

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

**Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600**

UMI[®]

**THE POLITICAL ECONOMY OF TRUST: EXPLORING COOPERATION BETWEEN
MECHANICAL ENGINEERING FIRMS IN EMILIA-ROMAGNA AND BADEN-WÜRTTEMBERG**

**A Dissertation
submitted to the Faculty of the
Graduate School of Arts and Sciences
of Georgetown University
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Government**

By

Henry J. Farrell, M.A.

**Washington DC
June 19, 2000**

Thesis 7742

UMI Number: 9987155

UMI[®]

UMI Microform 9987155

Copyright 2000 by Bell & Howell Information and Learning Company.

All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

Bell & Howell Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

**Copyright Henry J. Farrell 2000
All Rights Reserved**

GEORGETOWN UNIVERSITY
GRADUATE SCHOOL OF ARTS AND SCIENCES



The doctoral dissertation/master's thesis of Henry Farrell entitled
..The Political Economy of Trust: Exploring Cooperation between Mechanical Engineering Firms
..in Emilia-Romagna and Baden-Württemberg.....

.....
submitted to the department/program of..... Governmentin partial
fulfillment of the requirements for the degree of..... Doctor of Philosophy

in the Graduate School of Georgetown University has been read and approved by the Committee:

Samuel H. Barnes
Mark Warren
Margaret Levi
Colin Crouch

Samuel H. Barnes
.....
Mark Warren
.....
Marg. L.
.....
Colin Crouch (A.H.B.)
.....

EL Z-L

.....
Department Chair/Program Director

20 June 2000

.....
Date

This dissertation/thesis has been accepted by the Graduate School of Arts and Sciences.

8-31-00

.....
Date

James J. Williams
.....
For the Dean

**THE POLITICAL ECONOMY OF TRUST: EXPLORING COOPERATION BETWEEN
MECHANICAL ENGINEERING FIRMS IN EMILIA-ROMAGNA AND BADEN-WÜRTTEMBERG**

Henry Farrell, M.A.

Mentor: Samuel H. Barnes, Ph.D.

ABSTRACT

In recent years, a great amount of scholarly attention has been devoted to the political, social, and economic consequences of trust. In particular, one can point to the recent burgeoning of interest in the concept of "social capital." In this dissertation, I set out to examine the political economy of trust in so-called "industrial districts," geographically concentrated clusters of small firms, which, it has been argued, rely heavily on cooperation between firms in order to survive and prosper. These districts are clearly of considerable interest for the study of how trust may impact on economic cooperation. In particular, I examine two case studies, one in the packaging machinery district of Bologna, in Italy and another in the machine tool industry of Stuttgart in Germany. I rely primarily on a series of interviews conducted with firms and other relevant actors in these districts in 1998-1999. Through analysis of these case studies I seek to test the merits of a version of the so-called "encapsulated interest" account of trust in explaining cooperation. I find that this account of trust provides a better fit with the data than competing accounts which refer to identity or culture as sources of trust. I then go on to argue that one may apply recent advances in the rational choice theory of institutions to understand why it is that individual actors come to trust each other as they do. Not only does an institutional theory of this sort provide a good explanation of the forms of cooperation observed in the two case studies, but it helps us understand why there are important differences in cooperation between the two cases. Study of industrial districts provides good reason to believe that the encapsulated interest account of trust, when combined with institutional theory, provides a good basis for the comparative analysis of trust.

Foreword

Writing a dissertation is a humbling experience. Although the author has final responsibility for the manuscript, which is in a sense the final ticket of admission into the community of scholars, the help, advice, input, criticism and encouragement of others is essential to the enterprise. At least, this has been my experience. It would have been quite impossible for me to write this dissertation without the support of friends, of family, and of colleagues.

First, I owe a substantial debt to my supervisor, Doctor Samuel H. Barnes, and to the committee who finally assessed this dissertation, Colin Crouch, Margaret Levi, and Mark Warren. Sam Barnes both provided me with the underlying intellectual puzzle which motivated me to start this dissertation - that is, how cultural and rational choice approaches to the study of politics may inform each other - and with the intellectual freedom to pursue these interests in somewhat unorthodox directions. I can only hope that the end result justifies to some limited extent the faith that he put in me - his advice and encouragement during the dissertation process has been a constant source of strength. Colin Crouch both provided me with a context in which I could pursue the empirical research necessary to the dissertation, and engaged in a constant - and for me enormously fruitful - conversation over the last three years, that ranged both over the subject that I was studying, and more general questions of theory and practice in the social sciences. This conversation has deeply informed the dissertation. Margaret Levi introduced me both to the encapsulated interest theory of trust, and to the "trust community" more generally; again, conversations with her have helped form my notions of trust, cooperation and institutions. Finally, Mark Warren became involved somewhat later than the other three, but provided comments and insights in the last stages of the dissertation process that have helped me better to see both the strengths and weaknesses of the thesis; I hope to apply these comments in later work building on the arguments and material laid out here. Tara Campbell provided valuable help at a crucial moment in printing the dissertation.

In practical terms, the empirical research for the dissertation was carried out as part of a larger project; I am deeply grateful to my colleagues in this project. In particular, I would like to thank Ulrich Glassmann and Ann-Louise Lauridsen. Ulrich carried out the vast majority of the empirical work in Germany, whereas Ann-Louise interviewed most of the Italian firms. I suspect that this project would have been impossible without them - they, too will be drawing from this body of research in their own,

forthcoming work. I also worked out many of the ideas that I express in this dissertation in conversations with them; I have tried to acknowledge this directly in some parts of the dissertation, but the intellectual debt that I owe them is by no means limited to these instances. Other colleagues in the wider project were also of great assistance to me. Conversations with Carlo Trigilia, Patrick le Galès, Helmut Voelzkow and Andres Rodriguez-Pose have helped me better to formulate my arguments, while Luigi Burroni has provided both friendship and useful advice.

I have also benefitted from the willingness of colleagues to read portions of the dissertation, and respond to it. Gary Herrigel provided a sympathetic and highly useful critique of Chapter Two, which I have learnt from; although he may disagree with much of what I have written, he has paid me the considerable compliment of taking it seriously and reading it on its own terms. Jack Knight read the chapters on institutions, and provided me with valuable comments near the end of the writing process; I hope to incorporate his suggestions in future work. Marco Verweij also read much of my early work, and provided me with useful comments. The opportunity to present an early version of my arguments in a seminar of the Russell Sage Foundation at the Rockefeller Conference Center in Bellagio, Italy, was enormously helpful to me. In particular, I learned from the comments and responses of Margaret Levi, Jean Ensminger, Russell Hardin, and Karen Cook. Ulrich Glassmann and Helmut Voelzkow both read early outlines of my thesis; their familiarity both with the subject matter and the debates surrounding it has been of great assistance. More general conversations with Stefano Bartolini, Marco Bellandi, Nicola Bellini, Jim Caporaso, Karl Cerny, Roger Chickering, Bruce Douglass, Mario Drago, Neil Fligstein, Tom Garvin, Avner Greif, Lois Harder, Adrienne Heritier, John Kenny, Gerhard Krauss, Dawn Lyon, Rosarie McCarthy, Moore McDowell, Maria Murray, the late Mancur Olson, Gabi dei Ottati, Gary Miller, Gianfranco Poggi, Margherita Russo, Sven Steinmo, Alec Stone Sweet, Fritz Scharpf, Richard Sinnott, Josh Whitford, and Jonathan Zeitlin, as well as many others, have helped me greatly. I owe particular gratitude to Jim Johnson, whose ICPSR course on rational choice provided me with most of the intellectual tools which I employ in this dissertation, even if he cannot be blamed for the ways in which I probably misuse them! Many of the general theoretical themes about the relationship between institutions and action have been touched upon in my long running discussions on this subject with Greg Flynn.

While writing the dissertation, I have benefitted from the sponsorship of several institutions.

First, I must thank the European University Institute in Florence, for bringing me in as a researcher, and treating me as if I was one of its own students during the period of my dissertation research. I have many happy memories of my time there. The Max-Planck Institute for the Study of Society in Cologne, Germany, allowed me to visit for a month when preparing the German end of my research - the opportunity both to start my own work and to spend time discussing it with others was invaluable. The Akademie for Technikfolgensabschätzung in Stuttgart provided me with both facilities and an environment where I could discuss my work with others while I was carrying out research in Baden-Württemberg. I am especially grateful to the late Hans-Joachim Braczyk for accepting me as a guest researcher, and Gerhard Krauss for his hospitality and interest in my research subject. Finally, I finished writing my dissertation while starting a new position as a Research Fellow at the Max-Planck Project Group on the Law of Common Goods in Bonn. I am grateful to Adrienne Heritier and Christoph Engel for providing me with the opportunity and space to finish off my old work while preparing to take on my new responsibilities.

Finally, I wish to thank my family and friends. My parents have demonstrated unconditional support for my studies, and patience for the length of time taken to complete them, while my sisters and brother have given emotional support and succour. Niamh Brennan has provided advice, assistance and encouragement - her early fear that I might finish my Ph.D. before she finished hers has proved unjustified by some three and a half years. My grandmother Eilis has been an everflowing fountain of support. Bill and Kathy McElroy have been extraordinarily generous and hospitable, both during my time in Washington, and my later visits back - I will be forever grateful to them. I also wish to thank my friends, in Washington, Florence and Ireland for forms of support too multitudinous to list. Rosarie McCarthy was my housemate during my final two years in Florence - she provided deep and unstinting friendship and encouragement at times when I sorely needed them. I also wish to thank Louise Michael, Isabelle Engelhardt, Pat Crowley, Michael Bauer, Siobhan Mullaly, Nuala O'Donnell, Roisin Healy, Simon Nugent, Barb Serfozo, Christina Bobrow, Kate Davies, Jimmy Scully, Ted Daly, Stephen Tokar, Greg Caplan and Flaminia Gennari for friendship at particular moments of need, and Thad Withers for making my life more difficult by coming for an extended visit seven days before my final submission date. Nicole Erb too is to be thanked for delaying the preparation of the manuscript for final submission, by coming into my life and turning it completely upside down. Finally, I wish to

dedicate this dissertation to the memory of my aunt, Bairbre O'Dwyer; her love, encouragement and support helped me to start on the track towards becoming an academic, and I dearly wish she had been here to see its finish.

