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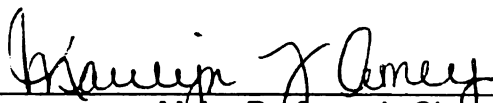
HIGHER EDUCATION FINANCE POLICY:
A COMPARATIVE ANALYSIS OF TWO DYNAMICS OF
SOCIAL CONTRACT IN THREE BOLOGNA PROCESS
COUNTRIES

presented by

MARGARET SAMPSON EDGELL

has been accepted towards fulfillment
of the requirements for the

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**HIGHER EDUCATION FINANCE POLICY:
A COMPARATIVE ANALYSIS OF TWO DYNAMICS OF
SOCIAL CONTRACT IN THREE BOLOGNA PROCESS COUNTRIES**

By

Margaret Sampson Edgell

A DISSERTATION

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ABSTRACT

HIGHER EDUCATION FINANCE POLICY: A COMPARATIVE ANALYSIS OF TWO DYNAMICS OF SOCIAL CONTRACT IN THREE BOLOGNA PROCESS COUNTRIES

By

Margaret Sampson Edgell

This first detailed map of the topography of social contract in comparative higher education finance policy laid out a research design and methodology that proved viable for comparative case study analysis. Its research design, based on Qualitative Comparative Analysis, addressed three initial challenges to the study of a macro level social phenomenon: the inherent subjectivity of study of a social construct; a lack of definition of social contract terms; and the multiplicity of social contracts.

A review of the literature on social contract included literature in politics of education, educational policy, educational equity, educational finance, educational trends, and educational change, but the review resulted in no generally accepted definition or conceptualization. The current study was designed to clarify at its outset a generalizable definition of social contract based on historical interpretation, as the expected roles of stakeholders in higher education (Neave, 2006). The literature on social contract indicated that social contract is a phenomenon that can exist at national, supranational, or global levels. It also suggested that there may exist three universal types of social contract (Kezar, 2004; Neave, 2006; Zumeta, 1996). Neave's (2006) typology may best describe social contract using terms grounded in political theory as follow: Hobbes type (government-oriented), Smith type (market-oriented, also referred to as marketization or privatization), or Locke type (intentional mixtures of the other two types).

The current study applied definitions, conceptualizations, or methodologies from political theory, comparative research (of foreign countries), economics of education, finance policy analysis, and content analysis in the field of higher (or postsecondary) education. Three countries were chosen as case studies due to their classification as welfare states with strong government orientations: Finland, Norway, and Sweden.

Described as a supranational initiative, the Bologna Process in Europe afforded an opportunity to study the social contract implicit within it, along with the social contracts implicit in national policies. Along these lines, two research questions were explored: First, is there a relationship between a supranational social contract regarding academic research and the allocation of funds to research projects at national levels? Analysis of the first research question was primarily analysis of resource allocation toward economic development via research and development (R & D) with industry. Second, is there a relationship between a supranational social contract regarding student financial support and the allocation of funds to student financial support at national levels? This second question, in the cases of the three welfare states studied, was an analysis of state financial support in payment of the net costs to students for higher education.

Conclusions based on the results were, first, for student financial support policy, that, absent supranational social contract, the national social contract was a stronger determinant of funding in the three countries studied than the shifts in social contracts in other European countries. For academic research funding, national social contract was the driving factor, over supranational social contract.

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To John, my marvelous husband

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TABLE OF CONTENTS

LIST OF TABLES	ix
LIST OF FIGURES	x
INTRODUCTION	1
CHAPTER 1	
PURPOSES OF THE CURRENT STUDY OF SOCIAL CONTRACT.....	7
Social Contract in Academic Research.....	8
Social Contract in Student Financial Support Policy.....	8
Relation to Higher Education Purpose.....	11
The Bologna Process.....	12
Challenges to Empirical Study of Social Contract Addressed in This Study	16
CHAPTER 2	
REVIEW OF LITERATURE	19
Origins in Political Theory.....	19
Definitions and Conceptualizations in Higher Education.....	20
Social Charter.....	22
Public Good and Purposes of Higher Education.....	25
Contractualization	27
Limitations of Literature on Social Contract and Public Good	27
Economic Development as a Public Good.....	30
Three Universal Types of Social Contract.....	37
Macro Level (Federal and Supranational) Social Contracts	40
Social Contract Regarding Academic Research	46
Social Contract, Public Good, and Funding to Research and Student Support	49
Student Financial Support Policy.....	55
Dynamism as Addressed by Conflict Theory	56
Two Models of Student Support Social Contract	62
Warrant for the Current Study Based on the Literature Review.....	64
CHAPTER 3	
RESEARCH DESIGN.....	66
Disciplinary Orientation.....	66
Qualitative Empirical Research Design	70
Conceptualization: Academic Research Dynamic.....	71
Corresponding Factors and Indicators: Academic Research Dynamic.....	72
Conceptualization: Student Support Dynamic.....	75
Corresponding Factors and Indicators: Student Support Dynamic.....	76
Sampling: Choice of Country Case Studies.....	78
Units of Analysis.....	78

Finland	80
Norway.....	85
Sweden.....	90
Conclusions Regarding Choice of Country Cases	95
Data and Analysis	98
CHAPTER 4	
RESULTS	102
Bologna Process Social Contract	104
Three Country Cases: Academic Research Dynamic	107
Three Country Cases: Student Support Dynamic	117
Added Step of Analysis	119
Nordic Commonalities	122
The Bologna Process as a Bottom-Up, International/Multinational Process.....	123
Limitations	125
Conclusions Based on Results	127
Future Research	130
Benefits of the Study.....	131
Epilogue: Implications.....	132
APPENDICES	139
Appendix A: Key Policy Documents Produced by the Bologna Process.....	139
Appendix B: Important Research Policy Documents	140
Appendix C: Lists of Key Research Projects Funded.....	144
REFERENCES	147

LIST OF TABLES

Table 1: Concepts, Factors, and Indicators for the Academic Research Dynamic.....	74
Table 2: Concepts, Factors, and Indicators for the Student Financial Support Dynamic...	78
Table 3: Gross Domestic Expenditure on R & D by Source of Funds, Percent Financed by Government.....	112
Table 4: R & D Expenditure by Sectors of Performance, as Percent of GDP, Higher Education Only	113
Table 5: Gross Domestic Expenditure on R & D (% of GDP)	114
Table 6: Academic Research Social Contract (SC)	117
Table 7: Student Support Social Contract (SC)	119
Table A (Appendix A): Key Policy Documents Produced by the Bologna Process	139
Table B1 (Appendix B): Important Research Policy Documents: Finland	140
Table B2 (Appendix B): Important Research Policy Documents: Norway	142
Table B3 (Appendix B): Important Research Policy Documents: Sweden	143
Table C1 (Appendix C): List of Key Research Projects Funded: Finland	144
Table C2 (Appendix C): List of Key Research Projects Funded: Norway	145
Table C3 (Appendix C): List of Key Research Projects Funded: Sweden	146

LIST OF FIGURES

Figure 1: Conceptualization of Dynamics of Social Contracts Regarding Academic Research Funding.....	72
Figure 2: Conceptualization of Dynamics of Social Contracts Regarding Student Support Funding.....	76
Figure 3: Supranational Influences, Social Contracts, and Policies	103
Figure 4: Hypothesized Conceptualization of Academic Research Dynamic of Social Contract.....	122
Figure 5: Conceptualization of Academic Research Dynamics of Social Contract after This Study Was Conducted.....	122

Introduction

Social contract (Neave, 2006), also termed social charter (Kezar, 2004), as applied in higher education policy, is most generally described as the implicit contract between society and higher education (Kezar, 2004). For the purpose of clarity in the current study, however, social contract is defined as the expected roles of stakeholders in higher education. In essence, social contract constitutes society's mandate to, and expectations of, higher education. Scholars in higher education think that social contract influences the values and missions of institutions of higher education (Gumport, 2001; Kezar, 2004). It is also assumed that changes in the social contract involve and affect all stakeholders in higher education (Gumport, 2001; Kezar, 2004; Veysey, 1970). The assumed effects of a shift in social contract are often financial: If the social contract weakens, perhaps due to reduced public appreciation among stakeholders for the public benefits of higher education, public sector funding shifts to other priorities (Johnstone, 2006; Kezar, 2004).

Stakeholders in higher education are typically defined as all of the groups in a society with a stake, or interest, in higher education (Maassen, 2000). Scholars in higher education studies may include on their lists of stakeholders such actors as ministries of education, universities, faculty unions, student unions, private enterprises, ministries of finance, political parties, researchers in higher education policy, and other occasional actors, either independent or local, which a study in Finland found to be the case in that country's spheres of higher education policy (Valimaa, 2005). For the purposes of the current study, the stakeholders studied are limited to ministries of education, the private sector, and students. This choice was based on the triple helix thesis of innovation, which

specifies the three core parties in innovation to be the university, industry, and government (Etzkowitz & Leydesdorff, 2000). This choice was also based on the main stakeholders analyzed in a study of the influence of stakeholders in higher education on legislation in the late 1960s in Europe (Daalder & Shils, 1982).

The stakeholder society, one in which society challenges the traditional autonomy of higher education, is changing higher education in Europe (Maassen, 2000). Olsen (2007) observed that today we are in a period of potentially transformational change in higher education, with implications for the reshaping of institutional purposes that may involve enough change to jeopardize the identity, legitimacy, and distinctive features of academic institutions. Current trends dominating higher education challenge the autonomy of the university, the academic freedom of faculty in teaching and research, and, even more importantly, who controls bodies of knowledge, the definition and criteria of academic excellence, and the relationship between teaching and research. This period of transformational change raises questions regarding social contract in higher education, such as: “What kind of University for what kind of society? What do the University and society expect from each other? How is the University assumed to fit into the democratic polity and society? To what extent and how, are the University, government and society supposed to influence each other?” (Olsen, 2007, p. 25)

Europe is also currently affected by a second trend, cost sharing, which specifically impacts finance. Pressures for cost sharing, or shifting the cost of higher education toward students, has increased in Europe in recent years, mainly due to rising demand for public monies by a range of competing public goods, such as education, health, and security (Vossensteyn, 2005). Cost sharing is a global trend, exacerbated in

some countries by a growing youth demographic (Johnstone, 2006). The results of this study--that none of the countries studied moved toward cost sharing--begs the question of why these countries go against the global trend.

Austerity is the climate created by these two trends in higher education finance. Since the 1970s, higher education in Europe experienced an austerity that could be best described as an increasing need to make tough budget decisions requiring trade-offs even in the context of continuing expansion to meet demand (Johnstone et al., 2006). Demand for higher education in Europe grew due to several influences, but salient among them were public and private willingness to make investments in human capital and the political responses to rising socioeconomic expectations. Scholars debate whether or not demand for higher education is still on the rise, but the question is moot in the face of rapidly increasing per-student costs, driven by the labor intensity of education.

Technology has driven costs down and increased productivity in other sectors of the economy, but costs in higher education are primarily labor costs, which usually rise at rates above inflation. Pressure to keep taxes low to attract economic development prevents solving the budget problem by raising tax rates. Competing priorities for government spending, such as public health, social security, energy, and the environment, have increased rather than decreased over the same decades. Deficit financing is limited in the EU monetary regime. The options for financing higher education amount to cutting costs or finding new sources of revenue.

This study will argue that these trends have rearranged stakeholder roles in ways that amount to a shift in the social contract regarding higher education finance policy.

Several scholars consider the current shift of social contract to have narrowed the

purposes of higher education to economic development (Gumport, 2001; Kezar, 2004; Neave, 2006; Rhoades & Slaughter, 2006). Kezar (2004) states, “According to critics, higher education is foregoing its role as a social institution and is functioning increasingly as an industry with fluctuating, predominantly economic goals and market-oriented values” (p. 430).

Concerns about the narrowing of the purposes of higher education to economic development cannot deny the many benefits of an economic emphasis. Concerns about linkages with industry are primarily about eroding other purposes of higher education. For example, Fairweather (1988) made a detailed analysis of the benefits of linkages between higher education and industry. He focused on linkages to industry that were highly compatible with academic institutions. He gave caveats that the economic benefits of linkages are usually long-term rather than short-term; that institutional capacity and capability must match the purposes of the liaison; and that academic institutions are vibrant because their distance from market forces preserves their distinctiveness. Fairweather suggested that “above all, universities should retain the capacity to do what no other organization does as well—namely, provide broad liberal education for the populace, train future professionals, and combine research and instruction in the search for knowledge. Relationships with industry that enhance other goals without harming these basic functions may prove beneficial. The social costs of industry-university relationships that diminish the capacity of academic institutions to address fundamental, distinctive missions may exceed the sum of their benefits, however” (p. vii).

Any narrowing of mission imposes a fundamental opportunity cost (Kezar, 2004). Kezar cites three scholarly critics (Slaughter, Soley, and Sperber) who are concerned that

“the current charter encourages ethical and educational compromises that are potentially harmful for higher education and the general public, especially as that charter relates to the historic mission of fostering democracy and such important values as equality, academic freedom, or the pursuit of knowledge” (Kezar, 2004, p. 430). Sea changes are taking place in higher education, assumedly due to what is termed a shift in social contract, with potential ill effects unlikely to be outweighed by benefits (Kezar, 2004) or, at best, balanced by benefits (Fairweather, 1988). If social contract is an influential and fundamental force in higher education policy, it deserves systematic, empirical research (Kezar, 2004).

The term *social contract* is rarely invoked in higher education. It arises in policy discussions that attempt to describe the changing terrain of the political economy of higher education in the U.S. context (Duderstadt, 2000; Gumport, 2001) and in the European context (Neave, 2006). Duderstadt (2000) and Gumport (2001) carefully define other terms relevant to the discussion, but without defining social contract. Two higher education scholars have delineated taxonomies of social contract: Neave (2006) in Europe, and Kezar (2004) in the U.S. These two have been only rarely cited on the topic. Yet, discussions by respected policy scholars are framed within a context of the overriding influence of social contract. Thus, the existence and influence of the phenomenon of social contract are for the most part assumed in the limited literature on social contract. They are assumed even though social contract has not been proven empirically. Often, commentators on social contract do not even cite current social contract theory. Hence, it is not surprising that the dynamics of its operation in the

political economy of higher education also have not been tested empirically in a systematic way (Kezar, 2004).

One European higher education policy scholar is the exception. Neave (2006) has taken pains to describe social contract specifically in terms of the expected roles of national governments vis-à-vis other stakeholders in higher education. Such discussion of roles includes which stakeholders perform which roles, and why they are given such roles in higher education. As editor of a European journal of higher education policy, Neave (2006) devoted an issue to the conceptualization and application of social contract. The issue included one country case study (Gounko & Smale, 2006), one sectoral study in academic research (Tadmor, 2006), and one conceptual study of global networking as it relates to changing social contract on a global scale (Stouer, 2006). This single journal issue carries the lion's share of careful description and definitional, conceptual, and case study work on social contract in the higher education policy literature.

In his preface to the issue, Neave (2006) delineates the history of conceptual frameworks in higher education policy. He suggests that social contract, as his preferred candidate for a conceptual frame, best reflects the topography of the political economy of higher education. Because the social contract frame is built on political theory, economic theory, and social theory, it also serves to bring a coherent multidisciplinary approach to higher education policy research.

For these reasons, the conceptual frame of social contract in higher education warrants closer definition through empirical study. Although the term *social contract* is applied at global (Stouer, 2006; Torres & Rhoads, 2006), national (Duderstadt, 2000, Gumport, 2001; Neave, 2006), state (California Education Roundtable, 1997), and

institutional (Neave, 2006) levels, differences in definition and dynamics between the macro and micro levels have not been delineated, except by Neave (2006). Relationships between social contract and other variables, whether social, economic, or otherwise, have not been tested. The literature on academic research funding and student support policy discusses influences similar to social contract (Jacob & Hellstrom, 2000; Johnstone, 1986; Olsen, 2007), but without clear conceptualization or definition of such influences. Hence, the lack of conceptual framing is problematic in applying the concept to specific functional areas of higher education.

In sum, the extant work on social contract in higher education amounts to one formal conceptualization with very limited case study application in the area of academic research. If social contract is in fact an influential force in higher education policy, specifically in the functional areas of academic research funding and student support policy, the concept warrants closer definition and analysis through empirical study.

Purposes of the Current Study of Social Contract

The purposes of this study were to define, conceptualize, and test the dynamics of social contract in higher education through empirical study. This study was limited to two dynamics in finance policy: the funding of academic research and student support policy. As such, this study sought to better understand the phenomenon of social contract by studying relationships between social contract and the funding of academic research and student support policy. Three countries were selected for this international, comparative analysis, all of which participated in the Bologna Process. The study sought to answer the following research questions:

Is there a relationship between a supranational social contract regarding academic research and the allocation of funds to research projects at national levels?

Is there a relationship between a supranational social contract regarding student support and the allocation of funds to student support at national levels?

The elements of these research questions are defined and discussed as follows.

Social Contract in Academic Research

Social contract, as defined in this study, is the expected role of stakeholders (government, students, and industry) in higher education (Neave, 2006). As such, social contract is the framework from which declarations of purpose arise. According to social contract theory, policy statements cannot take shape, absent some kind of stakeholder participation in the policy-making process (Neave, 2006; Rousseau, 1766). For example, one discussion on the purposes of the research function in Europe proceeded to discuss social contract in terms of the “science-society contract.” Jacob and Hellstrom describe the science-society contract as “the relations between the state and science” (2000, p. 12). They view this contract with society as a dynamic phenomenon, currently shifting away from the former science-society contract. They consider the waning social contract to be one whereby state funds were given to research universities in return for public goods in the form of knowledge and education, with a high degree of autonomous judgment left to faculty. According to Jacob and Hellstrom (2000), the new science-society contract demands that benefits from academic research serve economic development.

Social Contract in Student Financial Support Policy

Higher education scholars have reported on (e.g., CESifo, 2006; Vossensteyn, 2004) or commented specifically on sociological aspects of student support policies, i.e.,

the social ramifications of the public subsidization of student tuition (e.g., Ashby, 1970; Slaughter, 1998), but only one higher education finance scholar performed detailed financial analyses of country cases set in their sociological contexts. In his seminal work on comparative higher education finance, Johnstone (1986) pointed to the need for a sociological analysis. He began such an analysis in 1986 by taking a look at the cultural roots of higher education finance in the five countries he studied: Germany, France, Sweden, the United Kingdom, and the United States. His later work in comparative tuition policy included Canada, Russia, and regional and country studies in Africa (Johnstone, 2006).

After discussing the impact of the competing ideologies of political parties on higher education finance policy, Johnstone (1986) considered the sociological perspective: “Policies and instruments for apportioning the costs of higher education are functions of traditions and beliefs with roots far deeper and more complex than either party ideology or economic sophistication” (p. 158).

Johnstone (1986) based his analysis on a comparison of the role of the student in different national cultures. His early case studies of the United States, France, and Sweden informed the current study as distinct examples of the range of national traditions (or social contracts) regarding tuition policy. In some countries, such as the United States, the college years were considered more of “an extension of childhood than as a beginning of adulthood” (p. 158). In contrast, most Scandinavian cultures considered college students to be full adults. This cultural distinction made a big difference in higher education finance. In America, the costs of higher education were apportioned on the basis of “the primacy of the parental contribution,” according to Johnstone (1986, p.

158). In Scandinavia, the burden of financing college was taken up by the state on behalf of students.

The French tradition has been a mix of the American and Scandinavian approaches to tuition policy. Parental responsibility for student welfare has been assumed, as in the United States, until the student has children of his or her own. Unlike the American government, the French government shoulders the bulk of tuition for students in either situation. National testing qualifies students to use their free tuition at the best schools. The lower-rate schools are inferior to the elite schools, to the degree that the system cannot be termed egalitarian in the Scandinavian sense.

To shed light on these national differences, Johnstone pointed to the constitutional history of a nation, which he believed formed its citizens' idea of an acceptable social contract (1986). For Swedes, anything less than a fully egalitarian approach by the government was unacceptable. As one of the most socialist democracies in Europe, Sweden embodied the highest degree of egalitarian structure known in industrialized countries, according to Johnstone. Its level of successful egalitarianism was aided by its highly homogenous ethnic composition. Although opposition parties existed, the socialist party enjoyed a long and stable time in power (Johnstone, 1986). If working-class youth did not choose to attend college, that was their choice, but the Swedes still addressed their low participation rate as a social problem to solve (Johnstone, 1986). Swedish universal access has been somewhat limited recently by yearly caps on national enrollment levels, but not enough to constitute a serious breach of its egalitarian, universal access social contract (Marlow-Ferguson, 2002). In contrast, for French society, stratification perpetuated by the educational system has been the status quo for so many

generations that it would be surprising if a high level of acceptance were not in place (Johnstone, 1986).

Johnstone's early insights regarding the foundations of various national traditions (1986) were confirmed by later scholarship in comparative tuition policy across a wider range of country case studies (Altbach & Johnstone, 1993; Michael & Kretovics, 2005; Teixeira, Johnstone, Rosa, & Vossensteyn, 2006). These scholars noted that the same range of foundational national motives persisted, but as challenged in the context of a changing, more straightened, financial climate. They also added their specialized knowledge of Austria, India, Mexico, Spain, South Africa, Thailand (Michael & Kretovics, 2005), Australia, China, Eastern Europe (Altbach & Johnstone, 1993), the Netherlands, Norway, and Portugal (Teixera, Johnstone, Rosa, & Vossensteyn, 2006) into comparative analysis of higher education finance.

Relation to Higher Education Purpose

The current study did not directly explore the topic of the purposes of higher education. Studies in the history of higher education discuss changes over time in societal expectations regarding the purpose of higher education (Duderstadt, 2000; Kerr, 2001; Pelikan, 1992; Rhodes, 2001; Thelin, 2004). For example, Witte studied the impact of changing supranational purposes and policies in higher education, as embodied in the Bologna Process, on a national higher education degree structure (2006).

The current research went beyond a study of purposes by defining, conceptualizing, and testing the concept of social contract. The concept of social contract captures a society's agreed purposes for higher education in its broader conception of the

political economy that shapes purpose (Neave, 2006). In this way, the purposes of higher education are enfolded in the “why such roles” aspect of social contract.

The Bologna Process

To better understand the phenomenon of social contract, this study explored a dynamic ongoing process, potentially involving social contract at different levels. The process that was studied was the Bologna Process in the European Union, which has been termed a supranational process (De Wit, 2007), meaning a process in which national agendas are subordinated to multinational agreements or institutions (Meek & Goedegebuure, 2007). This study examined the nature of a possible social contract inherent in the Bologna Process, which, if it exists, can be termed a supranational social contract evolving in the European Union. The first line of inquiry of this study focused on one functional area of higher education—academic research. Of interest here was the relationship between the supranational (Bologna Process) social contract regarding academic research and national-level social contracts in three countries regarding academic research. The social contract regarding academic research is a description of which stakeholders in higher education take which roles in the academic research function and why they take such roles. This study examined national academic research social contract specifically in terms of public policy statements on the purposes of academic research, the types of stakeholders that received funding, and the stated goals of research projects that received funding.

Similarly, to study student support policy, this study explored the relationship between the nature of the possible supranational (Bologna Process) social contract regarding student support policy and national-level social contracts in three countries

regarding student support policy. The social contract regarding student support policy is a description of which stakeholders in higher education take which roles in determining tuition rates and why they take such roles. This study examined national student support social contract specifically in terms of the stated reasons why tuition levels were not raised by governments.

The supranational process that was the focus of this research was the Bologna Process in the European Union. The Bologna Process was a voluntary movement by ministries of education and universities in the European Union launched formally in 1999 with the goal of improving the global status of European institutions of higher education by creating a European Higher Education Area (EHEA). The Bologna Process goal is to provide tools to voluntarily connect national systems, rather than to formally harmonize systems (Bologna Declaration, 1999).

Recently, a few scholars of higher education have taken this perspective of voluntary connection and used it to review the history of the Bologna Process to date as an initially bottom-up process. Neave and Maassen (2007) trace the beginnings of the Bologna Process to 1988, when a Bologna meeting of European university leaders signed what they called the “Magna Charta Universitatum.” In this document, universities declared the basic values of higher education, such as academic freedom and the autonomy of higher education institutions (HEIs).

