive reorganization processes. Embedded in each case are two units of analysis: 1) the national quality assurance agency and 2) the national internationalization agency. By comparing the reorganization

---

[1] For analytical purposes, organizational autonomy is conceptually divided into ministerial authority and agency autonomy, as will be discussed in more detail in Chapter 3.

processes of two different national administrations, the thesis aimed to identify the central features of ministerial change and contribute to an improved understanding of administrative reorganization (Eisenhardt & Graebner, 2007; Gerring, 2004). To this end, three different types of data were collected and analyzed: statistical data and key figures about the studied organizations; key documents such as policy documents, national higher education laws, and annual reports; and semi-structured expert interviews with politicians, ministerial and agency staff, and academics involved in organizational change processes. Table 1 presents an overview of the thematic focus, research question(s), analytical focus, and empirical material of the articles.

Table 1: Overview of the articles

	Article 1	Article 2	Article 3
Title	Organizational change in higher education in light of agencification: Comparing Austria and Norway	Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education	Who is accountable for what? The effects of administrative reorganization on bureaucratic accountability in Austrian and Norwegian higher education
Research question(s)	How have ministries responsible for higher education changed organizationally?	How are ministry and agencies in the area of higher education in Austria and Norway related to each other? How far can a focus on the concepts of autonomy and capacity contribute to an explanation of their relationship?	How does the ministry hold agencies in Austria and Norway accountable in light of administrative reorganization and higher education governance reforms?
Analytical focus	Organizational change at the ministerial level	Relationship between ministry and agencies	Bureaucratic accountability for the agency level
Empirical material	Statistical data, documents	Semi-structured interviews, statistical data	Semi-structured interviews, documents (statistical data)

1.5 *Thesis outline*

The remainder of the extended abstract is structured as follows. Chapter 2 presents the literature relevant for developing the study's theoretical approach. The theoretical framework and central analytical concepts that derive from this presentation are outlined in Chapter 3. Chapter 4 portrays the study's research design and empirical material. Moreover, the methodological choices and data collection strategies are outlined, and analytical techniques are discussed. Chapter 5 summarizes the articles and discusses their relation to each other as well as their relevance in addressing the overarching research question. In addition, the empirical results of the study are presented. Chapter 6

concludes the extended abstract, starting with a discussion of the study's findings and their ties to the broader research literature. Here, the contribution of this study is highlighted, and its limitations are discussed. Further, future research avenues and complementary aspects for the study of administrative reorganization and governance reforms in higher education are suggested.

2   Literature review

The relevant literature for this study is organized along three thematic strands. The first strand concerns administrative reorganization and agencification as well as the way they occur in modern bureaucracies. The second concerns the study of accountability as an assessment tool for governance reforms. The final strand relates to governance reforms in higher education and the role of central administrative organizations in this sector. The boundaries between these strands are not always clear, and the strands at times overlap. To contribute to the further investigation of these strands, the study addresses those aspects in each strand that would benefit from a closer examination.

2.1   *Administrative reorganization and agencification*

The first relevant strand for this study concerns administrative reorganization and agencification (see, e.g., Pollitt et al., 2001; Verhoest, 2012). In the public administrations of Western Europe and elsewhere, it is generally acknowledged that reorganization is expected to lead to improvements in the governance of the sector, for example, in the form of enhanced public service delivery (Aberbach & Rockman, 1992; Egeberg, 2019; Hong & Park, 2019). Administrative reorganization is of high symbolic value with a strong signaling effect to the constituency. After a change of government, the new political leadership regularly reorganizes the ministerial bureaucracy to give evidence of a "new" political climate. Another factor is a pragmatic one: the demands and expectations for ministerial positions, especially in a coalition cabinet, might require a split or merger of existing ministries without a clear substantive reason related to one or more of the policy areas in question. More often, however, responding to a changing policy environment is considered necessary: new agendas, technological advancements, or demographic developments deem it necessary to rearrange parts of the ministerial bureaucracy for enhancing the governance of the public sector (Egeberg & Trondal, 2018).

A number of scholars argue that organizational boundaries are important in defining information streams, collaboration strategies, and the ways the bureaucracy communicates with the public sector (Braun, 2008; Brunsson, 2009; Egeberg & Trondal, 2018). Direct and flexible contacts between the bureaucracy and the public sector are expected to mitigate adverse selection problems and lead to more tailored service delivery; in general, this implies more value for money (Cingolani & Fazekas, 2020). Thus, in recent decades, especially in Western Europe, the ministerial bureaucracy attempted to move away from micro-steering the public sector toward setting overarching agendas and guidelines.

A central part in this development is played by public agencies, which have been installed across different public administrations and policy sectors (Pollitt et al., 2001; Verhoest, 2012). Agencies are commonly defined as organizations that are formally part of the public administration

but can enjoy considerable autonomy in organizational, financial, or personnel affairs (Bach, 2016). Agencies are formally subordinate to a parent ministry that sets the overall political agenda and provides necessary funding (Christensen & Lægreid, 2007). An agency is usually assigned governance responsibility for a specific policy theme within a broader policy area such as research, innovation, or higher education (Braun, 2008; Verhoest, 2012).

Agencies are considered a key element in increasing the effectiveness and efficiency of a public administration in delivering its services to the public (Overman & Van Thiel, 2016). Compared with the parent ministry, agencies are assumed to have better access to information in their assigned policy area, to be more receptive to their clients' needs, and to be capable of more directly handling conflicts among different actors and stakeholders in the sector. As a consequence of the establishment of an agency, the responsible ministry has to engage to a lesser extent with the organizations and stakeholders from the sector on a regular basis and can therefore focus on strategic sector development and agenda setting, which are assumed to be more effective for policy implementation (Jungblut & Woelert, 2018).

A challenge for the ministry is that its agency builds up considerable policy expertise over time, which eventually can result in certain information advantages for the agency (Hood & Lodge, 2006). This development can lead to increased importance of the agency in policymaking processes and political agenda setting (Bach et al., 2012). Further, the specialized policy focus of agencies might cause an overemphasis on a specific policy issue within the broader sector, which might repress other relevant policy issues and can result in sectoral imbalances and overall ineffectiveness (Jungblut & Woelert, 2018).

Ministry and agencies typically have a classical principal–agent relationship (Christensen & Lægreid, 2007). Policy tasks are delegated from the ministry to the agency with overall formulated objectives for the sector's development, for example, in the form of long-term plans, expected outputs, or financial directives. The implementation of these objectives is often at the discretion of the agency, whereas the ministry can use different approaches with varying intensity to follow up on the agency's overall achievement (e.g., reporting requirements, formal and informal meetings, and ministerial staff at agency boards) (van Thiel & Yesilkagit, 2011).

A key issue in this respect is the balance between ministerial control/agency autonomy and the differences in the access agencies have to their respective ministries (Christensen & Lægreid, 2007). Because agencies operate at arm's length of their parent ministry, agency staff pays less attention to signals from the political leadership than their counterparts within the ministerial units (Egeberg & Trondal, 2009). As a result, the accountability relationship between ministry and agencies as a political control element becomes a key component (Smith & Flinders, 1999; Verschuere et al., 2006). Central questions are, for instance, how does an agency report to the ministry or other constitutional actors about its own performance, to what degree is an agency obliged to document its

actions, and what are the consequences if its behavior is questioned by other public authorities (e.g., Bach et al., 2017)? However, an accepted tradeoff for increased decision-making autonomy of the agency is the (political) buffer and blame function agencies have (Flinders, 2008; Hood & Lodge, 2006). Agencies can function as a safety zone between the political leadership and constituency or between the sector and parent ministry in the case of miscarried political agendas and criticism from the public. In return, agencies receive some discretion in decision autonomy and in carrying out their mission (Hood, 2002; Hood & Lodge, 2006).

Although there is little disagreement that organizational boundaries influence information and communication patterns in the bureaucracy, uncertainty remains about whether reorganizations lead, in fact, to improved public service delivery (Cingolani & Fazekas, 2020; Dan, 2014; Hong & Park, 2019). In particular, two general issues in this research strand require more attention:

(1) In general, scholars indicate a gap between the empirical and conceptual studies in public administration research (Bouckaert & Peters, 2002; Peters & Pierre, 2017). One concern relates to the at times weak conceptual fundament for the empirical study and analysis of in situ bureaucratic practices and processes without linking it back to theory development. In contrast, purely conceptual studies tend to downplay empirical realities and develop theoretical constructs that occasionally have little in common with actual experiences in the modern bureaucracy.

(2) Studies on administrative reorganization are skewed toward agencification. The establishment of public agencies has become popular in the reorganization of public administrations. Consequently, considerable research in this area addresses their purpose, design, and performance as well as their effect on the public governance structure (Pollitt et al., 2001). However, research on addressing the effects at the ministerial level after agencies have been installed has received far less attention (Hong & Park, 2019). This presents both an empirical and conceptual challenge for understanding the governance dynamics of any given policy area and arguably limits our holistic understanding of how agencies operate, given the close bond between the ministry and agency.

2.2   *Accountability developments as an assessment tool for governance reforms*

In the wake of governance reforms, organizational changes in the state bureaucracy are assumed to improve the quality of the services offered and to produce better outcomes for the overall sector compared with a status quo ante (Lægreid & Verhoest, 2010). With the intention of obtaining a better picture of the implications of administrative reorganization and agencification, the second relevant thematic strand relates to accountability developments as one aspect of changing governance arrangements (Dan, 2014; Overman & Van Thiel, 2016; see, e.g., Talbot, 1999).

Assessing the outcomes of governance reforms is not a straightforward endeavor. Reform assessments often face conceptual problems because it remains controversial what can be considered a policy success or failure, leading, among other things, to empirical and methodological challenges

(e.g., Bovens & 't Hart, 2016). For instance, the definition of an appropriate measurement period and the determination of how to deal with developments after an evaluation can significantly influence the validity of a conclusion (Bouckaert & Peters, 2002). Furthermore, reforms often come with unintended outcomes that are not in line with the original policy goals or with severe side-effects (Margetts & Hood, 2010). Consequently, research on the effectiveness of public administration in general and on the outcomes of agencification in particular has been referred to as an "Achilles' heel" in the field (Bouckaert & Peters, 2002). The literature has therefore suggested different approaches and yardsticks for measuring the outcomes of administrative reorganizations, including agencification, for example, by focusing on cost-efficiency, compliance, sustainability, transparency, and accountability (Overman & Van Thiel, 2016). In particular, accountability is argued to be an important assessment tool in governance reforms, as it contributes to the enhancement of democratic, constitutional, and organizational learning procedures (Bovens, 2007; Bovens et al., 2014). First, accountability is considered a possible limitation to random power, which reduces malpractices and thereby increases the legitimacy of bureaucratic actors. Second, it can sustain and increase governance quality by establishing mechanisms of critical review and evaluation, for example, through reporting requirements about goal achievements that have been agreed upon between bureaucratic actors (Bovens, 2007; Boyne, 2003; Trow, 1996).

Regarding accountability in higher education governance, administrative reorganization and agencification are some of the challenges that public authorities face in regulating the higher education sector. For instance, ministries with governance responsibility for higher education have empowered sector agencies to act on behalf of the ministry, whereas higher education institutions have received more leeway in developing their own agendas. At the same time, the ministry/minister remains accountable to the national parliament (Huisman & Currie, 2004). Creating subordinate agencies with encompassing governance responsibilities thus presents a new challenge in meeting accountability requirements to different actors in the governance matrix of the sector. In other words, agency accountability has become an important link in upholding general accountability expectations, but it remains unclear how these new developments play out in practice. Taking the above-listed deliberations and perspectives into account, this line of research could benefit from a focus on the following aspects:

(1) In general, the assessment of the outcomes of governance reforms remains inconclusive owing to conceptualization challenges and the continuous need for empirical evidence (Peters & Pierre, 2017). Taking accountability as a yardstick for assessing governance reforms can strengthen our understanding of effective governance arrangements in the higher education area. A longitudinal perspective can further provide necessary empirical evidence, thereby closing the divide between theory and empirics. Despite the centrality of the accountability concept in the public administration literature, there is an ongoing interest in how it works in practice in the governance relationships

between the ministry and agency (Brandsma & Schillemans, 2012). Although it is widely agreed upon that accountability is an important concept with various notions, effective accountability arrangements are usually expected "to fall into place" (Romzek, 2000). Additional empirical evidence on and a direct application of the concept to governance reforms would thus strengthen the usability of the concept.

(2) The accountability of central administrative organizations, such as the ministry and public agencies, plays a key role in public sector governance (Schillemans & Bovens, 2011). There is, however, some uncertainty about how their mutual governance relationship to each other ought to be designed, especially in the area of higher education (Capano, 2011). Focusing on the accountability relationship between ministry and agency and how it developed over time can thus contribute to an improved understanding of the effectiveness of governance arrangements, and this would benefit from some supporting empirical examples from the higher education sector.

2.3 Governance reforms and central administrative organizations in higher education

Administrative reorganization has led to continuous modifications in the governance of the higher education sector in Europe since the 1970s/80s (Van Vught, 1989). Public authorities increasingly adopted a steering-at-a-distance approach toward higher education institutions, in which the notion of enhanced institutional autonomy presented a key element (Capano, 2011; Kickert, 1995; Van Vught, 1989). This governance approach implied in essence result-oriented steering, contractual agreements with higher education institutions on central policy objectives, strengthening of leadership functions, and increased decision autonomy at the university level, for instance, in administrative, organizational, financial, or personnel matters (Maassen et al., 2017).

Another important element was the establishment of public agencies in higher education governance (Capano, 2011), which gathered pace by the end of the 1980s and in the early 1990s when national administrations began to change their governance relationship with universities and colleges, followed by a second wave at the end of the 1990s/early 2000s. Agencies increasingly executed governmental functions such as quality assurance and internationalization and became progressively central for regulating the higher education sector. One reason behind this development was the general ambition in the public sector to turn ministries into political secretariats (Christensen & Lægreid, 2007; Verhoest, 2012). As part of the result-oriented governance approach, ministries outsourced administrative functions to subordinate agencies, which became responsible for implementing the political agendas set by the ministry. These revised governance approaches entailed also organizational changes for the ministerial level itself. Parts of the ministry now had to follow up on agency behavior, restructure former administrative routines concerning the university and college level, and redirect resources to facilitate new governance mechanisms. There are, however, still

uncertainties about the outcomes of administrative reorganization in higher education in general and its agencification trends in particular, as the following examples show.

(1) Each sector creates unique policy characteristics that in turn require tailored governance arrangements. The higher education sector is defined by its long institutional history and the robustness of its scientific organizations in adapting and shielding its operations from an overarching administrative level (Maassen & Olsen, 2007). Given this particularity, agencies in this policy area might have different governance functions and are designed differently than, for example, agencies in the security or health sector (Capano, 2011; Huisman, 2009; Maggetti & Verhoest, 2014). In addition, there is a need for more conceptual and empirical work about the ministerial level in the higher education sector, especially regarding governance reforms (Braun, 2008; Capano, 2011).

(2) Whereas earlier agencification trends in higher education have received some scholarly attention (see, e.g., de Boer, 1992; El-Khawas, 1992), more recent studies address the changing governance mechanisms in the higher education sector caused by the establishment of sector agencies from the perspective of the government (Beerkens, 2015; Capano & Turri, 2017; Jungblut & Woelert, 2018). These studies primarily focus on the formal autonomy of public agencies and their implications for the sector's governance. Research on the informal dimension of agency autonomy linked to the governance relationship with the concerned ministry would further strengthen the significance of these studies and add to an improved understanding of the governance dynamics in this sector.

Table 2 summarizes the main aspects in the literature on higher education and public administration that would benefit from additional conceptual and empirical work and that this study has addressed. These aspects will be discussed in greater detail in Chapter 6.

Table 2: Aspects of interest in relevant thematic strands

Thematic strand	Administrative reorganization and agencification	Accountability developments as an assessment tool for governance reforms	Governance reforms and central administrative organizations in higher education
Conceptual and empirical aspects	Growing gap between empirical and conceptual studies in public administration research	Challenges in assessing the outcomes of governance reforms, amongst other things, because of uncertainty about how accountability falls into place after reforms	Higher education governance and policy less prominent in public administration research with less conceptual and empirical work on the ministerial level
	Less focus on the effects of administrative reorganization on the ministerial level (majority of studies on administrative reorganization skewed toward the effects of agencification)	Limited conceptual and empirical work on bureaucratic accountability in higher education governance	Somewhat weak empirical and conceptual basis for agencification in higher education; more focus on formal agency autonomy

3 Theoretical framework

To study the administrative reorganization and change dynamics of the public governance structure in the higher education sector, four interrelated concepts have been further developed and applied. The first is ministerial authority, which outlines the ministry's area of responsibility and jurisdiction in the sector. The second is agency autonomy, which concerns the room to maneuver a public agency has in achieving its mandate and for which part of the sector the agency is formally responsible. The third is organizational capacity, which concerns both the ministry's and the agency's resources to execute their mandate. In addition to these concepts, the different degrees of authority/autonomy and corresponding capacity levels are considered as the basis for determining the effectiveness of governance arrangements. The fourth and final concept is bureaucratic accountability, which is interpreted as a way of assessing the outcomes of administrative reorganization and governance reforms in the higher education sector. The chapter concludes with an overview of the thesis' theoretical framework.

3.1 Ministerial authority

One way to analyze the division of governance responsibility between a ministry and a public agency is to look at their organizational autonomy, defined as the ability "to translate […] own preferences into authoritative actions, without external constraints" (Maggetti & Verhoest, 2014, p. 239). In this study, the organizational autonomy of the ministry is conceptualized as "ministerial authority," whereas the autonomy of the public agency is referred to as "agency autonomy." The reason behind this conceptual divide is the natural power asymmetry between the ministry and agencies. In modern nation states, the ministry presents the supreme authority of the public administration and the executive branch and is politically steered by ministers appointed by their affiliated parties and the ruling government (Bogumil & Jann, 2009; Kuhlmann & Wollmann, 2014, p. 32). In this function, the ministry not only possesses high levels of formal autonomy but also is responsible for regulating the autonomy aspects of the subordinate agencies that have been assigned governance responsibility for specific policy themes (Capano, 2011; Christensen & Lægreid, 2007). Autonomy constraints for the ministry hence appear differently than, for example, those for agencies because of their different function in the state's polity. Particularly in democratic systems, notions of checks and balances equalize power asymmetries between different branches of the government (Bovens, 2007).

In times of increased pressures to modernize the public sector, the ministry is confronted with control and accountability challenges. For example, the ministry has to preserve some control over the sector and improve its own governance effectiveness, which is typically achieved through changes in its formal structure (Christensen & Lægreid, 2007). Consequently, changes in the overall organizational design of the ministry can be a result of shifting political constellations and

administrative reorganization (Egeberg, 2019; Hong & Park, 2019). After national elections, for example, new governmental agendas might deem it necessary to merge ministries responsible for higher education with ministries formerly responsible for research and innovation or to integrate policy areas such as education and training into a new ministry responsible for science policies in general.

For analytical purposes, this study distinguishes three organizational levels (upper, central, and bottom level), also in accordance with the empirical cases. The upper level includes the overall ministry and its comprehensive policy area responsibility, which is organized into different sections/departments (central level) that comprise different organizational sub-units (bottom level). To empirically grasp administrative reorganization, changes have been conceptualized as expansion, continuation, or authority loss (see Article 1).

Table 3 shows the two main indicators of change in ministerial authority identified in this study. The first indicator is the regulatory framework. Shifting areas of responsibility for the ministry are reflected in statutes, regulations, and laws, amongst other things. An example is a new university law that redefines the legal framework conditions for universities and public authorities. The second indicator is the internal organization of the ministry. Changes in the regulatory framework are typically reflected in the form of new organizational units and actors. Such changes can range from internal rearrangements (transfer of tasks from one unit to another) to outsourcing formal responsibilities (e.g., establishment of a public agency). For example, a new organizational unit responsible for internationalization and Europeanization agendas in higher education is considered as an authority increase because of the additional governance responsibilities for the ministry in that specific policy area. The same applies to the transfer of organizational units from other ministries and/or sections to a section responsible for higher education. By the same token, closing or transferring organizational units is considered as a limitation of ministerial authority.

Table 3: Indicators of ministerial authority

Ministerial authority
• *Regulatory framework*
o Specifications about governance responsibility in legal documents (statutes, regulations, laws)
• *Internal organization*
o Hierarchy of organizational levels (upper, central, bottom level)
o Assigned responsibilities of organizational units for specific policy themes

3.2   Agency autonomy

The second concept concerns the organizational autonomy of a public agency and describes the agency's mandate for a specific policy theme, such as quality assurance or internationalization in the higher education sector (Jungblut & Woelert, 2018). The agency's level of autonomy is contingent upon ministerial authority because it is formally part of the public administration and a prolongation of the ministry's agendas. Here as well, the legal framework provides important indications of how governance responsibilities are delegated and for which policy issues the agency is formally responsible. Capano and Turri (2017) took as a starting point the dilemma of balancing agency autonomy and governmental control. Their framework considers different types of autonomy, which depend on the agency's degree of legal power (high/low) in relation to the government's steering capacity (high/low). These categorizations result in four ideal-type agencies (dominant, additional, administrative, and instrumental), which differ in influence and function. The *dominant* agency is very influential because of its high levels of legal power and corresponding low levels of governmental steering capacity. The *additional* agency enjoys high degrees of legal power, yet it is constrained through dominant governmental capacity. The *administrative* agency has limited legal power accompanied by low governmental steering capacity, which results in its limited influence. The *instrumental* agency, with low levels of legal power, is an extension of a high capacity government (Capano & Turri, 2017, pp. 227–228).

As demonstrated in Article 2, a holistic understanding of governance changes in the higher education bureaucracy has to move beyond the formal categorizations and requires an examination of de facto autonomy aspects in ministry–agency relations (Bach, 2014; Bach et al., 2012). Such aspects concern how an agency maneuvers within its formal legal boundaries and to what degree are its actions understood as a deviation from the legal framework. Autonomy in this sense presents a dynamic instead of a static phenomenon, which is constantly negotiated between the ministry and agencies (Lægreid et al., 2008). Actual or de facto autonomy of the agency can imply, for instance, that policy issues for which there is no legal ground are covered or that agency decisions are regularly overruled by the ministry despite being legally secured. Although such extreme examples seem less likely in practice, they do indicate that "the level of formal autonomy is not a straightforward indicator of the level of actual or de facto autonomy" (Yesilkagit & van Thiel, 2008, p. 151).

For this reason, formal autonomy in this study is contrasted with notions of de facto autonomy (Bach et al., 2012) based on two perspectives: a) the ministry's perception on the agency's room to maneuver and b) the agency's own perception about its decision autonomy in certain governance settings. For example, how does the agency interpret its formal mandate in accreditation decisions for higher education institutions, and to which extent are these decisions accepted by the ministry? These interpretations underline the general view about what role the agency is expected to fulfil: Is the agency a mere instrument of ministerial interests, or is it allowed to independently

develop agendas in practice, despite its formal mandate as stated in the legal framework? Moreover, given the dynamic element in the governance relationship between the ministry and agency, de facto autonomy is subject to change over time. The actual autonomy of the agency can, for instance, expand or contract depending on earlier collaborative experiences or shifting interests at both the ministerial and agency levels. Actual agency autonomy must thus be seen as an evolutionary phenomenon (Bach, 2016). Such considerations are important to clarify the actual performance of agencies (Bach et al., 2012; Hawkins & Jacoby, 2006). Agencies are generally considered to be highly receptive to input from expert opinions, professional concerns, and stakeholders interests, all of which present elements of high bureaucratic effectiveness (see, e.g., Egeberg & Trondal, 2018, p. 10).