Table of Contents

Introduction	1
Chapter I - Trust, and the Development of the Concept of the Industrial District: Literature Review	10
Chapter II - Theoretical Issues in the Study of Trust	31
Chapter III -Introducing the Cases - Mechanical Engineering in Bologna and Stuttgart	61
Chapter IV - Alternative Explanations of Trust - Culture, Identity and Interest	116
Chapter V - Can One Compare Trust and Cooperation across Institutional Contexts?	151
Chapter VI - Exploring the Effects of Institutions on Trust in Baden-Württemberg and Emilia Romagna	177
Chapter VII - Institutions: Looking at Their Sources and Evolution in Industrial Districts	214
Chapter VIII - Conclusions	247
Appendix	263
Bibliography	265

“Sospetto licentia fede” (Suspicion gives a passport to faith)

17th century Italian proverb, quoted by Sir Francis Bacon

“As always, I stress my interests, because in them you can trust”

Michael Dibdin, *Dirty Tricks*

Introduction

Over the last twenty-five years, a body of work, primarily in the fields of economic sociology and economic geography, has examined “industrial districts.” These are geographical zones characterised by small firms specialising in a particular area of production. They have been highly economically successful. As such, they provide an important counter-example to traditional views of economic development, which tend to proclaim either the efficiency-promoting virtues of the competitive market, in which firms interact on a relatively anonymous basis (or more precisely, their identity is irrelevant to transactions) or of the internal hierarchy of firms or other organisations (where authoritative decisions are supposedly made by hierarchical superiors). These small firm districts are neither. While firms interact continuously with each other, the strict conditions of impersonal competitive markets do not even begin to apply. Nor is there any overarching hierarchical authority. Yet such local economies are often capable of equalling, and sometimes of outdoing, those varieties of organisation which are more familiar to political economists. The basis for their success appears to be diffuse patterns of cooperation. Unlike the standard, vertically integrated firm, where all stages of the production process are hierarchically organised within a single organisation, particular phases of the production process are put out to specialised firms who cooperate with each other in making the final product.

These forms of diffuse cooperation ought to be of interest to students of political economy outside sociology and economic geography. Until relatively recently, the only political scientists who consistently studied the topic were a group interested in the concept of flexible specialisation; a form of production radically different from mass production, which involved flexible relations both within the workplace and between firms.¹ Industrial districts were seen as a prime example of this phenomenon. 1993, however, saw the publication of Robert Putnam’s *Making Democracy Work*.² This book made ambitious and wide-reaching claims about the conditions of successful democracies and

¹ See Piore and Sabel (1984), Herrigel (1996b), Hirst and Zeitlin (1992); also Locke (1995).

² Putnam (1993).

economies. It also addressed the industrial districts literature, which had its beginnings in precisely those parts of Italy which Putnam's book proposed as examples of diffuse civic associationalism. Indeed, Putnam puts forward these districts as the main example at the "micro" level of the "macro" level links between civics and economics that he claimed to have discovered. In his view, the sorts of trust and cooperation between firms to be found in these districts were exemplary of the high levels of social capital to be found in the regions where they were located.

This suggests that a focus on the root causes of trust and cooperation in these districts would be a worthwhile project. Such districts are worthy of study in themselves. As I have suggested, they have received relatively little attention from political scientists and economists, at least in the English speaking world. Yet they are highly relevant to many of the most important theoretical and empirical debates taking place in political science at the moment. Industrial districts seem to stand as a reproach to economists and political scientists oriented towards rational choice. They involve forms of cooperation between firms which, at the first glance, appear non-rational, and certainly have been presented as such by experts on the subject. Thus, they provide an interesting empirical test-case for the political scientific debate between rational choice and political culture approaches. Do they indeed provide evidence that favours the political culture approach, or may they better be analysed using a rational actor perspective?

As I have already stated, Robert Putnam finds that the existence of these districts is important evidence favouring his thesis that social capital is a (and perhaps the most) important determinant of political and economic success. Are industrial districts indeed characterised by the sorts of social capital that Putnam discusses? Or do they instead lend support to other interpretations of how relationships between polity, economy and society determine outcomes?

Finally, issues of trust and cooperation have recently become the subject of fierce debate in political science. As I have stated, industrial districts seem to work precisely through relatively unusual forms of cooperation between firms in a small geographic area. What do these districts have to tell us about the underlying conditions for trust and cooperation?

Clearly, these three interlinked research agendas are highly relevant to debates in political science at the moment. I do not want to oversell this dissertation project; it is hard to make generalisations on the basis of a Ph.D. thesis, the scope of which is necessarily constrained by time and

resources. Nonetheless, I suggest that the study of industrial districts does indeed have much to offer. They provide an empirical testbed for theories about trust and cooperation, about social capital, and about how these relate to economic development. In this dissertation, I examine two prominent cases which the literature has identified as industrial districts; the packaging machine cluster centered on Bologna, the capital of the Italian region of Emilia-Romagna, and the machine tool cluster in and around Stuttgart, capital of the German *Land* of Baden-Württemberg. On the basis of extensive interviews conducted in these industrial districts in 1999, I seek to arrive at useful conclusions about the “political economy of trust” in these two cases. Why is it that producers seem to trust each other enough to engage in certain sorts of cooperation? Do this trust and the cooperation consequent upon it differ between cases. And if so, why?

Methodology

In this dissertation, I have employed the “comparable cases” strategy, first advanced by Lijphart.³ This research strategy was originally articulated as a response to the “many variables, small *n*” problem that plagues comparative research. For many questions that are of interest to political science, there are simply insufficient cases to arrive at useful results through statistical inference. It thus can be distinguished from the case study, which usually consists of an uncontrolled examination of a single case.⁴ Despite important dissimilarities, it shares a logic of control with the statistical method, and can indeed be described as the

method of testing hypothesized empirical relationships among variables on the basis of the same logic that guides the statistical method, but in which the cases are selected in such a way as to maximize the variance of the independent variables and to minimize the variance of the control variables.⁵

The comparable cases strategy, in Lijphart’s view, is closer to the “most similar systems” logic than to

³ Lijphart (1975).

⁴ Although see Eckstein (1975).

⁵ p. 164, *ibid.*

Przeworski and Teune's "most different systems" logic. While Lijphart was initially somewhat ambiguous about the respective merits of the comparable cases strategy as against the statistical method, subsequent work in comparative research has borne out its value, and indeed suggests that it is more than just a stop-gap when there are insufficient quantitative data for statistical analysis.⁶ Indeed, there is a danger that the statistical method (which can now be applied in many small *n* cases) is not being used as much as it might.⁷ Further, it may be less difficult to combine "most similar" and "most different" approaches than Lijphart originally anticipated.⁸

Within the comparative method, one may identify different sorts of comparison. In an influential article, Skocpol and Somers have suggested that there are three logics in comparative research, macrocausal analysis, parallel demonstration, and contrast of contexts.⁹ Macrocausal analysis is the closest to traditional social science; it seeks to generate and test generalisations. Parallel demonstration juxtaposes historical instances to show the fruitfulness of a theory, while contrast of contexts shows how unique features of cases may influence putatively general processes.

There has been a recent vogue for applying statistical logic to qualitative case studies, represented most prominently by King, Keohane and Verba's *Designing Social Enquiry*.¹⁰ While some have disputed the originality of their arguments, many of which had already been made in debates about the comparative method,¹¹ they did usefully focus attention again on the problem of selection bias.¹² Selecting cases on the dependent, rather than the independent variable may irretrievably compromise results.¹³

⁶ Collier (1991).

⁷ Ibid.

⁸ Ibid.

⁹ Skocpol and Somers (1980).

¹⁰ King, Keohane and Verba (1994).

¹¹ Collier (1995).

¹² But see also Collier and Mahoney (1996).

¹³ As long as one's logic is that of the traditional comparative method; macrosociological historians like Skocpol and Somers argue that other logics of research imply other logics of case selection (Skocpol and Somers 1980).

In this dissertation, as stated, I seek to adhere to the traditional “comparable cases” strategy. This involves seeking to maximise variation on the independent variable, while minimising variation among control variables. The particular explanatory model which I employ predicts that institutions will have important effects on outcomes of trust and cooperation. If this model is properly to be tested, one thus needs substantial variation in institutional frameworks between the two case studies. On the other hand, the specific context in which the model is to be tested is the previous work on industrial districts. This body of literature, as I go on to discuss in later chapters, is not notable for its strength in comparing across contexts. Nonetheless, the argument has been made that industrial districts are indeed common manifestations of a particular logic of economic organisation. Thus, by choosing cases which have already been studied in the industrial district literature as examples of this form of economic organisation, one can have a rough-and-ready means of controlling the variation of some control variables at least, and by ensuring that the cases chosen are substantially different in terms of their broader institutional context, one can ensure a high degree of variation in the independent variable. Note, however, that this does not by any means eliminate all variation in control variables; as I suggest in Chapter Three, important differences still remain, which may suggest the need to qualify my findings, at least in some instances.

The fact that this dissertation project forms part of a larger research effort that aims to examine local economies in Europe imposed some limits on case selection.¹⁴ Nonetheless, this larger project too has sought to examine comparable cases, and it proved possible to find two cases within its boundaries which appeared highly suitable for analysis. Both the packaging machine industry of Bologna and the machine-tool industry of Stuttgart are involved in sectors of the mechanical engineering industry, which eliminates many (although not all) sources of inter-industry variation. Furthermore, both have figured prominently in the previous literature on industrial districts. The packaging machine cluster of Emilia-Romagna has been studied both in its own right,¹⁵ and as an example of the Emilian model of production,¹⁶ which, along with the textiles district of Prato, is at the

¹⁴ See Appendix.

¹⁵ Capecchi (1997).

¹⁶ Harrison (1994), Brusco et al. (1996).

core of the literature on Italian industrial districts. The mechanical engineering industry of Baden-Württemberg, of which the machine tool cluster in Stuttgart has perhaps been the most important manifestation, is probably the best-studied “case” of an industrial district outside Italy. Finally, the two cases appeared to provide substantial variation in the independent variable. Previous research, especially in the “comparative European capitalism” literature, suggests that institutions in Germany and Italy differ dramatically, in ways that might well have implications for trust and cooperation between actors within industrial districts.¹⁷

Finally, I wish to note recent work which proposes that “analytic narratives,” which combine analytical tools more commonly associated with economics and political science with narrative forms, may provide valuable insights into the forces leading to economic, political and social outcomes.¹⁸ As will become clear, my mode of research and presentation is closely related to this new approach to comparative research. Nonetheless, it is not identical. Typically, analytic narratives seek to test theory against narrative and reformulate it in a process of iteration, stopping the process only when one runs out of testable implication. This has much in common both with “process tracing” approaches to policy studies, and “modelling dialogue” processes of reformulation.¹⁹ In this dissertation, in contrast, I adopt an approach which is more similar to more traditional versions of hypothesis testing. Which is to say that I seek to test a particular model, based on a “narrow rationality” approach to the understanding of human behaviour, and to report failures of my model where they exist, rather than to seek immediately to remedy them.