A decade later, in May 1988, at the celebration of the one-hundredth anniversary of the Sorbonne, the ministers of education gathered there included British, French, German, and Italian ministers of higher education. These four ministers took the opportunity to sign a joint declaration that became the Sorbonne Declaration, which

specifically sought to harmonize higher education structures in the four signatory countries.

The following year, in June 1999, the Bologna Declaration was signed by the ministers of higher education of 29 European countries, which was “an amazing feat of intergovernmental action and commitment to a joint interest” (Neave & Maassen, 2007, p. 135), given that at that time only 15 of the signatories were members of the European Union. The Bologna Declaration created an open European Higher Education Area. It laid out policies and joint actions to this end, as well as a schedule for achievement of joint actions on the basis of the ministers of the signatory countries meeting every other year to discuss and assess progress. These meetings and the resulting statements and documents became known as the Bologna Process, according to Neave and Maassen (2007).

The Bologna Process should also be viewed in its relationship to the top-down Lisbon Process. Neave and Maassen (2007) discuss the complex nature of attempts to study integrative processes in Europe empirically, in particular, the Bologna and Lisbon Processes. “To study any single process of European integration in isolation is problematic. Under some conditions, as both Bologna and Lisbon demonstrate, reform processes interact and intertwine, if not integrate, as several partially interconnected developments intersect, cross and meld” (Neave & Maassen, 2007, p. 135). When the Lisbon Process began in 2000, the European Union agreed that economic development could not proceed without joint efforts in the key sector of education, but still agreed to exclude higher education from their efforts. “However, given the main aims of the Lisbon agenda and the University’s role in it as the ‘Knowledge Institution’ it is no surprise that

the separated intergovernmental and supranational university policies and visions came to be linked” (Neave & Maassen, 2007, p. 143).

Neave and Maassen (2007) further reported that the European Commission had been purposefully excluded from the Bologna Process up until 2004, with a view to make the initial phase an initiative of nations rather than of the European Union. The 1988 Magna Charta emphasized the cultural basis of European higher education over its role in economic development, and the early Bologna Process documents continued in this direction, while simultaneously rejecting participation by the European Union.

The main focus of the Bologna Process was gradually shifted to economic development, as seen in the Prague and Berlin Communiqués. The Prague Communiqué still emphasized the university’s cultural role, but it also explicitly linked higher education and academic research to the future economic competitiveness of Europe. Next, the Berlin Communiqué explicitly referred to the role of higher education in economic development in Europe. It also linked the Lisbon Process to the Bologna Process through the Education and Training 2010 work program of the European Commission. In this way, Neave and Maassen (2007) believe that two key objectives of the Lisbon strategy (to strengthen economic competitiveness and to stimulate social cohesion) were brought to the heart of the Bologna Process. Their analysis of the turning of the Bologna Process away from cultural and toward economic purposes for higher education highlights the potential dynamic nature of the purposes of higher education over time. Because the concept of social contract embodies determinations of purpose, their analysis might also indicate that a shifting social contract may have been in play.

As a supranational initiative, the Bologna Process affords an opportunity to study the social contract implicit within it, along with the social contracts implicit in national policies. This empirical study explored the influence of supranational policies on funding patterns for academic research and student support in three Bologna Process participant countries, comparing funding patterns in each country prior to the 1999 Bologna Declaration to those since then.

Challenges to Empirical Study of Social Contract Addressed in This Study

Empirical testing must overcome salient challenges. First, social contract is a social construct. Measuring a social contract is highly subjective; it can only be measured as it is perceived and as it is constructed socially (Weber, 1946). Second, perhaps due to the subjective and dynamic nature of social contract, the field of higher education has not settled on a clear definition of social contract in the postsecondary context (Duderstadt, 2000; Gumpert, 2001; Neave, 2006). Third, perceived social contract can vary by society, class, and individual, and changes over time. Multiple social contracts may be perceived, and they all may influence funding policy in a single country (Neave, 2006).

Despite these three challenges, the study was feasible, for the following reasons: The first challenge, subjectivity, was addressed by employing recognized content analysis methods (to be discussed in chapter 3). Content analysis allowed for the methodical analysis of subjective reporting. By discerning patterns in the use of common terms and themes in policy documents, content analysis revealed policy positions relevant to understanding social contract.

The second, or definitional, challenge is one to be approached over time by several studies of social contract. This study began with the most developed definition in

the literature. As mentioned above, Guy Neave, an influential scholar in higher education policy in Europe who consults on higher education for the United Nations Development Program, described and conceptualized social contract, resulting in three substantive definitions for three types of social contract. Neave (2006) bases his typology on the original political theories of John Locke, Thomas Hobbes, and Adam Smith.

Neave (2006) defined social contract as the expected roles of stakeholders in higher education. According to Neave, a Hobbes-type social contract places government in authority to protect humankind from the mayhem of unfettered human behavior found, for example, in unregulated markets. In higher education, a Hobbes-type social contract translates into a system where government controls or provides higher education. In stark contrast, a Smith-type social contract views market forces as the best support for social order. Higher education under market orientation emphasizes private higher education. A Locke-type social contract is a mixture of the other two. For Locke, a limited government is legitimized by its support of the social order as constituted in relatively free markets (Neave, 2006). A Locke-type system of higher education would evidence and value elements of both public and private providers.

Neave's (2006) definition of social contract served aptly to include all of the definitions for social contract found to date in the higher education literature, which were detailed in the review of literature below. His definition also expanded the concept to include social contracts that rely on market mechanisms over government (or Smith's social contract). The inclusiveness of Neave's definition, its potentially broad applicability to the extant literature, and the relevant detail of its conceptualization all indicated that it was a good working definition for this study. To date, few higher

education scholars referred to the body of Neave's work in social contract, except Slaughter (1998). None specifically adopted his typology for social contract outside his single journal issue (Gounko & Smale, 2006; Stouer, 2006; Tadmor, 2006). Kezar (2004) defined and discussed social charter, a near-equivalent term for social contract, but because she did not root her definition in classical political theory, this study focused on Neave's (2006) conceptualization, which had deeper theoretical roots.

The third challenge was the potential multiplicity of national or supranational social contracts. When we speak of a country's social contract, whose social contract do we mean? Across levels of a society, the "deal" that government has worked out over time in that society can appear quite different. The literature indicated that the multiple perceptions of social contract in higher education finance policy boiled down to Neave's (2006) three essential types, even though other scholars have not adopted his typology. This point will be argued in detail in chapter 2.

This first chapter addressed three key challenges to the empirical study of social contract. The review of literature, which follows, spans social contract as well as proximate terms, and extends into the research and student support funding dynamics of higher education. The review of literature is followed by a discussion of the qualitative comparative research design adopted for this study. Finally, the results of this study are presented, along with conclusions drawn from the results.

Chapter Two

Review of Literature

This study required a theoretical discussion of social contract, which begins with definitions found in the literature, including proximate terms for social contract, along with their conceptualizations. Next, the review discusses applications of the concept of social contract extant in the literature. Final sections discuss the literature on social contract regarding academic research, and social contract regarding student support policy, which are the specific foci of this study.

Origins in Political Theory

The idea of social contract derives originally from the biblical histories of Israel's kings, most notably King David, who made a covenant with the people of Israel (Baker, 1948). The main concept of social contract is that government governs by consent of the governed, rather than by force (Baker, 1948; Locke, 1698). Philosophers Locke and Rousseau theorized social contract in response to an ongoing discussion during the Enlightenment regarding the sources of government authority.

In order to theorize on the rationales for government, social contract theory first posited a state of nature in which humans have no government. In that state, they may choose to have government for particular ends. These ends include the protection of natural rights, those rights owned by humans in a state of nature (Locke, 1698). Government is created and legitimized by humans, under social contract theory. In other words, government has no innate existence; it is a human artifact (Beetham, 1998; Locke, 1698). Hence, it is reasonable to state that early theories of social contract defined the concept *qua* social construct.

Rousseau argued for direct democracy as the best sign of a legitimate social contract with government (1766). Although direct democracy is not practical in a large modern nation-state, Rousseau succeeded in tying the social contract to the legislative process. In this way, he considered the social contract to be modifiable by society. His was the first theorization of social contract as a shifting, or dynamic, social phenomenon. The electorate could legislate expansion of, redefinition of, or limitation to the list of human rights under the social contract (Beetham, 1998; Rousseau, 1766). Rousseau transformed Locke's static concept of social contract into a dynamic social phenomenon that could change under the influence of social and political forces.

Definitions and Conceptualizations in Higher Education

Apart from one European journal on social contract edited by Neave (2006), discussions of social contract in higher education, especially in the United States, do not reference formal social contract theory. The current study of the Bologna Process required a search of the U.S. literature, because the Bologna Process in Europe, similar to other initiatives in higher education, was designed in part to compete with the quality and success of the large and diverse U.S. higher education system. The U.S. literature evidenced not a single reference to classical political theorists Locke (1698), Hobbes (1651), Rousseau (1766), or Smith (1776). Such informal usage does not make clear how to define social contract. Nor does the informal usage make application clear: how social contracts are made or how they are abrogated. Furthermore, most references to social contract do not differentiate social contract made or broken at the macro (global, supranational, or national) levels from social contract as perceived by individuals on the micro level.

As a result, definition and conceptualization of the term are not developed enough to give a clear sense of the dynamics and impact of a changing social contract, nor of how social contract relates exactly to important implications for the future of higher education. For example, in the ongoing discussions and debates on the changing climate for higher education in the United States, references have been made to the changing social contract (Adam, 2007; Council, 1997; Duderstadt, 2000; Green, 2005; Gumport, 2001; Perorazio, 2001; Woodbury, 2005). Such references often do not clearly and explicitly define what is meant by social contract as applied in higher education (Duderstadt, 2000; Gumport, 2001). One exception is Perorazio (2001), who described social contract as the expectation that public investment in higher education should bring returns to society. Much of this same literature implied that the transition that higher education is currently going through is of such a momentous nature that it is changing the foundations upon which society operates (Duderstadt, 2000; Gumport, 2001; McDowell, 2001; Peterson, 1975).

Regarding the academic research function of higher education, McDowell (2001) used historical analysis to discuss the social contract enacted by land-grant universities by extension service to their communities. In addition, Perorazio's (2001) analysis of the history of state planning in five states indicated that higher education and government have experienced a variety of social contracts over time, most promoting economic development.

Many mentions of social contract in the U.S. higher education literature refer specifically to a social contract regarding access to higher education for all citizens, with implications for state financial support of student costs (Adam, 2007; Council, 1997;

Green, 2005; Woodbury, 2005). Often, references to social justice are invoked, such as the level of fairness of what authors consider to be the old contract as compared to the new (Adam, 2007; Council, 1997; Green, 2005; Woodbury, 2005). Commentators usually indicate an unfortunate shift to a new social contract by pointing to ensuing threats on the horizon, such as the loss of public support for higher education as a public good (California Education Roundtable, 1997).

Only one higher education scholar defines social contract with reference to classic political theory (Neave, 2006). Other higher education scholars define concepts proximate or equivalent to social contract but using other terms. Proximate or equivalent terms for social contract include the public good, the social charter, purposes of higher education, and contractualization. Because, as Neave states, these terms are easily conflated (2006), the next section clarifies similarities and differences in their definitions as they relate to social contract.

Social Charter

One scholar in the United States describes social contract, using what I consider to be a near-equivalent, or proximate, term--*social charter*. Kezar (2004) defined the social charter as the reciprocal relationship existing between higher education and society. As such, her definition paralleled Neave's (2006) stakeholder-based definition of social contract. The two scholars differed in that Kezar (2004) saw the legal aspects of the social charter (the fiduciary responsibility and rights of higher education in society) as defining social charter itself. In contrast, Neave (2006) viewed the social charter as a legal framework deriving from the social phenomenon of the reciprocal relationship of social contract.

Kezar (2004) further defined social charter as “a covenant built on trust” (p. 436), referring to Brubacher and Rudy’s 1997 book when she stated:

Society provides resources, political support, raw materials, and a guiding influence. In return, colleges and universities educate students, serve as developers and repositories of knowledge, provide social critique, and contribute to the community. The essential elements of this charter are found in the founding of Harvard College. (p. 436)

Kezar’s (2004) conceptualization of social charter matched Neave’s (2006) conceptualization of social contract in that she specified its dynamic quality. Unlike Neave (2006), she tied the social charter closely to serving the public good. According to Kezar (2004), any movement away from the public good was a breach of the social charter, even if the public good changed while higher education stood still. Kezar’s (2004) social charter was a social construct, redefined and enforced by public opinion in a sort of check-and-balance dynamic between public opinion and higher education. She cited the example of social pressure driving colleges in the early 1800s to change curriculum toward the sciences. Here, public opinion redefined the social charter to become preparation in the sciences. She also pointed to another shift in social charter after WW II, when the public good of higher education was redefined as increasing access and research.

Kezar (2004) saw a shift occurring away from the traditional social charter between higher education and society that was founded on a communitarian philosophy of the public good. She described the communitarian belief system as promoting higher education goals of leadership development, meeting local needs as defined by local

communities, or creating space for social criticism. Kezar pointed to several other commentators in the literature (Bok, Gumport, and Kerr), who also were concerned about what Kezar (2004) described as the shift to a new social charter in terms of the influence of neoliberal philosophy. They observed the neoliberal philosophy supplanting communitarianism, especially in how societies defined the public good. The social charter under neoliberalism was based on the precepts that a weak state was better for society than a strong state; and that private ownership was better than public ownership. A third neoliberal precept was the dominance of economic rationality over other forms of logic. Its fourth precept was that a system in which individuals maximize their personal welfare was superior to one in which the state provides a communitarian welfare. The end result of neoliberal logic was that private organizations are more effective than public institutions in promoting the public good (2004). Kezar (2004) and Neave (2006) use different terms to describe essentially the same dynamic phenomenon: shifts in the expectations that a society has of higher education.

Conversely, the same terms in the social contract literature took on different meanings in different disciplines. Perhaps because he was steeped in the language of organizational behavior, Khurana (2007) referred to the macro concept of social contract as the social compact. He stated that business schools, after their founding in the United States, were party to “a social compact between occupations deemed ‘professions’ and society at large, as well as a certain set of relations among professional schools, the occupational groups for which they serve as authoritative communities, and society” (2007, p. 7). Citing Everett C. Hughes, an expert in the structure of modern occupations, Khurana used the term *social compact* to describe the relationship between professions

and society: “Professions are given extraordinary privileges in exchange for their contributions to the enhancement of social order” (2007, p. 11). In this usage, Khurana’s (2007) social compact appeared close in definition to Neave’s (2006) social contract.

When he used Kezar’s (2004) term, *social charter*, Khurana (2007) meant something else entirely. He was referring to the legal instruments that states proffered to enterprises in the form of state charters. Such prime examples show that for the concept of social contract, the terms chosen, their definitions, and their conceptualizations were a confusing combination of parallel and proximate meanings. The overall picture was one of Neave (2006), Kezar (2004), and Khurana (2007) using different terms to better understand what amounted to the same phenomenon in higher education policy—social contract.

Public Good and Purposes of Higher Education.

Because the concept of social contract was tied closely by some scholars (Gumport, 2001; Kezar, 2004; Peterson, 1975) to the concept of the public good, it was necessary for this study to examine its definitions as well. For the purposes of this study, an action taken for the public good was defined as an action resulting in an expected increase in the total welfare of society, beyond the expected increase of the actor’s own personal good (Batson, 1994). Under this definition, higher education actions, most notably state support of higher education, was considered to be in the public good, rather than only in the private good of the student, due to the numerous benefits accruing to society from higher education. Such benefits included the development of citizens, the spread of practical knowledge, and the creation of new knowledge (Gumport, 2001). Khurana (2007) also referred to the public good as the common good. In contrast,

Kezar's (2004) definition of the public good allowed for private benefit to individuals via a neoliberal social charter to be considered as one form of the public good or a redefinition of the public good away from a communitarian public good.

Social contract, as conceptualized in Kezar's (2004) social charter, influenced the purposes of higher education. Her reading of the literature led her to state that higher education purposes narrowed due to changes in the social charter:

Traditionally higher education's public role and contribution to the public good has included educating citizens for democratic engagement, supporting local and regional communities, preserving knowledge and making it available to the community, working in concert with other social institutions such as government or health-care agencies to foster their missions, advancing knowledge through research, developing the arts and humanities, broadening access to ensure a diverse democracy, developing the intellectual talents of students, and creating leaders for various areas of the public sector. . . .According to critics, higher education is foregoing its role as a social institution and is functioning increasingly as an industry with fluctuating, predominantly economic goals and market-oriented values. Increasingly, the production of workers is the primary or singular goal of higher education. (p. 430)

The narrowing of purpose in social contract toward market orientation that Kezar (2004) traced in the United States is a key trend observed in the Nordic countries that were the cases for this study. A second argument was raised to balance hers: concerns about the narrowing of the purposes of higher education to economic development cannot deny the

many benefits of an economic emphasis. For example, Fairweather (1988) made a detailed analysis of the benefits of linkages between higher education and industry.

Contractualization

Neave (2006) rounded out his definition of social contract by contrasting it with contractualization. Contractualization, according to Neave (2006), was the general movement in Europe, similar to the accountability movement in the United States, whereby government funds were disbursed to a given institution of higher education contingent upon that institution meeting annual goals set forth in yearly contracts. According to Neave, contractualization was a micro level effect deriving from the macro level social contract shifting in the Smith direction, narrowing the purposes of higher education to the sole purpose of economic development.

Limitations of Literature on Social Contract and Public Good

Kezar (2004) described how public good relates to the social contract. Aside from Neave's (2006) and Kezar's (2004), most discussions of social contract in the literature offered only piecemeal conceptual frameworks; often, they were untested. Kezar's (2004) review of the literature on the public good in the United States' higher education setting concluded that empirical studies are lacking:

Much of the literature on this topic is philosophical, conceptual, or anecdotal. For example, Derek Bok's *Universities and the Future of America* (1990) describes the rise of commercialized research and athletics as well as faculty commitment conflict. However, this work is not based on research but focuses exclusively on the experiences of Harvard University. Theda Skocpol and Morris Fiorina (1999)

and Walter Powell and Elisabeth Clemens (1998) have conceptualized new notions of the public good [but without empirical analysis]. (p. 431)

Kezar (2004) also stated that the empirical literature on social charter in the United States has only piecemeal conceptualizations:

A series of empirical studies have been conducted by Sheila Slaughter (1993, 1998) and Gary Rhoades (1995, 1998) on intellectual property and commercialization of research, James Fairweather (1996) on the commitment conflict of faculty, Patricia Gumpert (2000) and Clark Kerr (1994) on the corporatization of management, Murray Sperber (2000) on the commercialization of athletics, and Gumpert (1993) on the emergence of a more market-oriented curriculum, but there has been no synthesis of these various lines of research to help policymakers and leaders interpret the current state of the charter and its effect on traditional notions of the public good. (p. 431)

Applications of social contract in the literature were not only piecemeal but often also relied on unproven assumptions as to the interaction of dynamics between national, supranational, or global social contracts. One underlying assumption was that the United States' model of higher education, the American research university, was imitated increasingly worldwide (Geiger, 1985a; Torres & Rhoads, 2006). This led to a second assumption that the rise of neoliberalism in the 1980s in the United States resulted in a marked shift of the higher education social contract in the United States away from its traditional mandate and toward a new dominant model, which was essentially economic development. Although Torres and Rhoads (2006) did not use the term social contract under the definition used in the current study (Neave, 2006), a shift toward neoliberal

economic development constituted a shift toward a Smith-type social contract, in that both are strongly market-oriented. According to Rhoads and Torres (2006b), the national-level shift in social contract in the U.S. influenced the rest of the world via globalization of the American model of higher education. They state, “The role of universities in strengthening economies has never been as front and center as it is today. Globalization and the growing interdependence of economies obviously have contributed to this trend” (Rhoads & Torres, 2006, p. 336).

Santos (2006) provided a careful historical analysis of the relationship between higher education and economic development. His analysis included country examples from the Americas, but his analysis was more of policy trends than country cases. He pointed out that international organizations, such as the World Bank, the International Monetary Fund, and the World Trade Organization, have turned their eyes toward higher education as an engine for economic development only recently in the new millennium. In doing so, they applied the neoliberal agenda in higher education on a global scale. Santos also drew from his experiences in various countries in the Americas to state that higher education has simultaneously lost both its role as a public good and its financial base since the 1980s. Again, his were broad interpretations rather than empirical studies setting out to prove specific trends.

Others noted a similar trend toward market orientation, or the Smith-type social contract, on national and global levels. Kezar (2004) observed this as she reviewed the literature in light of her concept of social charter in the U.S., concluding that “the collective or public good, a historically important component of the charter between

higher education and society, is being compromised” (p. 429). Kezar (2004) widened her observation of shifting social charter to the global level:

Social commentators note that this orientation to the market and economic goals is a worldwide phenomenon and is even more extreme within developing countries where economic advancement has become the cornerstone of political and educational agendas (Bertelson, 1998; Brown & Schubert, 2000; Currie & Newson, 1998). They observe that governing powers in these countries have redefined the public good as private advancement and economic attainment, abandoning long-standing missions of social development, social justice, and democratic engagement. (pp. 430–431)

Economic Development as a Public Good

An understanding of economic development as a public good is grounded in the economics of education and higher education finance policy studies. Fairweather’s (1988) balanced analysis of the benefits of linkages between academe and industry was mentioned above. The following discussion provides a fuller discussion from the economic perspective. Not until the 1950s did economists bring education into core policy debates (Johnstone et al., 2006). Schultz (1971) introduced a broad analysis of human capital, defined as the resources contained in humans, such as education, nutrition, and health, that make them more productive, especially in modernizing economies.

Levin (1989) outlined the basic terrain of the economics of education. Levin described how investment formulas were applied to human capital to evaluate its return on investment in terms of productivity, resulting in the study of the relationship between the investment a society makes in education and the growth in its economy. Human

capital theory was the main thinking behind the War on Poverty in the United States, for which Shultze received the Nobel Prize in Economics. After the failure of education components of the War on Poverty, scholarly debate has been lively regarding human capital theory.

Johnstone et al. (2006) reported that in the 1960s, just as many countries were expanding higher education in response to demographic growth, human capital became a major rationale for government funding of economic development. Mass access to higher education was also bolstered by the need for qualified labor, but its primary rationale in Western Europe was to promote democracy by addressing rising social aspirations during the strengthening of the welfare state in Europe. In the 1970s, conservative critics of the overuse of the human capital rationale for wasteful spending called for cost-benefit analysis in funding education (Arrow, 1972; Becker, 1964). These critics gave alternative explanations for productivity effects attributed to higher education, thus eroding the human capital rationale for high public returns to government subsidy (Johnstone et al., 2006).

Bowen's (1977) seminal, systematic catalog of the outcomes of higher education took a broad view to include social and economic benefits at both the societal and individual levels, including the economic benefits to individuals in terms of return on investment, and the social benefits, including the impact of higher education on social equality and the benefits of academic research. Economists often found such benefits hard to quantify meaningfully and hence tend to treat them as externalities in their analysis (Bowen, 1962). The field of economics of education, when explicated by scholars familiar with the broad and varied outcomes of higher education (Bowen, 1977;

Fairweather, 1988), grappled with the challenge of analyzing the complexities of its public benefits. Motivation to overcome such challenges has increased with the straightened government support for higher education in recent decades, including in the European context (Johnstone et al., 2006). Haveman and Wolfe (1984) performed a meta-analysis of the literature on 20 outcomes, including externalities not accounted for with market prices, such as working conditions, leisure, and health. After estimating the economic value of their 20 factors, Haveman and Wolfe (1984) found that standard estimates of the rate of return on education captured only three-fifths of its value when nonmarket factors are included.