Table 4 presents the main indicators of agency autonomy in this study based on the considerations above. The first indicator concerns the legal status and formal responsibility of the agency, such as the agency's organizational format as determined by law (e.g., association, private foundation, or limited liability company (LLC)). The legal framework also specifies the agency's governance responsibilities for a specific policy theme as delegated by the ministry. The second indicator refers to the de facto autonomy of the agency—that is, its room to maneuver in practice within the existing legal framework—based on ministerial and agency perceptions and self-evaluations. Complementary to the former aspect is to examine to which degree the agency's actions adhere to or deviate from the legal framework.

Table 4: Indicators of agency autonomy

Agency autonomy
- *Legal status and formal responsibility*
  - Official organizational format
  - Delegated governance responsibility as outlined in legal documents (statutes, regulations, laws)
- *De facto autonomy*
  - Maneuvering room for the agency within the existing framework based on ministerial and agency perception
  - Degree of adherence/deviation of agency action from legal framework

3.3 Organizational capacity

To examine the effectiveness of the division of governance responsibilities between public authorities, the third central concept is the capacity of ministries and public agencies. This concept is inspired by Wu et al. (2018), who suggest different approaches to examine capacity developments in the public administration. The advantage of their framework is that it allows for an encompassing yet distinct analysis of capacity in different parts of the public administration (see Table 5). This study

focused on organizational capacity at an operational level for two reasons. First, the study's research object is administrative reorganization and agencification, which result in the establishment of new organizational boundaries. This makes it necessary to study resource and capability developments at an organizational level. Second, the study aimed at better understanding the consequences of formal organizational changes for new governance arrangements. This requires a closer examination of the organization's operational capacity in the sense of its implementation strength rather than investigating its analytical or political capacity aspects (see also Wu et al. 2018).[2]

Table 5: Level of analysis based on Wu et al. (2018, p. 4)

Levels of resources and capabilities	Skills and competences		
	Analytical	Operational	Political
Individual	Individual analytical capacity	Individual operational capacity	Individual political capacity
Organizational	Organizational analytical capacity	Organizational operational capacity	Organizational political capacity
Systemic	Systemic analytical capacity	Systemic operational capacity	Systemic political capacity

Capacity at the organizational level involves, among other things, the commitment to policy goals, fiscal and personnel resources, and administrative accountability (Wu et al., 2018). At the ministerial level, high organizational capacity enables ministerial units to more effectively follow up on agency behavior and "give a steer to the implementation process" (Egeberg & Trondal, 2018, p. 78). This is typically accompanied by layering, meaning that organizational units created within the ministry monitor agency behavior. From an efficiency perspective, such arrangements often lead to governance redundancies, which implies less effective division of labor concerning defining areas of responsibility (Christensen & Lægreid, 2007). Moreover, one can expect diminishing trust because of increased control capacity. At the agency level, changes in budget figures and staff numbers can also provide indications for the relative autonomy and effectiveness of the agency compared with the ministry. Carpenter (2001) points out that large agencies eventually hold more de facto autonomy because they can more easily resist control from superior bodies owing to their size. A similar argument is made by Egeberg and Trondal (2009), who see increasing agency expertise as leverage for enhanced agency autonomy.

---

[2] The sometimes unclear analytical boundaries between the different dimensions and levels lead to instances such as political and analytical capacity at an individual or systemic level, which the thesis also touched upon. Although these topics are not at the centre of attention, they contributed to an improved understanding of general capacity changes within the higher education administration.

This study particularly focused on fiscal and personnel resources because these can be considered the most tangible and relevant capacity indicators at the organizational level (Egeberg, 2019; Fukuyama, 2013). The basic change options with respect to these capacity indicators under administrative reorganization have been operationalized as "increase," "decrease," and "stability" of budgets and staff. Increasing capacity, for instance, implies new budget allocations and/or that additional employees are assigned to a specific policy area, whereas decreasing capacity refers to fiscal cuts and/or a reduction in the number of employees. Non-significant changes in staff and budget numbers are indications for stable transition periods.

Another capacity indicator used in this study is related to the educational background of state employees to identify "qualitative" adjustments during administrative reorganization. As pointed out earlier, the underlying argument is that education is expected to frame staff preferences, which determine policy content and future focus areas of organizational units more than hitherto expected (Egeberg & Trondal, 2018; Fukuyama, 2013). The same change options apply to the educational background of staff as well (increasing, decreasing, or the same number of educational degrees in an organization).

Table 6 outlines the three main indicators of organizational capacity used in this study. Fiscal resources relate to the operational budgets of the ministry and agency and the allocated funds to specific policy themes. Personnel resources concern the number of ministerial and agency staff who have been assigned/transferred to specific policy themes within the respective organizations. The staff's educational background represents the third indicator, which concerns their formal educational degree.

Table 6: Indicators of organizational capacity at the operational level

Organizational capacity
- *Fiscal resources*
    - Operational budgets of the ministry and agency assigned to specific policy themes
- *Personnel resources*
    - Number of ministerial and agency staff assigned to specific policy themes
- *Educational background of state employees*
    - Formal educational degree of ministerial and agency staff

The relation between authority/autonomy and capacity

In general, capacity represents an important dimension in complementing authority/autonomy changes at both the ministerial and agency levels (Araral et al., 2015; Capano et al., 2015). Here, the added analytical value lies in considering whether some capacity levels are more appropriate than

others. By looking at authority/autonomy and capacity in an integrated approach, it is possible to consider whether some organizational constellations and governance arrangements are more effective than others (Fukuyama, 2013). The underlying assumption is that organizational actors need an appropriate amount of resources for their given mandate (and vice versa), which eventually determines the effectiveness of the organization's actions in a sector's governance arrangements.

In the original approach by Fukuyama (2013), autonomy and capacity referred to an individual dimension in the bureaucracy, meaning the autonomy and capacity of civil servants. This approach is motivated by an interest in low-performing bureaucracies, in which malpractices of bureaucrats are considered to paralyze the functioning of the public administration. Adjustments in the bureaucrats' autonomy, dependent on their actual capacity, is considered to effectively regulate their behavior (Fukuyama, 2013, pp. 360–363). Possible consequences for the organizational level are that organizational units with low capacity (e.g., low educational level of staff) should have low levels of discretion, whereas organizational units with high capacity need more leeway to unfold their potential.

This approach can identify in a simple yet effective way the basic functions of the public administration and allows for formulating well-considered expectations of effective governance arrangements. It comes, however, with certain limitations for this study. An important limitation relates to the study's context. Higher education sectors in Western European countries are highly organized and complex, which makes studying autonomy–capacity interactions on an individual level less valid than in low-income country contexts. Such an individual approach can present a limitation to assessing the effectiveness of the bureaucracy because the individual level in contexts such as Austria and Norway is embedded in a thick web of accountability requirements and institutional control that counterbalances considered malpractices. Therefore, in these contexts, examining effective governance arrangements from an organizational perspective based on the interaction between different organizational actors regarding their autonomy and capacity is more appropriate (see also Braun, 2008).

In this study, such interactions have been approached from two different perspectives. The first is an *intra-organizational* perspective, meaning how the ministry and agency balance authority/autonomy and capacity *within* their organization. Different autonomy levels were considered in relation to varying degrees of capacity and how these have developed over time in the respective organization. The second is an *inter-organizational* perspective, meaning how the ministry and agency balance authority/autonomy and capacity *with each other*. This perspective addresses how the ministry and agencies govern higher education in a combined way. Here, the relationship is based on the varying degrees of autonomy–capacity on the ministry's side in contrast to varying degrees of autonomy–capacity on the agency's side.

The different autonomy–capacity constellations are presented in Articles 1 and 2. Article 1 particularly discusses intra-organizational change constellations at the ministerial level (e.g., authority expansions/limitations in combination with capacity changes). In so doing, possible implications for the agency level are presented, which provide the fundament for investigating inter-organizational changes, as presented in Article 2. Here, combined autonomy and capacity developments are considered (e.g., expanding or shrinking ministerial influence in combination with powerful or less influential agencies) (Capano & Turri, 2017). The different constellations also incorporate possible implications for the overall sector's governance. For example, ministries that have the capacity to control expanding agencies might present a stronger regulation of de facto university autonomy, whereas less overall governmental capacity can imply enhanced de facto university autonomy (see also Christensen, 2011).

In sum, studying the autonomy–capacity relations between the ministry and agencies in higher education policy is argued to be a valid step in considering effective governance arrangements because it can reveal the potential impact of public authorities on the sector (Capano et al., 2015; Migdal, 1988; Wu et al., 2018). To substantiate this claim, the authority/autonomy–capacity analysis in this study was complemented with a focus on accountability developments because investigating differing autonomy–capacity levels both separately and jointly has high exploratory yet limited explanatory value. A necessary extension was therefore to consider to what extent autonomy–capacity changes at the ministerial and agency levels have led to more effective governance arrangements in the higher education sector. Research on accountability developments functioned as a yardstick and provided a way of reviewing the outcomes of autonomy–capacity changes.

3.4   *Bureaucratic accountability*

Understanding to what degree and in which form public authorities are held accountable is essential in higher education governance (Huisman & Currie, 2004; Trow, 1996). Accordingly, this study explicitly focused on accountability developments at the ministerial and agency levels as a proxy for the effectiveness of governance reforms in this sector (Krüger et al., 2018). From an organizational perspective, accountability presents a key concept, amongst other things, because it can improve organizational learning and strengthen democratic and constitutional standards (Bovens et al., 2008). At the same time, it is a highly contested, ambiguous, and even "magic" concept that no one can be against and that encompasses a variety of aspects, which makes its analytical use challenging (Pollitt & Hupe, 2011).

For this reason, the study related accountability with the examination of governance arrangements and formal organizational changes (Egeberg & Trondal, 2018). Furthermore, accountability in this study was conceptualized and labeled as bureaucratic accountability to emphasize the bureaucratic nature of organizational and governance changes in the public

administration and to more clearly separate it from other forms of accountability, such as public or social accountability (Bovens, 2007).

Three different sub-forms were assumed to constitute bureaucratic accountability (political, legal, and administrative accountability) and were considered suitable for the study of bureaucratic organizations. Political accountability considers issues of political control and responsibilities toward society as well as other political actors. Legal accountability considers the formal legal implications of the structural separation between the ministry and agencies, for example, by defining areas of responsibility between the two. Administrative accountability, which is closely related to legal accountability, mainly concerns collaborative patterns in ministry–agency relationships and how areas of responsibility are legally defined (Bovens et al., 2014). As a basic rule, any interaction between bureaucratic actors within these sub-forms must comprise at least three elements: 1) one entity informs another actor or forum on its (organizational) performance, 2) this actor or forum must have the opportunity to question the performance; 3) the actor or forum can impose sanctions (Bovens, 2007; Romzek, 2000).

Table 7 outlines several indicators for the three sub-forms of bureaucratic accountability. This study argued that political accountability is ensured if agency activity is made transparent, for instance, through publicly accessible repositories on agency activities, public hearings and inquiry panels, and governance boards comprising political and public representatives. Administrative accountability can be measured by formal and informal meeting patterns and communication channels, policy directives sent by the ministry, and their follow-up by the agency through financial reporting and spending protocols. Finally, legal accountability can be measured by reporting requirements to legal actors, following through legal procedures, conducting organizational evaluations, and reporting assessment requirements.

Table 7: Indicators of bureaucratic accountability

Bureaucratic accountability

• *Political accountability*
     o Publicly accessible repositories on agency activities
     o Public hearings and inquiry panels (e.g., parliament)
     o Governance boards comprising political and public representatives
 • *Administrative accountability*
     o Meeting patterns and communication channels (formal and informal)
     o Policy directives/letters of instruction sent by the ministry
     o Financial reporting and spending protocols
 • *Legal accountability*
     o Reporting requirements to legal actors
     o Following through legal procedures (rule-bound)
     o Organizational evaluations and assessment requirements

3.5   Overview of the study's framework

Taken together, the abovementioned concepts constitute the analytical framework of this study. The concepts were derived from careful consideration of how administrative reorganization can affect new governance arrangements and policy output in the higher education sector. One key element in such transformations, which the study intended to examine in greater detail, was the vertical specialization of the ministerial bureaucracy in the form of the establishment of agencies. Thus, the development of ministerial and agency mandates and their capability to realize their mandate was of central interest. In addition, whether specific constellations in the way the bureaucracy was organized had a positive impact on the governance of the higher education sector was considered. This was analytically addressed by conceptualizing organizational autonomy into ministerial authority and agency autonomy, paired with an investigation of the corresponding capacity levels. By paying special attention to accountability developments it was possible to gain a better understanding of the outcomes of administrative reorganization.

Table 8 provides an overview of the study's key analytical concepts and indicators as presented in the three articles. The study of ministerial authority, agency autonomy, and organizational capacity was central in Articles 1 and 2, whereas Article 3 focused on bureaucratic accountability. The second row of the table shows the main indicators for the respective concepts and what they were used to examine. The legal framework and de facto ministerial authority depict formal organizational changes at the ministerial level and show how areas of responsibility at this level have developed. Similarly, the legal framework and de facto agency autonomy demonstrate how the agency level is set up in correspondence to the ministerial level. Operational budgets, staff numbers, and their educational background were used to identify how effectively the formal changes at the ministerial and agency levels were put into place. Finally, the study of political, administrative, and legal accountability as sub-forms of bureaucratic accountability presented a way of assessing the actual outcomes of organizational change in the bureaucracy and its impact on new governance arrangements in the higher education sector.

Table 8: The study's theoretical framework

	Article 1			Article 3
	Article 2			
Central concepts	Ministerial authority	Agency autonomy	Organizational capacity	Bureaucratic accountability
Main indicators	Legal framework De facto authority	Legal framework De facto autonomy	Operational budget Staff numbers Professionalization	Political, administrative, and legal accountability
Used to examine	Formal organizational change at ministry level Areas of responsibility	Formal organizational change at the ministerial and agency levels Dynamics of ministry–agency governance relationship	Effectiveness of formal organizational change	Assessment of new governance arrangements with focus on accountability

4 Research design and methodology

Scientific studies are a reduction of reality, and the methodological choices made have both practical and theoretical implications (Maxwell, 2013). This chapter aims to clarify these implications and the motivations that led to specific methodological choices. First, the research design and case selection strategies are presented. Next, the empirical contexts are outlined, followed by information on data collection and fieldwork experiences. In the sections that follow, the analytic strategies and techniques as well as considerations about methodological quality are put forward. Finally, ethical considerations in conducting research are discussed.

4.1 Research design and case selection

4.1.1 Research design

This study is based on qualitative research design and compares two cases with two units of analysis each (see Figure 1 hereafter). The comparative design allows observing and examining an extract of a specific phenomenon in its various facets, which makes it a popular research design in qualitative research (Patton, 2014). Case studies allow for a holistic, in-depth, and real-world perspective (Yin, 2014), which was considered suitable for this study given the complexity of various organizational settings and governance arrangements.

To enhance our understanding of the study's research phenomenon and the analytical value of the case design, comparative elements were added. Two cases—the Austrian and Norwegian ministries with governance responsibility for higher education—with multiple embedded units of analysis were selected (Yin, 2014). Comparing the two cases proved to be a productive approach, as it carved out the particularities of each case and its context more clearly (Almond et al., 2008; Bryman, 2016) and enhanced the analytical value of the applied concepts in line with the arguments presented in the following quote (Bennett, 2001; Eisenhardt & Graebner, 2007):

> [c]ase studies are much stronger at identifying the scope conditions of theories and assessing arguments about causal necessity or sufficiency in particular cases than they are at estimating the generalized causal effects or causal weight of variables across a range of cases. (George & Bennett, 2005, p. 25)

In this sense, the study is rather exploratory than explanatory (Yin, 2014), although it offers possible rival explanations for the differences in the cases' outcomes.

4.1.2   Case selection

Case selection in this study followed the logic of purposeful sampling, which is the deliberate choice of contexts, events, or participants necessary for the provision of information relevant to the research interest that otherwise cannot be acquired through other choices (Maxwell, 2013). The boundaries between a case and its context are not always clear, which means that "there will be many more variables of interest than data points" (Yin, 2014, p. 17). Given these unclear boundaries, the design of the cases of this study depended on careful selection informed by theoretical and conceptual groundwork (i.e., organizational theory approach to public administration research) and relying on multiple data sources (Patton, 2014). The cases of this study are considered typical and representative for the population of interest (Seawright & Gerring, 2008)—that is, mature and complex higher education sectors undergoing comprehensive governance reforms through administrative reorganization. Examining how the reforms translated into new organizational designs especially called for an in-depth investigation of cases where changes in the ministerial bureaucracy and the establishment of public agencies played a central role (which present the "universe" of all potential cases). These criteria typically apply to the higher education systems in continental Western Europe.

Given the abovementioned theoretical and methodological considerations, the Austrian and Norwegian public administrations and higher education sectors presented relevant empirical contexts in continental Western Europe, amongst other things, owing to their similar reform trajectory and timeline. Both in Austria and Norway, substantial governance reforms were introduced in the early 2000s (the University Act 2002 in Austria and the Quality Reform 2003 in Norway). Within the higher education bureaucracy, organizational change at the ministry and the establishment of public agencies presented important structural changes. Examining two cases instead of one from this "universe" was considered an appropriate research approach to minimize biases and the idiosyncratic findings of a single case study (Eisenhardt & Graebner, 2007; Yin, 2014). Figure 1 displays the two empirical contexts of this study, including the two cases of interest and their respective embedded units of analysis.
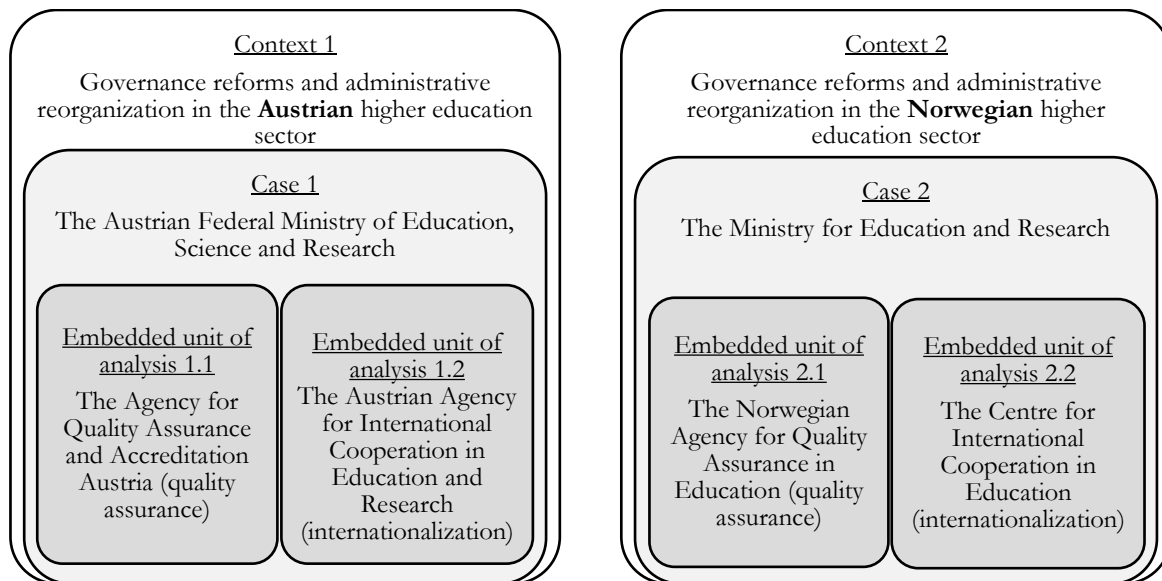
Figure 1: Multiple case study design with units of analysis based on Yin (2014, p. 50)

The study covers a period of around 20 years, from the end of the 1990s/beginning of the 2000s until 2018. This period was chosen because of the changing framework conditions for European higher education in the past decades. The end of the 1990s is characterized by national modernization agendas aimed at enhancing institutional autonomy, as seen, for example, in Austria and Norway. The new university laws in both countries implemented since 2002 and 2003, respectively, thus mark a suitable starting point for investigating the outcomes over time. In so doing, the reform dynamics and ambitions in both national contexts as well as the implications of administrative reorganization and agencification in both systems are captured. Given that major reorganization processes were initiated in 2018 (ministerial mergers in Austria and organizational changes within the ministry and revised agency structure in Norway), ending this study at this point of time seems natural and allows for a thorough assessment of the reform outcomes.[3]

4.2 Empirical context

4.2.1 The Austrian context

Austria is a centralized federal state with a long tradition of public agencies and with a bureaucracy that has a strong legalist orientation and status hierarchy (Hammerschmid & Meyer, 2005). Austria has been a consistent but cautious follower of NPM-inspired reform styles. Its high skepticism toward managerial concepts, limited managerial autonomy, and high number of civil servants with legal background present some of the obstacles compared with more adaptive bureaucracies

---

[3] Statistical data (staff numbers/operational budgets) are thus only shown until the year 2017.

(Hammerschmid & Meyer, 2005). In comparison with other European bureaucracies, the Austrian bureaucracy has high performance in strategic planning capacity and in the inclusion of public actors in policymaking but scores lower in public accountability (Thijs et al., 2017).

In 2017, the Austrian higher education sector comprised 22 public universities, 21 universities of applied sciences, 12 private universities, and 23 pedagogical higher education institutions (both public and private). Together, they enrolled about 363,000 students and employed around 81,000 staff (excluding pedagogical higher education institutions). The total budget for higher education in 2017 amounted to EUR 4.2 billion, which presented 1.15% of the Austrian gross domestic product (GDP) (see *Statistisches Taschenbuch*, 2018).

The sector underwent substantial changes with the introduction of the University Act 2002. This modernization act was an attempt to tackle various societal expectations and overcome institutional deficiencies in the form of enhanced institutional autonomy and less ministerial interference (Winckler, 2012). For higher education institutions, the modernization implied strengthened institutional leadership, the possibility to design their own organizational layout, and more autonomy in personnel policies, which included the transition of staff from civil service to private contract law (Pechar, 2004).

The Austrian Federal Ministry of Education, Science, and Research

The ministerial unit of interest is the higher education section,[4] which was part of several different ministries. It is currently part of the Austrian Federal Ministry of Education, Science, and Research (*Bundesministerium für Bildung, Wissenschaft und Forschung (BMBWF)*), which in this form did not exist until 2018. The section was part of the Federal Ministry for Education, Science, and Culture (*Bundesministerium für Bildung, Wissenschaft und Kultur (bm:bwk)*) from 2000 to 2007 and then of the Federal Ministry for Science and Research (*Bundesministerium für Wissenschaft und Forschung (BM.W_F)*) between 2007 and 2014. From 2014 to 2018, it was assigned to the Federal Ministry for Science, Research, and Economy (*Bundesministerium für Wissenschaft, Forschung und Wirtschaft (BMWFW)*).

Organizational changes of the higher education section are intertwined with changes in the overall organizational format of the ministry (at least formally) and in the agency structure related to quality assurance and internationalization. The main structural changes occurred in the form of capacity reductions. The staff numbers showed a steady decline from 226 employees in the year 2000 to 116 in 2007. Since then, staff numbers remained relatively stable until 2017 (113). The data collected on the section's operational budget indicate a decline, but these data are rather unreliable

---

[4] In the Austrian context also referred to as the "science ministry" together with other sections dealing with higher education and research agendas.

because accounting procedures substantially changed in the Austrian public administration during the study period.