The actual research was primarily carried out through interviews, with the use of pre-existing statistics where relevant and appropriate. This choice was dictated by two important factors. First, given the rather complex issues involved in the relationship between institutions, trust, and cooperation, it seemed apparent that statistical analysis, say, of standardised questionnaires, would have difficulty in discovering many of the factors important to trust and cooperation in the two settings. Second, discussions with people with previous field experience suggested that Italian firms in

¹⁷ See Crouch and Streck (1997).

¹⁸ Bates et al. (1998a, 1998b).

¹⁹ On the latter, see Johnson (1996).

particular would be unlikely to respond to such questionnaires in sufficient numbers to assuage worries about the representativeness of the sample. Furthermore, one might actually have good reasons to suspect bias in any sample; those firms which responded were *ipso facto* more likely to be “trusting” of strangers than non-respondents. These considerations were important not only for the specific research topic of this dissertation, but also for the broader project on the governance of local economies, for which the interviews were also intended to provide data. All this said, efforts were made to ensure that the interviews were semi-standardised, sticking to a more or less agreed format in the two cases, in order to ensure the greatest extent possible of comparability. Furthermore, in addition to firm interviews, a variety of organisational and associational actors in both settings were interviewed, in order to provide additional data to help in the interpretive process. Often, these actors could enjoy a wider perspective than the firms themselves; they thus could provide invaluable additional information and analysis. Seventeen firms were interviewed in Italy, in addition to 23 individuals in fifteen relevant associations/governmental offices/academic institutions, etc. In Germany, twenty firms were interviewed, as well as nine individuals in six local associations/governmental offices, etc.²⁰ In both settings, potential interview partners in firms were chosen from a variety of sources: local Chamber of Commerce information lists, association membership lists, and on-line databases. No single, overarching database existed, but there was enough overlap between these different sources, as well as with more “informal” sources of information (other firms mentioned in interview) to be confident that they were reasonably representative. To preserve comparability, the firms interviewed were active on final markets;²¹ some, however, also were engaged in subcontracting activity to a greater or lesser degree.

In Italy, most of the firm interviews were conducted by Ann-Louise Lauridsen, with my presence and participation; I conducted the interviews with associations and organisations in Italy, frequently with the presence and participation of Ulrich Glassmann (who also separately interviewed

²⁰ The disparity in figures between the two in part represents the more complicated organisational structure of Italy. In addition, I have not included additional interviews conducted by Ulrich Glassmann which were not directly relevant to my own research.

²¹ With two exceptions - one large subcontractor in Bologna, and a firm in Baden-Württemberg which had previously had a manufacturing operation, but had curbed its activities dramatically as a result of the crisis within the industry

one organisation). In Germany, both the firm interviews and associational interviews were conducted by Ulrich Glassmann, sometimes with my presence and participation; I also interviewed one firm separately. I have transcribed and translated all the Italian interviews; for the German interviews, I have relied on German language transcriptions provided by Ulrich Glassmann, translating quoted sections into English as appropriate.

The dissertation itself is divided into eight chapters.

Chapter One provides an overview of the pre-existing literature on industrial districts. It traces this body of work from its modern origins in work on different forms of economic organisation within Italy, to attempts to apply the industrial district model in different national contexts. It concludes by showing how discussions of industrial districts have concentrated ever more on trust and cooperation within these districts.

Chapter Two sets out the theoretical foundations for my later arguments. It examines, and seeks to join together, two complementary literatures. The first is that on trust, where I examine the so-called “encapsulated interest” theory of trust in some detail, setting out both its theoretical predictions and the links it proposes between trust and cooperation. The second is the burgeoning literature on institutions in political science. I concentrate on rational choice institutionalism. Finally, I show how these two literatures may be brought together, and may help explain trust in contexts where it has been argued that rational choice has little purchase.

Chapter Three provides the empirical background to my case studies. It begins by examining the two industries themselves, using statistics where appropriate and available to describe their geographic spread and evolution over time. It then looks at the governmental frameworks of the political economies of the two case studies. Finally, it examines their associational and industrial relations structures.

Chapter Four is the first chapter which seeks to apply and test the theoretical arguments of Chapter Two. It examines three different approaches to trust, one of which roots it in culture, another in identity, and the final in interests. It then sets out the different forms of cooperation between firms which were observed in the two case studies. It finishes by concluding that an interest-based theory provides a better account of trust in these particular instances than either of the two competing explanations, although interests too have their limits.

Chapter Five seeks to discover whether a theory that examines how institutions affect interests, and thus trust can be applied comparatively. Previous research suggests that trust and cooperation in the two contexts stem from radically different sources, and are not amenable to comparative institutional analysis of the sort that I wish to undertake. In particular, it is argued that cooperation in Italy stems from voluntaristic values, and in Germany from formal constraints. I set out evidence suggesting that this perspective is mistaken. Cooperation between firms in both contexts is largely based on interests. What differs are the institutions. In Italy, informal institutions tend to predominate, whereas in Germany, formal institutions appear to be more important. Thus, the comparative analysis of institutions is not only a valid approach to the understanding of trust and cooperation in the two cases, but can reveal differences between them that would otherwise go misunderstood or unregarded.

Chapter Six develops on Chapter Five by examining differences between the two cases in one important context; subcontracting relations between firms. It shows that such relations in Italy appear to involve generalised forms of cooperation which are not apparent in the German case. It then traces these differences back to the presence of localised informal institutions in Italy, mandating a high degree of honesty in informal dealings, and the apparent absence of such institutions in Germany. Thus, important differences in cooperation and trust between firms can be traced back to differences in institutions, and what is more, rational choice theories of institutions provide a good (if not perfect) way of modelling these relationships.

Chapter Seven seeks to locate the arguments of the previous chapters in a wider context, putting forward some possible explanations for the observed differences in institutional frameworks. It shows how these differences may be located in differences in the state formation process, and in the respective power of local and national actors to press their respective interests. It then goes on to make some arguments about how institutions may evolve over time, applying them to the Italian case study.

Chapter Eight sets out the conclusions of my dissertation. It situates my research findings in the debates on social capital, on industrial districts, on political culture, and on the comparative analysis of trust and cooperation.

The literature on industrial districts is extensive and varied - it stretches across different disciplinary fields including economics, geography, sociology, political science and policy studies. There is no necessary agreement as to what an "industrial district" is, even within particular disciplines. Industrial districts have been defined as economic systems, as particular types of geographic space, as sociological or cultural phenomena, and even as particular kinds of policies.²² I certainly do not propose to resolve the ambiguities in the literature in this dissertation. However, I do intend to lay out those features of the industrial district which are more or less relevant to my dissertation in this chapter, so as to situate my findings, and my theoretical arguments, in the context of what has been written previously. In order to do this, it will be necessary to provide an overview of the development of the academic literature on industrial districts.

This chapter seeks to describe the development of the literature to date.²³ It begins by discussing the original literature on the Marshallian industrial district, and goes on to examine how the concept came to be applied to the so-called "Third Italy." It then goes on to look at the debate provoked by Piore and Sabel's thesis of the "Second Industrial Divide," which in many important respects attempts to extend the lessons of the Italian industrial district literature to the understanding of developments on a global level. The chapter then briefly discusses the policy literature arising from this debate. It concludes by isolating those features of the industrial district model that appear to be particularly relevant to the subject matter of the dissertation, and discussing in broad outline their relationship with trust between business actors.

²² For the last, see DiGiovanna (1996).

²³ As historiographers such as Hayden White remind us, no history is innocent of bias or plotline - the attempt to shape facts into story is inevitably a selective and tendentious process, shaped both by the need to impose narrative form and by the conscious or unconscious prejudices of the narrator (White 1973). In describing the development of the literature on industrial districts, I acknowledge such bias - my intention is not so much to give an overarching and impartial account, even if such an account were possible, of how this literature has taken shape, but to tell a story emphasising those trends and facets of the development which seem to me particularly important. I also acknowledge my dependence on previous overviews of the literature, and especially those contained in Brusco (1990) and Harrison (1992).

Section 1.1 - The Early Development of the Industrial District Literature and the Italian Experience

Industrial districts are spatially concentrated clusters of small to medium sized firms, which, it is argued, both cooperate actively with each other over many issues, and also enjoy in common the benefits of certain externalities (some of which, such as diffuse technical knowledge, are difficult to understand in the terms of conventional economic analysis). The economics of spatial concentration has not, until relatively recently, been an especially fashionable area of enquiry within mainstream economics.²⁴ Economists have lacked, and continue to lack the kinds of tools which might be used to analyse such phenomena. It is true that authors in economic geography and business schools began to examine the relationship between location and economic development in the 1950s; Perroux for example developed a model adapting Schumpeter's theory of innovation to show how linkages and price effects could combine to make certain locations more economically dynamic.²⁵ Others such as Hoover and Vernon argued for a version of "product cycle theory" in which industries pass through a series of stages, typically beginning with small craft producers, who rely on face to face contact for innovation, and then gradually seeing activity displaced further afield, as production becomes more standardised. In the 1990s, economists in the mainstream of the discipline began again to show interest in spatial economics, and in how economies of scale might enforce the geographic concentration of activities.²⁶ A number of technical tricks allowed new forms of modelling, although such models still suffer from many unrealistic assumptions, and have not led to much validating empirical work.²⁷ However, modellers have not yet sought to incorporate many of the factors (such as exchange of local knowledge, or thick labour markets) which seem to be of key importance to the economic success of

²⁴ Krugman (1998).

²⁵ Here and below, I rely on the account provided in Harrison (1992).

²⁶ Krugman (1998).