As a European scholar of higher education finance, Vossensteyn (2000) echoed the results of Haveman and Wolfe (1984) when he stated that “the external effects of education can be addressed as the effects that bear upon others, [rather] than those investing in higher education. This includes the presumed relationship between higher education and economic growth, the increased tax payments from graduates, and the nonmonetary benefits of higher education to society, such as increased social participation, changes in income distribution, cultural development, and a decrease in crime. Because individual participants do not reckon with these benefits in their decision whether or not to enrol [sic], this probably leads to an underinvestment in higher education. Public investment in higher education may prevent such underinvestment” (p. 2). In these words, he explicated the essential rationale for government subsidy of higher education. That was: market incentives to individuals cannot capture the externalities valued by societies.

Neave and Maassen (2007) traced the history of the relationship between social cohesion, economic development, and higher education in Europe as follows: “The historic identifying feature of the European University, contrary to its U.S. counterpart, has been its continuous close alignment with public service, construed in terms of the services of the state” (p. 145). In Europe after World War II, the rise of the welfare state in Europe succeeded in part due to its role in undergirding social cohesion. During this period, higher education entered an era of massification, with a view to provide social mobility. The welfare state model assumed that the social cohesion provided by massified higher education was a prerequisite for economic development.

Such assumptions supporting the welfare state model eroded during the 1970s when the capacity of the public sector to meet baby boomers’ demand for higher education was exceeded, as well as the capacity of the public sector to offer employment for so many graduates, revealing the limitations of the welfare state. A turning away from the welfare state and toward the private sector in the forms of marketization and privatization increased in higher education. As a result, the relationship between social cohesion and economic development was reversed. With the reasoning that provision of enough jobs for university graduates was a prerequisite for social stability, economic development became a condition for social cohesion, according to Neave and Maassen (2007). Concern for social cohesion, which often is in essence a concern about disparities in quality of life between social groups within the nation-states, has been center stage in higher education policy in Europe since the 1960s (Neave & Maassen, 2007).

European scholars of higher education have noted the trend of increasing marketization in European higher education (for example, Ball, 1998; Barkholt, 2005;

Lynch, 2006; Teichler, 2004). Lynch (2006) linked marketization in Europe to the rise of the neoliberal agenda, to the point that the notion has been normalized in Europe that higher education is a market commodity, and, as such, should be paid for by citizens through the market rather than the state.

Neave (2004) supplied background for the terms used regarding marketization in Europe:

It is my experience that, as used in the United States, “marketisation” [sic] corresponds to what is termed “commodification” or “marchandisation” in Europe—that is, higher education, learning and teaching construed as salable goods. In contrast, the European notion of “marketisation” bears greater kinship with higher education driven by market forces, by reliance in varying degrees upon private sector funding and less upon tax-derived financing. The distinction is an important one if only for the fact that marketisation—European style—represents a prior stage to commodification. In the United States, however, marketisation (European style) is held to be one of the particular historic dimensions and specificities that long identified U.S. higher education. . . . The current debate in the U.S. centres on “marketisation” qua “commodification” (European style). (p. 46)

As described by Neave (2004), European usage of the term *marketization* referred primarily to a shift to a market-oriented social contract.

A contributing factor to problems with definition and application between the U.S. and Europe was that their national higher education systems vary markedly. In the U.S. context, references to social contract vis-à-vis higher education typically referred to

the role of public universities in the large and varied U.S. higher education system. In the European setting, higher education systems were commonly governed by ministries of education, hence the social contract in higher education is primarily with government ministries. As a result, similar terms set in different contexts described different phenomena. For example, as mentioned earlier, by social charter, Khurana (2007) meant the state charters for universities, whereas Kezar (2004) meant the general concept of a national or global social contract. Separate national contexts can also result in scholars' use of slightly differing terms to describe essentially the same concept, perhaps because national academic discourses adopt their own terms. For example, Neave's (2006) definition of social contract, set in Europe and applied globally, parallels Kezar's (2004) definition of social charter in the U.S. and global settings.

Neave (2006) described social contract as a social rather than an economic contract held between all stakeholders in higher education, involving the social dimension of higher education (equal access to higher education, as well as the social benefits of an educated citizenry). He added depth beyond other higher education definitions of social contract by founding his work on classic political theory. In addition, Neave's conceptualization added the economic theory of Adam Smith to the more typical encapsulation of social contract in the work of Hobbes, Locke, and Rousseau (2006). His addition of Smith is highly relevant to current policy analysis in higher education finance, which is dominated by neoclassical economics (Easton & Klees, 1992).

According to Neave (2006), Adam Smith's social contract was based on the view of the salubrious nature of the market. Social contract was the daily aggregation of individual preferences expressed in the market mechanism. As such, it was a dynamic,

not a static social contract. The market was the source of social order while the role of government was limited to intervention only as needed. Smith's social contract had at its core a positive view of market competition.

Neave's (2006) conceptualization of social contract was preferred for this study for the following reasons. First, social contract was more carefully probed by Neave than narrowly defined. He approached the concept from several sides, describing it as a social rather than an economic contract held between all stakeholders in higher education and involving the social dimension of higher education (which included equal access to higher education, as well as the social benefits of an educated citizenry).

Second, Neave's (2006) social contract was carefully conceptualized to delineate three distinct types fully inclusive of all potential phenomena: Smith (market-orientation), Hobbes (government-orientation), and Locke (mix of the other two). The typology was fully inclusive because it was a spectrum with Smith at one end, Hobbes at the other, and variations of Locke in the middle. This three-piece typology brought important perspectives from economics of education into the analysis. Third, it was conceived in a European setting (appropriate to this study of the Bologna Process). Neave's (2006) conceptualization has already been applied in three markedly different countries (Gounko & Smale, 2006; Stouer, 2006; Tadmor, 2006) and hence may likely be potentially applicable in a variety of country contexts. The literature on social contract and social compact shows that this definition is certainly broad enough to describe the U.S. and European higher education systems, as different as they are. The conceptualization may be applicable as well in a global context, because it included three distinct types on a spectrum that included all potential types.

For the purposes of this study, the definition of social contract was as follows:

Social contract in higher education is the expected roles of stakeholders in higher education. Description of a particular nation's social contract includes which stakeholders perform which roles and why they are given such roles in higher education. Social contract can exist at the national, supranational, or global levels.

Three Universal Types of Social Contract

Two parallel conceptualizations in the literature indicated the potential universality of Neave's (2006) social contract typology. Kezar (2004) conceptualized three philosophies of the public good, which were universally inclusive. Each philosophy resulted in a type of social charter. Kezar's three social charters paralleled the three types in Neave's typology of social contract.

Kezar (2004) delineated her conceptualization as follows: First, she defined communitarianism, which derived from a "communitarian philosophy of the public good [that] espouses a social and public charter in the traditional model of higher education" (2004, p. 433). According to Kezar (2004), a communitarianism philosophy required that communities, not individuals, hold rights and responsibilities. The public good, or general welfare, was furthered best by governments "because individuals are too self-interested and will forsake important societal needs (Noddings, 1998). The public good was seen as the state's responsibility, even though a healthy balance needed to be reached between individual autonomy and social cohesion (Bellah, 1996)" (Kezar, 2004, p. 434). Kezar's (2004) communitarian type was a close match to Neave's (2006) description of a Hobbes-type social contract.

Kezar's (2004) second social charter was liberalism/neoliberalism. Because liberalism protected above all else individual, private freedoms, "the neoliberal philosophy of the public good espouses an individual and economic charter, resulting in the industrial model of higher education" (p. 433). Under liberalism, the public good was arrived at not by the conscious policies of governments but as the sum of all of the individual decisions freely made. "Thus, the common or public good is assumed to have emerged from focusing on protection of individual rights and freedoms" (p. 434), similar to the workings of Smith's invisible hand of the free market. Kezar's neoliberal type meshed well with Neave's Smith-type social contract.

Finally, Kezar described a utilitarianism form of social charter (Kezar, 2004) that "embraces a changing and contested charter that is a blending of both the traditional and industrial models of higher education" (p. 433). As a mix of the other two, Kezar's utilitarian type included any phenomena not classified in the first two types on a spectrum between the two polar opposites. As an intermediate type, Kezar's utilitarian type corresponded to Neave's Locke-type social contract.

One empirical study in United States' higher education finance may also indicate that countries have three basic social contracts from which to choose. Zumeta (1996), a premier scholar in higher education finance, developed three classifications of state governance systems. His classifications were based on his extensive empirical analysis of fifty states. Zumeta's three classifications embodied in rough form Neave's (2006) and Kezar's (2004) three types of social contract.

Keeping in mind that the definition of social contract for purposes of the current study was the expected roles of stakeholders in higher education, the indication here was

that there could exist three basic ways that stakeholders can share between them the burden of financing higher education. Zumeta (1996) concluded his classification of state approaches to governing higher education with: “It is possible to characterize most states’ policy postures. . .toward private higher education in terms of a few theoretically intuitively plausible categories—the laissez-faire, central-planning and market-competitive constructs plus two hybrids of these” (p. 525). According to Zumeta’s (1996) typology, a state that takes the laissez-faire stance engages in low levels of student aid spending compared to other states, supports public sector tuition at low levels, and allows private sector higher education a low level of involvement in state planning. This attitude reflects the view that the market is a better allocator of funding to higher education than is the government.

Zumeta’s (1996) second category was a central-planning posture by states, whereby state education authorities involve private institutions of higher education substantially in state policy, giving them specific and enforced roles in the state higher education system. Central-planning states also fund private higher education and their student aid at higher levels than do laissez-faire states. The central planning posture corresponded with the Hobbes-type social contract, whereby government is considered the best way to allocate funding to higher education.

Zumeta’s (1996) third category blended state and market control in what he called a market-competitive posture. Market-competitive states are involved in private higher education but with much less state planning, regulation, funding, and enforcement than under central planning. These states would rather set market forces to work, for example, by giving portable financial aid to students, such that they can choose their university

themselves. This third type corresponded with the Locke-type social contract, which is a mix of government support and market forces in higher education.

In his analysis, Zumeta (1996) added two more types that were hybrids of these three. His hybrid classifications (a mix of central planning and market-competitive and a mix of market-competitive and laissez-faire) fell between the three main types on a spectrum between the two polar opposites of government control and market control. Hence, Zumeta's typology paralleled in its main structure the same spectrum described by Neave (2006) and Kezar (2004).

Macro Level (Federal and Supranational) Social Contracts

Because Zumeta's (1996) analysis was of fifty federated states in the United States, it also suggested that three essential forms of social contract may exist in the setting of a federation of social contracts involving nations rather than states. European scholars have sought Zumeta's expertise on the California system of higher education because its scope was appropriate for the study of European national higher education systems with budgets about the size of that of California (W. Zumeta, personal communication, July, 2006). Zumeta's federally based comparative analysis of U.S. state-level social contracts also suggested that a comparative study of national social contracts in the European quasi-federation might benefit from analysis according to the same three types.

It was the purpose of the current study to examine the Bologna Process as a federation of European social contracts, in other words, a supranational social contract guiding national policies. The global spread of neoliberal economic development policies from the United States (Kezar, 2004) through international organizations (Santos, 2006)

raised the question of whether or not similar influences affected higher education policy even in welfare states. The current study examined how the supranational social contract of the Bologna Process affected the national social contracts of three Nordic welfare states, specifically in the functional areas of academic research and student support policy.

Although the current study began by terming the Bologna Process a supranational process, the literature on policy implementation indicated that it should not be assumed that the Bologna Process is supranational, or top-down, in nature. Premfors (1984) laid out the main issues involved in the analysis of policy processes from the distinction of top-down vs. bottom-up. There has been a lively debate among scholars concerning the best way to describe policy implementation processes, as well as the best methodology for such research. For the purposes of the current study, a bottom-up policy process, as relevant to the Bologna Process, was defined as one rooted in the interests and agendas of the nation states themselves, rather than rooted in the policy initiatives of officials of any body of European cooperation, such as the European Union or the European Commission.

Kogan (2005) described the ongoing and intensifying scholarly debate on top-down versus bottom-up policy dynamics. Recent scholarship critiqued the traditional assumption that policy flowed from centralized bureaucracies down to institutions. In Kogan's (2005) view, policy implementation in higher education is best understood as conducted in a network rather than in strictly bilateral negotiations, and as interactive rather than causal processes. He further states:

Thirty years of implementation research has amply demonstrated the lack of realism in assuming that policies and reform initiatives move from government to objects of implementation unaffected by the road they travel. Understanding implementation in higher education is taking notice of how policies and reforms often are formal political confirmation of developments in the field, and not some kind of alien phenomenon that is thrust upon “unsuspecting” institutions (p. 53).

These refined conceptualizations of policy implementation were relevant to the interpretation of the results of the current study, described in chapter 4, as not a strictly causal, bottom-down process.

Another consideration in the top-down, bottom-up debate is the positive and negative connotations inherent in terms like globalization (typically negative) and internationalization (typically positive). In his critique of terms with negative connotations that may not be accurate in policy analysis, such as *globalization*, Marginson (2007) defined the supposedly more positive term *internationalization* as not simply a positive descriptor for the range of national responses by HEIs to protect the rights of their democracies against the eroding influences of (often neoliberal) forces of globalization. According to Marginson (2007), such biased definitions portrayed higher education as taking ownership of the assumedly positive influences of internationalization on national higher education systems. Marginson (2007) argued the need for less-biased definitions of both globalization and internationalization, as definitions that would simply reflect their geo-spatial location beyond national borders.

The distinction between bottom-up and top-down processes can be applied to the Bologna Process in the context of European cooperation. The current study began by

positing that both are top-down supranational processes. De Wit (2007) described how he thought the Bologna Process and European cooperation interact. According to De Wit (2007), European cooperation in the EU is for its member nations a constant balancing act between national autonomy and cooperation on a supranational level. He viewed the balance in the EU as tipping increasingly toward supranational cooperation, motivated by the need to address shared challenges, but not so in higher education, according to De Wit (2007).

In higher education policy, the balance in the EU has been divided clearly: the EU as regulator, fostering fair competition; national ministries of education as actors with autonomous strategies, according to De Wit (2007). He asserted that EU member states retain responsibility for the core of education policy, despite EU advances into marginal areas. He points to evidence such as the founding of the Bologna Process outside EU mechanisms. Its early texts avoided any reference to the EU. The EU role in the Bologna Process has been to encourage but not mandate coordination, mainly because the EU Treaty specifically excludes the harmonization of national policies. Rather, the EU supports and complements the actions taken by member states in the Bologna Process, with member states keeping full responsibility for the content and organization of their education systems (De Wit, 2007). The current study will test De Wit's assertion that the Bologna Process is a bottom-up process led at the nation-state level.

However, De Wit (2007) also portrayed how EU involvement in the Bologna Process has grown with time. His evidence for this trend includes that, since 1999, the European Commission has had a representative in the Bologna Process Follow-Up

Group; the European Union financed the biannual ministerial meetings; and the European Union provided the coordination platforms used by Bologna participants.

Meek and Goedegebuure (2007) also pointed out the growing supranational influence of the EU in higher education in recent years despite the principle of subsidiarity (or the prime responsibility of member states in higher education) as a force exerting external pressure on the Bologna Process to standardize or homogenize European higher education. They looked to Neave's (2002) close historical analysis to conclude, "What appears at a superficial level to be the same or similar national response to external pressures, quickly becomes more varied and complex with closer scrutiny. The Bologna Process is a case in point. The Bologna Process, rather than forcing national higher [sic] systems to conform to a common supranational initiative, provided them with a lever to do what they intended to do all along" (Meek & Goedegebuure, 2007, p. 284). Neave (2002) concluded that the Bologna Process "is built upon—and brings together—trends already present in different systems and presents them as part of the Bologna Process. It does not create them" (p. 186). More recently, Neave and Amaral (2008) drew the following conclusion from their analysis of Bologna Process documents, plus country case studies for set of countries (France, Germany, and Italy) different from the current study:

Individual signatory states could claim the moral leverage required to use Bologna as an additional blessing for policies many had in hand before Bologna. These were powerful claims and especially so in such sensitive areas as competitiveness and employability, which represented a fundamental departure from earlier notions that turned around employment, and which stood as an

explicit neoliberal reinterpretation of higher education's purpose. Such findings were an integral part of a manufactured consensus without which the Bologna strategy risked progressing less briskly. (p. 51)

These results will be compared to the results of the current study in chapter 4.

The current study began by considering the Bologna Process as an example of a supranational process. Definitions in the literature tend to assume that a supranational process is by nature a top-down process. For example, Knight (1997) defined *international* processes in higher education as those that protect existing national identities against the forces of globalization. Hence, according to Knight, an international process would be a bottom-up process. Alternatively, the Bologna Process could also be termed a *multination* or *multilateral* process. Neave and Amaral (2008) recently described the Bologna Process as “the first example of a multination agreement, unprecedented in the number of nations subscribing to its principles and unprecedented in its bid to re-engineer the continent's systems of higher education around a common profile.” From their usage in international relations, the terms *multination* or *multilateral* refer simply to participation by more than one nation in a process. The prefix *multi* does not of itself indicate a bottom-up nature. In contrast, *supra*, meaning “over” in Latin, implies a central body with authority over national processes. In international law (Nickless & Siedl, 2004), “a supranational instrument. . .is not only binding on the member states, but it is supreme over any national legislation dealing with the same matters” (p. 20). “There is only one supranational body within Europe and that is the European Union,” according to Nickless and Seidl (p. 20). It is the purpose of the current

study to test empirically whether the nature of the Bologna Process is supranational (top-down) or national (bottom-up).

Social Contract Regarding Academic Research

As mentioned above, for purposes of the current study, the formal definition of social contract was the expected roles of stakeholders in higher education, and social contract was the context in which purposes of higher education were determined. The issue of the purposes of higher education arose often in higher education policy discussions in Europe, at both national and supranational levels. Models to describe the prioritization of purposes of higher education ranged from the entrepreneurial university (Jacob & Hellstrom, 2000; Jongbloed, 2007), with its research closely tied to business applications; to the Humboltian model (Kerr, 2001), with its joint priorities of teaching and research, which spread through Europe from Germany; to the multiversity, with its multiplicity of purposes for the university (Kerr, 2001).

Discussions of purposes of higher education in the higher education policy literature typically compared different models of the university in the setting of historical and recent trends in technology and demographics (Duderstadt, 2000; Kerr, 2001; Thelin, 2004). Literature on the changing structure of knowledge and knowledge production was particularly relevant to this study of the purposes of the research function of higher education (Gibbons et al., 1994). Pertinent also were discussions of the rise of industry logic in higher education institutions, which Gumpert (2002) viewed as movement away from institutional logic, which seeks to meet a multiplicity of societal expectations. The rising industry logic, in contrast, primarily seeks to promote economic development as the main purpose of higher education. As such, industry logic has had a particularly high

impact on academic research policy, primarily because research is one function of higher education that earns revenues.

A social contract based on Gumpert's (2002) industry logic is on the rise in Europe. Such a market-oriented social contract was the basis for declarations that the purpose of government control of higher education is to produce knowledge as a strategic resource for economic development. Jacob and Hellstrom (2000), members of a European entrepreneurial university, viewed academic research as an instrument for economic development. For them, the role of the university was chiefly a choice between three modes of economic development: a hub for regional development, an incubator laboratory for business applications, or a connection point in a larger knowledge-production network.

Economic trends were the situational context for the rise of industry logic in academic research. Due to tightening government budgets, higher education institutions in Europe experienced pressures toward higher accountability, which, in the European context, led to the rise of the evaluative state (Jongbloed, 2007). These trends in political economy went beyond Europe to the United States, suggesting that social contract in academic research may be globally dynamic.

Tadmor applied social contract to academic research policy. Tadmor (2006) believed the social contract regarding academic research has shifted, driven by forces different from the government fiscal tightening that drives tuition increases. He saw WW II as the turning point, when higher education institutions accepted huge increases in government funding of their research in support of the war effort. Tadmor traced this trend through the Cold War era into the current day. He viewed the key paradigm shift as

the placement of research not just in polar opposition to teaching, but also giving research and its funding the highest place, trumping even loyalty to the institution. This trend is seen today in the promotion of academic entrepreneurship and academic technology transfer (Tadmor, 2006), both of which are strategies for economic development, representing a Smith-type social contract.

Another salient example of how Neave's (2006) third type of social contract--the market-oriented, Adam Smith version--can be seen in modern thought is the extensive neoclassical work that has been accomplished in the economics of education. The concept of the market mechanism as superior to government control has had wide influence in the area of higher education finance, both at the macro and micro levels (Easton & Klees, 1992). The market-oriented version of social contract is recognized today as dominant in policies concerning academic research in Europe (Jacob & Hellstrom, 2000).

In a few places, the literature indicated that national and global social contracts may influence shifts in funding to the research function of higher education. One empirical study in the U.S. context made a direct connection between the two. Slaughter and Rhoades (1996) described "the emerging bipartisan political coalition supporting commercial competitiveness as a rationale for research and development (R&D)" (p. 303). Justified by the need for the U.S. economy to compete globally, new political alliances formed between the defense and health industries and government in the 1980s. These alliances succeeded in changing laws and funding structures for R&D, with consequences for the funding of academic research. Slaughter and Rhoades (1996) performed a longitudinal study of the influences of shifting business strategies and

corporate structures on the support of business elites in the defense and health industries for “competitiveness R&D policies” (p. 303). Their study analyzed U.S. R&D legislation from the 1980s and 1990s that was passed with the purpose of enhancing U.S. commercial competitiveness. They studied the effects of this competitiveness legislation on academic research by analyzing changes from 1983 to 1993. Their results were positive: Academic research agendas in the U.S. shifted toward enhancing commercial competitiveness.

Zumeta’s (1996) typology included his estimation of the relative levels of government funding to private higher education essential to each type. Hence, his study did not test the correlations between types of social contract and consequent levels of funding from public versus private sources. Instead, he defined each type according to the level of state-government funding going towards private higher education. His study indicated that there is such a strong relationship between the degree of market orientation and funding patterns that it might be assumed in developing a typology.

Social Contract, Public Good, and Funding to Research and Student Support

The literature on globalization in higher education indicated, through historical analysis, connections between social contract and funding levels to higher education in general. This included literature on academic capitalism (Rhoades & Slaughter, 2006), which argued that the global trend of pressure on institutions of higher education to generate revenue by patenting their research products and partnering with entities in the private sector was increasing. Academic capitalism has also had an impact on the public good of higher education, according to Torres and Rhoads who stated, “With the rise of academic capitalism in U.S. higher education, we witness a reduced commitment to,

support of, and emphasis on the “publicness” of higher education” (2006, p. 30). Santos (2006) also argued that the erosion of the public good of higher education resulted directly in reduced funding to public universities. This erosion would by definition be expected to go hand in hand with a shift away from a Hobbes-type social contract, which views higher education as a public rather than a private good.

Santos (2006) extended his argument by pointing to the rise of neoliberal globalization, imposed via the international financial institutions in the 1980s. Kezar (2004) viewed the rise of neoliberalism as a global shift in the social charter. (For the purposes of this study, because Kezar’s social charter was a near-equivalent to social contract, her discussions of social charter were considered as applicable to social contract.) The global dominance of neoliberalism meant for public universities the erosion of their role as a public good on a global scale (Santos, 2006). For these reasons, the literature on national as well as global social contract suggested that there may be important ties between social contract at the national level, as well as beyond the national level, and the allocation of funding to higher education.

Slaughter (1998) made a direct connection between shifting social contract and funding of academic research. She stated,

I argue that higher education student aid policy and academic science and technology policy have undergone a sea change. During the past twenty years, higher education policy has shifted from being a policy arena in its own right as described by Wolanin and Gladioux (1975) and has come closer to Guy Neave's (1988) analysis of higher education in the European Community, where higher education “is less a part of social policy . . . [and] is increasingly viewed as a

subsector of economic policy” (p. 274). In other words, the economic functions of higher education have moved to the foreground, the educational functions to the background. . . .Academic science and technology (Research and Development) policy. . .changed dramatically. In the 1980s, [U.S.] federal legislation moved R&D policy much closer to the market through legislation that defined research as a valuable, private product rather than a free public good. (p. 209)

The trend of government disinvestment in higher education had different implications in Europe compared to the United States. Because European systems of higher education were almost all public systems, they had the power through ministerial budgets to mitigate disinvestment and develop new income streams from academic entrepreneurial activity (Santos, 2006). In the United States, where the system was a mix of private, often elite, universities and public universities, the public universities went after alternative funding sources, such as from philanthropy, market activities, and tuition increases (Santos, 2006). These general connections between social contract, the public good, and funding patterns suggested that funding to the academic research function and to student support may be influenced as well by shifting social contracts, but perhaps in opposing directions for the two functions.