The Agency for Quality Assurance and Accreditation Austria

The Agency for Quality Assurance and Accreditation Austria (*Agentur für Qualitätssicherung und Akkreditierung Austria (AQ Austria)*) conducts various quality assurance tasks related to Austrian higher education (such as the accreditation of institutions and study programs) and studies and analyzes quality development and enhancement at both the national and international levels. The agency was established in 2012 based on the Act on Quality Assurance in Higher Education (*Hochschul-Qualitätssicherungsgesetz (HS-QSG)*) implemented in 2011. Until then, accreditation and quality assurance was the responsibility of three separate organizations, each responsible for different types of higher education institutions: the Austrian Agency for Quality Assurance (AQA) for tertiary education institutions in general, a council for universities of applied sciences (*Fachhochschulrat (FHR)*), and a council for the accreditation of private universities (*Österreichischer Akkreditierungsrat (ÖAR)*). AQ Austria started with 26 employees in 2012, a number that slightly increased (to 32) until 2017. The operational budget also shows an increase during the same period, from EUR 1.66 million in 2012 to EUR 2.54 million in 2017.

The Austrian Agency for International Cooperation in Education and Research

The Austrian Agency for International Cooperation in Education and Research (*Österreichischer Austauschdienst (OeAD)*) was founded as an association in 1961 in response to increasing internationalization issues at Austrian higher education institutions. Since its establishment, the OeAD dealt with matters of academic exchange and international cooperation in higher education. Consequently, the OeAD maintained a close relationship with the universities, which played an important role in the internal governance of the association. In 2009, the OeAD was formally turned into a company with limited liability (*Gesellschaft mit begrenzter Haftung (GmbH)*) owned by the ministry. Nowadays, the OeAD is the coordinating institution for international exchange on the secondary, tertiary, and vocational education level. Its mandate includes coordinating various educational and training programs, running national coordination programs for educational matters, and providing policy input for the internationalization of education and science. Because of the enhanced mandate, staff numbers increased from 100 to 228 between the years 2000 and 2017, and the operational budget grew from EUR 4.95 million to EUR 14.02 million.

4.2.2 The Norwegian context

Norway is a unitary-decentralized constitutional monarchy. The Norwegian bureaucracy is characterized by flat hierarchies and consensus-orientation, and it favors strong collectivist and egalitarian values. Although earlier forms of agencies existed in Norway since the 19th century, their reinvention in the NPM reforms has led to their constant expansion since the 1990s (Christensen et al., 2008). NPM-inspired reforms have led to increased complexity of the bureaucracy, with new layers added on top of existing structures. This development has led to a continuous structural differentiation within the bureaucracy, where specific governance tasks are increasingly transferred to public agencies (Christensen & Lægreid, 2009). The Norwegian bureaucracy scores high in, for example, the inclusion of public actors in policymaking and public accountability (Thijs et al., 2017).

In 2017, the Norwegian higher education sector comprised 21 public institutions (9 universities, 6 professional higher education institutions, and 6 specialized scientific higher education institutions) and 17 private institutions (3 specialized scientific higher education institutions and 14 professional higher education institutions offering accredited study programs). These institutions have enrolled around 258,000 students and employ 37,000 staff members (academic and administrative/technical personnel). The total budget for higher education in 2017 was NOK 46.6 billion,[5] which is 1.6% of the country's GDP (see *Tilstandsrapport for høyere utdanning 2018*, 2018).

By the end of the 1990s, the increasing size and complexity of the higher education sector led to dissatisfactions about the existing governance arrangements. A governmental commission examined the various challenges Norwegian higher education was facing at that time and came up with a comprehensive reform proposal. Their suggestions presented the basis for the Quality Reform 2003 that led to the harmonization of the study structure in line with the Bologna process, increased incentives for internationalization, and changed governance structures within universities (Bleiklie, 2009).

<u>The Ministry for Education and Research</u>

The Ministry of Education and Research (*Kunnskapsdepartementet (KD)*) has the overall national responsibility for education on all levels and was established in its current overall organizational format in 2006. The ministry has administrative responsibility and formal ownership over several public organizations, including public agencies, research institutes, and universities and colleges.

The organizational unit of interest within the ministry is the Department of Higher Education. Between 2002 and 2005, the department consisted of three sections: the Budget and Economic Section, the Section for Regulations and Organizations, and the Technical Section. With its

---

[5] At the beginning of 2017, the exchange rate for Euro 1 was around NOK 9.

formal establishment as Ministry of Education and Research in 2006, the Department of Higher Education then consisted of four sections that lasted until 2018 (Section for Budget and Economy, Section for Education and Quality Assurance, Section for Ownership and Management, and Section for Research and Innovation). In 2018, the ministry underwent a comprehensive change in its organizational format by rearranging the responsibility for higher education both internally as well as at the agency level. The staff numbers of the Department of Higher Education remained relatively stable (from 67 employees in 2002 to 61 in 2017). The operational budget for the entire ministry increased from NOK 155 million in 2000 to NOK 365 million in 2017. Like in the Austrian case, reliable data for the development of the department's operational budget could not be extracted.

The Norwegian Agency for Quality Assurance in Education

The Norwegian Agency for Quality Assurance in Education (*Nasjonalt organ for kvalitet i utdanningen (NOKUT)*) is a public agency responsible for the quality assurance of Norwegian higher education institutions and study programs as well as for the accreditation of foreign study degrees. NOKUT's role is to stimulate quality development in Norwegian higher education by controlling, analyzing, and disseminating quality procedures.

NOKUT began operations in 2003 as a result of the Quality Reform. NOKUT is the informal successor of a body called the Norway Network Council (*Norgesnettrådet*), which was subordinate to the ministry and had consultative functions. The organization's purpose was the same as that of NOKUT—to focus on quality development in the sector on the basis of national and international developments. However, it had a much more limited mandate and less organizational autonomy than its successor. Over the years, NOKUT became an influential actor in the Norwegian higher education landscape, as seen in its continuous mandate expansions and organizational adaptations. The administrative reorganization processes initiated by the ministry in 2018 also led to changes in NOKUT's operations. In line with NOKUT's otherwise continuous mandate expansions in the years before the reorganization, their staff numbers grew from 34 employees in 2003 to 126 in 2017, and their operational budget increased from NOK 26 million in 2003 to NOK 152 million in 2017.

<u>The Centre for International Cooperation in Education</u>

The Centre for International Cooperation (*Senter for internasjonalisering av høyere utdanning (SIU)*) is a public agency responsible for developing international cooperation in research and (higher) education.

SIU became a public agency in 2004 and was the successor of the *Senter for internasjonal universitetssamarbeid,* which was founded in 1991. This organization was a program association formally linked to the University of Bergen and had a much a more limited mandate than that of SIU after 2004. Since 2004, SIU's mandate continuously expanded, leading to a range of organizational adaptations. A major change was the result of an evaluation from 2010, which suggested structural adaptions for the SIU's future operation. By the end of this study period, SIU's mandate was expanded even further, as part of the ministerial reorganization processes (e.g., newly assigned responsibility for the Norwegian Centers of Excellence in education). Owing to these mandate expansions, SIU's staff numbers grew from 21 employees in 2000 to 101 in 2017. SIU's operational budget increased from NOK 21 million in 2000 to NOK 116 million in 2017.

Table 9 compiles the key developments of the above-presented cases and embedded units of analysis, showing the changes in their formal organizational status as well as capacity developments during the study period.

Table 9: Examined organizations with key developments between 2000 and 2017

AUSTRIA	NORWAY
The Austrian Federal Ministry of Education, Science and Research • Major changes in the overall organizational format • Substantial capacity reduction	**The Ministry of Education and Research** • Stable organizational adaptations • Stable capacity developments
The Agency for Quality Assurance and Accreditation Austria • Long institutional history from association to public agency in 2009 • Mandate expansion • Substantial capacity growth	**The Norwegian Agency for Quality Assurance in Education** • First a consultative body and then a public agency • Mandate expansion • Substantial capacity growth
The Austrian Agency for International Cooperation in Education and Research • Founded in 2011 with new quality law • Limited mandate • Stable capacity developments	**The Centre for International Cooperation in Education** • First an association and then a public agency • Mandate expansion • Substantial capacity growth

4.3   Data collection and fieldwork

The empirical evidence in this study was collected from statistical data, documents, and interviews. An important consideration that informed data collection and the selection criteria was the longitudinal aspect of the study. The codified data (numbers and documents) cover a period from 2000 to 2018. The interviews highlight the dynamics and developments within the respective public administrations and higher education sectors since the 1990s. In the following, the specific types of collected data and the collection process itself (including fieldwork experiences) are discussed. The selection criteria and the strengths and weaknesses of the different data sources (validity issues) are discussed in sections 4.4 (Analytic strategy and process) and 4.5 (Methodological quality).

4.3.1   Statistical data

The first data source was statistical data about the public administrations in both contexts. As a proxy for organizational capacity, staff numbers, operational budgets, and information on the educational background of state employees were collected (Fukuyama, 2013; Wu et al., 2015). Staff was defined as full-time employees with a permanent contract and civil servant status. Budget figures were understood as the operational costs (working capital) of the organizations, which included personnel costs but excluded funds channeled to the sector (e.g., university budgets). Educational background of the staff included the formal (higher) education qualification of the individual employee (e.g., bachelor, master, or PhD) and the subject areas in which these qualifications were earned (e.g., IT, social sciences, or humanities).

The statistical data were derived from various sources. The first was national databases, which are responsible for the collection and dissemination of data about public administration performance, higher education sectors/science systems, and general socioeconomic developments.[6] In Norway, a relevant database was the Data on the Political System (PolSys), which is a sub-section of the Norwegian Centre for Research Data (NSD). This database contains staff numbers of KD, NOKUT, and SIU as well as the organizations' annual reports. The staff numbers were complemented and crosschecked with information found in annual reports and were also directly obtained from the organizations upon request. The annual reports contained information about the operational budgets of the two agencies: NOKUT and SIU. Information about the ministries' operational budgets (especially the higher education section) was provided directly upon request.

In the Austrian case, Statistics Austria was consulted, which is the national database and information system for federal statistics on economic, educational, and social developments. This database contains reports about federal ministries, including staff number and budget developments

---

[6] Given the study's focus on bureaucratic organizations responsible for higher education, the national databases on higher education—for example, the Database for Statistics on Higher Education (DBH) in Norway and uni:data in Austria—merely provided contextual information about the sector's performance.

on the federal level. However, extracting consistent and comparable budget figures presented considerable challenges mainly for two reasons. First, during the study period, the Austrian public administration underwent several changes in its financial accounting procedures. These changes implied, amongst other things, different ways of defining operational budgets. An operational budget of the ministry in 2016, for instance, was calculated differently than in 2005. Second, access to budgets linked to higher education operations was denied by the higher education section upon request owing to confidentiality issues. Reconstructing staff number developments was possible using internal documents about task allocations (see *Geschäftseinteilung*). These numbers were also validated by the ministry and in the interviews. Regarding the Austrian agencies OeAD and AQ Austria, these numbers were directly received from the organizations. A special case is AQ Austria and its emergence from three separate quality assurance organizations in the study period. One could have considered their staff numbers and operational budgets as important for tracing the development of quality assurance in Austria in the years before 2011. However, given their factual non-existence since 2011, extracting reliable numbers on staff members/operational budgets for the years before proved to be difficult. Moreover, quality assurance for public universities was not as strictly regulated as that from 2012 onward. Therefore, the argument can be made that quality assurance from an agency perspective played a minor role in the Austrian context without necessarily substantiating that fact with consistent numbers on capacity developments.

4.3.2 Documents

The second data source was documents, which contained information about organizational mandates, policies, and strategies (see Appendix 1). The main purpose of extracting data from documents was to track different governance arrangements in higher education and how these developed over time. The documents used in this study can be divided into three different types.

The first type was national higher education regulations and laws. The University Act 2002 and its various amendments until 2018 presented the regulatory framework in Austria. Other important sources were the OeAD law from 2008 and the Act on Quality Assurance from 2012, both in the amended versions from 2018. In the Norwegian context, the main source on legal issues was the university law from 2005 (*universitets- og høyskoleloven*), which comprises regulations about NOKUT and SIU.

The second type was (internal) organizational documents, which again can be divided into two sub-categories: annual reports, which contain information about the organizations' profile and key developments, and documents, which are important for communication pathways in the public administration either intra-organizationally (e.g., *Geschäftseinteilungen* of the Austrian ministry) or inter-organizationally (e.g., *tildelingsbrev* between the Norwegian ministry and the agencies).

The third type was complementary material comprising organizational documents and public reports, such as strategic papers, evaluation reports, or performance brochures. Two reports should be explicitly mentioned, given their importance for the overall scope of the project. The first one was the official report *Frihet med ansvar. Om høgre utdanning og forskning i Norge* (Freedom with responsibility. On higher education and research in Norway) presented by the Mjøs committee in 2000. This report formed the basis for the Quality Reform 2003, which eventually led to the revised higher education law from 2005. The second one, the Austrian equivalent to this report is *Universitäten im Wettbewerb. Zur Neustrukturierung österreichischer Universitäten* (Universities in competition. About the restructuring of Austrian universities). This report was presented in 2000 by a commission that discussed central developments in the Austrian higher education sector. The recommendations made in this report eventually led to the University Act 2002.

In general, all these documents were publicly available and did not need security clearance. However, they were neither regularly published (e.g., annually) nor easily accessible (e.g., on the organizations' websites). To acquire relevant documents, various organizations, public services (online repositories/databases), the parliament, or national libraries were directly contacted.

4.3.3 Interviews

The third data source was semi-structured interviews. Their main purpose was to reveal the dynamics underlying the change processes in the public administration. First, given the longitudinal aspect of the study, participants with long organizational memory were of interest. Second, interview participants with key functions in their respective organizations were considered relevant (e.g., leadership/executive positions). Finally, yet importantly, participants were considered relevant if they played a central role in the administrative change processes that took place during the study period. These considerations resulted in 26 interviews with 28 participants, which were conducted mainly face-to-face except for 2 telephone interviews and 1 Skype interview. Appendix 2 provides an overview of the conducted interviews, including the affiliation of the participants, their work experience, their leadership position, and whether they played a key role during the reforms.

The first set of interviews took place in Norway over a period of approximately four weeks in spring 2018. The second set took place in Austria in May 2018. Some of the interviews were conducted in-between or after these two sessions and were mainly via telephone or Skype. The latter were also meant as a follow-up to clarify specific issues that came up during the analysis.

Participants were selected based on the logics of purposeful sampling (Maxwell, 2013). First, relevant participants were identified on the organizations' websites. Suggestions from supervisors and colleagues complemented these initial choices. Next, recommendations from interview participants were requested (snowball sampling), especially when potential participants had retired or changed

employment. The interview participants were also helpful in providing/suggesting complementary empirical material (statistics, documents, etc.)

Potential participants were contacted by email or telephone and were provided brief information about the research interest, project scope, and confidentiality issues. Upon agreement, the interview guide and consent forms were forwarded to them. In general, most of the contacted persons agreed to participate. In few cases, however, they declined and referred participants whom they considered more relevant.

The face-to-face interviews took place mainly at the participants' offices and in some instances also in public spaces. At the beginning of each interview session, confidentiality issues were clarified and the participants' permission to be recorded was obtained.[7] The interviews were conducted in English, German, and Norwegian. The duration of each session was 45–90 min, and some interviews were conducted in several sessions. The discussions followed an interview guide but allowed flexibility (semi-structured) so that participants could add to or complement relevant aspects.

4.4   Analytic strategy and process

The analytic strategy and process in this study followed a cyclical model (Maxwell, 2013; Patton, 2014; Yin, 2014). This approach involves constant refinement of research questions, interview designs, and the analysis itself based on emerging knowledge and findings from the study. One example is the adjustments in the interview guides during fieldwork (e.g., more emphasis on a specific sub-theme, such as capacity developments in a ministerial unit), as some topics appeared to be more pertinent to the research topic than originally anticipated. In general, the documents and interviews were manually coded with support of basic computer software (more information follows below) (Saldaña, 2016). The empirical findings are presented and discussed in the articles. Table 10 shows the analytic focus, the empirical material involved, and the analytic strategies applied.

---

[7] Prior to the interviews, a confidentiality agreement issued by the Norwegian Centre for Research (NSD) was signed by the interviewees (see Appendix 5). Every participant was given the opportunity to withdraw participation at any time or refuse being audio-recorded without any explanation.

Table 10: Overview of the analysis

	Article 1	Article 2	Article 3
Analytic focus	Organizational change of central administrative organizations in higher education	Defining areas of responsibility between the ministry and agencies in higher education	Accountability relationship between the ministry and agencies in higher education
Empirical material	• Statistical data • Documents	• Interviews • Documents	• Interviews • Documents
Analytic strategies	• Statistical analysis (descriptive) • Thematic analysis of documents	• Thematic analysis of interviews • Thematic analysis of documents	• Thematic analysis of interviews • Thematic analysis of documents

4.4.1 Analysis of statistical data

The analysis of statistical data provided the opportunity to compare the two cases from a longitudinal perspective. The advantage with this kind of data, often based on public sources, is their accessibility (Bryman, 2016). However, statistical data have flaws depending on the way they have been defined and collected (Bryman, 2016). A special challenge was that not all data were publicly available or easily comparable owing to their different accounting procedures and definitions in the Austrian and Norwegian public administrations. An important step was thus to ensure compatible operationalizations of staff numbers, operational budgets, and professionalization and their comparability within and between the empirical contexts. Once their comparability was ensured (both across systems and from a longitudinal perspective), they were collected and arranged in Excel documents. These documents were used to create line charts that showed how staff numbers and operational budgets developed over time. The statistical data were then analyzed in a descriptive and non-inferential way (Salkind, 2016). The charts were used to identify salient changes, such as substantial drops or increases in operational budgets. Their validity and reliability was corroborated with findings from the document and interview analyses (see Denzin, 2006).

The statistical data played a central role to set the ground for discussing the organizational change of central administrative organizations in Article 1. For Articles 2 and 3, they provided important contextual information to affirm how governance relationships and bureaucratic effectiveness developed in Austria and Norway.

4.4.2 Thematic analysis of documents

For the documents of this study, qualitative content analysis following a deductive approach was applied (Krippendorff, 2013). Although this approach is considered a predominant quantitative research strategy owing to hypothesis testing, it can be used for exploratory/qualitative studies by

formulating assumptions and expectations in advance (Mayring, 2014). First, an overview of the type of documents needed to answer the research questions was obtained. Next, the documents were systematically ordered and complemented throughout the analytic process until a saturation point was reached (Yin, 2014). This ordering process identified a) the patterns of organizational change and bureaucratic practices that corroborated the findings acquired through the other methods and b) the empirical gaps that needed to be complemented from the other sources.

A code book was used for document analysis in a similar fashion as for the interview transcripts. The code book functioned as an analytical template (see Table 11), which examined the different document types according to pre-established dimensions and indicators.[8] The central dimensions developed in this book were ministerial authority/agency autonomy and organizational capacity, for which the mandate, operational budget, staff numbers, and professionalization presented relevant indicators.[9]

---

[8] The code book could not be applied to the documents as strictly as to the interview transcripts. A methodological and analytic difference of the documents from the interviews is that documents sometimes do not explicitly state, for example, an autonomy increase of an agency. This only becomes visible over time by putting pieces from several documents together (e.g., because organizational units as outlined in the distribution of the work documents of the Austrian ministry disappear over the years).

[9] Initially, political coordination was also considered as a complementary dimension for understanding the relationship between the ministry and agency. Accordingly, data were coded based on, for example, meeting patterns on various levels. However, the project developed in a different direction, making this analytical step rather obsolete (although it still provides relevant contextual information).

Table 11: Code book (documents and interview transcripts)

Dimensions	Indicator	Code	Logogram
Ministerial authority/agency autonomy	Mandate/area of responsibility	Expansion	Xn/M/+
		Status quo	Xn/M/=
		Contraction	Xn/M/−
Organizational capacity	Operational budget	Increase	Xn/B/+
		Constancy	Xn/B/=
		Decrease	Xn/B/−
	Staff numbers	Increase	Xn/S/+
		Constancy	Xn/S/=
		Decrease	Xn/S/−
	Professionalization	Increase	Xn/P/+
		Status quo	Xn/P/=
		Decrease	Xn/P/−

Legend: Xn = placeholder for organization. *NM: Norwegian ministry, NN: NOKUT, NS: SIU, NI: Norwegian higher education institutions. AM: Austrian ministry, AA: AQ Austria, AO: OeAD, AI: Austrian higher education institutions*

Relevant passages in the documents were marked and extracted into Word and Excel documents, such as the following examples:

Extract 1: Example of accountability requirements for AQ Austria (HS-QSG, 2011, Section 2, §3(3))

> *The Agency for Quality Assurance and Accreditation Austria shall fulfil, in particular, the following tasks in the area of external quality assurance:*
>
> *[…]*
>
> *3. reporting to the National Council by way of the competent Federal Minister;*
>
> *4. publishing reports on the outcome of the quality assurance*

Extract 2: Example of an extract from NOKUT's annual report 2007 on its operational budget[10]

> *The net production expenses for NOKUT in 2007 amounted to NOK 42,591,000. Of this, NOK 19,095,000 was salary (employer tax not included).*

The coding process was accompanied by memo-writing, which is considered to strengthen the validity and reliability of the study (Patton, 2014). By reflecting on rival explanations and interpretations, a deepened understanding of the examined phenomenon is achieved. In this way, the documents provided a solid understanding of a) how areas of responsibilities between ministries and agencies were organized (e.g., by studying legal frameworks), b) how organizational formats developed (e.g., by studying organizational charts and documents on the distribution of work in the Austrian higher education sector), and c) how higher education policies were initiated (e.g., by examining allocation letters in Norway).

4.4.3   Thematic analysis of interviews

The interview transcripts were analyzed before the actual coding process based on the argument that the interview design and the way interviews are conducted already include analytic elements (Maxwell, 2013; Patton, 2014; Saldaña, 2016). After each interview, initial reflections of the interview situation and context were noted, and the key issues were summarized. Ad hoc interpretations were made and used as preparation for the upcoming interviews.

Every interview guide and session comprised three elements: an introduction, the main part, and the ending (see Appendix 3 and 4). In the introduction, the research project was presented and confidentiality issues were clarified. The participants were then asked to state their position and their (personal) relation to the topic. The main part of the interview included discussions on topics informed by the research questions and key analytical concepts (e.g., authority/autonomy and capacity). This part differed slightly in each session according to ministry and agencies and according to quality assurance and internationalization. The interview guides also took the different positions and professional experiences of the participants into account.

The interviews were transcribed by a research assistant (English), a professional lector (German), and the principal investigator. A transcription strategy was applied that focused on content rather than exact replications of vocal expressions (Gläser & Laudel, 2009). This strategy excluded the transcription of filler words (e.g., "ehm" and "mmh") and the display of emotions. Direct quotes were corrected for grammar. Given the centrality of (political) actors in the reform processes and the

---

[10] In Norwegian: «Netto driftsutgifter for NOKUT i 2007 var 42 591 000 kroner. Av dette utgjorde lønn 19 095 000 kroner (arbeidsgjevaravgift ikkje inkludert).»

numerous suggestions received, the interviews were not anonymized upon transcription but after the first analytical round.

The code book was used in a deductive way and comprised the above-presented dimensions, indicators, codes, and logograms (see Table 11). The codes were applied and marked accordingly with different colors and logograms in the interview transcripts, as shown in the following examples:

…you take it [OeAD] away from the universities—i.e., it becomes an LLC with a managing director appointed by the ministry instead of a president elected by the universities. And the managing director has no other choice than to show his/her primary loyalty to the ministry and the government. (C_1, translated by author)
coded as AM/M/+ (authority increase for the Austrian ministry)

We have so much data both from statistics and from different surveys. I think we have a lot of power because we have so much knowledge about the sector…. (E_2)
coded as NN/P/+ (increase of expertise in the Norwegian agency)

Codes of the same category (e.g., autonomy increase for agency) were transferred to separate Word files, which also provided a quantitative indication of how agency autonomy developed (Krippendorff, 2013). This practical separation made it possible to access remarkable and expressive passages more easily (e.g., for extracting direct quotes for the articles).