²⁷ *Ibid.* In addition, economic geographers (who are not to be confused with economists interested in geography) have argued that the bulk of this literature does nothing more than to recapitulate arguments made by geographers in previous decades, and to do so badly. See Martin (1999).

many such agglomerations.²⁸

These developments in the literature at first had little impact on the study of the phenomena explored in this dissertation. Indeed, there is still little to no dialogue between those working in the neoclassical mainstream of economics and other researchers in the field.²⁹ Instead, those studying the sorts of economic phenomena discussed herein went back to an earlier school of economic thought. It is widely agreed that the concept of the industrial district is first properly developed in the work of Alfred Marshall, a British economist who worked in the Victorian and Edwardian era. Marshall was fascinated by the way in which districts of small producers or "masters" in industrial Britain seemed able to capture many of the economies of scale which were more usually supposed to be only possible within large firms. His work had little impact on the development of mainstream economics, which lacked a coherent theory of the internal organisation of the firm, let alone of how cooperation between firms could serve in some sense as a substitute for hierarchy.³⁰

However, Marshall's original concept of the "industrial district" provided Italian researchers with a way to understand apparently anomalous developments in the post-war economy of Italy. Traditional approaches to the understanding of Italy's political economy were dualistic - they pointed to the profound differences between the industrialised, and relatively prosperous north, and the

²⁸ As I will argue later, game theoretic models such as those to be found in Greif (1994) and Greif, Milgrom and Weingast (1995) offer important insights about the ways in which the institutions governing exchange in industrial districts operate. However, such models do not seek to model processes of spatial concentration.

²⁹ Which may be no bad thing - if there is one clear conclusion to be drawn from the study of industrial districts, it is that institutions, cultural expectations and social factors, all of which present difficulties for neo-classical economics, are very important. However, a rational choice approach, and certain kinds of economic modelling, can still go some considerable distance towards incorporating these considerations.

³⁰ However, for a brief account of the development of the economics of geography and space, which accords an important role to Marshall's thought, see Krugman (1991). Krugman unsurprisingly highlights the purely economic, as opposed to sociological, aspects of Marshall's work. For an excellent brief survey of more recent directions in economic approaches to space, see Krugman (1998). The classic work in mainstream economics on the organisation of the firm is of course Coase (1991 [1937]). This article notoriously provoked little serious response until the new institutional economics literature began to take shape in the early 1970s. The early work of Oliver Williamson and others on the organisation of the firm itself failed to take proper account of relations between firms other than those of pure market exchange or of hierarchy (Williamson 1975), and later attempts to address this gap (Williamson 1985) have also been subjected to sustained criticism (Swedberg and Granovetter (1992), Lundvall (1993), Holmström and Roberts (1998)). I discuss this strain of the new institutional economics at length in Chapter Six.

impoverished south, with its heavy reliance on agriculture. In this account, differences between the economic development of north and south went together with important differences in industrial structure. Southern firms tended to be small, inefficient, and locked into local markets, whereas northern firms were more economically successful, internationally oriented, and larger.³¹ As a group of writers began to point out in the early 1970s, this dualistic approach failed to explain a third pattern of economic development, to be found in the center and north-east of the country.³² In these areas, small firms predominated, yet were economically successful, frequently beating larger firms at their own game.³³ The small firms of the "Third Italy" tended to be clustered together according to industry, like Marshall's producers in 19th century England. Furthermore, there appeared to be evidence suggesting that this pattern of agglomeration was an important factor in these firms' success. Many of these industrial districts were in traditional, or consumer-oriented industries, such as textiles, ceramics, footwear and jewelry. Yet there were also industrial districts in more technologically advanced sectors, such as automatic packaging machines, medical equipment, and machine tools.

A vigorous debate took place over the origins and long term prospects of these small firm districts. In many cases, although certainly not in all, the districts seem to have had their beginnings in the decision of larger firms to subcontract out work that had previously been done in-house. Sometimes, this was as a result of more or less simple economic downturn. For example, in the famous textile producing district of Prato, a radical vertical disintegration of the production process to small specialised firms came about as a result of economic difficulties in the period immediately following the Second World War.³⁴ However, decentralisation was also very frequently the result of large firms seeking to escape restrictions on their own activity through farming out production to smaller productive units. Following the *autunno caldo* (Hot Autumn) of 1969, which involved protests over

³¹ See Brusco (1990).

³² Which is not to say that dualist approaches were entirely without merit, as their critics acknowledged. Many Marxist or Marxist analyses of Italy, such as Antonio Gramsci's famous account of the reasons for the underdevelopment of the South, adopted this approach to a greater or lesser degree. See Gramsci (1971). For critical appraisals of dualist approaches to Italian society and economic development, see Bagnasco (1978), Bagnasco and Messori (1978), and Brusco (1990).

³³ The classic work on the subject is Bagnasco (1977). See also Becattini (1994).

³⁴ Trigilia (1989), Dei Ottati (1994).

pension reforms, student demonstrations, labour agitation and widespread social unrest, large companies were forced to make major concessions to their workers, including the establishment of work councils, and the so-called *scala mobile* system of wage indexation.³⁵ In addition, these firms now found it very difficult to lay off workers. Many firms responded by outsourcing stages of the production process which had previously been handled in-house to smaller firms, which found it easier to avoid unionisation, and carried a lighter regulatory burden.³⁶

Several authors thus saw small firm districts as the contingent result of large firm strategies, with the implication that they were temporary in nature, and involved the exploitation of workers.³⁷ Others believed that they were also rooted in changing market conditions which favoured smaller, specialised producers, and pointed to the genuine and apparently sustainable economic success of many of these districts.³⁸ These districts were not simple agglomerations of firms involved in the same industry; they seemed to involve a kind of coordination that combined many of the advantages of hierarchical decision-making with a high degree of flexibility and adaptability to changing market conditions. Traditional models of agglomeration pointed to how firms might choose to group together because of the economies arising from certain externalities. The fact that many firms in a particular industry are located close to each other may, for example, attract suppliers or workers with relevant skills to relocate so as to be close to the agglomeration of firms. The empirical evidence suggested that firms in Italian industrial districts went beyond this kind of passive exploitation of positive externalities, and cooperated actively with each other in a variety of ways. Indeed, such cooperation

³⁵ For a useful brief summary of the development of Italy's industrial relations system, see the third chapter of Locke (1995); also Regini (1995), and Regini and Regalia (1997). I discuss industrial relations at greater length in Chapter Three.

³⁶ Brusco (1982).

³⁷ See the summary of the debate in Brusco (1990). Argument about the extent of worker exploitation in industrial districts is still ongoing - while some prominent authors point to bad working conditions and poorly paid workers in certain industrial districts, others point out that the level of unionisation in these districts is frequently high, and wages are typically higher than those paid to workers in the same industries who are not located in industrial districts. See Bagnasco (1995).

³⁸ On changing market conditions, see Brusco (1982), which anticipates some of the arguments of Piore and Sabel (1984).

was basic to the production model.³⁹ In the ideal-typical industrial district, the production process was radically decentralised.⁴⁰ A multitude of small firms, each specialising in one or a few stages of the production process, coexisted, only a few of which had direct dealings with the final market for the product. These latter firms or others acted to coordinate the production process, by subcontracting out the various stages of production to specialised firms. Direct hierarchy, as seen for example in the traditional vertically integrated firm, appeared to be unnecessary; instead, coordination of the production process could be achieved through more or less decentralised means.

It thus became clear that “the origin and functioning of [industrial districts] could not be reduced to being a phenomenon of productive decentralisation with the purpose of cutting the cost of labour.”⁴¹ The industrial districts of north eastern and central Italy appeared to owe much of their success to institutional and social factors that were difficult to incorporate in a simple market based account. Many authors paid attention to the role of families in the production process.⁴² The pattern of social relations which had existed before industrialisation also seemed to play a role in many instances - pre-existing cultural factors and class relations in peasant society appeared to be important. Also, many of the areas which became industrial districts had had long histories of activity in the relevant area of industrial specialisation. Prato, for example, had a history of textile production stretching back to the Middle Ages.

However, while many industrial districts built on pre-existing traditions, they were by no means simple throw-backs to pre-capitalist forms of social organisation.⁴³ The internal organisation of

³⁹ See, for example, Dei Ottati (1991).

⁴⁰ Of course, not all industrial districts conform to this model (which in many respects resembles an abstracted version of Prato), and much recent work, such as Burroni and Trigilia (forthcoming) shows how industrial districts have changed, and how new forms of local economic organisation are emerging in different parts of Italy.

⁴¹ Page 18, Trigilia (1986). My translation.

⁴² For a general discussion of the persistence of family capitalism in Italy, see Chiesi (1986).

⁴³ Albert Hirschman refers to “feudal chains” approaches to market society, which stress how the relicts of pre-modern forms of social organisation may restrain the market from consuming its own underpinnings (Hirschman 1986, Hirschman 1977). One should also note Weber’s argument that the escape from family-based forms of economic organisation is an essential aspect of modernisation. See Weber (1978). While some of the original explanations of industrial districts adopt such an approach, it is clearly insufficient to capture the complex and changing reality of industrial districts, which

industrial districts typically appeared to rely on a network of institutions that had taken shape during the modernisation process.⁴⁴ Economic sociologists such as Carlo Trigilia distinguished between two different institutional and social "subcultures" in different parts of the Third Italy. In the centre of the country, a "red" subculture, based around the socialist movement, took hold, leading to a complex relationship between unions, chambers of commerce, mutual societies, cooperatives and municipalities.⁴⁵ In the "white" zones of the north-east of the country, the Catholic church predominated. Thus, the unions were less developed, but there was a network of agricultural credit organisations, banks, agricultural organisations, cooperatives, mutual associations and other structures, all somehow linked to the church. In both red and white zones, the formation of these networks could, according to Trigilia, be seen as a quasi-Polanyian defence of local "society" against the encroachments of market and state. In Trigilia's argument, these sub-cultures provided important, and perhaps crucial, resources for the industrial districts that were later to develop in these regions, helping shape the cultural orientations of actors, ensuring the survival of a high degree of social consensus, and providing institutional structures which would later help regulate the complex relationships on which the industrial district relied.⁴⁶

More recent research on industrial districts in Italy has frequently tended to focus on their problems and limits.⁴⁷ Some authors have gone so far as to claim that the Italian industrial districts face irresolvable problems, and indeed the empirical record shows that many industrial districts faced

frequently combine modern and traditional forms of organisation in unorthodox ways. See Franchi and Rieser (1991) for a related, if somewhat overstated, critique of "communitarian" approaches to industrial districts.

⁴⁴ Trigilia (1986).

⁴⁵ Trigilia (1986), Bagnasco and Trigilia (1993).

⁴⁶ Ibid.