Geiger’s (1985a) analysis of the U.S. higher education system noted its chief characteristics of pluralism and diversity. After analyzing the top 21 research universities in the U.S., he found a high degree of diversity in their institutional characteristics. The 21 best research universities included public as well as private institutions and large institutions with multiple missions as well as small institutions specializing in research. Some institutions were highly centralized, and others were very decentralized. This

analysis led Geiger to conclude that there were advantages and disadvantages to centralization and decentralization, to the Humboltian model and the specialized research institute, to funding just a few proven scientists and a wide range of new investigators. He concluded that it was the very diversity of the American system that allowed the system as a whole to avoid making trade-offs. As a result, the system gained the benefits of all alternatives (Geiger, 1985a). European higher education systems, especially those of welfare states, will find it extremely difficult to apply any lessons learned in the diverse U.S. system to their monolithic state systems.

One such “lesson” was managerialism, which never worked well in the U.S. setting (Birnbaum, 2001) but nevertheless came like a wave into Europe during the 1980s. If Gumpert (2002) is correct, industry logic cannot transfer directly to social institutions because they have their own institutional logic. Neave and Van Vught (1991) reported that they found it abundantly evident from country case studies in the U.K., Belgium, Germany, Finland, and Norway that the new managerialism brought the values of the world of business as well as its techniques into the academic world. They questioned whether business values and techniques should or could be adapted in useful ways to higher education.

Neave and Van Vught (1991) also pointed to the rise of conditional contracts (or contractualism per Neave’s definition (2006) in higher education finance as one of the most significant recent developments in Western European higher education. Such contracts allow central administrations, whether governmental or private sector, to increase incentives to make higher education more responsive to market forces. The authors’ concern here was that contractualism was a powerful tool to push higher

education away from serving society and towards becoming a public enterprise.

Contractualism also constituted a shift away from trying to control the processes of higher education (such as teaching and research) to trying to control its outcomes or products (such as enrollment or graduation levels). In other words, institutions were being given more autonomy in many higher education systems but on the condition that contractualism provided more control over the end products of higher education.

Contractualism gave governments “a particularly strong leverage to assert societal needs over those arising primarily out of internal evolution of the disciplines or out of the individual needs for personal development or of unrestricted enquiry, all of which are determined internally within the institution by those who create and those [who] consume knowledge” (Neave & Van Vught, 1991, p. 253). They also were worried that “product control was, at best, only a surrogate for quality, a nominal end-point and a representative approximation of process which is quality in being, a quintessential activity whose complexity may be grasped and appreciated intuitively and personally but which is only with great risk of distortion represented through evaluation of product” (p. 253). Their chief concern was that higher education will respond to the strong incentives of contractualism by producing graduates, patents, and articles--in essence by becoming a knowledge factory no longer able to challenge the often short-term and opportunistic values and objectives of government with the long-term values of higher education.

A Nordic example of contractualization occurred when Norway introduced result-oriented planning in 1990, with the purpose of such planning and reporting being to keep HEIs accountable for quality, cost limitation, and educating enough personnel for national and regional workforce needs. As the accountability system was introduced, it

met with resistance, especially at the University of Oslo. Concerns included an increased administrative workload for faculty, reduction of academic freedom, and increasing competition for funding, deepening rifts between administrators and academic units (Aamodt et al., 1991).

Before continuing this discussion of economic and organizational aspects of social contract regarding higher education finance, it is necessary to define key finance terms. The economics of education brings to this discussion a clear delineation of the basic costs and benefits of higher education. Fairweather and Hodges (2006) outlined the current analysis of the costs and benefits of higher education according to an economics of education frame. Costs and benefits are usually classed by economists as public or private. Private benefits accrue to individuals such as students. Public benefits, such as higher employment and consumption and the resulting higher tax revenues, accrue to national and local economies and governments. Regarding the private benefits, Fairweather and Hodges (2006) reported,

College graduates earn more money, and the difference in income between those with post-secondary education and those without it has continued to widen because the earning power of those without it has shrunk consistently over the past 30 years. Once a desirable advantage in employment, post-secondary education has increasingly become a prerequisite to stable employment and a middle-class income. (p. 3)

Private costs are paid by students and their families. Public costs are paid by governments. Government subsidy of higher education has typically been justified by the public benefits relating to citizenship: reduced crime rates, increased public service,

higher voter participation, and social cohesion/appreciation of diversity (Fairweather & Hodges, 2006). These definitions applied in the current study.

Student Financial Support Policy

Slaughter (1998) made a direct connection between social contract and student support policy: “These changes began in the early 1970s when the United States adopted a student-as-consumer or market model for postsecondary student aid financing, in effect giving students vouchers through Pell grants” (p. 209). Slaughter’s (1998) analysis indicated that these fundamental changes in society’s views on higher education, turning education into a private product that was part of economic policy (which amounted to a shift of social contract), affected student support policy over time. The essence of the policy change was toward a high-tuition, high-aid policy. The purposes of this shift were to help the private sector of American higher education compete with publicly supported institutions and to lower costs to the taxpayers by increasing user fees for those who could afford higher education. But because financial aid in the 1980s fell below rising tuition, high-tuition high-aid policies were gradually replaced by policies that increased student loans. These low-interest loans mostly helped parents and students with the ability to repay their loans. Hence, the shifts in U.S. higher education tuition policy were ultimately regressive (Slaughter, 1998).

The American experience cannot be transferred readily to other systems, due to wide differences in the public-private mix of institutions. Slaughter (1998) drew some conclusions about U.S. tuition policies that are important to understanding the social impacts of higher education policy in other countries, however:

Because the rich generally paid to send their offspring to expensive, private institutions (Kingston & Lewis, 1990), the groups that paid most heavily for the changes in policy were the middle class and the working poor. The middle class was pushed toward borrowing, and the working poor turned toward community colleges which were low cost but did not provide grants. Community colleges absorbed the majority of “first generation” students and “students of color”-- euphemisms for working class and minority college students (Cooperative Institutional, 1994; Grubb & Tuma, 1991). Like many market behaviors introduced to reform the public sector, the high-tuition, high-aid policy probably proportionately benefited the private, or in this case, the independent sector more than the public, and continued to rely heavily on public funds to maintain private markets. (p. 214)

Her discussion raised the question: If a social contract is regressive and unjust to lower classes in a society, can it be sustainable? This question was a central backdrop to any discussion of student support policy and social contract. The inference here was that, if social contract is dynamic and responsive to the weight of opinion in a society, then social contract can change, driven by mass protest against the injustice of incumbent policies, like high-tuition, high-aid.

Dynamism as Addressed by Conflict Theory

The responsiveness of social contract to public opinion flows from the essential nature of social contract. As mentioned in the introduction, social contract is in essence a social construct. Social contract theory, as conceptualized here, accounts for change in societies. In doing so, this study works in more than the single, currently dominant area

of sociology. Burrell and Morgan (1979) performed a sweeping meta-analysis of the scope of sociological research. Their central claim in 1979, which is more salient today, was that modern sociology has neglected three potentially rich paradigms in favor of focusing most sociological work in a single paradigm. The authors divided the field of sociology into four quadrants based on two dimensions: subjective versus objective, and regulation of a stable order versus conflict in the context of radical change. The resulting four quadrants delineated four paradigms: functionalist, interpretive, radical humanist, and radical structuralist. The dominant paradigm was, and is today, functionalism. The main functionalist schools of thought included objectivism, social system theory, integrative theory, and social action theory. What we have missed, and are missing by neglecting other paradigms includes: phenomenology and hermeneutics (interpretive sociology); existentialism, anarchic individualism, and critical theory (radical humanism); conflict theory and Marxist theories (radical structuralism).

Conflict was a core concern of radical Weberian thought, according to Burrell and Morgan (1979). This school of thought was not concerned so much with organizations but with the superstructure of societies. The macro level analysis of a radical Weberian approach, as well as its facility for analyzing conflict, interests, and power as central concepts, make it attractive for an analysis of social contract.

The analysis by Burrell and Morgan (1979) also helps to explain key differences between American and European perspectives on social contract. According to Neave (2007), European thought allows for conflict theory: The European assumption is that untenable social conditions will lead to conflict in the form of strikes. American theorists

tend to think of revolution in terms of consumer protest or taxpayer revolution (G. Neave, personal communication, June 30, 2007).

Because this study is of three European country cases, it is appropriate to employ conflict theory in sociological analysis. A recent book took a conflict theory approach to how the globalization of neoliberal economics has affected higher education globally. Editors Rhoads and Torres (2006) invited scholars of sociology and higher education from North and Latin America to discuss higher education in the context of globalization. In their introductory chapter, Torres and Rhoads stated (2006):

Colleges and universities throughout the world have been sites of student resistance to a variety of forms of globalization. As privatization spreads to the realm of higher education funding, increasingly colleges and universities are either implementing fees or raising tuition, the results of which have been large-scale student protests. Over the past few years we witnessed a year-long fee-related strike at the National Autonomous University of Mexico (Rhoads and Mina, 2001), nationwide protests by Canadian students over tuition hikes (Birchard, 2002), university occupations by German students in protest of the privatization of education, and massive protests by students in Great Britain after higher education officials broke with tradition and implemented annual fees for first-year full-time students (Rhoads, 2003). (p. 15)

Torres and Rhoads (2006) also pointed to recent trends in the unionization of graduate students. They viewed graduate student unionization as a response to the increasing marketization of the academic enterprise. They said that graduate student organizers seek higher remuneration, which can be justified due to their productivity in delivering

education to undergraduates. Graduate student organizers reject the idea that the college is a collegial community that can be trusted to protect their interests. Graduate student organizers realize that market-oriented philosophy and practice now dominates U.S. research universities. “In the eyes of graduate student organizers, academe is less a ‘collegial community’ and more a ‘corporation’” (Torres & Rhoads, 2006, p. 35).

Graduate students, if they are only workers in a corporate enterprise, need to unionize to balance their power against corporate power. In the same book, Rhoads and Rhoades (2006) wrote a chapter on graduate student unionization, where they traced the growth of graduate student unions as follows:

Based simply on size and expansion alone, graduate student unionizing in the United States warrants consideration as a significant social movement (Barba 1994a, 1994b; Rhoades & Rhoads, 2003). For example, the number of unionized graduate student employees has increased by 175 percent since 1990, and close to 40,000 graduate student employees are now unionized (Smallwood, 2001). Also, at the beginning of the 1990s only a handful of graduate student unions existed; by the close of the decade more than 20 graduate student unions had formed, and a similar number of groups were mobilizing (Julius & Gumport, 2003; Rhoades & Rhoads, 2003; Smallwood, 2001). (p. 275)

If the trend of increasing graduate student unionization is one consequence of a mounting infusion of market-based philosophy in higher education, as the social contract moves in a Smith-type direction, other consequences become clear.

One key consequence is access to higher education. In their concluding chapter, Rhoads and Torres (2006) stated that the global rise of neoliberalism has impacted higher

education, causing the rise of academic capitalism, with negative consequences for access: “The issue of access to higher education is less widely embraced and often is contested terrain between those advancing a free market position and others stressing a more democratic or social justice perspective” (p. 337).

Tuition policies in the United States were influenced also by social trends. Longstanding general agreement on the public purposes of higher education has eroded over the past two decades (Duderstadt, 2000; Kerr, 2001). Attributes previously considered positive due to their salutary effects on higher education quality, such as elitism and the prioritization of research over teaching, have come under increasing criticism by the general public. The rising consumerist movement among students and parents has also eroded the value of elitism and redefined quality to emphasize efficiency or bang for the buck (Altbach, 2001). Such changes in public opinion have been claimed to amount to a change in the social contract (Duderstadt, 2000; Gumpert, 2001). For these reasons, social contract is an important concept for understanding the relationship between public opinion and how student tuition is financed.

The demand for greater bang for the buck in higher education was most closely expressed in the accountability movement. Institutions of higher education, particularly public institutions dependent upon state funding, were increasingly held accountable by legislatures and the general public for efficient and effective use of taxpayer dollars (Johnstone, 1989; Johnstone, et al., 2006). Higher education institutions in Europe experienced similar pressures toward higher accountability, which, in the European context, led to the rise of the evaluative state (Jongbloed, 2007). These trends in political

economy in the United States and Europe suggest that social contract regarding student support may in fact be dynamic.

Kogan (2005) described the forces, such as the accountability or quality assurance (QA) movement, that trigger change in higher education:

First, they are rarely parliamentary action but political opportunism. More than most systems, higher education if left to itself seeks and probably needs stability and continuity rather than change and reform. Its primary aim will be to sustain academic values through the pursuit of knowledge and this requires exception from the pursuit of reformist ambitions. Pursuing and disseminating knowledge are not easily performed under the glare of public policy activities. What are called reforms in higher education have derived more from public and social policy than from academic development. The second kind of reform is that developing from changes in the knowledge landscape and affecting curricula and research agendas. Their impact will differ between that on existing elite institutions and new and more democratic institutions. Some changes are both social and academic; quality assurance is the obvious example, with its connotations of accountability but with its deep implications for academic work. I suggest that in such mixed cases it will be the politicians who insist on change, though institutional leaders soon recruited themselves to the QA banner but for managerial rather than academic reasons. (pp. 63–64)

Kogan did not paint an idyllic picture. Expectations by stakeholders of higher education, or social contract, may be shifting swiftly and dramatically. Legislators responsible for funding higher education have hair-trigger responses to changes in public

opinion, which themselves reflect at least partially the social contract. These same legislators have short horizons for their policy impact, because they cannot both keep their jobs and respond with long-term solutions.

These changes in public opinion and student support policies are influenced by national economic trends. In the U.S., the two decades from 1975–1995 experienced accelerated cost increases in higher education, in large part due to burgeoning administrative costs (Leslie & Rhoades, 1995). In addition, cyclical recessions over the recent three decades depressed state tax revenues, which led to cuts in public funding of higher education (Hovey, 2001). Tightened state finances have heightened the political pressure for efficient use of public funds (Hovey, 2001).

An important voice in public opinion in Europe is the voice of the student, not via consumerism as in the U.S. but via political pressure. Student unions are politically powerful in Europe. The European Student Union, which represents national student unions across Europe, presented its demands relating to the Bologna Process. They demanded participation in the Bologna Process by student representatives at every stage, access to higher education not based on financial means, concrete national plans for student diversity, and free education for all, including no additional fees (www.esib.org). The policy position of European student unions is clearly a Hobbes-type social contract, relying as it does on full government funding of student support.

Two Models of Student Support Social Contract

Johnstone's (1989) seminal study of student support policy in several countries, including Sweden (cited above in this chapter) stated that social forces are more important than economic forces in student support finance policy. He thought that student

support policies are rooted in social beliefs, in particular, in a society's view of the student. He based his analysis on a comparison of the role of the student in different national cultures. In some countries, such as the United States, the college years are considered more of "an extension of childhood than as a beginning of adulthood" (1989, p. 158). In contrast, most Scandinavian cultures consider college students to be full adults. This cultural difference makes a big difference in higher education finance. In America, the costs of higher education are apportioned on the basis of "the primacy of the parental contribution," according to Johnstone (1989, p. 158). In Scandinavia, the burden of financing college is taken up by the state.

Recent European Union data reports confirm Johnstone's two models for view of the student. European Union countries choose from two models regarding student support finance: either the student as independent of, or the student as dependent on, family finances. A recent European Commission report (European Commission, 2007) on students contrasts the two models:

A first model is based on the principle of student financial independence, which is sometimes granted to young people from the age of 18 onwards. Support here is targeted exclusively at students, and their parents thus receive neither family allowances nor tax relief. The situation of countries in this group may differ depending on whether or not they have adopted the principle of education free of charge. In the Nordic countries (except Iceland), Ireland, Hungary, Malta and the United Kingdom (Scotland), students with state-subsidised places do not contribute financially to administrative or tuition costs. Admission to tertiary education is thus free or almost free (where students pay solely contributions to

student organisations). In a second model, support is awarded to the parents of students, as long as the latter remain financially dependent on them (generally up to the age of 23 or 26 according to the country concerned). In this group also, one may distinguish between countries in which tertiary education is free and those in which contributions have to be paid. (p. 99)

For the current study, these two models for student support policy were considered in the analysis of the impact of social contract on student support policy in three Nordic countries. In all three societies studied, students are considered independent of their parents and needing full tuition support from the government. The sociological roots of finance policy are clearly argued in these two models.

Warrant for the Current Study Based on the Literature Review

Review of the literature pertaining to social contract and higher education finance policy led to the following conclusions for the purposes of the current study.

Social contract needs to be defined clearly. Neave's (2006) definition is most appropriate for study in a European context. The phenomenon of social contract may exist at national and supranational levels, but it is not proven empirically. Social contracts in academic research policy and student support policy may exist at national and supranational levels, but this is not proven empirically. Social contract may be a dynamic phenomenon, but this is not proven empirically at macro levels.

The current study rests on the same warrants as Kezar's (2004) meta-analysis of empirical research in social charter. The current study also responds to Kezar's (2004) call for systemic, empirical work by addressing social contract at the macro levels of national and supranational social contracts.

In summary, there is need for a macro level, conceptual, empirical study of the shifting dynamics of social contract in the European context that includes national and supranational levels of analysis.

Chapter Three

Research Design

This study examined national social contract and funding responses to supranational policies. The two research questions in this internationally comparative analysis were:

Is there a relationship between a supranational social contract regarding academic research and the allocation of funds to research projects at national levels?

Is there a relationship between a supranational social contract regarding student support and the allocation of funds to student support at national levels?

Disciplinary Orientation

Because the concept of social contract was born in political economy, study of the concept of social contract required contributions from political economy and its daughter disciplines, political science and economics. The current study explored the concept of social contract specifically as it applies in the context of higher education policy. As such, it drew theory and methodologies from the fields of higher education policy and the history of higher education. As a study focused on finance policies in higher education, it also drew theory and methodologies from higher education finance and the economics of education.

This study compared the social contracts of three countries, hence its analysis depended on theory and methodologies of comparative higher education. One comparative method often applied in higher education studies is thematic comparison, whereby countries are compared using common questions to analyze country data, after which the body of evidence is presented systematically (Kogan, 1996). Kogan preferred

thematic comparisons to formal hypothesis testing in policy analysis, due to the complex multiplicity of factors that influence policy. He did, however, consider one current hypothesis to be testable by employing thematic comparison: Clark's triangle (1983). Clark's (1983) approach laid out three theorized that policy was driven by three forces: professional-collegial, governmental-managerial, and market forces. Kogan (1996) viewed Clark's hypothesis as a feasible way to compare countries by studying the degree to which national higher education policy was driven by collegial, managerial, or market forces. The current study analyzed three Nordic welfare states in terms of their response to market forces.

Giving support to a sociological approach in his seminal work on comparative higher education finance, Johnstone (1989) pointed to the need for a sociological frame in comparative work. He began such an analysis by taking a look at the cultural roots of higher education finance in the five countries he studied. After discussing the impact of the competing ideologies of political parties on higher education finance policy, Johnstone considered the sociological perspective. "Policies and instruments for apportioning the costs of higher education are functions of traditions and beliefs with roots far deeper and more complex than either party ideology or economic sophistication" (1986, p. 158). Johnstone also pointed to the benefits of a comparative analysis (1989).

The current study utilized a specific methodology termed Qualitative Comparative Analysis (QCA) (Berg-Schlosser, et al., 2009). QCA was first developed in the late 1980s for use in comparative politics and sociological studies of welfare states. Its basic logic, "the Method of Difference" originated by Hume and developed by J. S. Mill, set forth that, if a number of cases were identical in most circumstances but one,

and only one case exhibited the phenomenon studied, then that single difference was either an effect or an important part of the cause of the phenomenon. Key to this methodology was careful matching of the cases chosen in order to make any common causal relationship clear by eliminating other possibilities. Critiques of this methodology point to the problem that important discoveries can only be made if the most relevant factors were included in the cases chosen. In the social sciences, it is impossible to assemble a full model that both includes all relevant factors and controls for all other factors. But QCA does help to eliminate irrelevant factors. Berg-Schlosser et al., also argued that QCA “approximat[es] causal conditions in the ‘real’ world” (2009, p. 3). This study included a section on the choice of country cases (below), in order to make clear the structure of the QCA comparison.

The economics of education contributed the delineation of the basic costs and benefits of higher education, which were defined by Fairweather and Hodges (2006) in chapter 2 of the current study. According to Fairweather and Hodges (2006), private benefits accrue to individuals such as students and researchers, and to private companies that patent or develop research. Public benefits, such as higher employment and consumption and the resulting higher tax revenues, accrue to national and local economies and governments. Private costs are paid by private companies, students, and their families. Public costs are paid by governments and taxpayers. Government subsidy of higher education has typically been justified by the public benefits relating to citizenship: reduced crime rates, increased public service, higher voter participation, and social cohesion/appreciation of diversity (Fairweather & Hodges, 2006), as well as

economic development. A wide range of public and private stakeholders benefit from higher education.

Stakeholders identified for this study were limited as follows: For the study of the academic research dynamic, key actors related to its funding were government and private-sector industry. The theory behind this choice was the Triple Helix thesis. As Etzkowitz and Leydesdorff (2000) explain, “The Triple Helix thesis states that the university can play an enhanced role in innovation in increasingly knowledge-based societies” (p. 109). Instead of focusing on the firm as the hub of innovation, the focus instead was on “the network overlay of communications and expectations that reshape the institutional arrangements among universities, industries, and governmental agencies” (Etzkowitz & Leydesdorff, 2000, p. 109). The role of the university in economic development was brought to our attention in the study of the institutional connections among the university, industry, and government for the purpose of economic and social development (Etzkowitz & Leydesdorff, 2000). For the student support dynamic, the actors involved in funding were primarily government and students. This choice was based on a study of the influence of stakeholders in higher education on legislation in the late 1960s in Europe (Daalder & Shils, 1982).

Higher education finance policy derives from a mix of disciplines, including primarily economics and political science. Previous work in this field, especially that of Johnstone (1989), has yielded useful constructs for analysis of financial factors. Vossensteyn’s (1999) construct took account of key characteristics of European higher education.

For these reasons, this study approached the topic of social contract via the disciplines of political economy, sociology, and economics, with significant contributions from the economics of education and higher education finance policy analysis. Theory from these three disciplines was discussed in the review of literature (chapter 2). From the discipline of sociology, the methodology of content analysis was employed to analyze country policy documents and research project abstracts.

From the discipline of the economics of education, the methodology of economic trend analysis was employed. From these two methodologies emerged patterns and trends that were analyzed using Qualitative Comparative Analysis, which emerged from political science and sociology.

Qualitative Empirical Research Design

This study responds to the call for systemic, empirical work on the concept of social contract. A macro level, conceptual, empirical study of the shifting dynamics of social contract was conducted in the European context, including national and supranational levels of analysis. I studied two specific dynamics of social contract: academic research policy and student support policy.

Social contract is a little-researched phenomenon. Key factors of social contract are only assumed and must be validated. For these reasons, qualitative research methods were needed to explore social contract at the outset. Content analysis of each country case study was conducted: to categorize social contract at the supranational level in the Bologna Process; and to categorize national social contracts for each country regarding both academic research and student support policies.

According to Qualitative Comparative Analysis (Berg-Schlosser, et al., 2009), the choice of countries studied is an essential research design element. This study matched three countries as all Hobbes-type, or government-oriented, social contract prior to the beginning of the Bologna Process in 1999. The financing factors (percent of academic research funded by government and percent of student support paid by government) are necessarily quantitative factors, which are appropriate data for Qualitative Comparative Analysis. Qualitative Comparative Analysis does not test hypotheses and does not claim to prove causality, nor does policy implementation analysis (Gornitzka, et al., 2005). Accordingly for this study, I do not argue that causality can be proven; rather, I argue that correlation is indicated.