4.5 Methodological quality

4.5.1 Methodological limitations

The main methodological limitations are linked to the different nature of the selected methods, data availability, and fieldwork experiences. Statistical data, for instance, allow for comparison over time, but their comparability may decrease owing to different definitions and selection processes (see, e.g., challenges with tracing the Austrian budget developments in the higher education ministry). Similarly, the document analysis provided a solid source for tracing organizational changes in both contexts over time. However, documents only display formal changes and thus present a fraction of reality that is often filtered and framed by the responsible author(s) (Bryman, 2016). Complementing the documents with interviews was therefore an important strategy to strengthen the validity of the findings, as the interviews added undocumented and informal knowledge about organizational change and inter-organizational working relationships over time. A disadvantage of interviews is that they contain several biases, among other things, because of the participants' subjectivity, memory loss, and construction of meaning in retrospect (Gläser & Laudel, 2009). To minimize the consequences of

these biases, specific interview statements were cross-validated with findings from other interviews and triangulated with statistical data and documents (Maxwell, 2013; Yin, 2014).

Nevertheless, the main aim of this study was to provide conceptual clarity and analytical tools for studying organizational change and practices in the higher education bureaucracy. In other words, having a solid data basis for making qualified judgements was more important than achieving statistical comparability between the cases (Eisenhardt, 1989; Patton, 2014). Thus, the study provided analytical value for studying cases in other contexts despite challenges with case study designs. One challenge, for example, is to what extent the findings of the cases are transferable to a broader population, as a case might only display its own particularities (Bennett, 2001; Eisenhardt & Graebner, 2007). The limitations and implications for the generalizability of the study's results will be further discussed in the next section and in Chapter 6 (Discussion and conclusion).

4.5.2 Validity

Validity tests present important methodological quality tools for assessing the inherent logical order and coherence of a study's research design (Maxwell, 2013). Yin (2014) identifies three aspects of validity that are of special relevance for qualitative work: <u>construct validity</u>, <u>internal validity</u>, and <u>external validity</u>.

<u>Construct validity</u> involves "identifying correct operational measures for the concepts being studied" (Yin, 2014, p. 46). Construct validity in this study was assured mainly by two measures. First, a *chain of evidence* was established by systematically organizing and complementing the data material. The systematical order, complemented by *rich data*, allowed moving back and forth along the evidence and accessing it at a later point in time along with additional information. Moreover, overall coherence was established through constant adjustments and alignments between the different links, research questions, conceptual elaborations, expectations, data material, and preliminary results (Yin, 2014). Second, the data material was discussed with *key informants* to test the validity of the preliminary results. For example, the operational budgets of the internationalization agencies do not consistently distinguish between higher education operations and the emerging tasks for secondary education. Some participants clarified and validated the initial interpretations. Moreover, the interviews partly built on each other in a sense that prior findings informed later interviews. In this way, the research focus and data interpretation became clearer as the study went along.

The second validity aspect, <u>internal validity,</u> assesses the quality of the inferences made based on a study's findings (Yin, 2014). Especially in qualitative research, one has to be cautious with making causal claims (Kleven, 2008). Nevertheless, although the study cannot claim causality in an inferential, statistical way based on the study's findings, it can offer rival explanations regarding the effects of administrative reorganization. One such example would be the different capacity developments in the studied cases and their effects on university autonomy. One argument here is

that reduced capacity in the public administration is directly linked to more room to maneuver for universities and colleges because effective follow-up mechanisms are lacking. However, this argument cannot be used as a single common denominator, as other factors might also play an important role, such as an underdeveloped agency structure or strengthened administrative capacity at the university level.

Another feature that can be considered to enhance the internal validity of this study is its *multiple sources of evidence*, which provide a detailed and multifaceted account of the studied phenomenon. The several data sources (statistical data, documents, and interviews) highlighted different aspects of organizational change at the central government in higher education over a period of 20 years. These sources were complemented with reflections, research memos, and field notes that contributed to a deeper understanding of the studied phenomenon (*rich data* (Yin, 2014)/*thick description* (Patton, 2014)).

Finally, external validity—or generalization—plays a central role in case study research and concerns to what extent the findings of a case have relevance for a broader population (Eisenhardt & Graebner, 2007). Findings in qualitative research usually refer to generalizations in a non-statistical way based on rational arguments (Kleven, 2008). Cronbach (1975) points out that generalization in this setting implies that the findings are a) context-bound, b) hypothetical rather than conclusive, and c) necessary to be studied in other contexts to see whether the same results are found and that d) special attention must be paid to case exceptions that confirm the rule. In a similar manner, Eisenhardt and Grabner (2007) refer to this as the process of analytical generalization, meaning the transferability of analytical concepts to another empirical context and their usefulness in explaining the research phenomenon at hand. In other words, generalization operates at a higher conceptual level, going beyond the idiosyncrasy of a particular case.

To give an example, the purpose of this study was not to prove whether the outcomes of the Austrian and Norwegian cases would statistically apply to all cases sharing the same changing framework conditions—that is, administrative reorganization in light of governance reforms. Instead, the aim was "to shed empirical light about some theoretical concepts or principles" (Yin, 2014, p. 40) that can be used in studying and eventually explaining the implications of organizational change at central administrative organizations in higher education. The concepts developed in this study thus also have analytical value for investigating other cases from the same universe (higher education systems in continental Western Europe) because in these contexts, organizational mandates and resources present central structural elements in defining new governance arrangements. However, although it is fair to assume that such elementary concepts could be of analytical use in studying higher education systems in, for example, Anglo-Saxon or Asian administrations, one has to consider other factors that might play an important role in these contexts, such as particular reform cultures or bureaucratic practices (Painter & Peters, 2010).

By relying on different data sources and contrasting the different methods with each other, the validity of each method and its findings was scrutinized and strengthened. In addition, specific reflective strategies during data coding and analysis were employed, for example, through research protocols and alternative interpretations (Saldaña, 2016). This reflection process was supported by constant exchanges with the academic community (supervisors, colleagues, peer-review, etc.), which is considered as another important feature for enhancing the validity of the results (Yin, 2014).

4.5.3 Reliability

Reliability determines whether a study and its applied methods would have brought forth the same conclusions and interpretations if conducted by other researchers and at another point of time (Patton, 2014). Being systematic in approaching and documenting the research object and the empirical material was thus a way to ensure the replication of the results and their reliability. Throughout the project, the research material and data were continuously organized in Excel/Word overview documents. Email communication relevant to the project was organized in Outlook. Written material was coherently and safely organized at the workplace. As the principal investigator of this study, I have ensured that data were not lost or left unorganized. I further kept track of the different stages of the study by creating timetables and deadlines, which illustrate the progress of the project over time. I wrote the guidelines for conducting fieldwork and the analysis, which would allow other researchers to replicate the procedures. For example, the field notes made after each interview (e.g., about the time, location, and impressions) allowed me to recall the interview at a later point. The interview transcripts were double-checked after they were transcribed by the research assistants. For checking the validity, samples of the research findings were shared among peers, supervisors, and the broader research community (e.g., peer-review); this allowed me to reflect on the reliability of my own conclusions.

4.6 Research ethics

The Norwegian Guidelines for Research Ethics in the Social Sciences, Humanities, Law, and Theology (2016) compile practices that determine good and responsible research. Two such practices shall be mentioned here specifically given their importance for the project: data protection and dissemination as academic responsibility.

Every study involving person-related and sensitive data in Norway has to be reported to the NSD.[11] This institution has to be informed about the project's scope, the anticipated timeline, and the type of data collected. NSD particularly regulates research involving person-related data, which concerns confidentiality agreements with participants, data storage regulations, and others. According

---

[11] NSD's website scheme on planned research projects: https://nsd.no/personvernombud/en/index.html, 03.03.2020.

to these regulations, the collection of all person-related data must be in compliance with specific requirements concerning anonymization, storage, and access. In this project, two research assistants (who assisted with transcribing the interviews) had access to the interview recordings. The research assistants had to sign a confidentiality agreement with the project leader and delete raw data material upon work completion. Two other persons, doctoral supervisors, had knowledge about the identity of the interview participants. Material containing sensitive data has been stored on the work PC and a USB-stick and made accessible in printed form (transcripts). Upon completion of the thesis, these data will be deleted in accordance with NSD's requirements.

Good research also involves the dissemination and communication of research results. This project is interdisciplinary and had to consider different disciplinary audiences. To allow for the replication of the conclusions, research results were marked as preliminary, and data material and references were handled in an organized and stringent way. Thus, accountability to the scientific community and non-experts, who cannot be expected to be familiar with the specialized topic, was ensured. To strengthen the exchange between the academic and public discourse, a copy of the thesis will be sent to all participants, and project presentations for practitioners and policymakers are planned.

5   Summary of articles

This chapter provides an overview of the articles and discusses their research focus, conceptual propositions, empirical material, and relevant findings. Moreover, the linkages between the articles and their relevance for the overall project are highlighted. Article 1 presents the theoretical and conceptual foundation of this study by conceptualizing and discussing organizational change in the ministerial bureaucracy. Article 2 zooms into the governance relationship between the ministry and agencies and examines how new governance arrangements play out in practice. Article 3 reflects upon the outcomes of administrative reorganization and governance reforms from the perspective of bureaucratic accountability. Given that the articles represent different chronological stages in the thesis project, their publication progress differs as well: Article 1 was published in July 2019 (*Higher Education Policy*), Article 2 was published in March 2020 (*Studies in Higher Education*), and Article 3 is submitted to *Policy Studies* in July 2021.

5.1   *Article 1*

Friedrich, P. E. (2019). Organizational change in higher education ministries in light of agencification: Comparing Austria and Norway. *Higher Education Policy*, 1–22.

Article 1 addresses administrative reorganization against the backdrop of governance reforms in the higher education sector. In this article, an analytical framework is presented that examines organizational changes in the ministerial bureaucracy, substantiated by empirical findings from two cases (Austria and Norway). The investigation of these changes is linked to the establishment of public agencies in quality assurance and internationalization in higher education governance.

To capture administrative reorganization and the shifting governance arrangements, the framework is composed of two analytical dimensions. The first dimension comprises ministerial authority and agency autonomy and relates to how areas of responsibility between the ministry and agency levels are distributed. To study how effectively the mandates of the ministry and the agencies are implemented in specific policy areas, the second analytical dimension relates to organizational capacity and considers different organizational change options within and between organizations. For instance, an extended mandate and additional funds imply that the respective organization is expanding, whereas in the opposite case, limitations in jurisdiction and budget imply that the organization is shrinking. Moreover, scenarios in which both dimensions develop differently within an organization are considered (e.g., extended authority and reduced capacity). Finally, change options across different organizations, such as extended ministerial authority and increasing agency capacity, are discussed.

A relevant contribution of Article 1 is a first application of the analytical framework in two empirical contexts—the Austrian and Norwegian higher education ministries and their governance relationship with two public agencies each. In both contexts, comprehensive governance reforms took place in the early 2000s. The empirical findings stem from an analysis of statistical numbers, documents, and expert interviews from the past two decades. Statistical numbers on budget and staff as well as policy documents were used to illustrate capacity developments in the public administration. Legal documents and expert interviews presented the main data sources for discussions about authority and autonomy changes at the ministry and agency levels.

The results reveal striking differences between the two cases. The Austrian case involves capacity reductions at the ministerial level combined with a delayed strengthening of the agency level in the areas of quality assurance and internationalization. In the Norwegian case, the ministry maintained its capacity levels and considerably empowered the agency level in the areas of quality assurance and internationalization. The findings clearly indicate the different change options of the ministerial bureaucracy in times of governance reforms. To complement these findings, Article 2 zooms into the actual governance relationship between the ministry and agencies.

5.2 Article 2

Friedrich, P. E. (2020). Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education. *Studies in Higher Education,* 1–14.

Article 2 continues where Article 1 left off and studies how new governance arrangements in the higher education sector are determined in practice. Whereas Article 1 had a strong focus on the formal organizational changes at the ministerial level, Article 2 examines the agency level in greater detailed, combined with a closer look at the informal nature of the governance relationship between the ministry and agencies. Here, ministerial authority, agency autonomy, and organizational capacity present central concepts for describing and analyzing this relationship.

Taking discussions on effective governance arrangements as a starting point (Fukuyama, 2013), the article addresses the effects of differing authority/autonomy levels for corresponding capacity levels. An analytical framework is developed that investigates the effects for both the ministry and agency levels based on the assumption that newly assigned areas of responsibilities must be equipped with appropriate levels of capacity. For instance, agencies with a formally broad mandate but insufficient funds to pursue it might encounter performance challenges. The same can be said about a limited mandate but an oversupply of resources.

The empirical findings in this article build on the ones presented in Article 1 (statistical numbers and documents) and are triangulated with expert interviews. The findings show that the quality assurance agency in Norway, NOKUT, enjoys higher levels of autonomy and capacity and

plays a more central role in policymaking than its Austrian counterpart, AQ Austria. The internationalization agencies SIU and OeAD both show considerable autonomy and capacity growths, although it appears that the OeAD is treated more "instrumentally" than SIU in Norway. The results also demonstrate that agencies can play different roles in the overall policy agenda of the ministry for the national higher education sector. The Austrian agencies, for instance, are more constrained in their autonomy and capacity developments. The Norwegian agencies have enjoyed substantial capacity increases on par with extended mandates since their establishment. The different standing of the agencies in both contexts also implies different control challenges from the perspective of the ministry. For example, autonomous and resourceful agencies are more difficult to steer than constrained and low-capacity agencies.

Article 2 contributes a more nuanced understanding of the dynamics underlying the governance relationship between the ministry and agencies under administrative reorganization. In this sense, Article 2 differs both conceptually and methodologically from Article 1 because it moves from a more static perspective on autonomy–capacity relations to a dynamic one. This perspective considers questions of effective governance arrangements (both intra- and inter-organizationally) and how these arrangements develop over time. To complement these findings, Article 3 assesses administrative reorganization from the perspective of bureaucratic accountability.

5.3   Article 3

Friedrich, P. E. (submitted). Who is accountable for what? The effects of administrative reorganization on bureaucratic accountability in Austrian and Norwegian higher education governance. *Policy Studies*

Article 3 addresses the effects of administrative reorganization and governance reforms from the perspective of bureaucratic accountability. The starting point is the assumption that autonomy and capacity parameters are insufficient for determining the outcomes of administrative reorganization. Special emphasis is therefore placed on the development of accountability arrangements of central administrative organizations, such as ministries and agencies, as a proxy for how effectively organizational changes in the ministerial bureaucracy impact the governance of the higher education sector. Bureaucratic accountability is introduced as a relevant analytical concept because it is considered a key element in the enhancement of governance arrangements.

To create an analytical framework that would do justice to the different nuances in the relationship between central administrative organizations, accountability was defined as bureaucratic accountability comprising indicators of political, legal, and administrative accountability. Political accountability requirements have been defined as the extent to which public agencies are connected to political and public actors (such as publicly accessible repositories on agency activities, public fora,

and composition of governance boards). Administrative accountability concerns the degree to which the agency is required to report to the ministry (i.e., meeting patterns, follow up on policy directives, and financial reporting), whereas legal accountability is related to the degree to which the agency mandate is clarified in the legal framework (rule-bound procedures, organizational assessments, etc.).

Empirical evidence stems from statistical data, legal and policy documents, and expert interviews related to the two cases. The results show that accountability mechanisms for central administrative organizations became increasingly complex and formalized during the study period. Given the need for (political) control over public agencies and autonomous higher education institutions, bureaucratic accountability presented a powerful tool to secure ministerial influence and its responsibility toward the sector. As a result, various political, administrative, and legal accountability requirements for public agencies were introduced, such as enhanced transparency in governance decisions or the adherence to new regulations.

However, these changes vary in the way organizational change in both cases took place. For example, autonomy and capacity at the ministry and agency levels developed differently in Austria and Norway. As a result, the Austrian organizations were struggling in following up with an effective accountability structure, which was less pressing in the initial years given the limited role of agencies in the areas of quality assurance and internationalization. In Norway, bureaucratic accountability was followed up more effectively from the beginning but can also be argued as more necessary from the perspective of the ministry given the growing influence of the agencies.

Article 3 contributes to a better understanding of the outcomes of organizational changes in the ministerial bureaucracy, thereby providing relevant conceptual and empirical contributions for both public administration research and higher education studies. In this way, Article 3 represents a consequential further development of the preceding articles and an important pillar in the overall project.

6 Discussion and conclusion

The final chapter summarizes the findings of this study and discusses their implications and limitations from a theoretical, methodological, and empirical perspective. The first section highlights the key findings as presented in the articles, followed by a discussion of their specific conceptual and empirical contributions along the thematic strands presented in Chapter 2. The third section discusses the limitations of the study. Based on the limitations, the final section suggests possible avenues for future research.

6.1 Key findings

The aim of this study was to contribute to an improved understanding of how administrative reorganization affects specific organizational features of the ministerial bureaucracy and the way the higher education sector is governed from an organizational theory perspective. Accordingly, the study focused on a) organizational shifts at the level of national ministries responsible for higher education; b) the establishment of public agencies in the areas of quality assurance and internationalization of higher education; and c) how accountability standards developed as a result of the reorganization of the ministerial bureaucracy.

In addressing the first research question, the key finding is that administrative reorganization occurs in various forms and with different outcomes for each country, even if the reform rhetoric and goals are similar. In Austria, administrative reorganization in the higher education bureaucracy is based on limited ministerial and agency capacity. The underlying rationale in this reform model is that the existing bureaucratic workload is disadvantageous to the sector's performance. In this approach, the public administration is regarded as "part of the problem," in which the scope of administrative oversight must be reduced to unfold the sector's potential. This reform approach can thus also be read as a more NPM-lenient position of how to govern the sector compared with the Norwegian case, as the following arguments show.

The reorganization approach in the Norwegian higher education bureaucracy includes the strengthening of agency capacity while maintaining ministerial capacity. Here, the underlying rationale is that administrative reorganization must lead to more efficient ways of organizing the sector's governance, for example, by capacity transfers to the agency level, rather than reducing the scope of administrative oversight of the bureaucratic apparatus in general. From this viewpoint, the public administration is perceived as "part of the solution" to enhance the sector's potential. These findings demonstrate that the ministerial bureaucracy in higher education can choose among different reform strategies and tools, which are translated into different organizational structures with specific consequences for the sector's governance (see also Bezes et al., 2013; Capano, 2011; Egeberg & Trondal, 2018).

The analysis of the second research question showed that the role of public agencies is perceived differently in both cases owing to the different ministerial ambitions for how to govern the sector. In line with the reform rationales outlined above, the Austrian agencies had a stronger policy-implementation function and thus played a less dominant role than the ministry in the aftermath of the University Act 2002. The Norwegian agencies were continuously strengthened through mandate expansions and additional resources since the Norwegian reform in 2003, thus executing a stronger policymaking function. The results show that different formal governance arrangements correspond with different degrees of de facto agency autonomy. Whereas the Norwegian ministry conceded more regulatory influence to the agencies (in terms of policymaking influence and control function for the sector), the Austrian ministry perceived the agencies as having a more consultative function (see also Capano & Turri, 2017). This finding shows the variety of agency design based on distinct national governance modes and ministerial ambitions, who implement their agenda through corresponding autonomy and capacity assignments to the agency level.

Finally, the analysis of the third research question showed that bureaucratic accountability in both cases has arguably enhanced between the ministerial and agency levels. Enhancement in this respect means that public sector governance has become more transparent and accountability arrangements have become more encompassing. One of the underlying reasons is that the ministries still had to fulfill their public mandate, though with less direct policy input from the sector, which was now also channeled through the agencies. To secure both control function and the upholding accountability standards toward the public (through parliament), it was necessary to establish strict accountability rules for the agency level. In this way, the ministries could maintain their regulatory function while also enhancing autonomy for the subordinate agencies. Simply put, continuous ministerial control has come at the "cost" of enhanced accountability arrangements.

As the empirical cases show, newly established accountability arrangements can occur quite differently in terms of organizational designs and structures. In the Austrian case, bureaucratic accountability has enhanced with some delay (owing to slower capacity developments and lower ministerial ambitions for the agency level), whereas bureaucratic accountability in the Norwegian case has continuously enhanced owing to an increasingly potent agency level. The Austrian accountability approach is arguably more minimalist, whereas the Norwegian accountability approach can be considered more comprehensive and control-oriented. Agency autonomy in Austria is considered a trade-off for less ministerial capacity and for reducing governance redundancies. In Norway, it appears that more ministerial control and supervision through increased accountability requirements do not necessarily constrain agency autonomy because the agency has an encompassing mandate and high capacity to pursue it. The Norwegian case could thus be an example for ministerial authority and agency autonomy being a non-zero-sum game. This finding shows that the establishment of agencies

can have a positive impact on the sector's governance, in the sense that public governance can become more transparent (see also Dan, 2014).

Overall, the study's findings demonstrate that administrative reorganization has important implications for governance arrangements in higher education, such as a change of policy priorities, new areas of responsibilities, or different capacity arrangements. The systematic examination of organizational changes in public administration along authority/autonomy, capacity, and accountability developments at the ministerial and agency levels offered relevant insights about the governance function of central administrative organizations during reforms and the impact of organizational design and structure on public sector governance. Based on Table 1 from Chapter 1, Table 12 shows the main results of the three articles as outlined above. The next section further details some implications of these overall findings.

Table 12: Overview of the articles, including the main results

	Article 1	Article 2	Article 3
Title	Organizational change in higher education in light of agencification: Comparing Austria and Norway	Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education	Who is accountable for what? The effects of administrative reorganization on bureaucratic accountability in Austrian and Norwegian higher education governance
Research question(s)	How have ministries responsible for higher education changed organizationally?	How are ministry and agencies in the area of higher education in Austria and Norway related to each other? How far can a focus on the concepts of autonomy and capacity contribute to an explanation of their relationship?	How does the ministry hold agencies in Austria and Norway accountable in light of administrative reorganization and higher education governance reforms?
Analytical focus	Organizational change at the ministerial level	Relationship between ministry and agencies	Bureaucratic accountability for the agency level
Empirical material	Statistical data, documents	Semi-structured interviews, statistical data	Semi-structured interviews, documents (statistical data)
Main results	Administrative reorganization results in different organizational designs with potential impacts for the governance of the sector	Public agencies can take different roles in the sector's governance depending on ministerial reform ambitions	Administrative reorganization and agencification with potentially positive impacts on accountability arrangements

6.2 Implications for studies in public administration and higher education

Based on the key findings and their relevance as outlined above, the discussion on the implications of this study is structured around the three thematic strands presented in Chapter 2. The first section discusses the study's contribution to a better understanding of administrative reorganization including agencification processes. Next is a discussion on how the study provides new insights into accountability developments in national bureaucracies that result from administrative reorganization. Finally, I argue that the study adds to an improved understanding of how the governance dynamics of the higher education policy area are affected by administrative reorganization.

(1) *Administrative reorganization and agencification*.

One goal of the study was to contribute to the development of more structural couplings between empirical and conceptual studies in public administration (Peters & Pierre, 2017; Pollitt, 2016). With an explicit focus on substantiating the study's analytical framework with empirical data, the study provides relevant insights into how governance reforms affect specific organizational features in the ministerial bureaucracy. This has potential implications for analyzing both governance arrangements in higher education and the role of ministries and agencies in public sector governance in general. First, the empirical cases show that the organizational structure of the ministry has consequences for agency design, as the agencies' mandate and design are regularly subjected to changing ministerial preferences and adaptations. This confirms, amongst others things, that there is no one-size-fits-all agency but different kinds of agencies for different kinds of (ministerial) preferences (see also Verhoest, 2012). Second, the analytical tools developed in this study are not only adequate to address the specificities of administrative reorganization and its impacts in the higher education sector but also flexible enough to be used for analyzing administrative reorganization in other policy sectors. The findings and the applied analytical concepts support the claim that organizational design and boundaries matter in framing policy output (Egeberg, 1999, 2019; Hong & Park, 2019). In this way, the framework and the study's findings represent an important contribution to the theoretical and empirical understanding of the organizational dimension of public sector governance.