⁴⁷ Brusco (1990) distinguishes between 'first generation' models, which examined industrial districts *tout court*, without paying much attention to the role of local administration, and 'second generation' models, which look at how intervention may be directed to address problems in the industrial district.

economic difficulties in the 1980s and early 1990s.⁴⁸ These writers saw changing market conditions, and external buyouts of small firms within districts (which, according to writers like Bennett Harrison, compromised bonds of trust and cooperation) as major problems, which were likely to lead to the unraveling of the complex web of relationships which organised the district.⁴⁹ However, recent research suggests that while the Polyannas of the industrial district literature may have overstated their case, so have the Puddleglums.⁵⁰ Italian industrial districts appear to be undergoing important changes in their internal organisation, but they do not appear to be disappearing.

Another set of authors, while recognising that industrial districts faced new problems, saw them as organisational, and in principle resolvable through appropriate policy measures. Two broad kinds of problem were identified. One was that the lack of centralised structure or hierarchy in the industrial district meant that it responded awkwardly to certain kinds of change, and was poor at introducing new technology.⁵¹ While districts were highly flexible in adapting to marginal changes in market conditions, they were supposedly bad at responding to more fundamental shifts in demand or production technologies.⁵² Thus, local and regional government could play an important role, providing small firms in the district with "real services" that they were incapable of generating for themselves.⁵³ Such real services, often involving the provision of information, could be tailored for the specific needs of the industrial community in question, focussing on the collective needs of firms as a group rather than the individual needs of particular firms.⁵⁴

The second broad group of problems concerned the level of aggregation on which the

⁴⁸ Among those districts which experienced problems was Prato (Locke (1995), Harrison (1994)). However, the difficulties appear to have been conjunctural rather than structural; despite some changes in internal organisation, the district appears to still be a vital one (Dei Ottati (1996), Bellandi (1996)). For a more general theoretical discussion of these problems, see Grabher (1993b).

⁴⁹ See Harrison (1994) on the mechanical engineering industry in Bologna and more generally Bianchi and Gualteri (1990), but also my discussions in Chapters Three and Seven.

⁵⁰ See Sforzi (1996), Brusco (1996), Bellandi (1996), Dei Ottati (1996).

⁵¹ See Brusco (1990).

⁵² For a dissenting opinion, see Bellandi (1996).

⁵³ Brusco (1992).

⁵⁴ Brusco (1992).

industrial district worked. Contrary to a strain of literature stressing the importance of the regional level for Italian political and economic outcomes,⁵⁵ authors such as Carlo Trigilia argued that localist interests tended to predominate over regional ones.⁵⁶ This was clearly so in the industrial districts themselves, which tended to be strongly localist in nature. The problem, in Trigilia's eyes, was that changing political and economic circumstances meant a growing need for regulatory structures on the regional level. However, this need was not translated into political demands, because of Olsonian collective good problems. Trigilia suggested that the solution lay either in reforms introduced from above, or in a grassroots strategy to induce change from below.

Most recently, the debate on industrial districts in Italy has become entwined with the debate on social capital sparked by Robert Putnam's *Making Democracy Work*.⁵⁷ Putnam famously claims that "social capital" is a key factor predicting both economic and political success in different regional (and potentially national) contexts. His book indeed is in part a reflection of this debate; the industrial districts of north-east and central Italy are among the very few empirical phenomena which he points to as illustrations of social capital and the civic community in practice.⁵⁸ He concludes that

What is crucial about these small-firm industrial districts, conclude most observers, is mutual trust, social cooperation, and a well-developed sense of civic duty - in short, the hallmarks of the civic community. It is no surprise to learn that these highly productive, small-scale industrial districts are concentrated in those very regions of north-central Italy that we have highlighted as centers of civic traditions, of the contemporary civic community, and of high-performance regional government.⁵⁹

In short, Putnam claims that industrial districts stand out as an important empirical example of social capital, and of the kinds of reciprocity and cooperation he is interested in, in practice.

⁵⁵ Putnam (1993), Helliwell and Putnam (1995), Cooke and Morgan (1998), Leonardi (1990), Leonardi (1994).

⁵⁶ Trigilia (1991). See also Locke (1995). Bellini (1990) notes that the regional government of Emilia-Romagna identified the predominance of local rather than regional interests as a policy problem in the mid 1980s, but that localist tendencies proved difficult to alleviate.

⁵⁷ Putnam (1993).

⁵⁸ See the discussion in pp. 159-161, *ibid*.

⁵⁹ p.161, *ibid*.

Section 1.2 -The Internationalisation of the Industrial District Thesis

The body of work on Italian industrial districts attracted international attention, especially after the publication of Michael Piore and Charles Sabel's academic bestseller, *The Second Industrial Divide*.⁶⁰ In important respects, this book was an elaboration of the Italian industrial district literature.⁶¹ While it sought to cover a variety of cases in different national contexts, *The Second Industrial Divide* was organised around the basic dichotomy between two possible responses to the economic crisis of the 1980s, that of the American automobile firm, which "aimed at extending the mass-production model",⁶² and that of "the networks of technologically sophisticated, highly flexible manufacturing firms in central and northwestern Italy."⁶³ However, the theoretical foundations on which it sought to build were rather different than those of previous research on industrial districts in Italy. Piore and Sabel saw Italian industrial districts as nothing less than the modern avatars of a trajectory of production - flexible specialisation - which was quite different from, and perhaps normatively superior to, the mass production model which had predominated in modern Western industrialised society.

Piore and Sabel argued that Western countries had chosen one form of organisation - the mass-production corporation - at an important historical juncture in the nineteenth century. As mass production techniques were developed, markets became increasingly unstable, and the corporation form of organisation emerged from efforts to control this instability. However, an alternative historical trajectory could have been taken, which was expressed in the ethos of the cooperative movement of the nineteenth century, and in Proudhon's version of socialism.⁶⁴ These expressed a political and an economic vision which stressed the role of the independent craftsman, and which was to some extent realised in the industrial districts of the nineteenth century. Craft-based districts could be found, for

⁶⁰ Piore and Sabel (1984).

⁶¹ Storper (1995), Rhodes (1995).

⁶² p.16, Piore and Sabel (1984).

⁶³ p.17, *ibid.*

⁶⁴ The term 'trajectory' was rather loosely defined in Piore and Sabel (1984), as Michael Piore himself admits (Piore 1992). In later work, Piore sought to ground flexible specialisation in a model of growth conceptually distinct from that of neo-classical economics.

example, in the textile industry in Lyon, the hardware trade in Birmingham, and cutlery in Sheffield and Solingen. These districts relied on municipal political institutions to stabilise industry through regulating the local system of production. Some of these districts failed as a result of state intervention, others because individual manufacturers were reluctant to innovate, or were drawn into the mass-production system. This failure represented a lost opportunity - a trajectory of development based on flexible specialisation was rejected in favour of mass production. While flexible specialisation and craft production survived in industrial districts, they were effectively discredited, and invisible to a world which unquestioningly accepted the verities of mass production.

The Second Industrial Divide argued that the crisis of Western industry in the 1970s and 1980s offered the opportunity to revisit history. It was uncertain whether the crisis indicated deep structural weaknesses in the mass production model or not, but many firms which were responding successfully to the crisis seemed to be adopting the practices of flexible specialisation. These firms were not in 'postindustrial' sectors, or in newly developing regions, but in mature industrial areas. According to Piore and Sabel, this shift was occurring both in apparently mature mass production sectors, and in the machine tool industry, which had seemed frozen "in the perpetual adolescence of craft inefficiency."⁶⁵ Steel producers were moving towards more flexible mini-mills, while chemical firms were increasingly moving towards greater specialisation and flexible use of equipment. Although much textile production had been displaced to the developing world, producers in districts such as Prato had succeeded in maintaining market share while using craft methods of production. Japanese machine tool producers were introducing computer numerical controlled (CNC) equipment which allowed a high degree of flexibility. Technological advances, including especially computerisation, facilitated the move towards flexible specialisation, but the success of the new trajectory depended on the creation of appropriate institutions to resolve the problems of growth. Piore and Sabel argued that the current historical conjuncture presented the choice between mass production and flexible specialisation anew. However, it would be possible to combine the two paths, by moving towards flexible specialisation in the developed world, while exporting mass production industries to the developing world.

⁶⁵ Ibid, p.207.

Piore and Sabel's book made ambitious claims. A large body of critical writing emerged in response, arguing that their more sweeping arguments do not have empirical justification. Fifteen years on, some critics find that there is little evidence of an overall movement towards flexible specialisation in the industrialised countries, even though there is some evidence of large firms as well as small ones adopting greater degrees of flexibility in their work practices.⁶⁶ Nor has the crisis in mass production that Piore and others predicted taken place;⁶⁷ mass producing corporations have often proved adept at taking up those aspects of flexibility which suit them, while rejecting those which do not.⁶⁸

Piore and Sabel were also criticised for making general arguments on the basis of a small number of cases.⁶⁹ This criticism has been extended to their epigones - Ash Amin and others refer to the small number of "nauseatingly familiar" cases - the Third Italy, Silicon Valley and so on - which are repeatedly cited in the flexible specialisation and related literatures as examples of the phenomenon.⁷⁰ Equally, Piore and Sabel's account has been criticised for failing to address the differences between the very heterogenous cases that it discusses.⁷¹

Despite these criticisms, many scholars have found value in the concepts of flexible specialisation, and a large literature has developed, applying the flexible specialisation or industrial district models to explain economic organisation in a wide range of national and regional settings. Perhaps the most widely known "industrial district" outside Italy is the German *Land* of Baden-Württemberg, thanks to the work of Gary Herrigel, one of Charles Sabel's students.⁷² Other

⁶⁶ However, Paul Hirst and Jonathan Zeitlin argue that much empirical criticism of the flexible specialisation approach is beside the point - all that the proponents of flexible specialisation need to show is that it is a viable alternative, not that it is the prevailing mode of manufacturing organisation. See Hirst and Zeitlin (1992).

⁶⁷ Piore (1992).

⁶⁸ See Knauss (1998). Later versions of the flexible specialisation thesis have taken this explicitly into account, examining the convergence of large and small firm practice.

⁶⁹ Storper (1995).

⁷⁰ p.282, Amin (1993).

⁷¹ Martin Rhodes, for example, questions the assumption of much of the industrial district literature that the very different cases of, say, Silicon Valley, Grenoble, and the districts of the Third Italy, are all examples of the same logic of flexible accumulation. See Rhodes (1995).