Conceptualization: Academic Research Dynamic

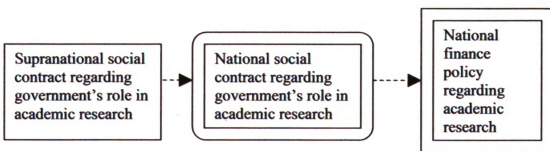
Because formal conceptualization of social contract was virtually nonexistent aside from two similar typologies (Kezar, 2004; Neave, 2006), the current study of necessity delved into conceptual work prior to its empirical work. A recent evaluation of the state of scholarship in comparative and international studies in higher education showed significant global expansion of this type of scholarship (Weiler, 2008). Weiler (2008) reported that the body of descriptive work is growing. New data sources are improving and enriching comparative and international research. There is still a wide gap, however, between theoretical work and policy-oriented work in higher education research, although some bridges have begun construction. Truly comparative work (where several countries are compared to each other according to the same theme or dynamic), although it is still rare, is bringing important theoretical insights to policy issues (Weiler, 2008) (such as, access, quality assessment, and governance). The current

study seeks to connect theory with policy analysis by analyzing its two central research questions and by utilizing improved comparative data bases in a truly comparative manner by studying three countries.

The relationships that were examined for the first research question are diagrammed in Figure 1. The first concept was the supranational social contract (in the Bologna Process) regarding the role of government in the support of academic research. The dynamic examined was the influence of supranational social contract on national finance policy in each country regarding academic research, because funding allocations would indicate how nation-states fulfill their research policy priorities. An intervening factor was the dominant social contract at the national level for each of the three countries studied, which was added to reflect that national governments may or may not alter their views of the social contracts regarding academic research to accord with supranational social contract.

Figure 1

Conceptualization of Dynamics of Social Contracts Regarding Academic Research Funding



Corresponding Factors and Indicators: Academic Research Dynamic

To study how social contract impacts academic research policy, it was first necessary to delineate the concepts to be studied, then to specify the factors that represent

the concepts, and finally to specify the actual indicators that will be studied. Concepts, factors, and indicators for academic research are summarized in Table 1. The three concepts studied, as diagramed in Figure 1, were the supranational social contract, the national social contract, and national finance policy--all three of these in terms of academic research. To represent the concept of a supranational social contract regarding government's role in academic research, the factor studied was supranational agreements by national governments as to the expected social roles of national governments vis-à-vis the other stakeholders in academic research. This factor was selected to embody Neave's definition of social contract as the expected roles of stakeholders (2006) and to apply that definition to the academic research function of higher education. The chosen indicator for supranational agreements was the Bologna Process in Europe, based on general descriptions of the Bologna Process by higher education scholars as a supranational initiative (De Wit, 2007; Meek & Goedegebuure, 2007).

The current study examined the major policy documents agreed to in the Bologna Process. They were examined for indications of the agreed purposes of academic research, because stated purposes of higher education often echo and hence help to reveal the underlying social contract. They were also examined to determine the proportion of public versus private stakeholder funding of academic research, as well as the proportion of public versus private recipients of academic research funding. The latter factors were chosen to evaluate movement of social contract over time toward increasing support by and of the private sector (a Smith-type direction for social contract).

Table 1

Concepts, Factors, and Indicators for the Academic Research Dynamic

Concepts	Factors	Indicators
Supranational social contract regarding government's role in academic research	Supranational agreements by national governments as to the expected social roles of national governments vis-à-vis other stakeholders in academic research	Bologna Process policy goals, as stated in Bologna Process policy documents, for: 1. Purposes of academic research 2. Public versus private stakeholder participation in funding or conducting academic research
National social contract regarding government's role in academic research	Expected social roles of national governments vis-à-vis other stakeholders in academic research	National policy goals, as stated in national policy documents, for: 1. Purposes of academic research 2. Public versus private stakeholder participation in funding or conducting academic research
National finance policy regarding academic research	National allocation of funds to research projects	1. Percent of academic research funded by government versus private sector 2. For recent key research projects, the proportion of public- versus private-sector orientation of (a) project goals and (b) fund recipients

The concept of national social contract regarding government's role in academic research was represented by the factor of the expected social roles of national governments vis-à-vis other stakeholders in academic research. Again, this factor embodies Neave's (2006) definition of social contract and applies it in academic research at the national level of social contract. The chosen indicator for this factor was national policy goals, as stated in national policy documents for each country. These documents

were examined for indications of national purposes of academic research and of national policy regarding the proportion of public versus private funding of academic research, as well as public versus private receipt of academic research funding.

The third concept studied in the academic research social contract dynamic was national finance policy regarding academic research, represented by the factor of national allocation of funds to research projects for each country. Indicators of this factor included the percent of research funded by the public versus the private sector and, additionally, for recent key research projects, the proportion of public- versus private-sector orientation of (a) project goals and (b) fund recipients. Examination of key documents and projects led to these choices for indicators. Upon examination of the data, it was clear that an accurate representation of social contract at the supranational and national levels required specific measurements of multiple elements of funding. Such funding aspects included the stated purposes of academic research (whether for economic or social purposes), as well as who funds the research (public or private sources), and also who receives the research (public or private entities).

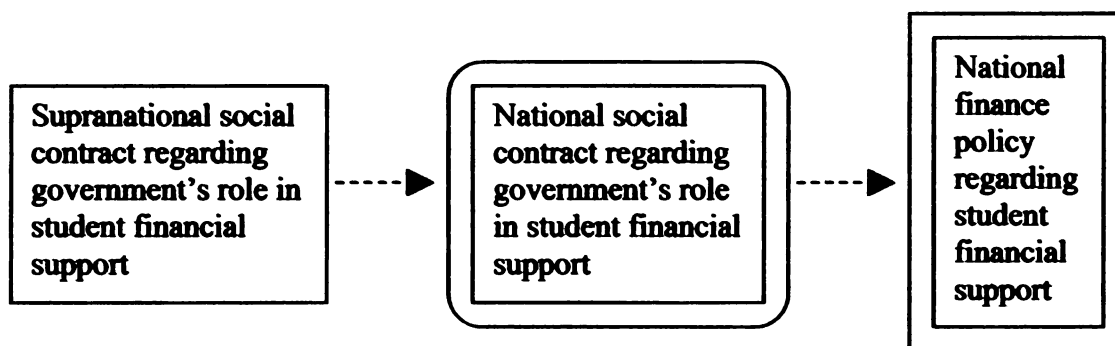
Conceptualization: Student Support Dynamic

The relationships that were examined for the second research question are diagrammed in Figure 2. The first concept was the supranational social contract regarding the role of government in the support of student net costs. The dynamic examined was the influence of supranational social contract (in the Bologna Process) on national finance policy in each country regarding funding student net costs, based on the premise mentioned above that the Bologna Process is an example of a supranational initiative (De Wit, 2007; Meek & Goedegebuure, 2007). An intervening factor was the dominant social

contract at the national level for each of the three countries studied, added because national governments may or may not alter their views of the social contracts regarding student support funding to accord with supranational social contract.

Figure 2

Conceptualization of Dynamics of Social Contracts Regarding Student Support Funding



Corresponding Factors and Indicators: Student Support Dynamic

Similar to the study of academic research to examine how social contract impacts academic research policy, it was first necessary to delineate the concepts to be studied, then to specify the factors that represent the concepts, and finally to specify the actual indicators that would be studied. The three concepts to be studied, as diagramed in Figure 2, were the supranational social contract, the national social contract, and national finance policy, all three of these in terms of student support policy. Concepts, factors, and indicators for student financial support are summarized in Table 2.

The supranational social contract regarding student financial support was in terms of the government's role in funding students' net costs. The factor chosen to represent the concept was supranational agreements by national governments as to the expected social roles of national governments vis-à-vis other stakeholders regarding financial access to

higher education. The specific indicator chosen for this study was the policy goals as stated in Bologna Process documents regarding both access to higher education and also how each stakeholder should bear the burden of student costs for higher education. The indicator of policies on access to higher education was incorporated into this study because it is a central policy of higher education ministries. Access policy may or may not be reflected in how the burden is shared across stakeholders; thus, the two are indeed separate indicators.

The second student financial support concept in Figure 2 was the social contract at the national level, specifically regarding the government's role in funding student costs for higher education. This concept was represented by the factor of the expected social roles of national governments vis-à-vis other stakeholders in funding student costs for higher education. Representing this factor was the indicator of national policy goals regarding student financial support as stated in national policy documents.

The last dynamic in Figure 2 was finance policy at the national level regarding the funding of student financial support, which was represented by the percent of student costs for higher education that was supported by the government.

The end results for both dynamics were framed in the Results section of this study, in two three-by-three grids (one for academic research, one for student funding) with three countries in columns, the rows being supranational social contract, national social contract, and national finance policy.

Table 2

Concepts, Factors, and Indicators for the Student Financial Support Dynamic

Concepts	Factors	Indicators
Supranational social contract regarding government's role in funding student costs for higher education	Supranational agreements by national governments as to the expected social roles of national governments vis-à-vis other stakeholders regarding financial access to higher education	Bologna Process policy goals, as stated in Bologna Process policy documents, regarding: 1. Access to higher education 2. How each stakeholder should support student costs for higher education
National social contract regarding government's role in funding student costs for higher education	Expected social roles of national governments vis-à-vis other stakeholders in funding student costs for higher education	National policy goals, as stated in national policy documents, regarding the expected social roles of national governments vis-à-vis other stakeholders in funding student costs for higher education
National higher education finance policy regarding funding student net costs	National allocation of funds to student costs for higher education	Percent of student costs for higher education supported by government

Sampling: Choice of Country Case Studies

Units of Analysis.

Higher education was examined at the systemic level of analysis for this study, meaning that research funding levels and student support policies studied were aggregated at the national level for each national system studied. Carnoy (1998) placed the study of the political economy of education as primarily at the nation-state level of analysis, because the state is the prime mediator between stakeholders in higher education, such as industry (employers) and students (aspiring to be employees). From its origins, Qualitative Comparative Analysis was a macro comparative approach in that it

was applied to societies or nation-states (Berg-Schlosser, et al., 2009). Because the number of nations with key similarities and relevant data available could never be more than the 200 or so countries in the world, QCA worked with small data sets. For this reason, statistical methods used with large data sets did not apply. Although quantitative data enter into the comparative analysis of QCA, it is considered to be a case-oriented method rather than a quantitative method.

The supranational process in question was the Bologna Process in Europe. This study examined two different dynamics of social contract in order to begin to test the potential of social contract as a conceptual frame for the study of diverse aspects of higher education policy. To most effectively pursue the research questions, three country case studies were chosen according to explicit criteria.

First, all three cases were participants in the Bologna Process in order to study its influence. Second, all three had sufficient sources of quality data on their higher education systems, which is true, for example, of members of the Organization for Economic Cooperation for Development (OECD). Third, all three had identifiable national social contracts fitting Neave's typology of Hobbes, Locke, or Smith (2006).

All three countries chosen for this study were social welfare states, per the sampling plan of the research design. They fell under Neave's (2006) Hobbes-type of social contract. As such, they were far distant from a market-oriented social contract. All three started on the opposite end of the spectrum from the Smith-type social contract when the Bologna Process began. Hence, movement toward a Smith social contract by these countries should be a strong indication of a shifting social contract, much more so than in countries with Locke- or Smith-type social contracts. Discussion of the history of

these three strong Hobbes-type countries (Bleiklie et al., 2000; OECD, 1995; Svensson, 1987) indicated that certain aspects of their higher education sectors have transformed significantly toward a more market-oriented, Smith-type social contract in higher education since the 1960s, but they all retain their essential social welfare state orientations.

This study recognized that affiliation with the European Union (EU) might present a confounding factor. In other words, a country with strong resource dependency on the European Union might tend to toe the line of EU policy, including in more voluntary processes such as Bologna. It was not the purpose of this study to test the relationship between resource dependency on the EU and shifting social contract. Instead, in order to avoid this confounding factor, one country chosen was not a member of the EU. If that country, not dependent on the EU for resources, shifted social contract in concert with the Bologna Process social contract along with two EU member countries, it would indicate that EU membership could not have been the driving force for all three.

For all of these reasons, the country cases chosen to be studied were Finland, Sweden, and Norway. Each country and its salient aspects as a case study for the current research, derived from meta-analyses of country case studies (cited for each country), are detailed below. I conducted the meta-analyses by studying historical descriptions of the higher education sector of each country. A later phase of the study analyzed higher education policy statements by the governments of each country relating to the Bologna Process.

Finland

Finland historically exhibited a classic Hobbes-type of social contract, based on strong control of funding by a centralized government (Kivinen & Rinne, 1991). This welfare state was built on top of previous governments, including the Swedish empire, Russian annexation, and Russification, which ended in 1917 (OECD, 1995). The period 1809 to 1863 was a time of national formation by the universities. Because the Finnish parliament was not functional during this extended period, it became a golden era for universities. As the only respected authorities remaining standing, university professors actually stepped into the power vacuum to form national goals hence, the university became a hub of political activity (OECD, 1995). This era was formative of the Finnish tradition of the intellectual engaged in a democratic society (Valimaa, 1996), which was an important backdrop to the nature and functioning of social contract in higher education in Finland, due to the public-service emphasis it lent the academic vocation.

The trend of elevating economic development to become a chief purpose of higher education has strengthened in Finland since the 1960s (Kivinen & Rinne, 1991). Marketization (in reality, Americanization) has been the goal for the past 30 years (Larsson, 2008). Since the 1980s, Finland has actively pursued a national science and technology policy that successfully restructured the economy (OECD, 1995). Research and development cooperation between higher education and industry, most specifically to apply innovations quickly into industry, has produced strong economic sectors in forestry, metal, pharmaceuticals, and telecommunications (OECD, 1995).

In Finland in the 1960s, because economic growth was a high national priority, Finnish society accepted increased central planning in higher education as a prerequisite

for such growth (Pesonen, 1982). In 1966, Parliament committed the government to fund education generously for the next 15 years. Similar to Sweden and Norway, one of the reforms of the late 1960s in Finland was to add student representatives to bodies of governance in higher education. Prior to that time, most students were not interested in governance issues, focusing mainly on their bread-and-butter interests such as housing, scholarships, and sports. Student unions were large, powerful, wealthy, and independent, due to their provision of housing and other services to students (Pesonen, 1982).

Student unions and administrators in higher education were dealing with the impact of the baby boom on Finnish universities (Pesonen, 1982). The population of youth graduating from secondary schools nearly doubled from 1960 to 1970, causing dramatic increases in the number of university students and faculty, and the establishment of new universities and institutes of technology. Government spending on higher education increased from 2 to 3.5 percent from 1967 to 1975 (Pesonen, 1982).

During the 1968 elections in Finland, previously stable party divisions reacted to an electorate that was swinging from left to right (Pesonen, 1982). In 1970, the voting age was lowered from 21 to 20, further increasing the electoral weight of young voters. Although they were a minority group with minority support from other voters, vocal student activists gained representation in higher education governance, including at the departmental level on the basis of the principle of “one man, one vote.” In the early 1970s, students were given one-third of the votes in the governing bodies of HEIs. However, the most salient characteristic of this period of reform was centralization. All HEIs in Finland except one were brought under the ministry of education, a transformation that included many formerly private institutions. Ministry officials

increased their efforts to control academic as well as financial matters during this time (Pesonen, 1982).

Today, Finland has the fastest-reforming higher education sector in Europe (Larsson, 2008). Reforms in higher education include a new university act, going into effect in 2009, to increase the financial and legal autonomy of higher education institutions vis-à-vis the state. For example, the new university act gives universities and colleges the legal status of persons separate from the state, and, as a result, the power to own land in their own names (Larsson, 2008).

As of the fall of 2000, the higher education system in Finland was composed of 20 universities and 29 polytechnics (Marlow-Ferguson, 2002). Polytechnics were funded 43 percent by local governments and 57 percent by national government. They were staffed by 3,118 full-time teachers and 1,261 part-time teachers, instructing in tourism, culture, technology, business, and other subjects.

In 2002, before the Bologna Process harmonized university degree systems, Finnish universities offered degrees in the form of bachelor's, master's, professional (licentiate), and doctoral degrees. Bachelor's degree completion was approximately three years. Master's degree completion was approximately five years. The largest university, the University of Helsinki, had approximately 33,000 students and 3,000 teachers and researchers in 2002. All Finnish universities were public. They included ten multidisciplinary, four arts, three economics and business, three technology, and one military university. Admission to universities was competitive, limited to about one-third of the university-age population. Undergraduates totaled about 128,000, and graduate students totaled about 19,000. Parliament set the agenda for educational legislation. The

ministry of education implemented educational policy, budgeted at 3.6 billion euros in 1996.

Finland has a strong international orientation, both with Western Europe and with a view to aid the development of its former Eastern Bloc neighbors. Finland joined the European Free Trade Association in 1961 and the OECD in 1969. Finland agreed to free trade with the European Economic Community in 1973 (OECD, 1995) and joined the European Union (EU) in 1995. Finland is an active participant in the Lisbon Process of the European Union, the mutual goal of which is to improve the European economies via cooperation. As a proactive member of the EU, Finland had an influential recent EU presidency (European Union, 2008a). Finland recently surpassed Sweden as the most progressive EU state in terms of leading higher education reforms, including those promoted by the OECD (Kivinen, 2007).

A key element of Finland's strong external orientation is its desire to retain national identity in the midst of internationalization, and it is relying explicitly on education to do so (OECD, 1995). A second key challenge facing Finland today is how to increase self-regulation (or autonomy) for higher education institutions and at the same time still attain national economic development goals (Kivinen & Rinne, 1991). Other challenges include serving the sparse but spread-out population, a goal historically achieved at high cost via small regional colleges distributed across the large land mass. There is also a need to organize the research function of higher education, perhaps by fostering specialization by institutions, then encouraging their collaboration (Kivinen & Rinne, 1991). The challenge is to encourage the same institutions that compete aggressively for research funding to work together. Finally, the internal organization of

institutions is still quite rigid, which prevents the needed organizational changes (Kivinen & Rinne, 1991).

Norway

Higher education funding in Norway is impacted positively by national resources, specifically the high national wealth from oil income (and in the future from gas and untapped oil reserves). As a consequence, into the foreseeable future, higher education budgets will be a function of national priorities set in the context of relatively healthy budgets. For example, if providing higher education to half of the college-age population achieves few results, the citizens of Norway could decide that old-age pensions are more worthy of funds than higher education, even though both can be afforded. Most indications are, however, that a strong majority has a stake in higher education for themselves and their progeny (Aamodt, 2006).

The history of higher education in Norway and other Nordic countries is short, compared to the medieval roots of higher education in other European countries, with the first university founded in Norway in the early 1800s. Until then, Norwegian students went to Denmark, because Norway was not separate from Denmark until 1814 (Aamodt, 2006). Overall, the historical development has been from autonomy with state support to state steering and heteronomy.

The primary purpose of higher education from the outset in Norway was to educate its workforce. Educating the workforce was the core mission of the University of Oslo, which was the first Norwegian University, founded in 1811 (Marlow-Ferguson, 2002). The period from 1830 to 1875 was the shift from the classical to the modern university; between 1960 to 1995, from the elite to the mass university (Aamodt, 2006),

when regional colleges increased tremendously, giving access across Norway's far-flung regions and serving the goals of teaching, research, and development (Marlow-Ferguson, 2002). Such evolution occurred in the setting of a generally close and stable tie between higher education and the state while Norway developed and democratized (Aamodt, 2006).

As for other European countries, the 1960s were a relatively turbulent period. Midgaard (1982) describes the huge expansion of the higher education sector in Norway during the 1960s, which was caused by two factors that also expanded higher education in many other countries at the same time: rising aspirations and demographics. More young people sought higher education, and the post-WW II-age cohort was large. In Norway, university enrollment from 1955 to 1960 increased 70 percent, doubled in the next five years, then doubled again from 1965 to 1975. Midgaard (1982) also noted the power of public referendum in Norway regarding the European Union, exemplified in the late 1960s and early 1970s, when two governments were voted out due to the weight of public opinion falling in opposition to these governments' negotiated agreement to join the European Economic Community.

The power of central state authorities to set the framework for the system of higher education was established from the founding of the University of Oslo (Midgaard, 1982). There has also existed a simultaneous understanding that universities must be given proper autonomy in order to do what they do best. In the education bureaucracy, confidence was high that university leaders could deal with the events of the 1960s at their institutional levels. As a result, individual institutions greatly influenced higher education legislative reforms (Midgaard, 1982).

The reforms in Norway relating to students gave students a higher degree of representation in the governance system (Midgaard, 1982). This must be understood, however, in the historical context of Norway: Students have always been represented even at the highest levels of institutional governance. Norwegian students have benefited from student unions managing their interests, such as housing and cafeterias, since the 1920s. The student unions managed the massive growth in demand for their services as the baby boomers came to college. In the case of Norway, it may have been positive past experience with student leadership, rather than fear of student violence, that led to the reforms. Institutions, confident of the historically responsible and capable qualities of student leadership, did not balk at increasing student representation. Scholars also point to the tradition of reform in Norwegian higher education that defused the need for serious student violence (Midgaard, 1982).

The evolution toward the modern mass university appears quite steady, however, when viewed over the wide reach of Norway's history. Higher education policy was not the product of a fight between political parties but of broad consensus, which brought forth evolving, shared norms, closely tied in to the needs of the welfare state and the labor market (Bleikle, 2000). Though some periods (1975–1985 and 2006) of a slight oversupply of graduates arose, mainly in nonscientific/technical disciplines, Norway usually experiences in current times a good balance for labor needs. Almost 90 percent of graduates are employed six months after graduating, probably because salaries are not widely differentiated in Norway, similar to Sweden (Aamodt, 2006). Enrollments reported in 2002 were 185,320 students in higher education, with an enrollment rate of 62 percent (Marlow-Ferguson, 2002).

The Norwegian higher education system consisted (as of 2002) of four universities that offered undergraduate and graduate programs. The system also included 26 state colleges, which are smaller than the universities that offered shorter, more specialized programs. Approximately 35 percent of 19-year-olds entered college or university immediately after secondary education. The university degrees traditionally offered were a first degree, which required four or five years of study, then a higher degree, which required three or more years of study. Formal doctoral programs became available in the 1970s, similar in structure to the internationally recognized United States' programs (Marlow-Ferguson, 2002).

Students in Norwegian higher education often delayed their studies for a series of reasons (compulsory military service, work experience, or paid employment), resulting in about 50 percent of Norwegian students in higher education being over the age of 25 (Marlow-Ferguson, 2002). Similar to Finland, Norway offered a wide variety of non-formal or adult education courses, including employment training offered by the Ministry of Labor and Local Affairs (Marlow-Ferguson, 2002).

The Norwegian system of higher education was for the most part state-owned as of 2002, with faculty as civil servants, and Parliament in control of creating any new chairs. The budgets of HEIs were completely under government control. Norway spent 1 percent of GNP on higher education in 1990 and 5.8 percent of GNP on all education in the same year. Even in the context of government ownership and overall budgetary control, individual institutions had a high degree of autonomy. They also had a high degree of influence in their regions (Marlow-Ferguson, 2002).

HEIs performed approximately one fourth of total research and development as of 2002, most of the academic research being basic research conducted in the universities. Recent years have seen growth in applied research and development at the regional colleges. Research funding is primarily provided from the university budgets but also includes some public and private contracts (Marlow-Ferguson, 2002).

Norway supports a strong role for the state, or a Hobbes-type social contract, typical of Nordic welfare states. The state is viewed as protective of academic freedom. Higher education institutions like being part of the state. Evidence of such is the response to a 2006 proposal to make higher education institutions independent of the state while continuing state funding unabated. The proposal was rejected by most institutions of higher education (Aamodt, 2006).

Enduring purposes of higher education have received constant support. These include educating professionals, preserving knowledge, conducting research, and providing extension services. On top of these enduring purposes has been added a “corporate organizational ideal” (Bleiklie et al., 2000, p. 28). This began in the 1980s, which was an era of tighter budgets and the influx of managerialist policies, as reflected in administrative ideology and organization. In the end, things did not change much in higher education in Norway. Managerialism increased standardization and formalization, allowing outsiders more information with which to evaluate higher education, but also higher education actors have become more pragmatic by realizing that the new measures are just as vulnerable to politics and context as the old (Bleiklie et al., 2000).