Furthermore, studies on administrative reorganization are skewed toward the effects on agencies (Hong & Park, 2019). By explicitly addressing the ministerial level both conceptually and empirically with examples from the higher education sector, the study provides unique insights about organizational changes in ministries during governance reforms and the establishment of public agencies. First, empowering public agencies presumes that the ministerial level is clear about its own role and ambitions in governing the sector. Nevertheless, as the findings show, establishing agencies in a public governance matrix is to a great extent a learning process for the ministry, which requires constant adjustments and negotiations between the ministerial and agency levels. Although this is the

case for governing higher education, it can be expected to present a challenge for public sector governance in general.

Second, delegating governance responsibility to subordinate agencies can be a non-zero-sum game under certain circumstances, as the Norwegian case of this study shows. Higher education is a sector with close links to the research and science domain and thus involves a dynamic development of its policy content (Chou, 2014). As the results show, the emergence of new policy themes and the growing complexities in this sector seem to secure the agencies' professional discretion in policymaking, whereas ministries face the challenge of monitoring the agencies and obtaining significant policy input for political steering. However, the findings of this study also demonstrate that the relationship between the ministry and agency does not have to be a trade-off between ministerial control and agency autonomy but can give both increased access to regulating the sector (i.e., informed political guidelines on the ministry's side paired with high policy expertise on the agency's side in emerging policy themes). This finding supports the argument of a non-zero-sum game between the two actors, moving away from a principal–agent perspective (which perceives their relation, not exclusively but tendentially, as a zero-sum game) to a principal–steward perspective, in which policy goals between the ministry and agency are more congruent and their relationship is more trust-based (see Bjurstrøm, 2020; Van Thiel & Smullen, 2021).

Finally, this study empirically shows the importance of defining adequate capacity levels for different types of organizational mandates and the potential effects this can have on policy output. In the Norwegian case, the agencies were able to effectively unfold their mandate for the sector, amongst other things, because of the continuous capacity increase. This resulted in broader agency structures and thus more policymaking influence, which also came at the cost of having more encompassing accountability arrangements. In the Austrian case, the ministerial capacity reductions were appropriate for the ambitions of future mandates of the ministerial and agency levels but came at the cost of less control over the sector and, as a consequence, less "sophisticated" accountability arrangements for central administrative organizations. These findings present important empirical contributions to the ongoing discussions about effective governance arrangements and how changes in organizational key dimensions can determine such arrangements (see Araral et al., 2015; Egeberg & Trondal, 2018; Fukuyama, 2013).

(2) *Accountability developments as an assessment tool for governance reforms*.

Various scholars have referred to the challenges in assessing the outcomes of governance reforms (see, e.g., Bouckaert & Peters, 2002; Kuhlmann & Wollmann, 2014; Verhoest & Lægreid, 2010). Egeberg and Trondal (2018) explicitly point out the relative marginal interest in public administration research from the organizational perspective on public governance. Therefore, the first step in this study was to find out from which perspective administrative reorganization and reform outcomes can

be effectively assessed and to develop an appropriate analytical tool. The accountability concept presented a promising entry point, as it is a key component in organizational reconfigurations transformations and enables one to assess in which way new governance arrangements have led to enhanced bureaucratic effectiveness (e.g., increased transparency and improved organizational learning; see, e.g., Bovens, 2007; Bovens et al., 2008). This study suggests a conceptualization of accountability that takes into consideration the development of bureaucratic practices over time caused by governance reforms and therefore offers the possibility to assess selected impacts of administrative reorganization from a longitudinal perspective. It also contributes to mitigating some of the uncertainties about the outcomes of governance reforms and confirms, amongst other things, that agencification can have positive effects for new governance arrangements (Dan, 2014). The empirical cases, for instance, show that the establishment of public agencies has led to more transparency in public sector governance toward the public and the sector and in general has enhanced accountability among the involved actors (though with different timelines owing to varying capacity developments).

In addition, the findings can bolster conceptual and methodological advancements, given that there is a continuous need for empirical evidence about how accountability falls into place after governance reforms have been introduced (Bovens et al., 2014; Christensen & Lægreid, 2015; Romzek, 2000). By combining different methods and processing existing data, the study contributes to the literature on reforms and accountability by offering specific insights into how the ministerial level ensures its responsibility toward society via subordinate agencies. Such developments are by no means an automatized process, as defining accountability rules is often a learning-as-one-moves procedure. This finding substantiates claims that accountability arrangements become clearer as they develop and thus cannot not be determined a priori (Bovens, 2007; Romzek, 2000). From this perspective, the empirical cases also confirm the common challenge that the regulatory framework cannot provide for all contingencies that might occur in the future (Christensen & Yesilkagit, 2006).

Furthermore, the conceptualization and empirical underpinning of accountability arrangements in higher education governance present a more specific contribution of this study to the higher education literature. Accountability in higher education research has been mainly addressed from an institutional perspective or on the basis of the general societal function that higher education is expected to have (see, e.g., Trow, 1996) but less so from a governance quality perspective of central administrative organizations. An approach based on studying accountability arrangements in the higher education bureaucracy, as done in this study, thus contributes to accountability discussions in the higher education literature in novel ways.

First, it more prominently puts an important component of the sector's governance (i.e., accountability arrangements in the bureaucracy) on the research agenda and addresses the overarching discussion of accountability in higher education from the perspective of its most

55

important regulators. Accepting the premise that enhanced accountability in the bureaucracy is important for the sector's governance (in addition to accountability being a value in itself; see Bovens et al., 2014) and contrasting the accountability of higher education institutions with the accountability arrangements among its formal regulators can offer insights into how to reorganize the sector more effectively. The results show, for instance, that an additional governance layer with public agencies can enhance the general accountability of the sector (e.g., increased transparency about political and economic goals for higher education, more transparent communication in the sector, and the formalization of bureaucratic procedures), which can be used as an indicator for improved governance quality of the sector.

Second, the systematic collection of statistical data, relevant documents, and expert interviews spanning a period of two decades provides a multidimensional and dynamic picture of accountability developments at state-level higher education governance. Accountability was not a central reform goal with respect to the governance relationship between the ministerial and agency levels in Austria and Norway, although there was an awareness of the involved actors to come to terms with accountability arrangements through the regulatory framework. The empirical evidence produced in this study can help to narrow the gap between diverging tendencies in conceptual and empirical works in the field of public administration (Peters & Pierre, 2017; Pollitt, 2016).

(3) *Governance reforms and central administrative organizations in higher education.* Organizational changes at the ministerial level have so far seldom been addressed in higher education governance and policy studies (Capano, 2011). The following arguments show that a focus on central administrative organizations in the higher education policy area is a valuable contribution of this study, as it adds to an improved understanding of the governance dynamics of this sector.

First, the comparative nature of the study solidifies the analytical value of autonomy, capacity, and accountability in examining the impacts of administrative reorganization on higher education governance. The results drawn from the cases demonstrate that the ministerial level can choose different approaches in reorganizing governance arrangements, whether it concerns a minimalist approach (Austria) or a rather comprehensive approach (Norway). These findings allow one to consider different development paths in the organization of the higher education bureaucracy. This complements various works on the different governance approaches in higher education, as it contributes to the understanding of the effects of recent agencification developments in the higher education governance matrix (Braun & Merrien, 1999; Capano, 2011; Gornitzka & Maassen, 2000).

Second, it suggests that one must revise earlier assumptions about university autonomy being the main determinant in defining how much room to maneuver institutions possesses (Braun & Merrien, 1999; Capano, 2011). The results indicate that governance reforms that are ostensibly about university autonomy are flanked, at least in the two cases in this study, by massive rearrangements in

the bureaucracy. From this perspective, it would be more precise to say that the ministerial bureaucracy has changed its governance approach for the sector rather than saying that universities enjoy more autonomy. In either case, the last point confirms that many discussions about university autonomy revolve around the question of "what kind of university for what kind of society" (Olsen & Maassen, 2007, p. 4).

Third, the study adds an important element to the discussion of governance reforms in higher education with its conceptual and empirical contribution about the role of agencies in the sector. Moreover, it addresses the issue of informal agency autonomy, which so far is an untapped issue in the governance discussions for higher education as well (Bach, 2016). The findings provide evidence about agencies having various possibilities to interpret their mandate and enjoy policy discretion. Whereas the legal frameworks outline the formal scope of actions for the agency, the often informal nature and direct contact between ministry and agency levels allow for different maneuvering options in practice (Maassen et al., 2017). In this way, many coordination and communication problems between the ministry and agency are often solved informally before they develop into full-blown crises. In this sense, legal frameworks present guidelines that are continuously interpreted and adapted. This confirms, as pointed out earlier, that legal frameworks cannot provide for all contingencies that might occur in the future.

Finally, yet importantly, the findings provide evidence for the increasing complexity of policy issues in this sector, which makes it more feasible for the ministry to outline the political guidelines while the agencies work more "hands-on" with the policy input they receive from the sector (Bach et al., 2012; Jungblut & Woelert, 2018). This is a finding that confirms similar experiences from other policy sectors where public agencies build up considerable policy expertise over time, thereby creating control and accountability challenges for the ministry responsible for the sector (Christensen & Lægreid, 2007). It also confirms that the government "continues to do its job" in higher education (Capano, 2011) and that enhanced institutional autonomy is linked to major restructurings in the public administration.

Alongside the abovementioned contributions of this study focusing on higher education policy, there are specifically two issues that possess analytical value for studies in other policy sectors and that present an argument for why future studies in public administration research would benefit from including empirical examinations of higher education governance and policy more regularly. First, the cases analyzed in this study confirm that bureaucratic work is highly framed by policy content but is dependent on organizational design (Egeberg, 2019; Hong & Park, 2019). The Austrian case, for instance, shows that emerging institutional variety (i.e., different institutional providers of higher education) provides arguments for the merger of hitherto separated quality assurance bodies into one public agency to execute more state control. Policy sectors with equally dynamic

organizational and institutional actors could thus benefit from a closer look into the higher education sector for weighing different options in agency design (see also Yesilkagit, 2004).

The second argument relates to the increasing policy transfer and overlap between higher education and other sectors. Higher education is expected to contribute to a positive development in other policy sectors (e.g., training of the labor force, job creation, private and public sector innovation, and technological applications; see also Gornitzka & Maassen, 2014; Maassen & Stensaker, 2011), which can make it challenging to clarify areas of responsibility for the governing administration (Braun, 2008). An empirical example from this study is provided by the internationalization agencies from both cases. The agencies are operating at the edge of foreign affairs, thus making it constantly necessary to clarify their areas of responsibility in accordance with their parent ministry and the respective ministries of foreign affairs.

Table 13 summarizes the main conceptual and empirical contributions for the different thematic strands discussed above. For a better overview, the contributions are arranged along the three articles of this study.

Table 13: The empirical and conceptual contributions of the study

	Article 1	Article 2	Article 3
Empirical contributions	Empirical evidence about the organizational change dynamics between the ministerial and agency levels	Enhanced empirical basis for agencification in the higher education sector, with a special focus on de facto agency autonomy	Empirical evidence about how accountability arrangements are designed between the ministry and agency levels after the introduction of governance reforms
Conceptual contributions	Development and application of analytical framework for the study of organizational changes in the ministerial bureaucracy	Discussion and assessment of different degrees of ministerial authority/agency autonomy with corresponding capacity levels	Conceptualization of accountability arrangements in the higher education bureaucracy

6.3   Limitations and transferability of results

From a theoretical, empirical, and methodological perspective, this study has several limitations that have implications for the transferability of the study's results. An important theoretical limitation concerns the study's theoretical approach. Studying the formal organization of central administrative organizations is only one of various factors that can be considered in addressing public sector

governance; other factors include policy network theory, systems theory, or meta-governance (Enroth, 2011; Esmark, 2009; Gjaltema et al., 2020). Using different theoretical lenses could offer alternative explanations about the outcomes of governance reforms, for instance, through a stronger focus on the interaction between bureaucratic organizations and societal actors (policy network theory), by addressing the totality of new governance arrangements (systems theory), or by putting additional emphasis on the notion of governance quality through more reflective approaches (meta-governance).

Another theoretical limitation concerns the question of whether an organizational analysis of public governance arrangements in the higher education sector might provide insights for other policy sectors and the general literature on organizational theory. Although the analytical concepts developed and used in this study proved to be useful for investigating formal organizational change of public governance in this sector, they might be less applicable for the analysis of other policy sectors. One reason is the specific policy content that bureaucratic actors in higher education must consider. Although the organizational boundaries in public administration frame policy content and adhere to general logics of the bureaucratic apparatus, each sector also has its own policy characteristics. These policy preferences present a strong feedback to the regulatory framework that public authorities must pay attention to. Whether this "feedback" is effective enough to alter existing framework conditions remains an empirical question that must be separately addressed for each policy sector. Based on this premise, the analytical concepts established in this study can still offer a frame of reference for analyzing administrative reorganization in any policy sector, which again points to the fact that the value of this study and its findings is found on an analytical and not on a statistical level (Bennett, 2001; Eisenhardt & Graebner, 2007).

One empirical and methodological limitation concerns the limited number of studied cases and contexts (n = 2) and their representativity (Gerring, 2004; Gerring & Cojocaru, 2016). As mentioned earlier, the pool of relevant cases was determined by the occurrence of administrative reorganizations in national contexts in which agencification played a crucial role. Such reorganizations naturally occur in complex, mature, and public higher education systems, in which the ministry upholds an important regulatory function. Arguably, this applies to high-income countries with a strong public sector. For this reason, the cases of this study might present analytical value for the study of similar systems but less so for middle- or low-income countries with less complex higher education sectors.

Another empirical limitation concerns the effects of administrative reorganization on institutional autonomy. The ways in which universities and colleges respond to changes in the ministerial bureaucracy can provide relevant reference points for a better understanding of the impacts of administrative reorganization on the sector's governance. At the same time, this study has not gathered sufficient empirical evidence to substantiate such claims with certainty. The findings of

this study must thus be used with some caution when it comes to the "flipside" of administrative reorganization and agencification—that is, its effects on the autonomy of universities and colleges.

An important methodological limitation concerns the longitudinal nature of this study and interviews as one of the main data sources. Besides the general methodological challenges with interviews, using them retrospectively in longitudinal studies provides the additional challenge of measurement error. The longer the study period, the more likely it is that informing participants suffer from memory loss or assess earlier events in a different light (e.g., overwhelmingly positive or negative as more time has passed) (Gläser & Laudel, 2009; Maxwell, 2013). In addition, participants (especially those with central administrative functions) might tend to justify earlier decisions or might be overly critical based on the way the reorganization processes have played out afterward. One thus must be aware that the information from the interviews in this study is not a proxy for what happened during the reorganization of the Austrian and Norwegian higher education bureaucracies but for how participants perceive these developments afterward.

The final set of limitations concerns administrative reorganization in an era of modern higher education systems, meaning that there are potential limitations in historical comparability. The complexity of today's governance matrix in modern higher education sectors differs from that of earlier ones. This sector has over the past decades become a multifaceted (political) arena, with different stakeholders and policy interests (Chou et al., 2017). These stakeholders create a different change dynamic in which central administrative organizations must relate to different (policy) inputs in an increasingly complex governance system. This study must therefore take into consideration that many more variables are at play that eventually influence the underlying change motivations for the ministerial bureaucracy compared with more simplistic systems. Any future analysis of administrative reorganization must consider either similar contexts (i.e., mature, public higher education systems) or similar change constellations (i.e., power transfer between public authorities in higher education such as ministries and agencies).

6.4   Future research avenues

Studying the implications of administrative reorganization for public sector governance has received growing attention in public administration and public policy research, and it is increasingly acknowledged that the format of bureaucratic organizations is more decisive than hitherto assumed regarding its effects on the public services it provides (Egeberg, 2019; Hong & Park, 2019). At the same time, there is a continuous need for further empirical evidence, amongst other things, because some policy sectors receive more attention than others. In addition, it has become more common in administrative studies to address the agency level rather than merely studying the ministerial level itself. Strengthening the systematic study of the ministerial level could thus provide valuable insights for public administration and public policy research.

Regarding the study's limitations discussed above, the following future research avenues can be considered. Starting with conceptual considerations, a consequential next step would be to strengthen the analytical value of the study's key concepts by applying them to different analytical levels in public administration. In this study, the concepts were mainly used to address the influence of bureaucratic organizations in determining policy output and effective governance arrangements through changes in their organizational structure (Egeberg, 2019; Hong & Park, 2019). To capture other dimensions of administrative reorganization, one could refer to Wu et al.'s (2018) framework on policy capacity and governance and address the individual and system levels in greater detail.

First, one could follow Fukuyama's lead on the influence of single bureaucrats for effective governance arrangements (Araral et al., 2015; Fukuyama, 2013). What a public governance organization does critically depends on the capabilities of its employees and can determine the success and failure of formulating and implementing policies. A focus on the individual level could address the change dynamics under administrative reorganization in greater detail and would allow, for instance, to follow more closely how individual background and preferences culminate in organizational policy output.

A focus on the system level would address administrative reorganization from a holistic perspective, for instance, by examining to a greater extent inter-ministerial and/or inter-agency coordination within and across policy sectors. Such a perspective would focus on policy integration and how clearly the roles and responsibilities of bureaucratic organizations and other stakeholders in policy processes are outlined (Braun, 2008; Wu et al., 2018). This perspective could contribute to an improved understanding of how policy content is distributed and coordinated between organizational actors and to what extent organizational changes contribute to alterations in large-scale information streams and policy output within and across policy sectors.

Finally, yet importantly, the concept of bureaucratic accountability was adopted to assess the reform outcomes and the effectiveness of changing governance arrangements. However, new arrangements could also be addressed through different lenses, such as cost efficiency, transparency, or trust (Overman & Van Thiel, 2016). Investigation from these lenses would provide new arguments for what may be considered a favorable output of the governance reforms in higher education (Olsen, 2013).

From an empirical perspective, a relevant extension would be the inclusion of and comparison with other national contexts experiencing similar changes in their public governance structure for higher education (Amaral et al., 2009; Maassen et al., 2017; Paradeise, 2009). Cases of interest are those in which different paths are chosen in reorganizing the administration (see Table 1 in Article 1 for possible change scenarios). These could be cases with a clearly expanding ministry that decides not to strengthen the agency level or a ministry that undergoes encompassing mandate and capacity reductions with complementary increases at the agency level. The examination of such cases

could further validate the significance of the study's framework and prove its analytical value. In addition, the inclusion of other empirical contexts would add to an improved understanding of the politico-administrative framework conditions for higher education governance (Bleiklie & Michelsen, 2013). By including cases from Anglo-Saxon, Napoleonic, or Asian administrative systems, one could more clearly separate the commonalities and differences in organizational change processes (Gornitzka & Maassen, 2014; Painter & Peters, 2010).

Another empirical extension would be a focus on administrative reorganization in different policy themes within the larger knowledge and innovation domain. This could provide relevant insights into coordination processes between different sectoral ministries and into the influence of organizational design on policy development at a system level (Braun, 2008). In this respect, one could also pay more attention to different agency types, such as research councils or student admission agencies. This could clarify how different policy themes are organized at the agency level and add to an improved understanding of the governance relationship between ministries and agencies within and across different policy sectors.

Finally, the institutional level—that is, the universities and colleges—has been mainly used as a contextual actor in this study. To gain a better understanding of systemic governance changes in higher education, a future project could empirically include the institutional level. This level could be addressed in detail by further clarifying how the new governance arrangements between the ministry and agency levels have led to an enhancement or limitation of institutional autonomy. In this way, additional evidence could be provided about how administrative reorganization and agencification impact the governance of the sector.

All the abovementioned extensions also deem it necessary to reflect upon different methodological alternatives. Given its underrepresentation in public administration research (Groeneveld et al., 2015; Pitts & Fernandez, 2009), a mixed methods approach might offer promising pathways in studying administrative reorganization and new governance arrangements. In addition to strengthening the theoretical and conceptual foundation through the qualitative part of this approach, one should consider alternative methods such as standardized surveys among bureaucrats (Groeneveld et al., 2015). Despite its methodological disadvantages (self-reporting bias, cross-country differences, etc.), this method makes it possible to cover more cases and elaborate upon comparative aspects, thereby feeding back to the conceptual groundwork in public administration research (Peters & Pierre, 2017). This method also has the potential to cover longitudinal aspects in a more systematic way—that is, change of bureaucratic practices over time. Similarly, examining relevant policy documents, such as the analysis of allocation letters, could benefit from large-scale content analysis (Groeneveld et al., 2015). With an ever-growing number of documents and the increasing possibilities of computational methods, scaling up content analysis (e.g., automated content analysis) makes it possible to process more empirical material. This analytic strategy presents a considerable advantage,

as it enables researchers to cover more cases, contexts, and longitudinal aspects of organizational and governance changes. These possibilities can potentially enhance our understanding of the different political and administrative framework conditions in general and of the higher education sector in particular.

In conclusion, studying governance reforms from an organizational perspective can provide relevant insights about how central administrative organizations govern a public sector such as higher education. Examining in particular organizational mandates and capacity developments of central administrative organizations proved to be a productive approach, as the impact of organizational changes on new governance arrangements became more visible. One of the key findings is that the ministry can choose among different governance options through mandate and capacity changes and can in this way put together a "menu" for future governance arrangements. This has consequences for the agency level as well as for the ministry itself, as both are tightly linked to each other through their governance relationship. By studying the two levels and their relationship with each other from an organizational perspective, the study successfully addresses the effects of governance reforms on the bureaucratic apparatus and the sector's governance.

7　References

Aberbach, J. D., & Rockman, B. A. (1992). Does governance matter—And if so, how? Process, performance, and outcomes. *Governance*, *5*(2), 135–153.

Almond, G. A., Powell, G. B., & Dalton, R. J. (2008). *Comparative politics today: A world view.* Pearson/Longman.

Amaral, A., Neave, G., Musselin, C., & Maassen, P. (Eds.). (2009). *European integration and the governance of higher education and research.* Springer.

Araral, E., Pelizzo, R., Burkhanov, A., Chen, Y., Janenova, S., & Collins, N. (2015). Capacity and autonomy: An exploration of Fukuyama's governance hypothesis. In G. Capano, M. Howlett, & M. Ramesh (Eds.), *Varieties of governance: Dynamics, strategies, capacities* (pp. 173–193). Palgrave Macmillan UK.

Bach, T. (2014). The autonomy of government agencies in Germany and Norway: Explaining variation in management autonomy across countries and agencies. *International Review of Administrative Sciences*, *80*(2), 341–361.

Bach, T. (2016). Administrative autonomy of public organizations. In A. Farazmand (Ed.), *Global encyclopedia of public administration, public policy, and governance.* Springer International.

Bach, T., Niklasson, B., & Painter, M. (2012). The role of agencies in policy-making. *Policy and Society*, *31*(3), 183–193.

Bach, T., van Thiel, S., Hammerschmid, G., & Steiner, R. (2017). Administrative tradition and management reforms: A comparison of agency chief executive accountability in four Continental Rechtsstaat countries. *Public Management Review*, *19*(6), 765–784.

Beerkens, M. (2015). Agencification challenges in higher education quality assurance. In E. Reale & E. Primeri (Eds.), *The transformation of university institutional and organizational boundaries* (pp. 43–61). Sense Publishers.