⁷² See Herrigel (1996a), Herrigel (1996b), Sabel, Herrigel, et al. (1989).

researchers have identified industrial districts, or closely related phenomena, in a variety of different national settings. It must be noted that many of these writers use the idea of the industrial district in a vague fashion - more even than most other terms in the social sciences, "industrial district" has been subject to conceptual stretching.⁷³

The publication of *The Second Industrial Divide* spurred a number of vigorous debates, including one on the merits of the model as compared to other theories of capitalist economies. It fed into a more general set of arguments about the evolution of capitalism and post-Fordist models of production. The *regulation* school of political economy in France and writers associated with the *New Left Review* in Britain had adopted different perspectives on the prospects for change in the organisation of industrial society.⁷⁴ The flexible specialisation approach, which had some familial similarities (as well as important differences) to both of these schools, led to further debate, and exchanges of polemic which were sometimes longer on jargon (especially from post-Fordists) than theoretical insight.

Many advocates of the flexible specialisation hypothesis claimed that the return of flexible specialisation would lead to a resurgence of the region, a claim which led to further disputes.⁷⁵ The argument saw the return of industrial district forms of organisation as being linked to economic changes which were rendering states less economically relevant, and regions more so. A group of

⁷³ On conceptual stretching, see Sartori (1984), Collier and Mahon (1993). Zeitlin (1992) suggests that it is necessary to move from a "thick" theory of the industrial district which abstracts from the Italian experience, to a "thin" one which can accommodate a variety of observed forms. Whether there is any prospect of researchers reaching sufficient agreement on underlying concepts to arrive at such a theory remains an open question.

⁷⁴ I do not intend to try to summarise the voluminous debate on how flexible specialisation intersects with post-Fordism, modes of regulation, and other post-Marxist theories of the organisation of the capitalist economy. Interested readers are referred to the useful (if naturally tendentious) summary in Hirst and Zeitlin (1992). For useful overviews of the state of debate on post-Fordism, see Jessop (1992), and the articles collected in Amin (1994). On the *regulation* approach, Boyer and Saillard eds. (1995) is a useful summation of the state of the art in one volume.

⁷⁵ As for example the claim by Allen Scott and Michael Storper that one should view the "economic geography of the contemporary world not so much as a core-periphery system, or even as an aggregation of nation-states, but as a *global mosaic of regional economies*" (italics in original). p.11, Scott and Storper (1992). See also Porter (1990). There is a related debate in Europe about whether or not the political development of the European Union has increased the importance of regions vis-a-vis nation states. See Marks and McAdam (1996), Marks, Nielsen, et al. (1996), and Keating (1997). See Caporaso (1996) for an overview of how this impacts upon theories of the nature of the European Union.

economic geographers centered in California began to study dynamic economic agglomerations, such as Silicon Valley, from a different perspective than that of flexible specialisation. They adapted Oliver Williamson's formulation of the new institutional economics to argue that agglomeration could minimise certain kinds of transaction cost, and thus be economically efficient - the cost of external transactions could create a kind of spatial 'pull' that encouraged firms to locate close to each other.⁷⁶ Later versions of the theory distinguished between three different kinds of "flexible production region" - those centered on craft-based, designer intensive industries, those involving high technology in suburban areas close to cities, and those involving producer or financial services agglomerations at the heart of cities.⁷⁷ They also tried to assimilate the findings of evolutionary and institutional economics, suggesting that regional economies were liable to run into trouble if they did not have an appropriate institutional base and "politics of place."⁷⁸

Most recently, Michael Storper has sought to make the case for the region as a "nexus of untraded interdependencies."⁷⁹ He proposes that the uncertainties of economic production are very often solved at the regional level, through non-standardised common interpretations and conventions. In his argument, these conventions follow their own trajectories of development, and affect the development of industrial agglomerations independently from simple input-output linkages, which they frequently outlive. Storper's ideas have some points of contact with more sociologically oriented "network" approaches to local and regional development.⁸⁰

⁷⁶ See the summaries in Henry (1992) and Storper (1995).

⁷⁷ Scott and Storper (1992).

⁷⁸ Ibid. Note that the institutional economics in question often has little to do with the so-called "new institutional economics" which I refer to later, although there is some overlap in the work of Oliver Williamson, of Nelson and Winter on evolutionary economics, and perhaps the more recent work of Douglass North. Scott and Storper often also draw on a tradition which is more or less descended from the losers of the *Methodenstreit* in German economic thought in the nineteenth century, and from early institutional economists and economic sociologists such as Commons and Veblen. For an example of this tradition, see Lundvall (1993). For an overview of the differences between the "old" and "new" institutional economics, see Hodgson (1993).

⁷⁹ Storper (1995).

⁸⁰ See Grabher (1993), Grabher (1993). It is important to note that the work of Grabher and others in this school is less influenced by the current American literature on networks, which makes heavy use of statistical analysis, than it is by Mark Granovetter's work on embeddedness (Granovetter 1985). Both Granovetter's approach and the more statistically oriented literature on networks share

There is still debate on whether regions are becoming more economically important and autonomous. While some regions seem to be doing well, there is little evidence of an overall trend towards regional self-sufficiency. Ash Amin and his colleagues argue that while some regions seem to have "pinned down" the forces of globalisation, these do not constitute evidence of a general movement towards local production complexes.⁴¹ Nor, in their view, do theories of flexible production account for the success of metropolitan areas such as London or Frankfurt. They do admit that areas such as the Third Italy are important examples of how "thick" local settings may foster economic success, and that other localities may learn from their experience. In an examination of the statistical evidence, Borrás-Alomar, Christiansen and Rodríguez-Pose find that variance in GDP growth of regions within national contexts is much lower than variance across national contexts, and that there is no evidence that variance within national contexts is increasing.⁴² This is the opposite of what one might expect if the regional level were becoming more important in explaining economic outcomes than the national. However, in more recent work, Rodríguez-Pose finds that

... regional and local evidence suggests a positive association between the density of local production systems and growth, but that the presence of industrial districts and/or clusters and networks of SMEs is not *per se* a guarantee of greater economic dynamism. Conversely, the opposite relationship does hold in all cases: regions dominated by heavy and/or mass-production enterprises have undergone economic decline - and, in some cases, serious economic decline - since the mid-1970s.⁴³

Another literature qualifies the claim that shared understandings at the regional level foster economic growth. Amy Glasmeier finds that such understandings blocked necessary adaptation to

common roots in the work of Harrison White (Swedberg and Granovetter 1992). For an overview of the development of network theory see Wellman and Berkowitz (1988); also interesting are White (1988) and White (1993). For an exemplary and theoretically rich application of the statistical methods of network analysis to economic and social links, see Padgett and Ansell (1993). For an application of network analysis to an Italian industrial district, see Lipparini and Lomi (1996). Grote (1998) applies network analysis to a number of local economies, and also has a cogent critique of the vague and indiscriminate fashion in which the term "network" is usually employed in the literature.

⁴¹ See Amin (1993), Amin (1994), Amin and Thrift (1992), Amin and Thrift (1994).

⁴² See Borrás-Alomar, Christiansen, et al. (1994). There is one deviant case, Belgium, where divergence in GDP growth between regions is increasing. However, this is more probably due to political than economic factors.

⁴³ Rodríguez-Pose (forthcoming).

change in the Swiss watch industry in the Jura.⁴⁴ Similarly, Gernot Grabher finds that shared assumptions and patterns of cooperation in the steel industry in the *Ruhrgebiet* were instrumental in accelerating economic decline.⁴⁵ Industries that trust together may rust together.

Section 1.3 - Trust, Regions and Industrial Districts.

In the preceding section, I have tried to summarise recent international debates arising from the industrial district literature. However, as will become clear in the body of the dissertation, I do not intend to address many of the questions that concern economic geographers, sociologists and other social scientists who study these phenomena.⁴⁶ My dissertation project is not aimed at discovering whether industrial districts are, or are not, manifestations of a new economic logic of regionalism or localism, or at discovering the factors behind regional economic success or failure. Nor do I examine, except in passing, whether craft-based flexible working practices within these districts represent a viable alternative to mass production. Given that my interests are particular and narrowly focussed, one may reasonably ask why I have expended space and effort in describing the academic debates that center on these broad issues. The answer is straightforward - the debates that I have just described have shaped the way in which the subject matter of my dissertation has been approached; trust between producers in industrial districts.

Despite the considerable disagreements still prevailing, nearly all theorists of industrial districts, "learning regions", and the like, are united in according trust between economic actors an

⁴⁴ Glasmeier (1994).

⁴⁵ Grabher (1993).

⁴⁶ I do feel that the arguments that I make are relevant to some of these broader issues. However, there are many other important factors explaining, say, the economic success or failure of industrial districts, than the presence of certain kinds of trust and cooperation. Thus, while I will outline possible implications of my arguments for these more general questions in my conclusions, I will not address them at length in the body of my dissertation, which is particularly concerned with trust and cooperation.

important place in their arguments. Trust is seen as being central to patterns of flexible specialisation,⁸⁷ to forms of cooperation within industrial districts,⁸⁸ and to “thick” regions and localities.⁸⁹ One may identify several different arguments about trust which are made by students of industrial districts and related phenomena. These arguments are conceptually distinct from each other, but are frequently employed in combination; that is, authors often argue that trust arises from a mixture of these conditions.

First, many of those working on industrial districts have argued that trust is associated with the existence of historical communities. In such accounts, trust is seen as the outcome of deeply rooted shared local identities. The implication is that individuals within such identity-groups are more liable both to trust each other and to behave in a trustworthy fashion towards each other than those in more “modern” settings. Such arguments are especially typical of a particular generation of Italian industrial district theorists - as already mentioned, many of the industrial districts of the center and north-east of Italy do indeed seem to have long histories, or to be associated with strong and vibrant local identities. This position is often linked with a profound pessimism about the future survival of such districts. Insofar as they depend on a form of trust which is entwined with archaic social bonds, they are seen as vulnerable to the stresses and strains of social and economic modernisation.⁹⁰

A different approach, associated with the recent work of Charles Sabel, posits that trust is based on identity, but denies that such identity has to be historically grounded.⁹¹ Sabel suggests that recent developments in communitarian political thought show that identity is not fixed, and that shared identities and histories may be collectively reinterpreted in such a manner as to facilitate trust, emphasising points of commonality, and delimiting past disputes or difficulties. Because reflexive selves can imagine not behaving opportunistically, they can imagine others not behaving opportunistically either. Thus, Sabel argues, there is nothing inherently mysterious about the creation

⁸⁷ Hollingsworth and Boyer (1997), Hirst and Zeitlin (1992).

⁸⁸ Bagnasco (1995), Brusco (1996).