In 2001, a “Quality Reform for Higher Education” bill was passed to bring in more market-oriented reforms. Funding was tied more strongly to incentives regarding

enrollment or credits and graduates produced, e.g., 25 percent of the budget was conditioned on how many students completed exams (Aamodt, 2006). Reforms were not the result of political efforts alone, but were influenced by changing demographics, social structures, and political institutions (Bleiklie et al., 2000).

The Norwegian public recognized that the system of education came close to offering all systems high-quality education and that the system was always working to improve outcomes. Norwegians looked to future reforms to educate all their citizens to compete in a global knowledge economy (Marlow-Ferguson, 2002).

As for its international orientation, Norway is not a member of the European Union (European Union, 2008b); hence, it acts as an adjunct or observer rather than a member in the Lisbon Process. Norway was selected for the current study based on exactly this feature.

Sweden

Public education was originally used in Sweden to train priests, who performed a wide range of services, including agricultural, to the rural countryside (Svensson, 1987). In more recent history, the welfare state, with its Hobbes-type social contract, dominated. The power of the state was especially centralized during the Great Power period of Gustavus Adolphus (Svensson, 1987). The welfare state, with its guarantees of free education and health care, was established in Sweden in the 1940s (Marlow-Ferguson, 2002). Sweden's history of state governance of education, including appointment of faculty directly by the government, runs exactly counter to the Anglo-Saxon tradition of legal autonomy for higher education (Bauer et al., 1999).

State control of universities never overreached its usefulness, however; university tradition determined institutional policies. Professors truly saw themselves as public servants, along the lines of the tradition of the honorable civil service, taken from the University of Berlin (Svensson, 1987). Civil servants graduating from autonomous universities formed a bourgeois class that initially balanced the power of its meritocracy against the power of the nobility. Modern civil servants balanced power in a mediating manner by being educated to give impartial service to the state. At the same time, they protected the market from state intervention and the state from corporate collusion (Svensson, 1987). Modernism, with its value-neutral rationalism and scientism, fostered a new breed of civil servant: the technocrat-engineer needed to master national resources (Svensson, 1987).

Ruin (1982) traced how reforms in the 1960s in Sweden fell along two parallel lines: increased government control and increased internal control. Before 1968, the control of the Swedish government in higher education was already extensive, and full professors shared their internal authority with other stakeholders, but these two trends intensified after 1968. The greatest influence of government was through funding, mainly because all but one university were public entities. The legislature allocated resources to them accompanied by detailed regulations (Ruin, 1982).

Similar to in Norway, the student population in Sweden more than tripled between 1960 and 1970 (Ruin, 1982). Demand for higher education was exacerbated by the requirement that, outside some specialized institutions, most departments in the universities admitted all qualified applicants. Two problems arose: how universities might address the increasing costs of expansion; and how the labor market might absorb

the flood of graduates. Faculty salaries were determined by negotiation between the government and two powerful trade unions. Swedish professors, unlike their colleagues in Norway and Finland, were not influential in national politics because Swedish universities tended not to actively assert national culture in the face of dominant neighboring countries, as was more common in Norway and Finland (Ruin, 1982).

Also as in Norway, Swedish students formed student unions, which built and administered student housing, health care, cafeterias, and other service centers (Ruin, 1982). They enjoyed independence from university control—even existing rules on student behavior were not applied. All students were required to join a student union. The government formed an informal political alliance with student leaders during the events of the 1960s and 1970s, which intensified the Swedish tradition of cooperation between government and student leaders, including during turbulent times (Ruin, 1982).

Sweden also had a tradition before 1968 to involve student representatives in decisions, even down to the departmental level (Ruin, 1982), because “Swedish educational authorities have traditionally felt a sense of closeness to the students” (p. 341). Authorities have had a practice of valuing student representation in university governance as a proxy for representation of Swedish society in university decisions. Although student unrest in Sweden in 1968 was small and mild compared to that in other countries, Swedish authorities reacted rapidly and effectively with a view to calming a potentially volatile situation, given the prior example of French student violence. The reforms of the 1970s increased the proportion of student representatives, including at the departmental level (Ruin, 1982).

Sweden has moved from social corporatism to pluralism in recent years (Bauer et al., 1999). Sweden was a strong example of social corporatism, whereby the welfare state maintained universal social services, full employment, and a basic floor on the standard of living. Bauer et al. (1999) reports that the shift toward pluralism and a more mixed economy still occurred in the context of a welfare state, based in a broad social consensus with active support by key economic actors.

Swedish higher education “is meeting increasing demands and is going through a major shift in the relationship between the State and the higher education institutions” (Bauer et al., 1999, p. 249). During economic recessions in the late 1980s and in the 1990s, higher education was reorganized (Marlow-Ferguson, 2002). A massive decentralization abolished the national board of universities and colleges and gave HEIs more autonomy, including the power to appoint staff, although authority to mandate the number of faculty positions remained with the Ministry of Education and Science. Since 1993, funding of higher education became results-oriented, requiring colleges and universities to meet criteria for credit points earned and full-time students enrolled. Vocational education was also reformed in the 1990s, increasing its rigor (with a well-regarded, three-year, full-time program) and relevance to jobs in Swedish industry. Adult education became a sophisticated system in the 1990s, including basic education and job training. Distance learning components have been an important addition to the national education system with a view to reaching distant rural regions.

Such decentralization and other reforms were also the product of the influence of public management ideas influencing the industrialized countries (Bauer et al., 1999).

Additional impetus came from the weakness of the Swedish economy. Any improvement of economic competitive advantage spurred by higher education was welcome.

The 1990s marked the advent of the knowledge society. The new era required a higher education system that educated students to learn, rather than a centralized plan with a focused industrial policy guiding training for certain jobs. A key finance reform was the shift from input-based to performance-based budgets. Swedish academics themselves have changed their values since 1977, away from social values and equality to concern about disciplinary quality and acceptance of market values (Bauer et al., 1999).

However, as of 2002 the Swedish higher education system continued to follow its traditional philosophy of equal opportunity for all students (Marlow-Ferguson, 2002).

The fundamental right to education, coupled with the general expectation of state subsidy as far as was in its power, was based on the idea that state support of education reduces crime and increases economic and social benefits. Sweden spent proportionally far more than most countries on total education, amounting to 8.3 percent of GNP in 2001.

Undergraduate enrollments as of 1997 were 300,400 students. Thirty percent of secondary-school graduates attended higher education within five years of graduation as of 1997. The 1990s reforms led to a 50 percent increase in enrollments in under a decade.

Sweden has been a member of the European Union since 1995 (European Union, 2008b) and took the presidency of the EU in 2009. Sweden is an active participant in the Lisbon Process of the European Union, the mutual goal of which is to improve the European economies via cooperation.

Conclusions Regarding Choice of Country Cases

Since three Nordic welfare states were chosen for the current study, it is useful to examine the nature and origins of commonalities among them. Similarities shared among the Nordic countries stemmed in part from their histories of consensus. Lindal (1981) followed the history of Nordic democracy back to the time of the Vikings. The power of the Viking chiefs was delimited by public opinion in the form of the local assembly of warriors. The power of the local assembly shifted in form to majority rule in the codification of law in the twelfth century, still under the delimited authority of the king. If a king went beyond his legal authority, his subjects had the right to rebel against him, and at times they did. Such democratic norms persist, albeit in different forms, in these egalitarian welfare states today.

Regional characteristics may have also played into their joint approaches to research and higher education. Wendt (1981) described the high degree of close cooperation among the five Nordic democracies in a great number of fields of endeavor, more so than any other set of neighboring nation-states. According to Wendt (1981), cooperation was the key characteristic of the very existence of the Nordic peoples. These small countries with limited intellectual and financial resources benefited from cooperation in the area of research and higher education. Often, the number of doctoral students in each country was small. Therefore, these countries found it effective to pool together professors and students by either forming giant institutions or dividing labor between separate research centers.

A third Nordic characteristic was high levels of social capital. Coleman (1988) defined social capital as, in essence, trust. Trust is productive because it makes economic

activity possible. Coleman gave the example of a diamond dealer in New York City who commonly handed over stones for inspection off his premises without insurance.

Coleman explained this trust based on the ethnic, religious, and family ties of the Jewish community of diamond dealers in New York City. Neira, et al. (2009) performed an empirical study on 14 OECD countries, concluding that countries with high levels of social capital also have higher economic growth rates. The authors reviewed the literature on human social capital and economic development. Similar to Coleman, they defined social capital as “an agglomeration of corporate, psychological, cultural, and institutional assets. . . [that] increase the amount (or the probability) of mutually beneficial or cooperative behavior for the people involved and for society in general” (p. 115), in essence, trust, which they measured in terms of responses to a widely recognized survey instrument called the World Values Survey. The highest social capital countries included Finland, Norway, and Sweden. Fifty-five to 70 percent of respondents in these three countries said that people can be trusted—high percentages compared to the other OECD countries studied, which scored as low as 12 percent for trust.

Again the three Nordic social welfare states were chosen as country cases for this study because they all participate in the Bologna Process adopting the Hobbes-style social contract: Finland (an EU member); Sweden (an EU member); and Norway (affiliated via membership in the European Economic Area [EEA], which is a trading alliance also known as the European Single Market). Norway is not an EU member, hence Norway is less dependent on EU funding than the other two country cases. Also, due to its considerable oil wealth, Norway is also less vulnerable to economic factors constraining public funding.

Finland and Sweden, as EU members, are tied to commitments made by their prime ministers in the Lisbon Accords. Great success in measuring progress toward stronger academia-industry linkages has been made by the European Research Area (ERA) efforts of the European Commission (EC), which is the administrative body of the European Economic and Monetary Union (EU). Movement toward an ERA is driven mainly in the European Union policy context of the Lisbon Accords of March 2000, which were signed by the European Union Heads of State and Government. The Lisbon Accords specify policy directions (including higher education research) to promote the global competitiveness of the European economy.

The ERA is also supported by the European University Association (EUA), whose members are the driving force behind the Bologna Process (www.eua.be, 2007). The EUA supports efforts in both the Lisbon and Bologna Processes in order to realize a European knowledge society. In moving toward an ERA, HEIs are following the lead of the European Union Lisbon Accords to push for increased funding of research, both in academe and the private sector. The European University Association and the European Union formed a strategic alliance to fight for an increased share of the European Commission budget to go to research. This effort ties into the Bologna Process, in which HEIs pressure their education ministries to increase allocations to higher education (as promised in the Lisbon Accords of the EU and in the Berlin Communiqué of the Bologna Process)(www.eua.be, 2007). Because Norway is not signatory to the Lisbon Accords, its education ministers and HEIs are freer in the Bologna Process than are Finnish and Swedish HEIs. Thus, because they did not sign the Lisbon Accords, Norwegians can

increase their public funding of academic research more according to national priorities rather than according to EU guidelines.

Data and Analysis

High quality data on each indicator were retrieved from online sources. These sources included europa (European Union), Eurydice (European Union), ERA-WATCH (European Commission), and eurostudent (European Union) sites. Data were in two forms: policy documents for content analysis and economic trends data for trend analysis.

The first step of analysis regarding the first research question was to determine the social contract of the Bologna Process regarding academic research. Member countries, including the three Nordic countries in the current study, agreed to the multilateral policy statements generated during the Bologna Process. The question here was how to classify the multilateral Bologna Process statements (listed in Appendix A) in terms of a social contract regarding academic research as Hobbes-, Locke-, or Smith-type (Neave, 2006). Themes, terms, and discussion points were categorized as promoting Smith, Locke, or Hobbes social contract. Tallies of terms were totaled to compare frequency of use. The Bologna Process social contract regarding academic research was determined by weighing the full content of the multilateral policy statements in order to determine their general direction.

After studying supranational social contract in the Bologna Process, the first research question next required content analysis in the data-classification phase regarding the national level of social contracts for each of the three countries studied. Content analysis was employed to classify available written public records in the policy decision-making process regarding academic research funding by the state (see Appendix B for

lists of documents by country), again country by country. The term *social contract* was never used explicitly in any policy statements; however, related terms described either market-oriented (i.e., *market, economic, competition*) or government-oriented (i.e., *government, social*) policies. Neave's (2006) definition of social contract as the relative roles of government, academe, and industry in higher education allowed for the study of policy statements regarding such roles as a study of social contract. The terms were classified by the type of social contract they implied: Smith (market-oriented), Hobbes (government-oriented), or Locke (a mixture of market- and government-oriented policies) (Neave, 2006). For example, a social contract per Adam Smith gives free rein to market mechanisms in the allocation of research funding. A Hobbes-type social contract entrusts the allocation of research funding to government entities.

There are indications in the literature that examination of supranational and national policy statements regarding academic research can reveal implicit expressions of social contract concerning academic research, fitting into Neave's three types (2006). For example, the literature on current trends in academic research policy describes a mounting emphasis on the need for research with increasingly strong linkages between stakeholders in academe and industry (Jacob & Hellstrom, 2000; Tadmor, 2006). This is an implicit, general description of a Smith-type, market-oriented social contract in academic research. Such discourse centers on the social roles played by academe and industry as stakeholders in academic research. Even if the literature does not refer explicitly to social contract, if the relative roles of academe and industry are discussed, the type of social contract reflected by their roles can be inferred.

The next step of analysis was to work with the data to quantify the research finance policy factor. Content analysis was performed on the abstracts of research projects funded by the national governments (see Appendix C for lists of projects). These abstracts were submitted by national ministries to a central online database maintained by the European Commission in support of the European Research Area (ERA-WATCH), from which data for this study were extracted. The abstracts were analyzed for content in order to categorize them as linked to the goal of national economic development (Smith-type social contract), linked to government development of social welfare (Hobbes-type social contract), or linked to a mixture of economic and social development goals (Locke-type social contract).

Estimates were then made of the percentage of the total funding for these classifications. This analysis was extended across a time period beginning in 1997 (to include years prior to the 1999 start of the Bologna Process in order to determine pre-Bologna levels) and through the most recent year of available data (2005) for each country. Because content analysis of the Bologna Process documents revealed extensive promotion of increased government funding to academic research, countries with high and increasing percentages of government funding of academic research were considered to be moving with the Bologna Process, and perhaps in response to the Bologna Process.

Answering the second research question involved focusing on country-by-country analyses of student support policies spanning the Bologna Process years. Beginning from the premises of Johnstone's (1986) seminal work cited in chapter 2, the three cases were profiled using national data, including European Union statistical reports on student support policies in each country. Country data on Finland and Norway were interpreted to

see if Johnstone's assumptions about Scandinavian countries held true in ways similar to his analysis of Sweden. If all three countries evidenced a view of the student as independent from parents, along with high state funding of students' net costs, the three country cases would constitute positive results for the second research question.

OECD member governments and HEIs, in response to increasingly limited budgets, have considered previously unplumbed funding sources, such as student cost-sharing via higher tuition fees (Johnstone et al., 2006). If the three countries in the current study do not show evidence of movement in this direction, they would be going against the trend in other mature Western economies, which would call for explanation. Positive results for both research questions would indicate that the influence of supranational social contract on national social contract was operating in more than one function of higher education and hence might be a broad influence. Positive results for only one research question would indicate that the supranational social contract had limited influence. Negative results for both research questions would suggest that supranational social contract had minimal influence on national social contracts and funding policies.

Chapter Four

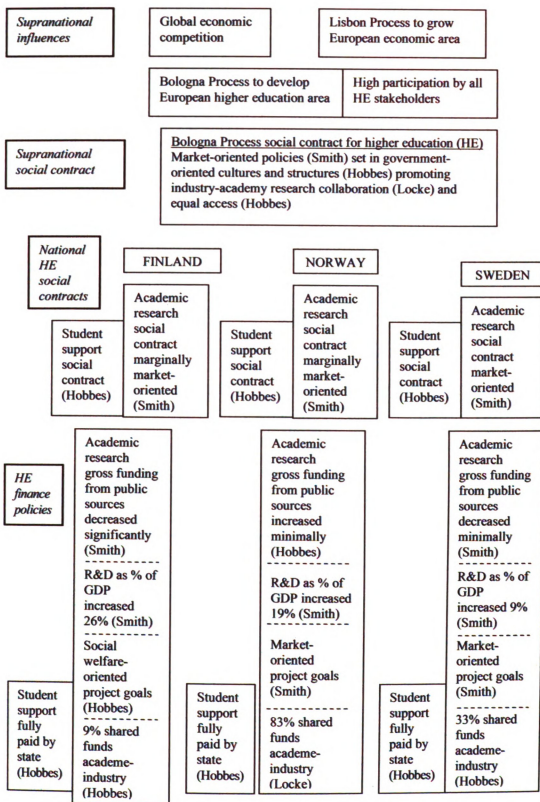
Results

Results of this study are detailed in this section regarding the types of social contract that were indicated from content analysis of key documents from the Bologna Process. Policy trends were analyzed at the supranational level and at the national level (for Finland, Sweden, and Norway), both for academic research funding policies and for student support policies, to determine national orientations pre-Bologna, as well as any movement in national social contracts in these two areas during the Bologna Process. Figure 3 diagrams a summary of the process by which the results were determined. The study began with the details of each social contract as essentially a black box. The process of several stages of content analysis defined the contents of each black box.

An analysis of Bologna Process documents was the starting point for content analysis. The key policy documents produced by the Bologna Process were: the Sorbonne Declaration (1998); the Bologna Declaration (1999); the Prague Communiqué (2001); the Berlin Communiqué (2003); and the Bergen Communiqué (2005). In this ongoing, intergovernmental process, which added signatories over time, the ministers of education of Finland, Sweden, and Norway joined in 1999 with the Bologna Declaration. These documents were chosen for analysis because they state the purposes and policies of a group of ministries of education, including those of the three country cases chosen for this study, regarding how they will cooperate to strengthen higher education across Europe. Because the Bologna Process documents state the joint purposes and policies that the signatory countries adopted for higher education, they were a promising source for data on the Bologna Process's supranational social contract in higher education.

Figure 3

Supranational Influences, Social Contracts, and Policies



Bologna Process Social Contract

Content analysis of six key Bologna Process policy statements consisted of in-depth review and comparison of documents (Appendix A) for a variety of social contract concepts and language. Themes and terms were categorized as promoting one of the following: a Smith-type (market-oriented), a Locke-type (mixed), or a Hobbes-type (government-oriented) social contract.

The current study found that the most salient theme of the Bologna Process documents was the need for Europe to develop a European Higher Education Area in order to compete globally in quality, most prominently with the United States' higher education system. Key points of discussion along these lines included: making degrees easily comparable across Europe; basing country systems on three cycles (bachelor, master's, doctorate); setting up a system whereby credits transfer easily; increasing mobility of students and faculty across European borders; cooperating across Europe in quality assurance; and retaining aspects of study in Europe that make it unique in the world.

Frequencies of use of terms in the Bologna Process statements were compared. The most commonly used terms reflecting a Smith-type market-orientation (toward economic development) were: *economic* and *competitive*, with frequencies of 11 and 13 respectively. These terms described a theme of the need to compete in a global economy. Terms for strategies to fulfill the Bologna Process market orientation (with their frequencies) were: *mobility* (19), *quality assurance* (20), *qualifications* (16), and *recognition* (of degrees) (16). The most common terms reflecting a Hobbes-type government-oriented social development orientation (with their frequencies) were:

government-based growth or development (8), *social growth or development* (9), and *social cohesion, social dimension*, and other terms beginning with *social* (14). The term *government* reflected the central role of government in higher education in Europe. The term *social* was used in policy statements to refer to various social factors, such as the unique cultural qualities of study in Europe. Other terms related to social contract had much lower frequencies, such as: *market-based* (1), *tradition* (4), and *values* (6).

Content analysis was not limited to drawing conclusions merely based on frequency of terms. Terms were also studied in their usage within the context of the Bologna Process documents. The overall structure of the discourse was an enthusiastic promotion of market forces carefully enclosed within a mandate to protect and promote social and cultural dimensions of European life. Within the market-oriented discourse flowed an array of strategies intended to fulfill the call for greater market orientation. These strategies included increasing the mobility of students and employees across national boundaries, improving the international recognition of degrees and qualifications, improving quality assurance schemes, and promoting industry-academy research collaboration in higher education. Strategies for social cohesion centered on ensuring equal access to higher education. The policy documents also noted the importance of participation in the Bologna Process by all stakeholders in higher education, including student unions.

From this content analysis, the study concluded that the Bologna Process was intended to move higher education in Europe in a market-oriented direction (or closer to a Smith-type social contract). Such movement proceeded, however, from an enduring

foundation in a Hobbes-type social contract. This foundation recognized the role of government in protecting social cohesion via higher education.

The next step of content analysis was to judge the central themes and the balance of terms relating to the first research question, the academic research dynamic in the Bologna Process. Market-oriented terms tied to academic research policy in the Bologna process were slightly more frequent than government-oriented terms (10 Smith to 7 Hobbes). Similar to the overall tenor of the Bologna Process documents, the discourse relating to the research function of higher education pointed directly to the need for Europe to compete globally in higher education via initiatives like increasing joint research between public higher education and the private sector, but the Bologna Process set that imperative squarely within the need to protect and further social considerations like equal access.

Themes and terms relating to the second research question, the student support dynamic in the Bologna Process, were analyzed as follows. First, any mention of access policy was noted. As of 2007, Bologna Process countries were required to report on the social dimension (or how they are ensuring equal access to higher education regardless of financial status). This overall policy goal amounts to a Hobbes-type (government- and social welfare-oriented) social contract. Second, the Bologna Process policy statements were searched for any mention of student financial support policy. There was none. This meant that the Bologna Process, as an intergovernmental process, left the conduct of student financial support policy up to nations, as long as each nation was committed to equal access to higher education.

Three Country Cases: Academic Research Dynamic

During the process of conducting content analysis on 13 national policy documents from the European Commission ERA-WATCH data site (see list of documents in Appendix B), it became clear that the policy contents of each document were shaped by the orientation of its authors. The 13 documents on national policy responses to the Bologna Process included five documents written as national responses to the Lisbon Accord process in the European Union. This subset of policy documents were originally submitted to the European Union to report national progress on economic development goals agreed to in Lisbon. They were included in the ERA website due to their relevance to the creation of the European Research Area, which involves academic research. The Lisbon documents were also relevant to this study because the Bologna discussion between ministries of education, as a response to global competition in higher education, is nested in the Lisbon economic policy discussion. The Lisbon Process, also a response to global economic competition, is led by prime ministers, ministries of finance or trade, and business groups. Accordingly, the Lisbon documents were tallied separately to account for potential bias of its authors, who are more connected to business interests.

Results of the analysis of Lisbon-related documents were:

Finland: 33 Smith (high-frequency terms were *market, economic development, competition, innovation, technological, mobility, competence, skills, knowledge*) to 13 Hobbes (*government, social*).

Norway: 46 Smith (*market, economic development, competition, innovation, technology, competence*) to 13 Hobbes (*government, social, quality, public*).

From this analysis, it is clear that the Lisbon Process engenders a strong market orientation in policies regarding academic research, even for nonsignatory countries like Norway.

Sweden: 59 Smith (*market, economic growth, competition, innovative, quality, skills*) to 13 Hobbes (*government, social*).

Eight remaining Bologna Process policy documents (outside the Lisbon Process) had the following results:

Finland: 9 Smith to 9 Hobbes

Norway: 27 Smith to 31 Hobbes

Sweden: 75 Smith to 24 Hobbes

According to this analysis of Bologna Process documents outside the Lisbon Process, national policies regarding academic research in the three country cases analyzed were tied to a degree to key differences in how each country related to the Lisbon Process in the European Union. Norway is an observer, not a signatory, to the Lisbon Accords. Norway's documentation of progress in enhancing academic research with a view to foster a globally competitive European economy was piecemeal and muted, compared to the other countries' in-depth and enthusiastic reports. Because Norway's Lisbon-related statements promise more robust market-oriented policies in the future, Norway's social contract regarding academic research was classified in this study to be marginally Smith-type. Sweden, a signatory to the Lisbon Accords, was far out in front of the other two countries in its national commitment to research for global competitiveness, clearly a Smith-type social contract. Finland, also a signatory to the Lisbon Accords, balanced its enthusiastic national discussions of enhancing research for

competitiveness with discussions of its social ramifications. Finnish higher education policies are made in the context of the erosion of local communities in the wake of growing pluralism in Finnish society (Finnish Ministry of Education, 2004). As a result, Finnish policies to improve academic research recognize the need to benefit all social sectors and all regions of Finnish society. For this study, Finland was determined to tip at least marginally in favor of a Smith (or market-oriented) social contract for academic research due to its enthusiastic participation in the Lisbon Process, which generates strong research policy statements and detailed strategies for their implementation.