Bennett, A. (2001). Case study: Methods and analysis. In N. J. Smelser & P. B. Baltes (Eds.), *International encyclopedia of the social & behavioral sciences.* Elsevier.

Bezes, P., Fimreite, A. L., Lidec, P. le, & Lægreid, P. (2013). Understanding organizational reforms in the modern state: Specialization and integration in Norway and France. *Governance*, *26*(1), 147–175.

Bjurstrøm, K. H. (2020). Principal–agent or principal–steward: How ministry–agency relations condition the impact of performance management in the steering of government agencies. *Public Performance & Management Review*, *43*(5), 1053–1077.

Bleiklie, I. (2009). Norway: From tortoise to eager beaver? In C. Paradeise, E. Reale, I. Bleiklie, & E. Ferlie (Eds.), *University governance: Western European comparative perspectives* (pp. 127–152). Springer Netherlands.

Bleiklie, I., & Michelsen, S. (2013). Comparing HE policies in Europe: Structures and reform outputs in eight countries. *Higher Education*, *65*(1), 113–133.

Bogumil, J., & Jann, W. (2009). *Verwaltung und Verwaltungswissenschaft in Deutschland: Einführung in die Verwaltungswissenschaft*. VS Verlag für Sozialwissenschaften.

Bouckaert, G., & Peters, B. G. (2002). Performance measurement and management: The Achilles' heel in administrative modernization. *Public Performance & Management Review*, *25*(4), 359–362.

Bovens, M. (2007). Analysing and assessing accountability: A conceptual framework. *European Law Journal*, *13*(4), 447–468.

Bovens, M., Goodin, R. E., Schillemans, T., Bovens, M., Schillemans, T., & Goodin, R. E. (2014). *Public accountability*. Oxford University Press.

Bovens, M., & 't Hart, P. (2016). Revisiting the study of policy failures. *Journal of European Public Policy*, *23*(5), 653–666.

Bovens, M., Schillemans, T., & Hart, P. 'T. (2008). Does public accountability work? An assessment tool. *Public Administration*, *86*(1), 225–242.

Boyne, G. A. (2003). Sources of public service improvement: A critical review and research agenda. *Journal of Public Administration Research and Theory*, *13*(3), 367–394.

Brandsma, G. J., & Schillemans, T. (2012). The accountability cube: Measuring accountability. *Journal of Public Administration Research and Theory*, *23*(4), 953–975.

Braun, D. (2008). Organising the political coordination of knowledge and innovation policies. *Science and Public Policy*, *35*(4), 227–239.

Braun, D., & Merrien, F.-X. (1999). *Towards a new governance for universities? A comparative perspective.* Armand Colin.

Brunsson, N. (2009). *Reform as routine: Organizational change and stability in the modern world.* Oxford University Press.

Bryman, A. (2016). *Social research methods.* Oxford University Press.

Capano, G. (2011). Government continues to do its job. A comparative study of governance shifts in the higher education sector. *Public Administration*, *89*(4), 1622–1642.

Capano, G., Howlett, M., & Ramesh, M. (2015). Re-thinking governance in public policy: Dynamics, strategy and capacities. In G. Capano, M. Howlett, & M. Ramesh (Eds.), *Varieties of governance: Dynamics, strategies, capacities* (pp. 3–24). Palgrave Macmillan UK.

Capano, G., Regini, M., & Turri, M. (2017). *Changing governance in universities: Italian higher education in comparative perspective.* Palgrave Macmillan UK.

Capano, G., & Turri, M. (2017). Same governance template but different agencies. *Higher Education Policy*, *30*(2), 225–243.

Carpenter, D. P. (2001). Chapter 1. In *The forging of bureaucratic autonomy: Reputations, networks, and policy innovation in executive agencies, 1862—1928*. Princeton University Press. http://readinglists.exeter.ac.uk/ssis/politics/POL2078/POL2078_04.pdf

Chou, M.-H. (2014). *Building the knowledge economy in Europe: New constellations in European research and higher education governance.* Edward Elgar.

Chou, M.-H., Jungblut, J., Ravinet, P., & Vukasovic, M. (2017). Higher education governance and policy: An introduction to multi-issue, multi-level and multi-actor dynamics. *Policy and Society*, *36*(1), 1–15.

Christensen, J. G., & Yesilkagit, K. (2006). Delegation and specialization in regulatory administration: A comparative analysis of Denmark, Sweden and the Netherlands. In *Autonomy and regulation: Coping with agencies in the modern state* (pp. 203–234). Edward Elgar.

Christensen, T. (2011). University governance reforms: Potential problems of more autonomy? *Higher Education*, *62*(4), 503–517.

Christensen, T., & Lægreid, P. (2006). *Autonomy and regulation: Coping with agencies in the modern state*. Edward Elgar.

Christensen, T., & Lægreid, P. (2007). Regulatory agencies? The challenges of balancing agency autonomy and political control. *Governance*, *20*(3), 499–520.

Christensen, T., & Lægreid, P. (2009). Living in the past? Change and continuity in the Norwegian central civil service. *Public Administration Review*, *69*(5), 951–961.

Christensen, T., & Lægreid, P. (2015). Performance and accountability—A theoretical discussion and an empirical assessment. *Public Organization Review*, *15*(2), 207–225.

Christensen, T., Lie, A., & Lægreid, P. (2008). Beyond new public management: Agencification and regulatory reform in Norway. *Financial Accountability & Management*, *24*(1), 15–30.

Cingolani, L., & Fazekas, M. (2020). The role of agencification in achieving value-for-money in public spending. *Governance*, *33*(3), 545–563.

Cronbach, L. J. (1975). Beyond the two disciplines of scientific psychology. *American Psychologist*, *30*(2), 116–127.

Dan, S. (2014). The effects of agency reform in Europe: A review of the evidence. *Public Policy and Administration*, *29*(3), 221–240.

de Boer, H. F. (1992). Walking tightropes in higher education. *Higher Education Policy*, *5*(3), 36–40.

De Vries, D., & Nemec, J. (2013). Public sector reform: An overview of recent literature and research on NPM and alternative paths. *International Journal of Public Sector Management*, *26*(1), 4–16.

Denzin, N. K. (Ed.). (2006). *Sociological methods: A sourcebook*. Routledge.

Egeberg, M. (1999). The impact of bureaucratic structure on policy making. *Public Administration*, *77*(1), 155–170.

Egeberg, M. (2019). How bureaucratic structure matters: An organizational perspective. In *The SAGE handbook of public administration* (pp. 157–168). SAGE Publications.

Egeberg, M., & Trondal, J. (2009). Political leadership and bureaucratic autonomy: Effects of agencification. *Governance*, *22*(4), 673–688.

Egeberg, M., & Trondal, J. (2018). *An organizational approach to public governance: Understanding and design*. Oxford University Press.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532–550.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, *50*(1), 25–32.

El-Khawas, E. (1992). Are buffer organizations doomed to fail? Inevitable dilemmas and tensions. *Higher Education Policy*, *5*(3), 18–20.

Enroth, H. (2011). Policy network theory. In M. Bevir (Ed.), *The Sage handbook of governance* (pp. 19–35).

Esmark, A. (2009). The functional differentiation of governance: Public governance beyond hierarchy, market and networks. *Public Administration*, *87*(2), 351–370.

Flinders, M. (2008). *Delegated governance and the British state: Walking without order*. Oxford University Press.

Fukuyama, F. (2013). What is governance? *Governance*, *26*(3), 347–368.

Gerring, J. (2004). What is a case study and what is it good for? *The American Political Science Review*, *98*(2), 341–354.

Gerring, J., & Cojocaru, L. (2016). Selecting cases for intensive analysis: A diversity of goals and methods. *Sociological Methods & Research*, *45*(3), 392–423.

Gjaltema, J., Biesbroek, R., & Termeer, K. (2020). From government to governance…to meta-governance: A systematic literature review. *Public Management Review*, *22*(12), 1760–1780.

Gläser, J., & Laudel, G. (2009). *Experteninterviews und qualitative Inhaltsanalyse: Als Instrumente rekonstruierender Untersuchungen*. VS Verlag für Sozialwissenschaften.

Gornitzka, Å., & Maassen, P. (2000). Hybrid steering approaches with respect to European higher education. *Higher Education Policy*, *13*(3), 267–285.

Gornitzka, Å., & Maassen, P. (2014). Dynamics of convergence and divergence: Exploring accounts of higher education policy change. In *University adaptation in difficult economic times*. Oxford University Press.

Groeneveld, S., Tummers, L., Bronkhorst, B., Ashikali, T., & van Thiel, S. (2015). Quantitative methods in public administration: Their use and development through time. *International Public Management Journal*, *18*(1), 61–86.

Hammerschmid, G., & Meyer, R. E. (2005). New public management in Austria: Local variation on a global theme? *Public Administration*, *83*(3), 709–733.

Hawkins, D. G., & Jacoby, W. (2006). How agents matter. In D. L. Nielson, D. G. Hawkins, D. A. Lake, & M. J. Tierney (Eds.), *Delegation and agency in international organizations* (pp. 199–228). Cambridge University Press; Cambridge Core.

Hong, S., & Park, N. (2019). Administrative reorganization as a signal: Bounded rationality, agency merger, and salience of policy issues. *Governance*, *32*(3), 421–439.

Hood, C. (2002). Control, bargains, and cheating: The politics of public-service reform. *Journal of Public Administration Research and Theory*, *12*(3), 309–332.

Hood, C., & Lodge, M. (2006). Introducing public service bargains. In *The politics of public service bargains*. Oxford University Press.

Huisman, J. (2009). Coming to terms with governance in higher education. In *International perspectives on the governance of higher education* (pp. 27–36). Routledge.

Huisman, J., & Currie, J. (2004). Accountability in higher education: Bridge over troubled water? *Higher Education*, *48*(4), 529–551.

Jungblut, J., & Woelert, P. (2018). The changing fortunes of intermediary agencies: Reconfiguring higher education policy in Norway and Australia. In P. Maassen, M. Nerland, & L. Yates (Eds.), *Reconfiguring knowledge in higher education* (pp. 25–48). Springer International.

Kickert, W. (1995). Steering at a distance: A new paradigm of public governance in Dutch higher education. *Governance*, *8*(1), 135–157.

Kleven, T. A. (2008). Validity and validation in qualitative and quantitative research. *Nordisk Pedagogik (Nordic Studies in Education)*, *28*(3), 219–233.

Krippendorff, K. (2013). *Content analysis: An introduction to its methodology*. SAGE Publications.

Krüger, K., Parellada, M., Samoilovich, D., & Sursock, A. (2018). *Governance reforms in European university systems: The case of Austria, Denmark, Finland, France, the Netherlands and Portugal*. Springer International.

Kuhlmann, S., & Wollmann, H. (2014). *Introduction to comparative public administration: Administrative systems and reforms in Europe*. Edward Elgar.

Lægreid, P., & Verhoest, K. (2010). Introduction: Reforming public sector organizations. In P. Lægreid & K. Verhoest (Eds.), *Governance of public sector organizations: Proliferation, autonomy and performance* (pp. 1–18). Palgrave Macmillan UK.

Lægreid, P., Verhoest, K., & Jann, W. (2008). The governance, autonomy and coordination of public sector organizations. *Public Organization Review*, *8*(2), 93–96.

Maassen, P., Gornitzka, A., & Fumasoli, T. (2017). University reform and institutional autonomy: A framework for analysing the living autonomy. *Higher Education Quarterly*, *71*(3), 239–250.

Maassen, P., & Musselin, C. (2009). European integration and the Europeanisation of higher education. In A. Amaral, G. Neave, C. Musselin, & P. Maassen (Eds.), *European Integration and the Governance of Higher Education and Research* (pp. 3–14). Springer Netherlands.

Maassen, P., & Olsen, J. P. (2007). *University dynamics and European integration*. Springer.

Maassen, P., & Stensaker, B. (2011). The knowledge triangle, European higher education policy logics and policy implications. *Higher Education*, *61*(6), 757–769.

Maggetti, M., & Verhoest, K. (2014). Unexplored aspects of bureaucratic autonomy: A state of the field and ways forward. *International Review of Administrative Sciences*, *80*(2), 239–256.

Margetts, H., & Hood, C. (Eds.). (2010). *Paradoxes of modernization: Unintended consequences of public policy reform*. Oxford University Press.

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.

Mayring, P. (2014). *Qualitative content analysis: Theoretical foundation, basic procedures and software solution.* Social Science Open Access Repository.

Migdal, J. S. (1988). *Strong societies and weak states: State-society relations and state capabilities in the Third World.* Princeton University Press.

Olsen, J. P. (2013). The institutional basis of democratic accountability. *West European Politics*, *36*(3), 447–473.

Olsen, J. P., & Maassen, P. (2007). European debates on the knowledge institution: The modernization of the university at the European level. In P. Maassen & J. P. Olsen (Eds.), *University dynamics and European integration* (pp. 3–22). Springer Netherlands.

Overman, S., & Van Thiel, S. (2016). Agencification and public sector performance. A systematic comparison in 20 countries. *Public Management Review*, *18*(4), 611–635.

Painter, M., & Peters, B. G. (2010). Administrative traditions in comparative perspective: Families, groups and hybrids. In M. Painter & B. G. Peters (Eds.), *Tradition and public administration* (pp. 19–30). Palgrave Macmillan UK.

Paradeise, C. (2009). *University governance: Western European comparative perspectives.* Springer.

Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice.* SAGE Publications.

Pechar, H. (2004). The changing academic workplace: From civil servants to private employees. In J. Enders & E. de Weert (Eds.), *The international attractiveness of the academic workplace in Europe* (pp. 32–51). GEW.

Peters, B. G., & Pierre, J. (2017). Two roads to nowhere: Appraising 30 years of public administration research. *Governance: An International Journal of Policy, Administration, and Institutions*, *30*(1), 11–16.

Pitts, D. W., & Fernandez, S. (2009). The state of public management research: An analysis of scope and methodology. *International Public Management Journal*, *12*(4), 399–420.

Pollitt, C. (2016). *Advanced introduction to public management and administration.* Edward Elgar.

Pollitt, C., Bathgate, K., Caulfield, J., Smullen, A., & Talbot, C. (2001). Agency fever? Analysis of an international policy fashion. *Journal of Comparative Policy Analysis*, *3*(3), 271–290.

Pollitt, C., & Bouckaert, G. (2011). *Public management reform: A comparative analysis: New public management, governance, and the neo-Weberian state* (3rd ed., Vol. 1–1). Oxford University Press.

Pollitt, C., & Hupe, P. (2011). Talking about government. *Public Management Review*, *13*(5), 641–658.

Romzek, B. S. (2000). Dynamics of public sector accountability in an era of reform. *International Review of Administrative Sciences*, *66*(1), 21–44.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). SAGE Publications.

Salkind, N. J. (2016). *Statistics for people who (think they) hate statistics*. SAGE Publications.

Schillemans, T., & Bovens, M. (2011). The challenge of multiple accountability: Does redundancy lead to overload? In M. J. Dubnick & H. G. Frederickson (Eds.), *Accountable Governance: Problems and Promises*, 3–21. Routledge.

Seawright, J., & Gerring, J. (2008). Case selection techniques in case study research: A menu of qualitative and quantitative options. *Political Research Quarterly*, *61*(2), 294–308.

Smith, M. J., & Flinders, M. V. (1999). *Quangos, accountability and reform: The politics of quasi-government.* Palgrave Macmillan UK.

Statistisches Taschenbuch. (2018). Bundesministerium für Bildung, Wissenschaft und Forschung (p. 141). https://oravm13.noc-science.at/apex/f?p=103:2:14147723454539:REFRESH_TREE::2:P1_TREE_ROOT,P2_FL_INIT,P2_ALIAS:166,N,taschenbuch

Sześciło, D. (2020). Agencification revisited: Trends in consolidation of central government administration in Europe. *International Review of Administrative Sciences*, 1–18.

Talbot, C. (1999). Public performance—Towards a new model? *Public Policy and Administration*, *14*(3), 15–34.

Guidelines for Research Ethics in the Social Sciences, Humanities, Law and Theology. (2016).

Thijs, N., Hammerschmid, G., & Palaric, E. (2017). *A comparative overview of public administration characteristics and performance in EU28* ("Support for developing better country knowledge on public administration and institutional capacity building" (VC/2016/0492)). European Commission- Directorate-General for Employment, Social Affairs and Inclusion.

https://op.europa.eu/en/publication-detail/-/publication/3e89d981-48fc-11e8-be1d-01aa75ed71a1/language-en

Tilstandsrapport for høyere utdanning 2018. (n.d.). Kunnskapsdepartementet (p. 99). https://www.regjeringen.no/no/dokumenter/tilstandsrapport-for-hoyere-utdanning-2018/id2600317/

Trow, M. (1996). Trust, markets and accountability in higher education: A comparative perspective. *Higher Education Policy*, *9*(4), 309–324.

Van Thiel, S., & Smullen, A. (2021). Principals and agents, or principals and stewards? Australian arm's length agencies' perceptions of arm's length government instruments. *Public Performance & Management Review*, 1–27.

Van Thiel, S., & Yesilkagit, K. (2011). Good neighbours or distant friends? *Public Management Review*, *13*(6), 783–802.

Van Vught, F. (1989). *Governmental strategies and innovation in higher education*. Jessica Kingsley.

Verhoest, K. (2012). *Government agencies: Practices and lessons from 30 countries*. Palgrave Macmillan.

Verhoest, K., & Lægreid, P. (2010). Organizing public sector agencies: Challenges and reflections. In P. Lægreid & K. Verhoest (Eds.), *Governance of public sector organizations: Proliferation, autonomy and performance* (pp. 276–297). Palgrave Macmillan UK.

Verschuere, B., Verhoest, K., Meyers, F., & Peters, G. (2006). Accountability and accountability arrangements in public agencies. In T. Christensen & P. Lægreid (Eds.), *Autonomy and regulation: Coping with agencies in the modern state* (pp. 268–300). Edward Elgar.

Winckler, G. (2012). The European debate on the modernization agenda for universities. What happened since 2000? In M. Kwiek & A. Kurkiewicz (Eds.), *The modernization of European universities. Cross-national academic perspectives* (pp. 235–249). Peter Lang.

Wu, X., Ramesh, M., & Howlett, M. (2015). Policy capacity: A conceptual framework for understanding policy competences and capabilities. *Policy and Society*, *34*(3–4), 165–171.

Wu, X., Ramesh, M., & Howlett, M. (2018). Policy capacity: Conceptual framework and essential components. In X. Wu, M. Howlett, & M. Ramesh (Eds.), *Policy capacity and governance:*

Assessing governmental competences and capabilities in theory and practice (pp. 1–25). Springer International.

Yesilkagit, K. (2004). The design of public agencies: Overcoming agency costs and commitment problems. *Public Administration and Development*, *24*(2), 119–127.

Yesilkagit, K., & van Thiel, S. (2008). Political influence and bureaucratic autonomy. *Public Organization Review*, *8*(2), 137–153.

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). SAGE Publications.

Appendices

Appendix 1: Overview of documents

AUSTRIA	NORWAY
Law texts/regulations and policy documents	
• University Act 2002 (*Universitätsgesetz 2002*) • The Act on Quality Assurance in Higher Education *(Hochschul-Qualitätssicherungsgesetz)* • Education Documentation Act *(Bildungsdokumentationsgesetz)* • Federal law on the establishment of the OeAD-GmbH *(Bundesgesetz zur Errichtung der "OeAD-Gesellschaft mit beschränkter Haftung" (OeAD-Gesetz – OeADG))*	• Lov om universiteter og høyskoler (universitets- og høyskoleloven) • NOU 2000:14 (Mjøs) • NOU 2003:25 (Ryssdal) • NOU 2008:3 (Stjernø) • Quality reform (St.meld.nr.27, 2000–2001)
Organizational documents	

Austrian Federal Ministry of Education, Science, and Research
 	
• Distribution of functions for the years 2000–2018 (*Geschäftseinteilung*)
	Ministry of Education and Research
	
	• Allocation letters to
	  o NOKUT (2014–2018)
	  o SIU (2011–2018)

AQ Austria • Annual reports for the years 2012–2017 **FHR** • Annual reports for the years 2000–2010 **ÖAR** • Annual reports for the years 2000–2012 **AQA** • Annual reports for the years 2005–2012	**NOKUT** • Annual reports for the years 2003–2017
OeAD • Annual reports for the years 2000–2017	**SIU** • Annual reports for the years 2001–2017

Appendix 2: Overview of interviews

Country	Organization	Interview code/participant	Working experience (> 5 years)	Leadership position	Key role (reform)
AUSTRIA	Austrian Federal Ministry of Education, Science, and Research	A_2		X	X
		A_3		X	
		A_4		X	
		A_6	X	X	X
		A_7	X		
		A_8	X		
		A_9	X		
		A_10	X		
	The Agency for Quality Assurance and Accreditation, Austria	B_1		X	
		B_2	X	X	X
	The Austrian Agency for International Cooperation in Education and Research	C_1		X	
		C_2		X	
		C_3	X		
NORWAY	Ministry of Education and Research	D_1	X	X	X
		D_2	X	X	
		D_3	X	X	X
		D_4		X	
		D_5	X	X	X
		D_6	X		
		D_7	X		
	The Norwegian Agency for Quality Assurance in Education	E_1		X	
		E_2	X		
		E_3	X		
	The Norwegian Centre for International Cooperation in Education	F_1		X	
		F_2		X	
		F_3	X		
		F_4		X	X

Appendix 3: Interview guide 1 (example ministry)

Interview guide (KD)

Introduction

- Explanation of research project and purpose of the interviews
- Inform participant about consent and anonymity; sign consent
- Position and area of responsibility of the participant

Institutional and organizational development of the ministry

- How has the ministry developed in organizational terms (sections, units, working groups, etc.) after the introduction of the quality reform?
- What were challenges and problems in the beginning? What are the challenges and problems at the moment?
- How has the budget situation developed after the introduction of the reforms?
- Where did the ministry gain capacity in its organizational form?
- Where did the ministry lose capacity in its organizational form?

Distribution of authority and autonomy issues

- How has the authority structure changed after the reform was introduced? How has it been structured and distributed (e.g. decentralization/centralization movements)
- In which areas did the ministry gain authority and how?
- In which areas did the ministry delegate authority and how?
- What is the mandate of the ministry in in how far/to which extent has it changed (if it has changed)?

National strategic planning

- What role does the ministry have in national higher education strategies?
- How is national policy making in higher education taking place? What role does the ministry play in this?
- How is the role/mandate of the ministry developing?

Conclusion

- Is there anything you would like to add that in your view is worth mentioning?
- Do you any recommendations whom to interview as well?
- May I contact you at a later point, e.g. for the verification of preliminary results?

Interview-Leitfaden (OeAD)

Einleitung

- Information über Forschungsprojekt und Zweck des Interviews
- Datenschutz und Anonymisierung; Einverständniserklärung
- Interviewpartner: Stellung und Funktion im OeAD?

Institutionelle und organisatorische Entwicklung des OeAD

- Wie hat sich der OeAD institutionell und organisatorisch seit Anfang der 2000er entwickelt? Welche Rolle spielt das UG 2002/die UG-Novelle 2009 dabei?
    - Was ist das (öffentliche) Mandat des OeAD?
    - Welche *Policy*-Bereiche wurden betont und wie wurde das organisatorisch umgesetzt? Was waren die bestimmenden Themen und Herausforderungen?
- Wie hat sich die „Organisationskapazität" entwickelt?
    - Entwicklung des operativen Budgets
    - Personalsituation (z.B. Mitarbeiterzahlen und Bildungsgrad/Expertise)

Fragestellungen in Bezug auf Autorität, Autonomie, und Koordinierung
- Wie sieht Politikgestaltung im Hochschulsystem aus? Welche Rolle spielt der OeAD in nationalen Hochschulstrategien?
- Wie koordiniert sich der OeAD mit dem Ministerium/anderen Agenturen/Hochschulinstitutionen?
- In welchen Bereichen hat das Ministerium an Einfluss gewonnen, in welchen hat es Aufgaben delegiert?
- Wie und in welchen Bereichen hat der OeAD an Einfluss gewonnen? Wie spiegelt sich das in der Organisation und Kapazitätsentwicklung wider?