⁸⁹ Amin and Thrift (1992), Amin and Thrift (1994).

⁹⁰ Franchi and Rieser (1991).

⁹¹ See Sabel (1993), Sabel (1997). See also Bagnasco (1995).

of trust in circumstances where it previously did not apply, and indeed trust, in the sense of commonly held expectations, is the constitutive fact of social life. Trust between actors in industrial districts is, in Sabel's account, grounded in commonly agreed "stories" that circulate, which

create a past in which the prior conflicts resulted from mistakes and misunderstandings rather than fundamental differences, and suggest a future in which all subsequent conflicts will be limited by virtue of being defined in advance as family fights.⁹²

A third strain of thought sees trust as being closely associated with physical proximity. In this interpretation,

proximity promotes the 'digestion' of experience which leads to trust which promotes re-contracting (and the sharing of common support services) which ultimately enhances regional growth.⁹³

This point of view is especially congenial to economic geographers, concerned as they are with the effects of space on social relationships. It provides one reason for arguing that locality remains important, and that local concentrations of economic activity can retain relevance in the face of increasing globalisation. Proximity, in this argument breeds trust and common tacit understandings and conventions. In some variations of this argument, trust between actors can lead to cooperative technology networks in so-called "innovative milieux," which foster regional technological specialisation and economic development.⁹⁴

As said, many authors employ a combination of these arguments. In some ways this represents a partial convergence of the literature. However, it is not always clear what trust involves in substantial terms in these accounts, or what conditions are likely to result in actors trusting each other. Many authors who explain cooperation in industrial districts by reference to trust do not appear to have a worked out theory of trust as such. And such theories as there are tend to be rather vague about the conditions under which trust is likely to arise between actors. Frequently, authors refer to "thick" or "rich" local settings as the basis for trust relations, without clearly specifying what this "thickness" or

⁹² p.117, Sabel (1993).

⁹³ p.477, Harrison (1992).

⁹⁴ Maillat (1996).

“richness” involves. This ambiguity is commonly exacerbated by selection bias in empirical studies of industrial districts; the emphasis has been on studying instances in which cooperation has been successful, and trust presumably pertains between actors, rather than those instances where actors do not trust each other. This, combined with the generality of the concepts of trust employed, has led to a lack of comparisons that would allow one to surmise usefully about the conditions underlying cooperation.

With some exceptions, the literature has tended to employ theories of trust which emphasise its incompatibility with the usual formulation of the rational actor model.⁹⁵ It is argued that trust in industrial districts is based in other-regarding motives, and in the desire of actors to seek collective benefits rather than individual advantage. In Pyke and Sengenberger’s (relatively mild) formulation of the argument, “the accent [in trust and cooperation between actors in industrial districts] is on collective growth, where each individual unit benefits from the success of the whole.”⁹⁶ Pyke and Sengenberger see this as being rooted in a redefinition of interest so that it encompasses both individual long term interest, and the interests of others. This general hostility to the rational actor approach is, at least to some extent, a result of how the field has developed. The economic sociologists and economic geographers who study industrial districts are usually more or less hostile to the neo-classical mainstream of economics, which they see, with considerable justification, as insensitive to the social constraints on economic behaviour found in industrial districts. Instead, they have sought their inspiration from different sources; from the “old” institutional economics, the classics of economic sociology, anthropological theory, new, “evolutionary” approaches to learning and innovation, and communitarian political theory. Many of these approaches tend to stress collective benefit or efficiency as the engine of action and change rather than individual interest. The result has been perhaps that the role of individual interest in conditioning the kinds of trustworthiness, trust and cooperation found in industrial districts has been too readily discounted or overlooked. Furthermore, some students of

⁹⁵ Such exceptions include the work of Gabi dei Ottati, which employs ideas from Michael Taylor and other theorists to explore trust and cooperation between small firms (Dei Ottati 1994a, Dei Ottati 1994b), and the work of Edward Lorenz (Lorenz 1988, Lorenz 1992a, Lorenz 1999). Lorenz’s arguments are discussed in more detail in the succeeding chapter, whereas dei Ottati’s ideas will receive attention in the main body of the dissertation.

⁹⁶ Pyke and Sengenberger (1992).

industrial districts have perhaps failed to realise that the rational actor approach covers a rather broader spectrum of approaches than neo-classical economics alone. In particular, the potential for a fruitful dialogue between specialists of industrial districts and game theorists has been overlooked.⁹⁷

Thus, in summation, a rich and varied literature on industrial districts and related kinds of economic phenomena has come into being over the last twenty years. This literature began with the application of Marshall's ideas to certain patterns of economic organisation to be found in the center and north-east of Italy. Ideas arising from the Italian experience were applied, with greater or lesser success, to the understanding of economic organisation in other national contexts. The literature on industrial districts furthermore gave rise (or at least impetus) to a variety of debates on the economic prospects of regions and localities, "post-Fordist" versions of capitalism, and so on. In recent years, this literature has come increasingly to focus on issues of trust, and in particular on how trust is related to the economic development of localities and regions.

However, at least to my eyes, the concept of trust remains worryingly underspecified in many of these debates. Relatively little work has been devoted to the circumstances under which trust does, or does not arise between actors. Nor have the effects of trust on cooperation been spelt out with rigour; indeed, many writers in the field seem to use the terms "trust" and "cooperation" almost interchangeably. While some writers, such as Charles Sabel, have devoted attention to spelling out the theory underlying their conceptions of trust, their theory does not seem likely to me to lead to the kinds of social-scientific comparison that I am interested in.⁹⁸ Thus, I suggest that a model of trust which is clearly specified, and which has the potential for making falsifiable comparative predictions, would be a useful contribution to the state of knowledge in the field. The particular model which I propose uses the concepts of the rational-actor approach, which has typically been given short shrift by students of

⁹⁷ The possibility of a fruitful dialogue between game theory and sociological approaches to the economy is canvassed in Granovetter's often-cited article on embeddedness (Granovetter 1985). This article is frequently taken by industrial district theorists and others as a general attack on rationalistic approaches to human behaviour. In fact, Granovetter is at pains to stress that the rational actor model can be retained - his concern is that neo-classical approaches do not pay sufficient attention to the structures in which economic action is embedded, and that other formulations, such as that of Williamson, are too functionalist. Granovetter makes it clear that game theory has useful and legitimate tools through which embeddedness might be analysed.

⁹⁸ Of course, Sabel and others might very reasonably reply that their theory is not intended to form a basis for such comparisons.

industrial districts. I will lay out this model in the next chapter, and devote successive chapters of this dissertation to testing this model, insofar as is possible with the evidence to hand, and exploring its implications.

Chapter Two - Theoretical Issues in the Study of Trust

Section 2.1 - Trust: Basic Theoretical Issues.

As I have stated in the last chapter, academics who are interested in industrial districts have increasingly come to focus on the issue of trust. How is it that firms trust each other enough to cooperate as they do? Is such cooperation unique to industrial districts, or is it manifested elsewhere? And finally, what are the limits to this cooperation? A great deal of confusion surrounds these questions; I suggest that some (although not all) of this confusion stems from the vague theoretical underpinnings of much current research. As I have already stated, many explanations of cooperation between firms invoke trust as an explanation without detailing what it actually involves. Other explanations see trust as a universal factor in human social life and thus imply that trust, and its extension, are basically unproblematic. Neither of these stances is a good starting point if one wants, as I do, to embark on a study of the relationship between cooperation and different social settings. A more precise theory of the relationship between trust and cooperation is needed, which delimits the role of trust, offers some guidelines as to circumstances in which individuals will trust each other and circumstances in which they will not, and which consequently provides some predictions as to the kind and extent of cooperation that will occur between individuals in a particular setting. In this chapter I first discuss how the "encapsulated interest" theory of trust, proposed by Russell Hardin and Margaret Levi, may be such a theory. I then go on to examine how the role of institutions may be integrated into this approach, and to look at the ways in which different institutional settings are likely to impact trust, and thus cooperation, between individuals. Finally, I set out both the merits and drawbacks of the approach.

A vigorous debate is currently taking place in the social sciences and political thought about the nature and role of trust. Many insights from this debate may be applied usefully to these problems. However, some arguments concerning trust are clearly less relevant than others. For example, there is

much discussion of the role that trust plays at the macro-level, in ensuring the stability and propagation of social systems.⁹⁹ A linked set of questions involves the relationship between trust and democracy, asking what the circumstances are under which may one trust one's government, or one's fellow citizens, and what trust means in this context.¹⁰⁰ While these are important questions, they are only indirectly relevant to the kinds of cooperation that I am interested in. What seems more important are the theoretical questions involved in the micropolitics and microfoundations of trust and cooperation. For my particular purposes, one can identify two different microtheories of trust.¹⁰¹ One sees trust as being based on more or less rational expectations regarding the behaviour of the person to be trusted. The other sees trust as being invoked precisely when such expectations are not present. On the one account I trust you when I reasonably expect you to behave in a trustworthy fashion because of your interests, while on the other trust comes into play only when your interests provide me with no good reason to expect such behaviour.

The best-articulated versions of these two standpoints are to be found in the work of Russell Hardin and Laurence Becker respectively.¹⁰² Hardin argues for what he calls an "encapsulated interest" theory of trust.¹⁰³ In this theory, I trust you with regard to a specific matter when I know that it is in your interests to behave in a trustworthy fashion with regard to this matter. Trust is thus based on the expectations regarding others' likely future behaviour derived from calculations of their interests. Note that interests can be quite widely defined under this account; they may derive not only from narrow economic self-interest but from, say the fact that the trusted person cares about the truster, or will behave in a certain fashion for normative reasons.¹⁰⁴ The point is, that however interests are defined, trust in this account derives from knowledge of them; I trust you insofar as I know that your interests encapsulate mine. This account emphasises trustworthiness, or more precisely the perception of trustworthiness as the foundation of trust. Becker, in contrast, argues that trust which is based on confidence regarding others' motives is not really trust at all - it is indistinguishable, in the final

⁹⁹ Offe (1999), Luhmann (1979), Luhmann (1988).

¹⁰⁰ See the various essays gathered in Warren ed. (1999), also Hardin (1998c).

¹⁰¹ There are also standpoints between these two extremes; see, for example, Hollis (1998).

¹⁰² Hardin (1993), Hardin (1996), Hardin (1998a), Hardin (1998b), Becker (1996).

¹⁰³ Margaret Levi has also developed this theory in her recent work - see Levi (1998).