These subtler aspects of the Finland case raised a distinction within the concept of national social contract--that being the distinction between national policy orientation and the roles expected of stakeholders. The definition of social contract used in the current study included the expected roles of stakeholders in higher education. Further study of national policy statements showed that, for Finland, government entities are the main participants intended to carry out the more market-oriented policies regarding academic research. This finding would be classified as a Hobbes-type result for stakeholder participation, but as a Smith-type result for policy orientation. This more nuanced application of the concept of social contract, to include expected participation by stakeholders, was adopted for the current study. Along these lines, the same national policy documents were studied to find that participation in academic research is expected to be a mix of government and industry (a Locke-type mix) in Norway. Participation in academic research is expected to be primarily by government entities in Sweden, which is a Hobbes-type result.

Key research projects posted on the ERA-WATCH site (see lists of key projects in Appendix C) were analyzed, using content analysis. Project funding amounts were classified in terms of which social contract was reflected in first, project goals and second, who received the funds. The results for project goals were:

Finland: 51% Hobbes, 41% Locke, 8% Smith

Norway: 57% Smith, 29% Locke, 14% Hobbes

Sweden: 72% Smith, 25% Hobbes, 3% Locke

For some key projects, universities shared funding with private entities. For the purposes of this study, shared funding, or partnering government with business on research projects, was classified as a Locke-type result, where government and business work together. Sweden shared project funding between public and private entities to a higher degree (33 percent of key project funding was shared) than Finland (9 percent was shared). Norway shared 83 percent, a clearly Locke-type result. A rough benchmark of 50 percent or more shared funding determined the Locke-type classification. This benchmark placed Finland and Sweden in the Hobbes-type category.

Results for all three countries aggregated were: Research project goals in terms of which social contracts are reflected in project goals: 885 million euros reflected Smith-type, market-oriented goals; 308 million euros reflected Hobbes-type, social welfare goals; 452 million euros reflected a Locke-type mix of the other two. Recipients of project funds by type of social contract were: 0 Smith, 528 Hobbes, 1,092 Locke. (Note: It is expected that no private entities [Smith-type] without public partners [Locke-type] would receive funding intended for higher education institutions.) Hence, in aggregate, the goals of research projects were in a Smith-type (or market) orientation. Funding in

aggregate flowed mainly toward a Locke-type mix of public- and private-sector recipients. The analysis of the Bologna Process documents evidenced that its signatories agreed to fund more research projects oriented toward market-based needs. They also agreed to fund more joint industry-academy projects. When data for the three country cases are aggregated, therefore, the three Nordic countries, if taken as a bloc, appear to be exactly aligned with Bologna Process priorities for academic research.

The third variable in this conceptualization of the dynamics of the social contract regarding academic research was the percent of academic research funded by the government. I used three approaches to explore this dynamic. The aim of this study was to analyze how much of government research and development (R & D) funds went to the higher education sector alone. The data were not aggregated in that manner. Instead, the analysis began with trend data on the percent of government spending on R & D to all recipients, including higher education, the business sector, the government sector, and the private nonprofit sector. The trends for government funding of R & D during the Bologna Process period were (per Table 3, and summarized in Figure 3):

Finland: A decreasing trend, even before the Bologna Process, totaled a 22 percent decrease in government funding over the ten years studied. This is a significant decrease. This reduction of the role of government is a Smith-type result.

Norway: An initial decrease, then an increasing trend after 2001, totaled an increase of 7 percent in government funding over the decade studied (a Hobbes-type result). Such a small increase is not significant, however, over ten years.

Sweden: Increases alternated with decreases, ending in a decrease. The result over ten years was an overall decrease of 10 percent in government funding (a Smith-type result). This does not amount to a significant overall decrease.

Table 3

Gross Domestic Expenditure on R & D by Source of Funds, Percent Financed by Government

Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Finland	30.9	30	29.2	26.2	25.5	26.1	25.7	26.3	25.7	25.1	24.1
Norway	42.9	N/A	42.5	N/A	39.8	N/A	41.9	N/A	44	N/A	45.9
Sweden	25.8	N/A	26.1	N/A	22.3	N/A	24.3	N/A	23.2	N/A	N/A

Source: European Commission (2009). Gross domestic expenditure on R & D (GERD) by source of funds.

Eurostat. Retrieved 2/26/2009 from <http://epp.eurostat.ec.europa.eu/portal>

These national trends in government support for R & D show that, with the exception of Norway, the trend is toward a decreased role for government, which is a Smith-type trend. Norway shows an increased role for government, which is a Hobbes-type trend.

It is important for the purposes of this study to analyze how much funding went to the higher education sector alone. Unfortunately, for this set of R & D funding data, recipients were aggregated, such that government funding to higher education could not be isolated from other recipients of government funding for R & D. Data for R & D funding from all sources to the higher education sector alone are presented in Table 4.

Table 4

R & D Expenditure by Sectors of Performance, as Percent of GDP, Higher Education Only

Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Finland	0.54	0.56	0.62	0.6	0.6	0.64	0.66	0.68	0.66	0.65	0.65
Norway	0.43	N/A	0.47	N/A	0.41	0.44	0.47	0.47	0.47	0.46	0.51
Sweden	0.75	N/A	0.8	N/A	0.82	N/A	0.84	0.83	0.79	0.77	0.77

Source: European Commission (2009). Research and development expenditure, by sectors of performance.

Eurostat. Retrieved 2/26/2009 from <http://epp.eurostat.ec.europa.eu/portal>

Results for aggregated funding from all funding sources to the higher education sector alone (as shown in Table 4) were:

Finland: Moderate increasing trend since before the Bologna Process.

Norway: Slight increase at outset of Bologna Process, then decreases, which were erased by a return to previous levels that held steady, with a final increase in 2007.

Sweden: Increasing trend from outset of Bologna Process, with slightly decreasing trend beginning in 2005.

In general, the three countries maintained or increased the portion of R & D spending going to the higher education sector. Therefore, it is reasonable to assume that changes in R & D funding by governments (Table 3) went at least proportionately to the higher education sector.

Because Finland and Sweden were members of the European Union and signatories to the Lisbon Accords, which stipulated that 3 percent of GDP go toward R & D, it was informative to analyze UNESCO time series data from 1997 to 2006 on gross

domestic expenditure on R & D as a percent of GDP. Results (summarized in Table 5) were:

Finland: The trend line shows a marginal increase over time, totaling a 26 percent increase over ten years.

Table 5

Gross Domestic Expenditure on R & D (% of GDP)

Country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Finland	2.7	2.9	3.2	3.3	3.3	3.4	3.4	3.4	3.5	3.4
Norway	1.6	N/A	1.6	N/A	1.6	1.7	1.7	1.6	1.5	1.5
Sweden	3.5	N/A	3.6	N/A	4.3	N/A	3.9	3.7	3.9	3.8

Source: UNESCO (2009). Expenditure on R & D as a % of GDP. Retrieved on 2/25/2009 from <http://stats.uis.unesco.org/unesco>

Norway: The trend line increased until 2003, then decreased. Over the ten years studied, gross R & D spending as a percent of GDP increased by 19 percent.

Sweden: The trend was an increase over the period with a spike in 2001. The overall result was a 9 percent increase over ten years.

Despite the fact that Norway is not a signatory to the Lisbon Accord, which mandates R & D funding at higher levels, Norwegian officials are still highly apologetic about not meeting the Lisbon goal of 3 percent of GDP. The national political will is determined, according to the government, to heighten R & D funding. This is expected to be accomplished partly through funding increases from the business sector (Norwegian Ministry of Trade and Industry, 2007). Oil is not a renewable resource in the long term, making it imperative for Norway to address global competition in a knowledge economy

sooner rather than later. The Norwegian government (Norwegian Ministry of Trade and Industry, 2007) also explained their decreased funding to R & D as mainly the result of substantial jumps in overall GDP due to oil price increases. Absolute amounts of R & D funding from government increased for Norway since 2003 (see Table 3), but growth in Norway's GDP reduced their percentages of GDP. The Norwegian government (Norwegian Ministry of Trade and Industry, 2007) stated its commitment to reach the Lisbon target of 3 percent of GDP by 2010, including annual budget reviews of this target. The government admits (Norwegian Ministry of Trade and Industry, 2007) that Norway is currently below the EU average for the percent of GDP devoted to fund R & D. Norway's progress toward this target over the past decade has been particularly challenged by the structure of its economy, which is dominated by industries that typically do not invest substantially in R & D.

Finland reached the Lisbon Accord mark of 3 percent of GDP in 1999, which is a reasonable explanation of why the trend line shows slow marginal growth. The Finnish Ministry of Education (2004) reported that efforts to bring R & D funding to the top levels globally succeeded in the late 1990s, with the majority of funds coming from the private sector. Further increases are harder to make, chiefly because entrepreneurship drives the next level of innovation, and private venture capital for R & D is scant in Finland (Science and Technology Policy Council, 2006). The council (2006) also reports that because Finland has among the lowest levels of external funding for R & D in the OECD, attracting funds from other countries is a key way to achieve more funding increases in the future.

Sweden reached its Lisbon 3 percent mark in 1997, which may be one reason why increases have not been forthcoming since 2001, when it topped the OECD in R & D spending as percent of GDP (Swedish Ministry of Industry, Employment, and Communications, 2004). The current, so-called “Innovative Sweden” strategy to internationalize the research sector is intended to keep Sweden’s lead as a climate for business investment, technology, and innovation against globalized knowledge competition (Swedish Ministry of Industry, Employment, and Communications, 2004). The combination of well-managed government, healthy social security systems, and a political culture based on consensus has mobilized and steered national resources effectively (Swedish Ministry of Industry, Employment, and Communications, 2004). The public and private sectors have interacted successfully in long-term strategies to develop Swedish industries and advanced technologies (Swedish Ministry of Industry, Employment, and Communications, 2004). From 1994 to 2004 increased foreign investment contributed to R & D investment (Swedish Ministry of Industry, Employment, and Communications, 2004). Current policy is to merge Sweden’s industrial research institutes, which are presently specialized and marginal, in order to focus and extend collaboration between industry and academe (Swedish Ministry of Industry, Employment, and Communications, 2004).

The results of this study of the academic research dynamic are summarized in the following 3-by-3 grid in Table 6:

Table 6

Academic Research Social Contract (SC)

Bologna SC	Country	National SC	Gross R&D funding by source ----- Key projects goals ----- Participants
Purposes: Smith Participation: Locke	Finland	Purposes: Marginally Smith Participation: Hobbes	Significant Smith funding shift ----- Hobbes projects goals ----- Hobbes participants
Purposes: Smith Participation: Locke	Norway	Purposes: Marginally Smith Participation: Locke	Minimal Hobbes funding shift ----- Smith projects goals ----- Locke participants
Purposes: Smith Participation: Locke	Sweden	Purposes: Substantially Smith Participation: Hobbes	Minimal Smith funding shift ----- Smith projects goals ----- Hobbes participants

Three Country Cases: Student Support Dynamic

Bologna Process national reports from each country reported the following progress from 2004 to 2006: Finland continued with no changes: its commitment to equal access for all students (low-income and immigrant groups have lowest participation); its commitment to diversity: its philosophy that parents are not obligated to pay tuition; and its commitment to free tuition for all higher education in the form of grants and loans, which are fully portable. Thirty percent of a student's loan is deducted if the student completes the degree in a specified period. The government also funds 80 percent of housing expenses.

Norway continued with no changes: its commitment to equal access for all students (low-income and those whose parents do not have university education have lowest participation); its philosophy that parents are not obligated to pay tuition; and the

role of student unions in providing student housing, financed with government funds and a mandatory fee from students. Tuition is paid by government grants and loans, based on student or spouse income. A maximum 40 percent of student loans can be converted into a grant. The government keeps its commitment to cooperate with municipalities and student unions to fund student housing.

Sweden continued with no changes: its commitment to equal access for all students (students coming from homes with little study tradition or from some ethnic groups have lowest participation rates; hence, they are the focus of access policies); its commitment to diversity; and its philosophy that parents are not obligated to pay tuition. The support mix is 34 percent grants and 66 percent loans for all students.

This stable government orientation (as in a Hobbes-type social contract) in these three Nordic countries runs counter to recent trends in Europe to add fees and/or increase tuition (European Commission, 2007). The results of this study of the student support dynamic are summarized in the following 3-by-3 grid in Table 7:

Table 7

Student Support Social Contract (SC)

Bologna SC	Country	National SC	Funding Allocation
Access: Hobbes	Finland	Hobbes	Hobbes
Support: no comment		Hobbes	Hobbes
Access: Hobbes	Norway	Hobbes	Hobbes
Support: no comment		Hobbes	Hobbes
Access: Hobbes	Sweden	Hobbes	Hobbes
Support: no comment		Hobbes	Hobbes

Added Step of Analysis

A step of analysis was added after the initial results were reaped because the country case data indicated that substantial national commitments to economic development were in place prior to the Bologna Process. These results suggested a more historical approach to the case analyses. The approach taken was to overlay each country's social contract as adopted during the Bologna Process on top of its historical, traditional social contract. This analysis was done by comparing country results against the description of each country case (at the beginning of chapter 3).

This additional step of analysis revealed that national social contracts were evolving in the direction taken in the Bologna Process significantly before the Process was initiated. All three countries absorbed the managerialism of the 1980s, as well as the emphasis on the knowledge economy of the 1990s. An increasing emphasis on market-orientation, or movement of social contract in a Smith-type direction, was injected into

these welfare states' Hobbes-type government orientations decades prior to the Bologna Declaration. The Bologna Process social contract was a rising market orientation nested in the context of concerns for maintaining social cohesion via continuing emphases on social welfare and social justice. Student-support social contracts, as reflected in access policies, were consistently Hobbes-type for the three countries, which matched the Bologna Process social contract. Where the Bologna Process was silent, as in how to provide access to higher education via student support policies, countries followed their national social contracts. This result indicated a strong role for national social contracts.

For the academic research dynamic, however, funding patterns were only partially consistent with the Bologna Process social contract. Country differences reflected national priorities and traditions, which formed part of their national social contracts. For example, in the case of Finland, the Academy of Finland received funding for all but one key project. The academy is a government body, or a Hobbes-type recipient of research funding, often guided by Hobbes-type project goals. This is not surprising, in that the Academy of Finland is well-respected and more long-established than the other Finnish research agencies. The Academy also performs the important function of doctoral research training in the Finnish system (Science and Technology Council of Finland, 2006).

Such results suggested that national social contracts had more influence on overall funding patterns than did the priorities of the Bologna Process. If the Bologna Process had prevailed in every case, shared research funding between academe and industry would have been more the norm, or higher than 50 percent, in Finland and Sweden. Also, Finland would fund more market-oriented key projects, and Norway would increase

funding from private sources for academic research. Clearly, the Bologna Process national contract did not drive overall funding patterns. Rather, national differences are evident, which may reflect national social contracts. A close look at Table 6 (above) shows that the last two columns (national social contract purposes and participants and goals and participants in key projects, by country) match exactly. Hence, the results of this study suggest strongly that national social contract is a stronger influence on funding patterns than is supranational social contract.

Yet, if the three countries studied were considered as a bloc, their funding patterns matched Bologna Process initiatives exactly, primarily by funding in aggregate mainly Locke-type recipients, as the Bologna Process promoted. This result led to the following considerations. Multinational negotiations require compromise. Such compromises often lead to agreements that protect aggregate interests more than the subtleties of separate national interests. If the Bologna Process were the product of the negotiated national interests of these three countries, such negotiation among national social contracts would likely result in aggregate funding patterns that follow the Bologna Process social contract.

National results indicated that national social contracts existed before the Bologna Declaration, were carried into the Bologna meeting, and drove the evolving Bologna Process, rather than the Bologna Process driving national social contracts. The differences between this conceptualization and the conceptualization assumed by this study prior to its results are diagramed in Figures 4 and 5.

Figure 4

Hypothesized Conceptualization of Academic Research Dynamic of Social Contract

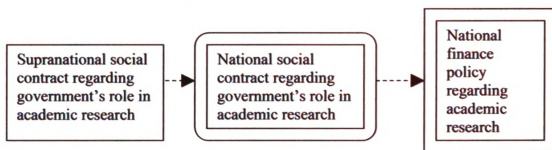
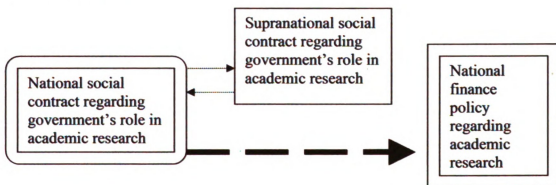


Figure 5

Conceptualization of Academic Research Dynamic of Social Contract after This Study Was Conducted



Nordic Commonalities

In considering these three Nordic countries and the possibility of bloc behavior, it was useful to this study to examine the nature and origins of commonalities among them in chapter 3. Similarities shared among the Nordic countries stemmed in part from their histories of consensus/democracy/egalitarianism, regional intellectual and financial cooperation, and high levels of social capital. Wage differentiation is low across the Nordic countries, due to their strong egalitarianism. Fifty-five to 70 percent of respondents in these three countries said that people can be trusted—high percentages

compared to the other OECD countries studied, which scored as low as 12 percent for trust.

It may be that the high levels of trust in Nordic societies, added to their regional cooperation, facilitate consensus on social contract not only nationally but also across the Nordic region. Regional consensus and cooperation may have been factors in the current study's research result that, if the three countries' funding patterns were aggregated, the results matched the Bologna Process social contract exactly. Perhaps the aggregated result reflects their broad similarities and cloaks their subtle differences.

The Bologna Process as a Bottom-Up, International/Multinational Process

Another consideration in the interpretation of results was the top-down, bottom-up debate discussed in chapter 2. De Wit (2007) gave evidence for classifying the Bologna Process, especially in its formative phase, as a nationally-driven process. His characterization of the Bologna Process as an essentially bottom-up voluntary intergovernmental cooperation increasingly encroached upon by the EU aids in the interpretation of the results of the current study. This study of the Bologna Process found that national social contracts reflected better than supranational social contract the complex patterns of national funding of academic research and student financial support. The primacy of national stances supports the characterization of the Bologna Process as a bottom-up process, driven by its members rather than by the EU bureaucracy. The current study also found that national policies connected with the Lisbon Accord of the EU are distinctly more market oriented than in the Bologna Process. The implications are: If EU influence grows in the Bologna Process, then the Bologna Process can be expected to

become more top-down, and its social contract can be expected to become more market oriented.

Meek and Goedegebuure (2007) also point out the growing supranational influence of the EU in higher education in recent years despite the principle of subsidiarity, or the prime responsibility of member states in higher education as a force exerting external pressure on the Bologna Process to standardize or homogenize European higher education. They look to Neave's (2002) close historical analysis to conclude, "What appears at a superficial level to be the same or similar national response to external pressures, quickly becomes more varied and complex with closer scrutiny. The Bologna Process is a case in point. The Bologna Process, rather than forcing national higher [sic] systems to conform to a common supranational initiative, provided them with a lever to do what they intended to do all along" (Meek & Goedegebuure, 2007, p. 284). Neave (2002) concluded that the Bologna Process "is built upon—and brings together—trends already present in different systems and presents them as part of the Bologna Process. It does not create them" (p. 186). More recently, Neave and Amaral (2008) drew the following conclusion from their analysis of Bologna Process documents, plus country case studies for a set of countries (France, Germany, and Italy) different from the current study: "Individual signatory states could claim the moral leverage required to use Bologna as an additional blessing for policies many had in hand before Bologna. These were powerful claims and especially so in such sensitive areas as competitiveness and employability, which represented a fundamental departure from earlier notions that turned around employment, and which stood as an explicit neoliberal reinterpretation of higher education's purpose. Such findings were an integral part of a manufactured

consensus without which the Bologna strategy risked progressing less briskly” (p. 51).

The findings of these recent studies (although reached by different means than the current study) agree with the results of the current study, that the Bologna Process was more a confluence of existing national policies than a supranationally directed initiative.

For these reasons, and as a result of the current study, I would define the EU processes, such as the Lisbon Process (which tend to be more top-down) as supranational processes. I would classify the Bologna Process as a bottom-up process--and in that sense more an international than supranational process because I have found that its members are guided primarily by their national social contracts. My definition is in accord with Knight (1997), who defined international processes in higher education as those that protect existing national identities. Alternatively, the Bologna Process could also be termed a multination or multilateral process, per Neave and Amaral (2008). For these reasons, this study finds that the terms international, multinational, or multilateral describe the nationally sourced direction of the Bologna Process, rather than the term supranational.

Limitations

The limitations of this study were those typical of comparative international case studies in general, plus additional limitations caused by the novelty of the topic. Due to the limited number of cases studied and their similarities, the results of this study cannot be generalized to other countries without further study. All three countries studied were Nordic countries, and hence they shared traditions and characteristics common to their region. For example, democracy and consensus have been national characteristics of the Nordic countries throughout history (Lindal, 1981).

Due to these strong similarities, it may be a useful next step in research on social contract to study the relationships in Figures 4 and 5 in a set of countries with widely differing traditional social contracts, such as a strongly free-market state, a welfare state, and a mixed economy. Alternatively, a study comparing all of the Nordic countries to the rest of Europe in the Bologna Process would explore the role of regional similarities in social contract.

Comparative studies in higher education are often limited by national differences between systems. This problem was mitigated for this study by choosing similar cases, according to the methodology of Qualitative Comparative Analysis (QCA). Choice of country cases by QCA facilitated the inclusion of factors chosen for the study and the elimination of factors considered most irrelevant. Only further research can clarify if the chosen factors are the most relevant.

The minimal prior conceptualization and application of social contract required this study to expand conceptualization in more detail before its initial application. This study operated as an initial empirical study as well as a conceptualization. As such, it is limited by its scope from including a majority of possibly relevant factors that may shape social contract, especially those factors salient in countries that differ highly from the three welfare states studied. It also is limited by its scope from examining all potentially relevant confounding factors. For example, dependency on EU funding was not studied (e.g., study of funding to the three case countries from EU higher education programs such as COMETT, ERASMUS, SOCRATES, LEONARDO, COMENIUS, and LINGUA [De Wit & Verhoeven, 2001]). Nor was the role of demographics formally analyzed in the current study, although it was mentioned in the country backgrounds in chapter 3.

Demographic forces are at times prevalent in higher education and may push social contract in new directions, just as the baby boom pushed universities to prepare graduates for jobs beyond the limited number of posts available in the civil service.

The current study was intended as an initial empirical study of the dynamics of social contract in higher education. Its results indicated the probable existence of the phenomenon and outlined its influence in higher education finance policy, evidencing the potential of its further conceptualization and application.

Conclusions Based on Results

This study examined the relationship between the supranational social contract of the Bologna Process and the national social contracts of three welfare states in the areas of academic research funding and student support funding. Several conclusions are drawn from the results of the content analyses. For student support, because any explicit supranational policy on student support funding was absent, the Nordics' national social contracts and student support funding policies continue with full government support as before. Here, the European trend of national social contracts moving toward increased student payments is weak compared to the Nordics' national social contracts in their influences on national funding patterns. Hence, absent supranational social contract, the national social contract is a stronger determinant of funding in the three countries studied than the shifts in social contracts in other European countries.

Also, for academic research, national social contract is the driving factor, more so than supranational social contract. Evidence supporting this conclusion is threefold. First, in each country case studied, the trend of national social contract regarding academic research in a Smith direction was pronounced long before the Bologna Process. From

historical evidence of global trends presented in the literature review and national histories presented in the country case data, this study concluded that the Bologna Process was a joining of existing national social contracts that were headed in the same direction, rather than a top-down push of supranational social contract on each country. This conclusion makes sense in terms of the Bologna Process itself being a bottom-up rather than a top-down process and its key actors being ministries of education and higher education institutions (HEIs), rather than EU representatives.