Abschluss

- Weitere Kommentare/Themen die nicht besprochen wurden?
- Welche weitere(n) Person(en) können Sie mir empfehlen?
- Kann ich Sie evtl. nochmals zu einem späteren Zeitpunkt kontaktieren zwecks Validierung?

Appendix 5: Confidentiality agreement

UiO **:** **University of Oslo**
Faculty of Educational Sciences/Department of Education

Request for participation in research project

PROJECT TITLE: CHANGES IN THE INSTITUTIONAL MATRIX OF HIGHER EDUCATION
GOVERNANCE – THE ROLE OF NATIONAL HIGHER EDUCATION MINISTRIES

Background and Purpose
This PhD project examines the role of national higher education ministries against the backdrop of
public sector reforms. The cases of interest are the Ministry for Education and Research (Norway)
and the Austrian Federal Ministry of Education, Science and Research.

What does participation in the project imply?
A primary data source for this study are key expert interviews. For this reason, several interview
sessions are planned with participants relevant for the projects scope. The interview sessions will
take 60-75 min. and are conducted at a place chosen by the participant. The interviews are
preferably audio-recorded and for transcription purposes only, if agreed to by the participant.

What will happen to the interview data?
All interview data will be treated confidentially. Persons with access to interview data are the
principal investigator, a research assistant, and the supervisors of the project. The audio files and
interview transcripts will be stored on a local computer (University of Oslo) which is only
accessible by the principal investigator and the research assistant. All interviews/participants will be
anonymized after a self-chosen encryption key. The project is scheduled for completion by June
2020. Primary data (audio-recordings) will be further stored if subsequent and related projects will
follow, and where the data can be of relevance. In this case a new application to the Data Protection
Official for Research will be filed. Otherwise, the data will be deleted.

Voluntary participation
It is voluntary for you to participate in the project, and you can at any time withdraw your consent
without stating any reason. If you would like to participate or have any questions concerning the
project, please contact the principal investigator. The study is registered at the Data Protection
Official for Research, NSD - Norwegian Centre for Research Data.

Postal address: University of Oslo, Department of Education, Box 1092 Blindern, 0317
Oslo, Norway
E-mail: philipp.friedrich@iped.uio.no
Telefon: +47-22855526
www.uio.no

Consent for participation in the study

I have received information about the project and am willing to participate

----
(Signed by participant, date)

Part II: Articles

Article 2

Friedrich, P. E. (2020). Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education. *Studies in Higher Education*, 1–14.

2

Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education

Philipp Emanuel Friedrich

Published online: 03 Mar 2020.

Submit your article to this journal ☒

View related articles ☒

View Crossmark data ☒

Routledge
Taylor & Francis Group

Who is responsible for what? On the governance relationship between ministry and agencies in Austrian and Norwegian higher education

Philipp Emanuel Friedrich

Department of Education, University of Oslo, Oslo, Norway

ABSTRACT

This article addresses the governance relationship between the ministry responsible for higher education and the sector agencies against the backdrop of comprehensive sector reforms. The relationship is examined based on autonomy and capacity, which are argued to be decisive in negotiating areas of responsibility. The Austrian and Norwegian ministries responsible for higher education and their interplay with two subordinate agencies exemplify this negotiation process empirically. The findings, based on data derived from organizational figures, policy documents, law texts, and interviews with politicians, bureaucrats, and academics, show that the initial years of a changed modus operandi were characterized by uncertainty about the roles and expectations of the organizations involved. The more time passed the more consolidated and aligned the new governance practices became, although this consolidation and alignment depended on various autonomy and capacity determinants, which played out differently in both national contexts.

Introduction

Traditionally, ministries responsible for higher education have played a key role in determining the governance conditions for universities and colleges in continental Western Europe.[1] Recently, these ministries have gradually moved away from micro-managing higher education institutions (HEIs) toward steering from a distance, in which the establishment of governmental agencies plays an increasing role (Capano 2011; Kickert 1995). Agencies now cover important aspects in the governance of higher education (HE) but there is still a limited understanding of how areas of agency responsibility are defined in interaction with the ministry (Capano 2011; Ferlie, Musselin, and Andresani 2008; Jungblut and Woelert 2018).

In line with developments in other public sectors (Pollitt et al. 2001; Verhoest 2012) a number of challenges emerge for ministries responsible for HE in establishing agencies. These challenges typically include questions of agency autonomy, political control, organizational performance, accountability, and policy coordination (Bach, Niklasson, and Painter 2012; Christensen and Lægreid 2007; Verhoest 2012), which are a consequence of the complexities of the underlying intention to make governance arrangements more effective (Lodge and Wegrich 2014; Rothstein 2011). The research questions addressed in this article are accordingly: How are ministry and agencies in the area of

HE in Austria and Norway related to each other? In how far can a focus on the concepts of autonomy and capacity contribute to an explanation of their relationship?

The next section provides an overview of agencification trends in HE. This is followed by a discussion of the challenges ministries and agencies face in defining areas of responsibility in HE, showing how agencification initiatives can be interpreted as efforts to change the autonomy and capacity at both involved governance levels. The fourth section includes a description of the design of the underlying study and of the two cases (based in Austria and Norway), both of which have undergone structural governance changes through national university reforms in the early 2000s. Next, key findings are presented followed by a discussion of the implications of these findings and the main conclusions of the study.

Agencification in higher education

A number of studies (Huisman 2009; Paradeise et al. 2009) have addressed how the public authorities' relation to universities and colleges has changed over the last decades through a governance mode characterized as 'steering at a distance' (Capano 2011; Huisman and Currie 2004; Kickert 1995; Van Vught 1989). This development is embedded within a general transformation of public administrations within the OECD countries. The structural devolution of public administration has been promoted as part of this transformation, most prominently in the form of agency creation (Pollitt et al. 2001; Verhoest 2012).

Agencies are commonly understood to be organizations that (a) are subordinate to a ministry yet formally separated from it, (b) adhere to public law and are responsible for specific tasks at the national level assigned by the ministry, and (c) are mainly state funded and staffed by public servants (Bach, Niklasson, and Painter 2012; Christensen and Lægreid 2007). Agency creation has become a favorite template for restructuring public administration that has spread across countries and public sectors (Pollitt et al. 2001).

The HE sector has also been affected by this development (Beerkens 2015; Capano and Turri 2017; Jungblut and Woelert 2018), especially in the area of quality assurance (QA). QA agencies and their consequences for the sector received some scholarly attention (Westerheijden, Stensaker, and Rosa 2007), while agencies established in other subdomains, such as internationalization and student support, have been studied to a lesser extent. In addition, only a few studies have addressed the governance role of agencies and their interactions with ministries responsible for HE.

Beerkens (2015) discusses agencification processes in QA and highlights the challenges of autonomy, political control, and accountability in the Netherlands, Great Britain, Norway, and Denmark. The author concludes that QA agencies have become a dominant regulatory actor in the space between the ministry and universities, with their own identities and strategies. Jungblut and Woelert (2018) focus on the agencies' role in the wider institutional matrix of HE in Australia and Norway. They apply a more holistic view to governance arrangements and the role of agencies by combining agencification trends with coordination aspects in HE policy processes. Capano and Turri (2017) address one of the central dilemmas in creating agencies in HE, which is the question of agency autonomy and governmental control. The authors designed a framework in which an agency's policy autonomy can be assessed and categorized depending on the level of legal power it holds (high or low) in relation to the government's steering capacity (also high or low). This framework results in four ideal-type agencies (dominant, additional, administrative, and instrumental) that differ in their function.

This typology represents an important contribution for classifying and conceptualizing different types and roles of agencies in HE. However, the typology remains static and does not capture the dynamic interplay underlying the relationship between agency and ministry. Further, the typology is based on a fairly implicit understanding of capacity matters and suggests that the effectiveness of an agency primarily depends on its 'policy autonomy.' As will be argued below, autonomy is a necessary but insufficient dimension for assessing a given agency's effectiveness and position of power in relation to the ministry.

Drawing on conceptualizations of governance quality (Fukuyama 2013; Rothstein 2011), this article presents an analytical framework in which autonomy will include both formal and informal dimensions. In some autonomy instances, a conceptual distinction between 'ministerial authority' and 'agency autonomy' will be made because of the hierarchical imbalance between the two organizations. Capacity will be added as a secondary analytical parameter, which will allow for capturing the changes and dilemmas that are of relevance for understanding the dynamic governance relationship between ministries and their subordinate agencies in HE.

Studying autonomy-capacity dilemmas

In essence, an agency's formal autonomy relates to all that has been codified in law: that is, the regulations defining the mandate of the agency and its legal scope of action (Yesilkagit and van Thiel 2008). However, these boundaries are often far from clear (Bach, Niklasson, and Painter 2012), among other things because 'it is impossible to write laws that specify down to the last detail what is allowed and what is forbidden' (Christensen and Yesilkagit 2006, 203).

Consequently, an informal dimension or de facto situation (Bach, Niklasson, and Painter 2012; Maggetti 2007) depicts how ministries and agencies interact within legal boundaries. If we consider autonomy as a trade-off between ministry and agency, then a simple approach is to trace if jurisdiction for organization A has been transferred to organization B or vice versa, or if the jurisdiction has not changed at all. While this is relatively easy to examine formally, for example through comparing legal frameworks in pre- and post-reform periods, tracing de facto changes and power constellations is more difficult to grasp. Key indicators for actual agency autonomy in this study have been defined as (a) the perception of ministerial staff about the agencies' role, and (b) the perception of agency staff about the degree to which they can influence policy development within the formal boundaries. These indicators are naturally interrelated yet emphasize different aspects. In the first case, observations of situational events are of importance, such as how a ministry behaves if a QA agency develops a strategy that is not in line with ministerial interests. The second indicator contrasts the ministry's view with how the agency interprets its mandate and makes use of its room to maneuver within given boundaries.

Another facet for studying the dynamics between ministry and agencies includes capacity developments, as any discussion of autonomy will become irrelevant if these organizations lack the resources to experience their autonomy (Fukuyama 2013). From the perspective of public administration, Wu, Ramesh, and Howlett (2015, 166) define capacity 'as the set of skills and resources […] necessary to perform policy functions.' For measurements of capacity in organizational terms, important indicators are (a) the organization's operational budget (b) the number of personnel working in the organization with responsibility for a specific policy area, and (c) the professional expertise of that personnel (Fukuyama 2013). The operational budget essentially covers the costs for material, personnel, rents, and the like and not, for example, funds distributed and channeled to HEIs or study programs. The number of staff defines how effectively the organizational mandate is implemented (Egeberg 1999; Fukuyama 2013). The operational budget and staff numbers are positively correlated, since personnel costs overall consume most of the budget. The expertise of the personnel is a qualitative dimension that depends on training and education. Indicators include formal level of education such as staff who hold PhDs (Fukuyama 2013). Analytically, it is important to distinguish between the capacity of the ministry and the capacity of the agency in order to get a thorough and valid understanding of their governance relationship.

The idea of contrasting autonomy with capacity in the analytical framework derived from debates about what constitutes effective governance arrangements (Fukuyama 2013; Rothstein 2011). Fukuyama (2013), for example, assumes an ideal constellation between the appropriate degree of autonomy and the right amount of capacity concerning the proper functioning of public administration. For instance, an agency that consists of incapable staff yet is equipped with a powerful mandate runs the risk of carrying out a misguided agenda. In such a case, public authorities

should restrict the agency's autonomy in order to prevent any negative consequences for the sector. In the opposite case, it might be wise to encourage discretion, because the agency consists of capable staff with a high level of expertise, and thus can be expected to perform well, with favorable outcomes.

Fukuyama's approach has primarily been developed for analyzing the quality of national bureaucracies in the proliferation of public services. Here, it is argued that this approach is also appropriate to examine the relationship between ministry and agencies in HE, and for formulating various expectations related to potential autonomy-capacity constellations. Taking as a starting point that a ministry allows its agencies differing degrees of autonomy through determining an agency's formal mandate, and granting them various levels of capacity in the sense of the resources necessary to implement the mandate, the various constellations shown in Figure 1 are possible.

The linear function in the center of the figure describes the optimal levels of autonomy and capacity for the agency. The closer the position of an agency to the linear function the more balanced are its levels of autonomy and capacity. The zero point implies that an agency is in essence a unit within the formal organizational boundaries of the ministry. The farther an agency is positioned away from the zero point, the looser coupled it is from the ministry. Structurally, ministry and agency cannot become completely detached from each other, given the legal implications and formal responsibility of the ministry for the agency. However, it can be argued that agencies beyond the third quadrant have gone beyond the factual control of the ministry.

An agency positioned within quadrant type 1 has low degrees of autonomy and capacity, meaning that it is assumed to play a marginal role in the governance matrix, even if it enjoys an optimal autonomy-capacity balance. An agency positioned in quadrant type 2 is assumed to play a more active role in its assigned policy field, having a close-to-optimal relationship to the ministry. The type 3 position demarcates agencies that enjoy high amounts of autonomy and capacity; an agency positioned in this category can be problematic to the ministry because it has reached a potentially excessive level of autonomy and capacity that would allow it to implement its mandate beyond the control of the ministry.
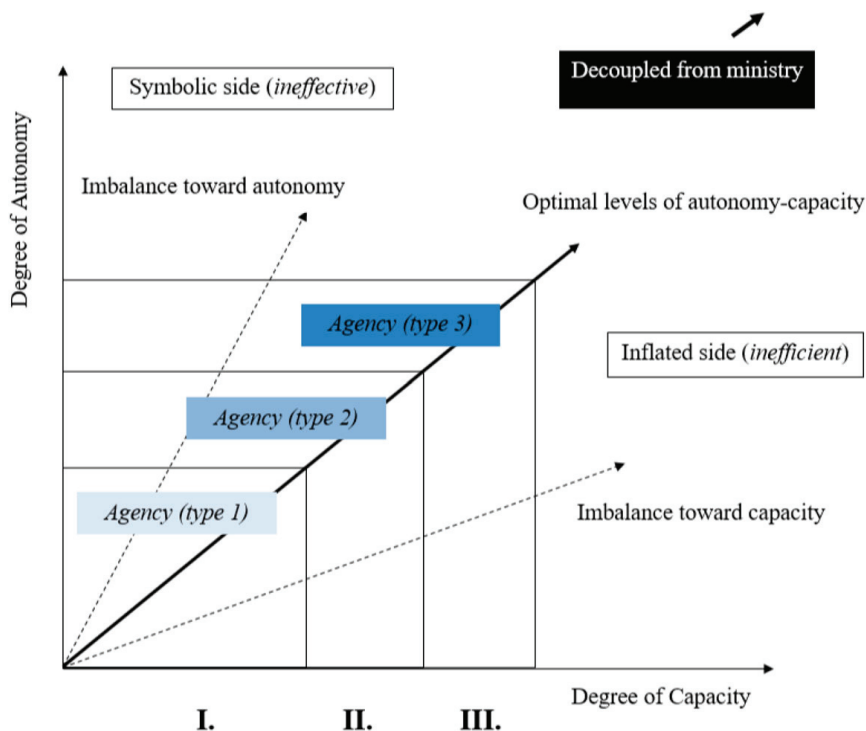

Figure 1. Autonomy-capacity constellations for agencies in HE in relation to ministry.

Positions off the linear function present deviations from an optimal balance between autonomy and capacity levels but with different implications. The area above the linear function indicates a high level of autonomy and a relatively low level of capacity. An agency positioned in that area (the *symbolic* side) thus fulfills its mandate sub-optimally. The agency's mission is symbolic because it lacks the resources to function effectively, even though in theory it would have the appropriate mandate to do so. In contrast, a flatter linear function indicates high levels of capacity with relatively low levels of autonomy. An agency in this spectrum (the *inflated* side) fulfills its mandate in an inefficient way; simply put, it has too many resources that cannot be used appropriately, because the agency lacks autonomy. This framework allows for analyzing both varying amounts of autonomy and capacity for the agency as well as an agency's status in relation to its ministry.

Methodology

Empirical context and case selection

Developing a better understanding of the governance relationships between ministry and agencies in light of transforming HE sectors still calls for more conceptual work. A qualitative research design allows for an in-depth understanding of underexplored phenomena and for analytic generalizations at the conceptual level (Eisenhardt 1989). For these reasons a comparative and multiple case study design was depicted (Yin 2014), also in order to identify common traits and differences of changes in the central public governance matrix. The selection rationale of suitable cases was purposeful (Maxwell 2013) and based on an interest in cases that are (a) experiencing the establishment of governmental agencies as part of changes in public administration and national ministries, (b) as a consequence, changing their areas of responsibility in key policy areas within HE, (c) embedded in complex and mature HE sectors. Based on these rationales, the Austrian and Norwegian public administration responsible for HE were selected as relevant cases.

Given the interest in long-term developments and structural changes, the article's focus is rather on changes at the organizational level, than how these relations are influenced by single individuals.

Case 1 is an examination of the Norwegian Ministry of Education and Research (KD) and its governance relationship to the Norwegian Centre for International Cooperation in Education (SIU) and the Norwegian Agency for Quality Assurance in Education (NOKUT). Case 2 consists of the Austrian Federal Ministry of Education, Science, and Research (BMBWF) and its relationship to the Austrian Agency for International Cooperation in Education and Research (OeAD) and the Agency for Quality Assurance and Accreditation Austria (AQ Austria).[2]

An advantage of comparing these two cases is their shared timeline in the reform processes. Starting point is the implementation of the Quality Reform in 2003 in Norway and the introduction of the University Act 2002 in Austria (Bleiklie 2009; Winckler 2012). In both cases, the implementation of these reforms was the result of numerous discussions, hearings, lobbying, and negotiations. For capturing the dynamics that led to these reforms, legal developments around the turn of the century and relevant national characteristics are of relevance. From an organizational perspective, ending the study in 2018 is logical. At that time, the Norwegian ministry underwent the most comprehensive internal change since its establishment as the Ministry of Education and Research in 2006, which included major restructurings of the SIU (since 2018 known as Diku due to a merger with two other agencies) and NOKUT (due to mandate changes). As for the Austrian case, the ministerial section responsible for HE became part of the newly established Austrian Federal Ministry of Education, Science, and Research in 2018. In both countries, the appointment of new ministers for HE accompanied these changes.

Data collection

In order to examine how ministerial authority / agency autonomy and capacity are balanced, and in order to grasp the interactional dynamics between ministry and agencies in defining areas of

responsibility, the study applied multiple methods in a triangulated fashion (numerical data, documents, and interviews). In total, 26 semi-structured interviews with 28 participants were conducted. The interviews came in different formats: 23 face-to-face interviews with individual participants, two face-to-face interviews with two participants jointly, two telephone interviews, and one Skype interview. Participants were considered suitable if they:

(a) had long working experience in the organization of interest, preferably starting before the new laws were introduced (and thus having been able to witness the transformation process over the years);
(b) held crucial positions in the organization, such as management/leadership;
(c) played a key role in advocating, pushing forward, and implementing the reform process.

Corroborating data (documents / numbers) from the years 2000 to 2017 (including annual reports of the agencies, allocation letters by the Norwegian ministry, documents on task divisions in the Austrian ministry, and national HE laws) revealed staff-number developments and formal organizational changes during the past two decades. Further pieces of complementary data, such as operational budgets, were received upon request directly from the organizations or were found in national databases, such as the Norwegian Centre for Research Data. In some cases, interview participants provided assistance in acquiring relevant data material or complementing existing material (Table 1).

Data analysis

Interviews were conducted in English and German and were coded manually following transcription. The coding/analytic process went through several rounds. In the content analysis step, initial ad hoc coding was done by writing interview reflections and summaries right after an interview session had taken place. In the second step, particular segments were coded descriptively, with the intention of obtaining an overview of the issues that were discussed, accompanied by preliminary jottings. The third round was a deductive analysis that was done to examine 'the data for illumination of predetermined sensitizing concepts or theoretical relationships' (Patton 2014, 551), which in this case included 'ministerial authority / agency autonomy' and 'capacity' as well as their relationship to each other. After completion of these initial analytical rounds, some participants were contacted for clarification and / or commenting on specific issues, as this step provided extra reliability (Yin 2014). Triangulating the interviews with statistical data and documents was motivated by strengthening the overall validity of the findings, thereby reducing potential biases and idiosyncrasies of the cases.

Results

Reform rationales in Austrian and Norwegian higher education

The empirical analysis shows how ministries and agencies in both national contexts relate to each other. Recent changes to system-level governance and the implications for ministries and agencies must be seen in light of the universities' situation in the 1990s, when massification and a growing Europeanization process put the Austrian and Norwegian HE sectors under pressure (Bleiklie 2009; Winckler 2003). Central actors realized that the then governance modes were no longer appropriate and effective. Task forces in both countries were formed that looked into the possibilities of different governance arrangement and how to address current trends and challenges. In Austria, an expert group emerged in a more ad hoc way with central actors and stakeholders in Austrian HE that proposed and lobbied for systemic changes at the ministry. In Norway, the ministry set up a national expert committee, the Mjøs committee (consisting of experts from academia and the broader sector), with the mandate to recommend system-level changes.

Table 1. Overview of organizations and interview participants.

		Long activity	Leadership position	Key role (reform)
Organization A	A_2		■	■
	A_3		■	
	A_4		■	
	A_6	■	■	■
	A_7	■		
	A_8	■		
	A_9	■		
	A_10	■		
Organization B	B_1		■	
	B_2	■	■	■
Organization C	C_1		■	
	C_2		■	
	C_3	■	■	
Organization D	D_1	■	■	■
	D_2	■	■	
	D_3	■	■	■
	D_4		■	
	D_5	■	■	■
	D_6	■		
	D_7	■		
Organization E	E_1		■	
	E_2	■	■	
	E_3	■		
Organization F	F_1		■	
	F_2		■	
	F_3	■	■	
	F_4		■	■
Other	O_1			■

A central element in both countries' policy debates was how to design and define the governance relationship between universities and the state. This re-definition process was subsumed under the concept of 'university autonomy.' While this was not a new concept in itself, the interpretations at that time leaned toward less direct state interference and strengthened institutional room to

maneuver. Perceived ineffective governance mechanisms correlated with an enormous 'level of suffering' (A_3, translated by the author), which emerged within both the ministry and the institutions, and concerned strenuous administrative command chains, which contained little room for policy formulation. In other words, dissatisfaction about micro-steering processes was prevalent in both Austrian and Norwegian HE at that time:

> The institutions had very, very little autonomy, and they had to bring up … every kind of question to the ministry. When it was raining [and the rain gutter was broken], you had to go to the ministry to [ask for] money, and the ministry had to [approve] every kind of change, even at the University of Oslo, when it came to administration. (D_3)

> If you … needed a printer for your computer, then you had to write applications and have cumbersome phone calls with Vienna. And then some undersecretary in the ministry … decided if it was okay if a printer could be installed somewhere. (A_2, translated by the author)

This situation, which reached a critical point in the mid-1990s, led to several suggestions about new governance modes. A central question next to university autonomy concerned the future role of the ministry in a system of more autonomous HE institutions. While environmental pressures and systemic challenges were the same in both cases, the Austrian and Norwegian ministries approached the situation differently.