The history of the relationship between social cohesion, economic development, and higher education traced in chapter 2 stressed the close alignment of European HEIs with service to the state. Experiences varied by country, but it can be seen in the country history section in chapter 3 that Finland, Norway, and Sweden closely tied higher education to public service. The current study found evidence of the important role of national social cohesion in the Bologna Process. *Social cohesion* was a term used explicitly in the Bologna Process documents analyzed for the current study. For example, nation states in the Bologna Process view marginalization and exclusion as forces that erode social cohesion and hence must be avoided in higher education reform. As seen in the country histories' chapter of the current study, Finland, Norway, and Sweden have been at the forefront of these efforts in Europe. Concern for social disparity translates, especially in these three Nordic countries, into attention to regional development, which has been a central concern in other European countries as well during the past four decades. These concerns at the national level prompted agreement on social cohesion in the Bologna Process.

A second reasoning behind this study's conclusion in favor of the strength of national social contracts over that of the Bologna Process lies in the case of Norway. Norway's case may exemplify the preeminence of national social contract regarding academic research. The structure of Norway's economy (comprised mainly of low R & D industries) and its slow start in increasing R & D funding compared to the EU countries made it slow going to boost R & D funding to the Lisbon target of 3 percent of GDP. Another factor relevant to social contract may have been at work. Strong national social protest determined the limits of the social contract in Norway by not allowing Norway to become an EU member. As a nonmember of the EU, Norway did not sign onto the EU Lisbon Accord goal of giving 3 percent of GDP to research and development. Given these factors, it is no surprise that Norway's gross overall funding of R & D is far below Finland's and Sweden's, who are both EU members and signatories to the Lisbon Accords.

Third, the results of this study for academic research social contract show a higher correlation across all three country cases between national social contracts and funding trends than between supranational social contract and funding trends. The supranational social contract embodied in the Bologna Process encouraged R & D funding toward a Locke-type mix of government and private entities as recipients. Taken in aggregate across all three countries, the organizations that received the project funds followed the pattern of the Bologna Process. But when the results were separated by country, national funding went instead mainly to Hobbes-type government entities, with the exception of Norway. Funding went to higher education, which is mostly a part of the governments of

these welfare states. The structure of higher education continues to be minimally privatized in the three welfare states studied.

For these reasons, this study concluded that, although hypothesized the opposite direction, the national social contract influences the supranational social contract more than the reverse. This study also concluded, as hypothesized, that national social contract influences funding policy, more so than supranational social contract.

The Bologna Process is a discussion between education ministries and as such is nested within social welfare contexts, ideologies, and language. Hence, market orientation is balanced with social dimensions. As a result, shifts toward market orientation moved more slowly in the Bologna Process than in the Lisbon Process (which is focused on developing member states' economies). The three welfare states studied retained their commitments to social welfare by shifting strategies toward energizing market forces but only with the explicit purpose of strengthening the welfare state.

Future Research

As mentioned, it may be a useful next step in research on social contract to study the relationships in Figures 4 and 5 in a set of countries with widely differing traditional social contracts, such as a strongly free-market state, a welfare state, and a mixed economy. Alternatively, a study comparing all of the Nordic countries to the rest of Europe in the Bologna Process would explore the role of regional similarities in social contract. To follow up on the current study, it would be useful to evaluate the influence of political, social, and cultural similarities among the Nordic countries in the Bologna Process, a prime example being the Nordic model for democracy shared by Finland, Norway, and Sweden (mentioned in chapter 3).

Further research on the Bologna Process can also trace the relationship between the bottom-up Bologna Process and the top-down Lisbon Process, as discussed in chapters 1, 2, and 3. In the current study, content analysis comparing documents closely related to the Lisbon Process to the remainder of Bologna Process documents studied found significantly higher emphases of economic development in the Lisbon Process documents. The history of the relationship between the Lisbon and Bologna Processes adumbrated in chapter 1 evidenced that economic development (the core objective of the Lisbon Process) became a priority in the Bologna Process as of the Prague Communiqué in 2001. It also indicated that, although the European Commission (EC) had been specifically excluded from the Bologna Process up until 2004, with a view to make the initial phase an initiative of nations rather than of the European Union, EC representatives were added to the Bologna Process in recent years. Because the EC is the bureaucratic arm of the EU Lisbon Process, its presence adds a strong, top-down, supranational force favoring economic over cultural development into the Bologna Process. EC involvement suggests that the finding of the current study that the Bologna Process to date is influenced more by national than supranational factors should be tested again after the next phases of the Bologna Process.

Benefits of the Study

Any venture into relatively unexplored territory has daunting aspects, which are compensated for somewhat by the thrill of overcoming challenges. This study successfully addressed three initial challenges to the study of a macro level social phenomenon i.e., subjectivity of study of a social construct, lack of definition of social contract terms, and the multiplicity of social contracts. After addressing these three

challenges, this study laid out a research design and methodology that proved viable for the case study analysis of three select countries.

This study applied a definition of social contract (Neave, 2006) in higher education policy as the expected roles of stakeholders in higher education. The current study indicates that the phenomenon of social contract does exist, and operates dynamically, especially at the national level. Hence, if social contract is changing, it is because nations desire such change—at least, they think they do. Further experience with marketization and privatization may turn the tide, after the fuller scope of the benefits and costs of marketization are realized.

This study also offers a systematic approach to the study of social contract by indicating that social contract is a viable conceptual frame for higher education policy that may be applicable to all countries and, as such, a comprehensive, or globally applicable, frame. Higher education policy has been a field in search of a global frame (Neave, 2006). Comparative analyses benefit greatly from conceptual frames that can be applied to a range of countries, and many have been tried and shown wanting (Martinusson, 1997; Neave, 2006). Such frames do more heavy conceptual lifting than can thematic analyses (Kogan, 1996).

Epilogue: Implications

Concerns regarding shifting social contract were raised in the introduction and were highlighted in the Benefits sections of this study. This epilogue considers future implications regarding these concerns in light of the results of this study.

If social contract influences the values and missions of institutions of higher education (Gumpert, 2001; Kezar, 2004), then it is a phenomenon guiding the sector of

national economies that shapes their futures. If changes in the social contract involve and affect all stakeholders in higher education (Gumport, 2001; Kezar, 2004; Veysey, 1970), then its impact is broad. If its effects are often financial, as this study indicates, then if the social contract weakens, perhaps due to reduced public appreciation for the public benefits of higher education, public-sector funding shifts to other priorities, and higher education suffers (Johnstone, 2006; Kezar, 2004).

This study gave empirical evidence that the national social contracts of the three case studies, as well as the social contract of the Bologna Process, have defined the purposes of higher education to move in the direction of economic development, as several scholars suggested (Gumport, 2001; Kezar, 2004; Neave, 2006; Rhoades & Slaughter, 2006). If, as Fairweather and Hodges (2006) warn and as Kezar (2004) believes, higher education acts more and more like an industry and less and less like a social institution, one evidence of which is the orientation toward goals and values determined by changing economic needs, such a redirection of purposes may further erode the social roles of higher education. The fundamental opportunity cost offers “compromises that are potentially harmful for higher education and the general public, especially as that charter relates to the historic mission of fostering democracy and such important values as equality, academic freedom, or the pursuit of knowledge” (Kezar, 2004, p. 430). Such concerns will grow if the balance found in the current study between social and economic ends in the Bologna Process tips farther in the direction of economic imperatives, as it may with greater EC participation.

This study also found that the Bologna Process social contract is market oriented in its policy direction. In other words, the chosen direction for the future of the three

welfare states studied is greater use of market forces for both social welfare and economic development. A market orientation for research was no doubt chosen by the Bologna Process participants based on assumptions regarding its future benefits. These assumptions are questionable when applied outside the business sector and especially questionable when applied in the higher education sector. One concept of questionable application was competitiveness, which was a dominant theme in the documents examined for the current study. European scholars of higher education also saw the theme of competitiveness to be a frequent reference in their analysis of Bologna and Lisbon Process policy documents (Gornitzka, et al., 2007). These scholars point out that the competitiveness seems to carry with it a bundle of untested assumptions about how higher education systems operate in the competing national settings, particularly in the U.S.. Europeans look to the U.S. as their chief competitor because it is known for having the best research universities in the world. Gornitzka, et al. (2007) state that “the success of U.S. higher education and academic research is assumed to be the result of the marketization of U.S. universities, high private investments in education and research, coupled with a weak state” (p. 211). This assumption is not supported by empirical study, according to Gornitzka, et al. (2007). They give the example of the highly marketized higher education system of Australia, which does not rank among the best in the world.

The current study further found that research funds flow primarily to government entities in the three welfare states studied. In the case of Sweden, a majority of projects shared funds jointly between the public and private sectors, but still, market forces did not prevail. Enhancing public-private research collaboration is an example of decentralization efforts, which have a long way to go in Sweden. Geiger (1985b)

approves of decentralization, as a critic of central government planning and direction of research policy. His (1985b) analysis of the historical record indicated that the most constructive forms of adaptation flow from the normal operations of science itself and of the scientific community rather than from bureaucracy. According to Geiger (1985b), planners will inevitably block the way science operates normally, and this will block the best contributions of science to the creation of new knowledge. If Geiger is correct, then the current study's finding that research continues for the most part as conducted by government entities in the countries studied suggests the potential of a significant drag on their knowledge creation efforts.

The current study's finding that Bologna Process countries share the ambition to compete globally, and especially with the U.S., as knowledge creators highlights at least one difficulty. Any attempt to mimic other national systems is problematic, but especially in the case of the U.S. research system. As discussed in chapter 2, Geiger's (1985a) analysis of the U.S. higher education system noted its chief characteristics of pluralism and diversity, which allow it to gain the benefits of all alternatives (Geiger, 1985a). European higher education systems, especially those of welfare states, will find it extremely difficult to apply any lessons learned in the diverse U.S. system to their monolithic state systems. One such "lesson" was managerialism, which never worked well in the U.S. setting (Birnbaum, 2001; Gumpert, 2002; Neave and Van Vught, 1991), as mentioned in chapter 2, but, even so, came like a wave into Europe during the 1980s.

Deep-seated Nordic social, cultural, and historical factors discussed in chapters 3 and 4 indicate that a full-on market orientation is not appropriate for the Nordic welfare states of the current study. One factor mentioned in passing in chapter 4 is that the

egalitarian ethos of Nordic countries allows for little wage differentiation. Because of egalitarian wages, the investment model for higher education tuition policy does not operate in the Nordic economies. Their wage structures support, and may demand, continued equal access policies like high state subsidization of tuition, as found in this study for all three countries.

Some aspects of higher education, like tuition policy, may change very little over time. It is open to question how and how much the various aspects of higher education systems will change but not whether they will change. The changing environment of higher education is a dominant and enduring backdrop to higher education research (Clarke, 1983). Organization theorists (Burns & Stalker, 1961) used open systems theory to describe and analyze HEIs as open systems. As open systems, HEIs are permeable to their environments. Hence, their responsiveness to outside factors, trends, and influences is a key component of their survival. Because social contract is an importance influence (the current study indicates, in particular, national social contract), HEIs can be expected to respond to changes in national social contract over time. The current global environment being one of rapid and turbulent change, the prospect of rapid shifts in social contract arises, with its concomitant responses by HEIs. The overall picture is one of at least some long-held expectations and traditions in higher education eroding or dissolving during our lifetimes.

As highlighted in chapter 2, higher education may tend to flourish more under stable than under changing values (or changing social contracts). If this is true, it may be more crucial for higher education than any other sector of society to protect academic values from reformers. The current study indicates that social contracts regarding

academic research have shifted at the national level prior to the Bologna Process. Other social contracts, or expectations by stakeholders of higher education, may be shifting, some perhaps swiftly and dramatically e.g., the expectation of tenure for professors has eroded in our lifetimes. Legislators who fund higher education have hair-trigger responses to changes in public opinion and short horizons for viewing the consequences of their decisions. Their agility is problematic in higher education, where policy effects are broad and long term.

Higher education differs from other sectors of the economy in that it generates an unusually high level of externalities or benefits to society. Externalities are not only hard to measure or price, but it is difficult to receive payment for them using a market mechanism. In the current austerity climate in Europe, as governments seek to increase accountability by HEIs to their governments in return for increased autonomy given to HEIs, the challenge of measuring externalities has become serious. Where it is not addressed adequately, which is to be expected given the current level of analysis in the economics of education, the social benefits of higher education will be poorly estimated, especially for lagged or long-term benefits, reaping only piecemeal results in terms of reporting the outcomes of higher education subsidies under accountability. Partial measurement and reporting will encourage and perhaps even incentivize only those outcomes that can be measured and offer the least risk with the highest potential gains, ultimately narrowing public benefits and emphasizing private benefits.

The Bologna Process has generated a wide array of research to date, with new approaches in the offing. Interest in the Process is global, because the Process is an experiment on a regional scale, intended to boost Europe's global competitiveness. The

study of supranational, multinational, and national social contracts will inform research in the following manner: Study of the dynamics of social contract helps to map the terrain of the political economy of higher education. In places, the soil is soft and malleable, as concerning foreign student tuition in Finland. In other places, the terrain is like solid granite, as when French student protests broke out in 2008–2009 in response to Sarkozy's market-oriented higher education reforms, planned to give French university presidents the autonomy of commercial enterprises (Chrisafis, 2009). French leaders are especially wary of student protests inciting general strikes, ultimately toppling their governments (e.g., that of DeGaulle in 1968). The more accurately we can map the terrain of social contract, the more confidently we can move forward. In the European context, policy discussions on social cohesion suggest that forward movement lies in the direction of the knowledge society rather than the knowledge economy.

Appendix A

Table A

Key Policy Documents Produced by the Bologna Process

Title	Year	Signatories/Participants
Sorbonne Declaration	1998	France, Germany, Italy, United Kingdom
Bologna Declaration	1999	Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland , France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway , Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden , Swiss Confederation, United Kingdom
Prague Communiqué	2001	Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland , France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway , Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden , Swiss Confederation, Turkey, United Kingdom
Berlin Communiqué	2003	Albania, Andorra, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland , France, Germany, Greece, Holy See, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, the Netherlands, Norway , Poland, Portugal, Romania, Russia, Serbia, Slovak Republic, Slovenia, Spain, Sweden , Swiss Confederation, Turkey, United Kingdom, and “the Former Yugoslav Republic of Macedonia”
Bergen Communiqué	2005	Albania, Andorra, Armenia, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland , France, Georgia, Germany, Greece, Holy See, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, the Netherlands, Norway , Poland, Portugal, Romania, Russia, Serbia, Slovak Republic, Slovenia, Spain, Sweden , Swiss Confederation, Turkey, Ukraine, United Kingdom, and “the Former Yugoslav Republic of Macedonia”

Note: The London Communiqué of April 29, 2007, was not included in the current study, which studied Bologna Process and country policy documents up until April 19, 2007.

Source: Norway Ministry of Education and Research (2005). Main documents of the Bologna Process. Retrieved 12/23/2008 from <http://www.bologna-bergen2005.no/>

Appendix B

Table B1

Important Research Policy Documents: Finland

Title	Date	Responsible Organization	Document Type	No. of Pages Content-Analyzed
Knowledge, innovation, and Internationalization	12/12/2002	Science and Technology Policy Council of Finland	Government review of policies and preview of national challenges	40
Education and Research 2003-2008: Development Plan	12/04/2003	Ministry of Education	Government plan and strategies	30
Government Resolution on the Structural Development of the Public Research System	7/4/2005	Government of Prime Minister Vanhanen	Detailed government strategies for future structural development (not directly relevant)	0
Government Strategy Document 2005	7/4/2005	Government of Prime Minister Vanhanen	Strategy document (not in English)	0
The Lisbon Strategy for Growth and Jobs: The Finnish National Reform Programme 2005-2008	10/13/2005	Ministry of Finance	Official government policy document identifies key challenges	29
Science, Technology, Innovation	6/27/2006	Science and Technology Policy Council of Finland	Four-year science and technology policy review	45
The Lisbon Strategy for Growth and Jobs: The Finnish National Reform Programme 2005-2008	10/12/2006	Ministry of Finance	Annual Finnish government progress report regarding Lisbon strategy	21
Government Programme of Prime Minister Matti Vanhanen's Second Cabinet	4/19/2007	Office of the Prime Minister	Government statement to Parliament regarding plan and strategies	12

Source: European Communities (2008). Finland – Important Policy Documents. Retrieved 12/23/2008 from <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&topicID=33&countryCode=FI>

Table B2

Important Research Policy Documents: Norway

Title	Date	Responsible Organization	Document Type	No. of Pages Content-Analyzed
Research Expands Frontiers	1/4/2004	The Research Council of Norway	Vision and strategy (site not available)	0
Law Amendment Proposition No. 79	6/4/2004	Ministry of Education and Research	Government legal codification of structural reforms (not in English)	0
Commitment to Research	3/18/2005	Ministry of Education and Research	Government policy paper on priorities	8
Report from the Government Commission on Higher Education	1/22/2008	Government Commission on Higher Education	Long-term government strategies (site not available)	0
The EU Lisbon Strategy: A Norwegian Perspective	1/1/2007	Ministry of Trade and Industry	Government policy regarding Lisbon Strategy	75

Source: European Communities (2008). Norway – Important Policy Documents. Retrieved 12/23/2008 from <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&countryCode-NO&topicID-33>

Table B3

Important Research Policy Documents: Sweden

Title	Date	Responsible Organization	Document Type	No. of Pages Content-Analyzed
VINNFORSK	4/8/2003	VINNOVA (Swedish government agency for innovation)	Government strategy paper on strategies for commercializing academic research (not in English)	0
Financing Strong Research Environments	4/29/2004	Ministry of Education, Research, and Culture	Structural strategies (not in English)	0
Innovative Sweden	6/28/2004	Ministry of Industry, Employment, and Education, and Ministry of Education, Research, and Culture	Government policy regarding national innovation vision and strategy	34
Research for a Better Life	3/22/2005	Government of Sweden	Government bill regarding research priorities (not in English)	0
New World – New University	6/14/2005	Ministry of Education, Research, and Culture	Government bill	11
More Growth and Jobs!	March 2006	Confederation of Swedish Enterprise*	Critique of national enactment of the Lisbon Strategy	13
Growth and Jobs	10/23/2007	Prime Minister's Office**	National progress regarding the Lisbon Strategy	37
Government Bill: A Boost to Research and Innovation	10/17/2008	Ministry of Education and Research***	Ministry Web site press release	2

Sources: Unless otherwise indicated, European Communities (2008). Sweden – Important Policy Documents. Retrieved 12/23/2008 from <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&countryCode-SE&topicID-33>

*Confederation of Swedish Enterprise (2009). More Growth and Jobs! Retrieved 1/19/2009 from http://www.svensktnaringsliv.se/multimedia/archive/00000/More_growth_and_jobs_601a.pdf

**Prime Minister's Office (2007). The Swedish Reform Programme for More Growth and Jobs. Stockholm: Government Offices of Sweden. Retrieved 1/19/2009 from <http://www.regeringen.se/sb/d/2031/a/90799>

***Government Offices of Sweden (2009). Government Bill: A Boost to Research and Innovation. Retrieved 1/19/2009 from <http://www.sweden.gov.se/sb/d/6949/a/115809>

Appendix C

Table C1

Lists of Key Research Projects Funded: Finland

Title of Project	Start Year	Responsible Funding Organization	Project Goals	Project Partners	Funds (euros millions)
Graduate Schools System	1994	Ministry of Education	Locke	Hume	41.6
Baltic Sea Research Programme	2002	Academy of Finland	Hume	Hume	5.8
Environmental, Societal, and Health Effects of GMOs	2003	Academy of Finland	Hume	Hume	3.5
Russia in Flux 2004-2007	2003	Academy of Finland	Hume	Hume	9.5
Research Programme on Health Services Research	2004	Academy of Finland	Locke	Hume	7.4
Social Capital and Networks of Trust	2004	Academy of Finland	Hume	Hume	6.0
Systems Biology and Bioinformatics	2004	Academy of Finland	Hume	Hume	10.7
Environment and Law Research Programme	2005	Academy of Finland	Hume	Hume	2.5
Research Programme on Application of Information Technology in Mechanical, Civil and Automation Engineering	2005	Academy of Finland	Smith	Locke	8.0
Research Programme on Neuroscience	2005	Academy of Finland	Hume	Hume	7.1
Finland Distinguished Professor Programme	2006	Academy of Finland	Locke	Hume	32.5
Research Programme on Business Know-how	2006	Academy of Finland	Smith	Hume	4.3
Research Programme on NanoScience	2006	Academy of Finland	Hume	Locke	9.5
Research Programme on Sustainable Production	2006	Academy of Finland	Hume	Hume	7.5
Research Programme on Power in Finland	2007	Academy of Finland	Hume	Locke	7.0
Research Programme on Substance Use and Addiction	2007	Academy of Finland	Hume	Locke	5.5
Centres of Excellence	2008	Academy of Finland	Locke	Hume	21.0

Source: European Communities (2009). Finland - Support Measure(s). Retrieved 1/22/2009 from

<http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&countryCode-FI&topicID-64>

Table C2

Lists of Key Research Projects Funded: Norway

Title of Project	Start Year	Responsible Funding Organization	Project Goals	Project Partners	Funds (euros millions)
Commercialization of R & D Results	2000	Research Council of Norway	Smith	Hume	88.1
Functional Genomics in Norway	2002	Research Council of Norway	Locke	Locke	203.1
Outstanding Young Investigators	2003	Research Council of Norway	Locke	Hume	2.4
Clean Energy for the Future	2004	Research Council of Norway	Hume	Locke	55.3
Climate Change and Impacts in Norway	2004	Research Council of Norway	Hume	Hume	108
Programme for Optimal Exploitation of Petroleum Resources	2004	Research Council of Norway	Smith	Locke	312.5
Core Competence and Growth	2005	Research Council of Norway	Locke	Locke	135
Aquaculture	2006	Research Council of Norway	Smith	Locke	177
Centres for Research-Based Innovation	2006	Research Council of Norway	Smith	Locke	100

Source: European Communities (2009). Norway - Support Measure(s). Retrieved 1/22/2009 from

<http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&countryCode-NO&topicID-64>

Table C3

Lists of Key Research Projects Funded: Sweden

Title of Project	Start Year	Responsible Organization	Funding	Project Goals	Project Partners	Funds (euros millions)
FAS Post-Doc Grant	1994	Research Council for Working Life and Social Science	Smith	Hume	2.5	
Manufacturing Engineering Research Area	1994	VINNOVA (Swedish Governmental Agency for Innovation Systems)	Smith	Locke	66.2	
Solar Energy for Hydrogen Production	1994	Wallenberg Foundation	Hume	Hume	7.5*	
Research Profiles	1997	The Knowledge Foundation	Smith	Hume	7.8*	
Forest Research Programme	1999	The Knowledge Foundation; VINNOVA	Smith	Locke	45.8*	
Innovation in Food	2001	VINNOVA	Smith	Locke	14.0	
Human Proteome Resource	2002	Royal Institute of Technology	Hume	Hume	48.4	
VINN Excellence Centre	2004	VINNOVA	Smith	Locke	22.7	
Berzelius Centres	2005	Swedish Research Council; VINNOVA	Smith	Hume	18.4	
Linnaeus Grant	2005	Swedish Research Council	Hume	Hume	15.2	
Postdoctoral Position in Sweden	2005	Swedish Research Council	Hume	Hume	3.9	
Research & Grow	2005	VINNOVA	Smith	Locke	54.0	
Strategic Research Centres	2006	Swedish Foundation for Strategic Research	Smith	Hume	86.0	
Biomedical Engineering for Improved Health	2007	Swedish Research Council	Locke	Mainly Hume, increasingly Smith	7.9	
FAS Centres	2007	Research Council for Working Life and Social Science	Hume	Hume	1.9	

*Cofinanced with private or nonprofit organization

Source: European Communities (2009). Sweden - Support Measure(s). Retrieved 1/22/2009 from

<http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&countryCode-SE&topicID-64>

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