Issues of authority in administering higher education

In both Austria and Norway, the ministry was supposed to keep the role of the political guardian and maintain sectoral interests. The question, however, was how to preserve and further develop the ministry's mandate. Two central governance tools were devised and modified in the past two decades: strategic steering of the universities and colleges through performance agreements, and the empowerment of agencies. The latter acquired substantial authority over key policy areas in HE (such as internationalization and QA) and operated at arm's length of the ministry. The crucial question, though, was how this 'arm's length' was to be interpreted.

To begin with, all four agencies examined in this study are by the end of this study under the direct responsibility of the ministry (i.e. governmental agencies). The internationalization and exchange agencies SIU and OeAD started originally as program associations[3], orchestrated by the universities, until new laws were introduced in the 2000s. In the course of increasing Europeanization trends and in the aftermath of revised HE laws, the two associations became formal governmental agencies, although the timeline for the countries differed. While the SIU in Norway became an agency with the new university law from 2005, it was not before 2009 that the OeAD in Austria was established as a governmental agency with the status of a *GmbH* (which is similar to a limited liability company) but still with 100% ownership by the Austrian ministry. The mandate for both the SIU and the OeAD expanded substantially in the past 10–15 years and incorporated in addition to HE also other educational levels. These agencies therefore did not gain responsibility at the cost of the ministry but because of an expanding mandate. In addition, being at the intersection of policy areas under the responsibility of other ministries (such as the foreign-affairs ministry), their autonomy was constantly subject to inter-ministerial interactions. Therefore, ministerial authority was often related to safeguarding the interests of the ministry's internationalization agencies rather than interfering in their operations.

In terms of QA, the establishment of NOKUT in Norway was a direct consequence of the 2003 Quality Reform. NOKUT's main tasks when it started to operate in 2005 were the accreditation of Norwegian HEIs and study programs, and the approval of foreign qualifications. Over the years, NOKUT has become an important actor on all issues related to QA in Norwegian HE. In general, NOKUT functions as a supervisory body, information provider, and stimulator of quality debates in Norwegian HE. These functions include responsibility for the Centers for Excellence in Education program, which was established in 2010. NOKUT's mandate expansion has in essence led to a relatively powerful position in the Norwegian HE landscape.

STUDIES IN HIGHER EDUCATION 9

In Austria, in contrast, QA of the tertiary sector remained fragmented until 2012. Until the new QA law (*Hochschul-Qualitätssicherungsgesetz*) was implemented in 2011, the Austrian system continued to have particular QA agencies such as the FHR (*Fachhochschulrat*) for the Universities of Applied Sciences, the ÖAR (*Österreichischer Akkreditierungsrat*) for private universities, and the AQA (Austrian Agency for Quality Assurance) from 2003 on for public universities. However, the AQA was mainly a consultative association with no accreditation mandate. Austrian universities were opposed to institutional accreditation because they saw such accreditation as conflicting with institutional autonomy (Fiorioli 2014). This outlook changed when AQ Austria was established in 2012 (a merger of the FHR, ÖAR, and AQA), though with some important limitations: even though public universities now had to be audited, there were no regulated consequences if the first audit did not lead to certification, other than needing a re-audit. Second, unlike the situation in Norway, Austrian institutions could choose foreign QA agencies that were registered in the European Quality Assurance Register for Higher Education (EQAR).[4]

In general, the perception of the Austrian agencies and their role in the public governance structure is more instrumental, as one of many similar statements shows:

> [Agencies are the] extended work bench. … The ministry develops the overall agenda, and the agencies are supposed to execute [the agenda] operatively. (A_4, translated by the author)

For the Norwegian ministry, this outlook was more a matter of emphasizing agency discretion:

> We [the ministry] will never interfere in their decisions. I mean, that is, in the Norwegian context, it is just unthinkable. … We can give [the agencies] instructions and ask them to do specific things for us, but we will never interfere in [what they have decided upon]. (D_2)

Thus, in contrast to the position of AQ Austria, NOKUT was initially not only looked at skeptically but was also feared by the institutions because of its mandate and its backup by the ministry. Over the years, trust building with the sector was therefore different from the Austrian context, where AQ Austria first and foremost had to demonstrate its 'usefulness' before it was accepted by the universities (B_1). In other words, the degree of actual, de facto agency autonomy depends on the degree to which the ministry accepts, encourages, and equips that autonomy.

Capacity developments within public administration

Another difference between Austria and Norway relates to staff-number developments in the ministries and agencies (see Table 2). In Norway, the staff numbers of the ministerial section responsible for HE have remained stable, but the SIU and NOKUT experienced substantial growth of about five times more employees between the early 2000s and 2017. In Austria, the situation was considerably different. Staff numbers at the ministry, and especially in the HE section, were reduced dramatically once it became clear that the 2002 law would be implemented (in 2017, the ministry had around half of the staff numbers compared to 2000). This reduction continued until 2009/2010 with staff numbers

Table 2. Development of staff numbers (full-time equivalents, rounded).

	2000	2017
Norway		
Ministry of Education and Research (HE section)	67*	61
Norwegian Agency for Quality Assurance in Education	34**	126
Norwegian Centre for International Cooperation in Education	21	101
Austria		
Austrian Federal Ministry of Education, Science and Research (HE section)	225	113
Agency for Quality Assurance and Accreditation Austria	***	32
Austrian Agency for International Cooperation in Education and Research	100	228

* Number from 2002.
** Number from 2003 (the year NOKUT was founded).
*** No number available (AQ Austria was founded in 2012).

remaining relatively stable from then on. The OeAD experienced a similar development as the SIU in Norway: it grew substantially and steadily in terms of staff numbers between 2006 until 2017.

The development of operational budgets also shows some differences. Due to staff-number reductions, the expenditures in the Austrian ministry decreased in the early 2000s. In contrast, the operational budget of the Norwegian ministry increased steadily at that time. SIU's and NOKUT's operational budgets grew six times larger in the study period, while OeAD's budget tripled. The budget of AQ Austria has remained stable since 2012, when the agency was established.

Three interrelated professionalization issues are important to mention here. First, the development toward more strategic behavior and indicator steering made a more complex and sophisticated database structure necessary. Information and data became an even more important currency in a governance mode that now relied increasingly on evidence-based policy-making, performance agreements, and output control. Consequently, one crucial organizational development within the Norwegian agencies from 2009 on has been the establishment analytical departments:

> So it wasn't until we made a new strategy in 2008 … where we were quite clear … that we actually need[ed] to do more analysis to be an agency, to be a competent body in our field. We managed to set up a special department for analysis and development. (B_1)

Second, these new steering modes required different types of professional/bureaucratic expertise. The Austrian ministry, for instance, undertook several training sessions during the transition period that were supposed to prepare the staff for the new working methods prevalent within NPM, such as controlling, benchmarking, and indicator steering. These methods were only temporary, however, and were soon discontinued. Many of the working-method experiences in the first few years after the reform were therefore widely perceived as being trial-and-error approaches.

The third issue is that of the staff's educational background. In general, one can observe a development toward staff with higher degrees (master and PhD) at both the agencies and the ministry. Further, staff became increasingly diverse in the past two decades in terms of their educational backgrounds, with fields such as sociology, political science, economics, and IT becoming more prominent. As pointed out in the interviews, all organizations tried to recruit more people with IT-related knowledge (due to digitalization processes, big data analyses, etc.) or a background in natural sciences. However, these areas of academic specialization remained underrepresented in the ministerial and agencies' staff profile compared to the social sciences.

Discussion and conclusion

Negotiating areas of responsibility

One important finding of this study is that dividing areas of responsibilities between ministries and agencies is not always a zero-sum constellation (Friedrich 2019). For example, the ministry does not necessarily lose formal authority over a policy area in which an agency has gained substantial autonomy. Agencies continue to be state owned and subordinated to their ministry. Second, being governmental organizations implies that their operational budgets are funded publicly. In formal terms, the ministry thus is the highest authority through ownership, but agency expertise due to new policy areas can undermine ministerial authority.

One possible explanation for this undermining is rooted in the information advantage that a powerful agency holds (Verhoest 2012), especially if the ministry lacks the capacity to control the agency. Moreover, the nature of the mandates which internationalization and QA agencies have, has different implications for ministerial authority. In other words, agencies can undermine ministerial authority in different ways.

Internationalization agencies appear to have a more autonomous role than QA agencies, which might have several explanations. Both the OeAD and SIU have longer institutional histories in their

HE sectors, where international academic cooperation has played an important role. Further, the internationalization agencies acquired additional policy areas (new country collaborations, additional funding systems, and the like) through an intensified Europeanization/globalization process. However, internationalization agencies have no formal power, meaning that if a HEI does not want to internationalize through student exchange programs, the agencies have no means to force the HEI. In this respect, their operations do not interfere directly with ministerial ambitions in potentially controversial matters, which can be interpreted as a more autonomous role.

QA on the other hand presents a policy area that can be considered a control instrument for the ministry toward HEIs, with a control function in the area of accreditation and quality assessment. If a university does not reach the minimum quality levels, it can be punished (e.g. by losing its university status). The same goes for study programs that can lose public funding if they do not have adequate quality. However, suggesting to deprive HEIs of their university status can under certain circumstances also lead to conflicts with the ministry, which might have political interests to preserve university status. Such issues can be considered more controversial than for matters concerning internationalization agencies, thus undermining each other's area of responsibility more directly.

Power through expertise and analytic capacity

One dilemma from the perspective of the Austrian ministry was the assumption that more institutional autonomy for universities might mean less work for the ministry. The universities – more precisely, the institutional level/leadership – would take over certain tasks from the ministry, such as personnel policies, thus making analog capacity in the ministry obsolete. However, in hindsight, in terms of control options and the safeguarding of systemic interests / variety, this seemed to be a misguided conclusion. The constellation of anticipated task developments (i.e. a transfer from the ministry to universities), the existence of strong administrative leaders at both the ministerial and university levels that supported the reform agenda, and a favorable political leadership made it possible that ministerial capacity decreased substantially. At the same time, there were no immediate aspirations to further develop the agency structure, at least related to internationalization and QA. This only happened gradually, once it became clear that ministerial interests related to systemic developments could only be pursued effectively with more capacity.

In Norway, the ministry expected that changed governance modes would not mean less but different work. This expectation implied that ministerial capacity had to remain stable. Additionally, due to the ministerial agenda of strengthening the agency-level, agencies developed into organizations with substantial policy input and high levels of policy autonomy. However, enhanced analytic capacity at the agency level has brought a different challenge in the Norwegian HE sector. Developing the SIU and especially NOKUT has been a two-edged affair for the ministry. In essence, the ministry seems to perceive the development of the agencies positively, but concerns have also been raised that NOKUT has become too independent over the years.

Figure 2 depicts the autonomy-capacity levels of the agencies, and shows how autonomous they have become in relation to the ministry by the end of the study period (2018). The position of the agencies aggregate formal and actual autonomy indicators as well as capacity features. The Norwegian agencies NOKUT and the SIU have a solid standing and are moving further toward more decoupling, especially the SIU. Their position in the third quadrant is due to continuous autonomy expansions and capacity increases, as well as their high-perceived factual autonomy. NOKUT's deviation is due to its more controversial role, and the claims that it has become too powerful. For the Austrian agencies, the data indicate that the OeAD has become quite powerful in capacity terms but less so in terms of autonomy. AQ Austria has a relatively limited mandate and is assigned a less important governance role than e.g. compared to NOKUT (hence its placement in the first quadrant and the minor deviation from the linear function). However, overall it seems that AQ Austria has rather appropriate capacity levels for that mandate.
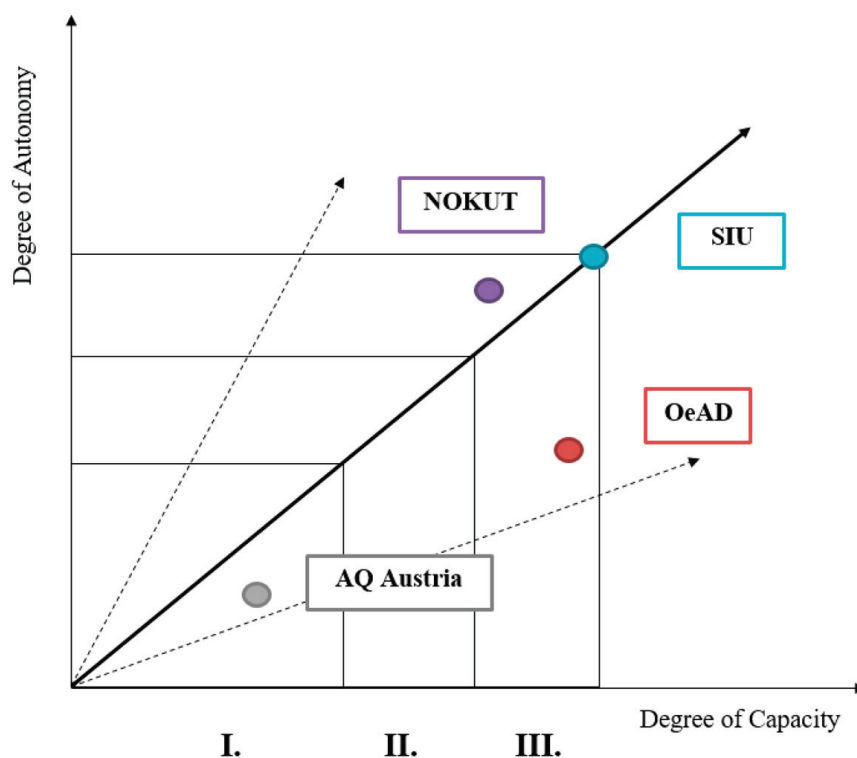
Figure 2. Autonomy and capacity of Austrian and Norwegian HE agencies.

Conclusion

Balancing autonomy and capacity presents an important facet in the governance of HE. The reason for discussing the dimensions in relation to each other was to reflect about potential combinations that could appear as effective governance arrangements. As the findings show, varying degrees within these two dimensions had different implications for effective governance arrangements in Austria and Norway.

A high degree of agency autonomy, as in Norway, is beneficial to effective system steering but also makes it difficult for the Norwegian ministry to assert its authority toward the agencies. The ultimate effectiveness of the agencies, however, depends on capacity determinants, which developed more dynamically in the Norwegian case. Since ministerial capacity remained stable at the same time, assumptions can be made to which extent this governance mode entails redundancies. While the argument holds that different tasks do not necessarily mean less work, this situation does raise the question of how much capacity in the ministry will be necessary if agencies are expanded substantially. The Norwegian case (stable capacity in the ministry and increasing capacity in the agencies) can also be seen as a structural-change problem since new working modes take time to become completely detached from former modes (Brunsson and Olsen 2018).

In the Austrian case, the ministry reduced its own capacity and strengthened the agencies with some delay compared to Norway. Further, there is a difference in how the agency-level has been strengthened regarding QA (AQ Austria) and internationalization (OeAD). The latter extended its mandate and experienced a substantial capacity increase (among other things because it is now also responsible for secondary levels in education). As a result, Austrian HE may have experienced a system-level policy vacuum in the time after the reforms were introduced, as several indications show. First, the ministry faced capacity reductions in different forms, including fewer staff and less professional expertise in new governance modes. Second, a fragmented QA agency structure had practically no accreditation power for the public universities, implying that the ministry had no control mechanism via agency. Third, HEIs explored their new autonomy and therefore had little interest in systemic development.

These findings present important aspects of change processes at the state level in HE governance and are especially relevant for mature public HE sectors undergoing reforms. The theoretical contribution of the present study is the design of a framework that allows for capturing both the dynamics between the ministry and agencies as well as for considering effective governance arrangements. This contribution was substantiated with empirical findings from two cases that have faced comprehensive HE reforms and an intensifying agencification process.

However, this study does have several limitations. One challenge with case study designs in general is how idiosyncratic their theoretical contributions are and to what extent the theoretical generalizability may be increased (Eisenhardt 1989). Based on these limitations, future research avenues should include other types of public administrations / policy regimes in order to complement our understanding about the governance relationship between ministries and agencies in HE. Researchers could also include different types of agencies (such as research councils) and the institutional level. Another aspect would be to include the individual level to a greater extent (e.g. the role of senior leadership in change processes), thus providing a more complete picture of governance shifts.

Notes

1. In this article, the terms 'universities' and 'higher education institutions' will be used synonymously, unless stated differently.
2. The abbreviations refer to the Norwegian and the German titles respectively: KD = *Kunnskapsdepartementet*, SIU = *Senter for internasjonalisering av utdanning*, NOKUT = *Nasjonalt organ for kvalitet i utdanningen*, BMBWF = *Bundesministerium für Bildung, Wissenschaft und Forschung*, OeAD = *Österreichischer Austauschdienst*, AQ Austria = *Agentur für Qualitätssicherung und Akkreditierung Austria*.
3. SIU was founded in 1993, the OeAD in 1961.
4. The European Quality Assurance Register for Higher Education (EQAR) lists all QA agencies that substantially comply with the Standards and Guidelines for Quality Assurance in the EHEA (ESG). (https://www.eqar.eu/, 14.10.2019)

Acknowledgements

Disclosure statement

ORCID

Philipp Emanuel Friedrich http://orcid.org/0000-0002-8561-572X

References

Bach, Tobias, Birgitta Niklasson, and Martin Painter. 2012. "The Role of Agencies in Policy-Making." *Policy and Society* 31 (3): 183–93.

Beerkens, Maarja. 2015. "Agencification Challenges in Higher Education Quality Assurance." In *The Transformation of University Institutional and Organizational Boundaries*, edited by Emanuela Reale, and Emilia Primeri, 43–61. Rotterdam: SensePublishers.

Bleiklie, Ivar. 2009. "Norway: From Tortoise to Eager Beaver?" In *University Governance: Western European Comparative Perspectives*, edited by Catherine Paradeise, Emanueal Reale, Ivar Bleiklie, and Ewan Ferlie, 127–52. Dordrecht: Springer Netherlands.

Brunsson, Nils, and Johan P. Olsen. 2018. *The Reforming Organization: Making Sense of Administrative Change*. Milton: Routledge.

Capano, Giliberto. 2011. "Government Continues to Do Its Job. A Comparative Study of Governance Shifts in the Higher Education Sector." *Public Administration* 89 (4): 1622–42.

Capano, Giliberto, and Matteo Turri. 2017. "Same Governance Template but Different Agencies." *Higher Education Policy* 30 (2): 225–43.

Christensen, Tom, and Per Lægreid. 2007. "Regulatory Agencies? The Challenges of Balancing Agency Autonomy and Political Control." *Governance* 20 (3): 499–520.

Christensen, Jørgen G., and Kutsal Yesilkagit. 2006. "Delegation and Specialization in Regulatory Administration: A Comparative Analysis of Denmark, Sweden and the Netherlands." In *Comparative Studies of Organizations in the Public Sector. Autonomy and Regulation: Coping with Agencies in the Modern State*, edited by Tom Christensen, and Per Lægreid, 203–234. Cheltenham, UK: Edward Elgar.

Egeberg, Morten. 1999. "The Impact of Bureaucratic Structure on Policy Making." *Public Administration* 77 (1): 155–170.

Eisenhardt, Kathleen M. 1989. "Building Theories from Case Study Research." *Academy of Management Review* 14 (4): 532–50.

Ferlie, Ewan, Christine Musselin, and Gianluca Andresani. 2008. "The Steering of Higher Education Systems: A Public Management Perspective." *Higher Education* 56 (3): 325–48.

Fiorioli, Elisabeth. 2014. "Entwicklungslinien und Strukturentscheidungen der Qualitätssicherung in Österreich." In *Handbuch Qualität in Studium und Lehre*, edited by Michaela Fuhrmann, Jürgen Güdler, Jürgen Kohler, Philipp Pohlenz, and Uwe Schmidt, 103–120. Berlin: DUZ Verlags- und Medienhaus GmbH.

Friedrich, Philipp E. 2019. "Organizational Change in Higher Education Ministries in Light of Agencification: Comparing Austria and Norway." *Higher Education Policy*, 1–22. doi:10.1057/s41307-019-00157-x.

Fukuyama, Francis. 2013. "What Is Governance?" *Governance* 26 (3): 347–68.

Huisman, Jeroen. 2009. *International Perspectives on the Governance of Higher Education: Alternative Frameworks for Coordination*. New York: Routledge.

Huisman, Jeroen, and Jan Currie. 2004. "Accountability in Higher Education: Bridge over Troubled Water?" *Higher Education* 48 (4): 529–51.

Jungblut, Jens, and Peter Woelert. 2018. "The Changing Fortunes of Intermediary Agencies: Reconfiguring Higher Education Policy in Norway and Australia." In *Reconfiguring Knowledge in Higher Education*, edited by Peter Maassen, Monika Nerland, and Lyn Yates, 25–48. Cham: Springer International Publishing.

Kickert, Walter. 1995. "Steering at a Distance: A New Paradigm of Public Governance in Dutch Higher Education." *Governance* 8 (1): 135–57.

Lodge, Martin, and Kai Wegrich. 2014. "Introduction: Governance Innovation, Administrative Capacities, and Policy Instruments." In *The Problem-Solving Capacity of the Modern State – Governance Challenges and Administrative Capacities*, edited by Martin Lodge, and Kai Wegrich, 1–22. Oxford: Oxford University Press.

Maggetti, Martino. 2007. "De Facto Independence After Delegation: A Fuzzy-Set Analysis." *Regulation and Governance* 1 (4): 271–94.

Maxwell, Joseph A. 2013. *Qualitative Research Design: An Interactive Approach*. 3rd ed. Los Angeles, CA: SAGE.

Paradeise, Catherine, Emanuela Reale, Ivar Bleiklie, and Ewan Ferlie, eds. 2009. *University Governance: Western European Comparative Perspectives*. Dordrecht: Springer.

Patton, Michael Q. 2014. *Qualitative Research and Evaluation Methods: Integrating Theory and Practice*. Thousand Oaks: SAGE Publications.

Pollitt, Christopher, Karen Bathgate, Janice Caulfield, Amanda Smullen, and Colin Talbot. 2001. "Agency Fever? Analysis of an International Policy Fashion." *Journal of Comparative Policy Analysis* 3 (3): 271–90.

Rothstein, Bo. 2011. *The Quality of Government: Corruption, Social Trust, and Inequality in International Perspective*. Chicago, IL: University of Chicago Press.

Van Vught, Frans. 1989. *Governmental Strategies and Innovation in Higher Education*. London: Jessica Kingsley.

Verhoest, Koen. 2012. *Government Agencies: Practices and Lessons from 30 Countries*. New York: Palgrave Macmillan.

Westerheijden, Don, Bjørn Stensaker, and Maria J. Rosa. 2007. *Quality Assurance in Higher Education Trends in Regulation, Translation and Transformation*. Dordrecht: Springer.

Winckler, Georg. 2003. "Die Universitätsreform 2002." In *Österreichisches Jahrbuch für Politik 2003*, edited by Andreas Khol, Günther Ofner, Günther Burkert-Dottolo, and Stefan Karner, 127–37. Wien: Verlag für Geschichte und Politik.

Winckler, Georg. 2012. "The European Debate on the Modernization Agenda for Universities. What Happened Since 2000?" In *The Modernization of European Universities. Cross-National Academic Perspectives*, edited by Marek Kwiek, and Andrzej Kurkiewicz, 235–49. Frankfurt/Main: Peter Lang.

Wu, Xun, M. Ramesh, and Michael Howlett. 2015. "Policy Capacity: A Conceptual Framework for Understanding Policy Competences and Capabilities." *Policy and Society* 34 (3–4): 165–71.

Yesilkagit, Kutsal, and Sandra van Thiel. 2008. "Political Influence and Bureaucratic Autonomy." *Public Organization Review* 8 (2): 137–53.

Yin, Robert K. 2014. *Case Study Research: Design and Methods*. 5th ed. Thousand Oaks, CA: Sage Publications.