¹⁰⁴ My thanks to Margaret Levi for clarifying this point.

analysis from knowledge or power. He instead focuses on what he calls “noncognitive trust” - the trust that I place in another regardless of my beliefs or expectations regarding their trustworthiness.¹⁰⁵

I do not propose to participate directly in this theoretical dispute; rather, I wish to highlight its relevance for the subject-matter of this dissertation. Much of the existing work on industrial districts takes a stance that is closely related to that of Becker. Charles Sabel, for example, makes it clear that he does not consider trust to be involved in situations where actors come together for reasons of selfish economic interest alone, and seeks to insulate questions of trust, which in his view is ultimately based on the reinterpretation of shared history, from the kinds of cooperation predicted by rational choice models of human action.¹⁰⁶ Jonathan Zeitlin indeed sees the existence of trust in industrial districts as evidence rebuffing the rational actor approach.

There can be little doubt that co-operation, trust and community have indeed been crucial to the economic success of industrial districts such as those of the Third Italy. But it is precisely these social features - so distant from prevailing conceptions of economic rationality - which lead many commentators to regard such districts as unique historical artefacts which can be found but not made.¹⁰⁷

As I have stated in the previous chapter, Zeitlin’s perspective has predominated in the study of industrial districts.¹⁰⁸ Yet there is reason to believe that economic rationality (which I take to involve both an optimising relationship between action and the desires and beliefs of the agent, and the assumption that the agent is narrowly self-interested rather than other-regarding) may provide a useful basis for the understanding of trust and cooperation in industrial districts.¹⁰⁹ This is especially so in

¹⁰⁵ For Hardin’s response to this claim, see Hardin (1998a).

¹⁰⁶ Sabel (1993).

¹⁰⁷ p.286, Zeitlin (1992). I note that I would be in perfect agreement with this statement if the words “neo-classical economics” were substituted for “economic rationality.”

¹⁰⁸ As stated, exceptions include the work of Edward Lorenz (Lorenz 1988, Lorenz 1992a) and Gabi dei Ottati (Dei Ottati 1994b). Scott and Storper’s argument that “failures of trust underpin and intensify [a tendency to opportunism]; that is, in the absence of formal or informal means of ensuring that other parties to a transaction are likely to abide by a given set of standards, it becomes rational to be hesitant about doing so oneself”, also anticipates some of the logic of my arguments. p.13, Scott & Storper (1992).

¹⁰⁹ As Jon Elster stresses, (Elster 1986, Elster 1990), rational choice theory does not *per se* involve an assumption of self-interest - one may perfectly well incorporate other-regarding preferences into a rational choice account. However, the arguments that I set out here are based on a “narrow rationality” (Hardin 1982, Knight 1992) approach to the explanation of motivation and behaviour, which does indeed stress self-interest. This is for reasons of theoretical simplicity and parsimony; while I acknowledge that such an approach cannot capture all aspects of social interaction, it is arguably better to sometimes be wrong in a theoretically consistent fashion, than to be right through *ad hoc* or overly general explanations. As both Brian Barry (Barry 1978) and Anthony Downs (Downs 1957)

light of a substantial body of recent work on trust and cooperation in the rational actor tradition, much of which has yet to be applied to the study of industrial districts. One may cite, in addition to the theoretical literature on trust itself, the extensive literature on collective action,¹¹⁰ recent work in game theory which seeks to understand the institutional basis for cooperation¹¹¹ and the examination of “gift exchange” as a rational basis for informal cooperation.¹¹²

Thus, although I have some sympathy for the argument that trust involves more than rational expectations, I will employ a model based on the encapsulated interest approach to trust. While Becker and others may be correct in arguing that trust cannot be entirely encompassed within the conceptual boundaries of rational choice, they have not, at least to my mind, successfully formulated a coherent alternative approach to trust, still less the basis for a theory that could help us clearly understand how different situations may lead to different outcomes in terms of both trust and cooperation. The encapsulated interest approach shares intellectual roots with the various literatures that I have mentioned above, and thus should easily allow the incorporation of insights from these literatures. However, I should sound a warning note. My dissertation project, like many research projects which seek to apply theory empirically, does some violence to the concepts that inspire it. As formulated by both Hardin and Levi, the encapsulated interest approach to trust can potentially accommodate a wide variety of social situations in which trust is important, ranging from intimate relations to more formal relationships with state or economic actors. I have no need of such breadth, and for the sake of parsimony, I will use a version of their theory which is simplified and indeed truncated. In particular, I will start from the assumption that all actors are wealth-maximisers - something which is by no means implied by Hardin and Levi’s work.¹¹³ This seems a reasonable working assumption, given that I am discussing firms cooperating in an environment where interests are clearly dictated by the pursuit of

emphasise, theories of rational action which do not clearly state what the preferences of actors are, are likely to explain everything and nothing. Therefore, my use of the terms “rational choice”, “rational actor” and so on may be taken to rest on assumptions both of rationality and narrowly self-interested behaviour, except when I explicitly state otherwise.

¹¹⁰ Olson (1968), Olson (1982), Hardin (1982), Taylor (1987), Ostrom (1990), Ostrom (1998), Bowman (1985).

¹¹¹ Greif (1994, 1997, 1999), Greif, Milgrom, and Weingast (1995), Milgrom, North, and Weingast (1990), Calvert (1995a, 1995b, 1995c).

¹¹² Akerlof (1982), Miller (1992), Ensminger (forthcoming), Wielers (1997).

¹¹³ Hardin for example states that “many of our trusting relationships ... are grounded in the love or altruism of others.” (p.19, Hardin (1998a)).

economic gain.¹¹⁴ However, it does mean that my arguments will not be able to encompass certain kinds of trust. Most obviously, insofar as I assume that all actors are narrowly self-interested, and assume others to be self-interested too, the richer kinds of trust which the encapsulated interest theory can accommodate will be outside my framework. So too will situations where I behave “as if” I trusted someone else, in situations where I have no sure way of knowing whether or not that person is genuinely trustworthy on the basis of his or her interests.¹¹⁵

In the encapsulated interest approach as I interpret it here, trust more or less reduces to a set of expectations regarding the likeliness of future cooperation by others.¹¹⁶ Such expectations will be dominated by perceptions of others’ interests - I trust you with regard to a certain matter when I believe that it is in your interest to behave trustworthily in this particular regard. Trust and trustworthiness are important to the explanation of social outcomes insofar as they may be important elements explaining the existence (or absence) of cooperation. Cooperation is itself a concept with many meanings that only partially overlap; here I follow Randall Calvert, who takes cooperation to mean

that an individual engages in some act whose immediate consequences for that individual, regardless of what others do *at that moment*, are negative, but which generates some positive benefits for some other individual (and usually for several others in a group).¹¹⁷

This definition of cooperation implies that there is a separation between the *quid* (of costly cooperation) and any *quo*. As Gary Miller makes clear in his discussion of gift exchange, this means that economically rational individuals will only cooperate on a conditional basis; that is that they will only cooperate when they believe that the temporary cost of cooperation will be outweighed by long

¹¹⁴ The empirical merits of this claim will be assessed in later chapters. However, my arguments can perhaps be criticised even if one accepts that material interests are the primary motivation for behaviour. I typically treat firms as unitary actors even though there is a wealth of evidence that the differing interests of actors within the firm may have important consequences for how they operate. See Miller (1992), Knight (1992). I can only plead that this assumption is a necessary simplification if I am to make my subject matter tractable for analysis, and that I can think of no *systematic* way in which the differing motivation of actors within the firm is likely to affect the kinds of cooperation between firms that I discuss.

¹¹⁵ My thanks to Colin Crouch for alerting me to this possibility.

¹¹⁶ My thanks to Fritz Scharpf for pushing me to elucidate this point. Note that under this definition trust may indeed be born from suspicion, as the Italian proverb quoted at the beginning of this dissertation suggests, as long as this suspicion gives rise to arrangements which are likely to produce trustworthy behaviour.

¹¹⁷ p. 226, Calvert (1995a).

term gains.¹¹⁸ I will only make a cooperative move when I have reason to believe that this cooperation will be rewarded in the future, or more precisely, when I believe that the benefits of cooperation, as weighted by the possibility that a future reward will indeed be forthcoming, and by an appropriate time-discount, exceed the costs. Even so, the trust that my cooperation will be rewarded in the future will not necessarily be fulfilled; my making a cooperative move on the basis of trust makes me vulnerable to bad faith on the part of others.

This (admittedly quite schematic) account of trust has a number of important features. First, trust cannot be willed, and should not be seen as a kind of action. As Hardin says, "There is no act of choosing to trust - my knowledge or beliefs about you constitute my degree of trust or distrust in you."¹¹⁹ While trust is often a necessary precondition for cooperation, the two should not be conflated - trust is a belief or expectation, whereas cooperation is a form of action, perhaps taken on the basis of trust.¹²⁰ Second, the encapsulated interest account emphasises trustworthiness as an explanation for trust and consequently for cooperation. The expectation that you will cooperate if I will may lead me to make a cooperative move. This said, there is no implication that trust will always turn out to be justified. While I must believe that you are trustworthy if I am to trust you, I may very well be mistaken in my belief.¹²¹ Third, the encapsulated interest approach shortcuts many of the complexities of the literature by treating trust more or less simply as an expectation. Where many of these

¹¹⁸ Miller (1992). The relationship between trust and cooperation has led to much theoretical confusion. Jane Mansbridge's concept of altruistic trust, in which the fact that I act cooperatively beyond that level where I rationally trust you is taken as a kind of trust, is very nearly an oxymoron (for a critique see Hardin (1998a)). However, under the definitions that I employ, not all forms of cooperation need be grounded in trust if actors are genuinely other regarding. Hence, a parent's sacrifice on behalf of his or her child may certainly be considered an instance of cooperation according to the definition advanced above, but it does not necessarily involve trust, as there need not be any expectation on the part of the parent that his or her cooperation will be reciprocated. This said, deep emotional relationships may have an effect on our trust of others beyond their simple effect on the incentives of those others to be trustworthy, and on our knowledge of those incentives. Simply put, we may not be able to think rationally about those we love or hate to an extreme, and thus may respectively trust or distrust them to a far greater extent than were we inspecting their likely future behaviour under the cold light of rationality. All this said, I suggest that considerations of this kind will not typically play a major role in explaining trust between economic actors.

¹¹⁹ p.1, Hardin (1998b).

¹²⁰ Levi (1998).

¹²¹ Which possibility gives rise to the literature on signalling and trust. See for example Bacharach (1998), Bacharach and Gambetta (1998).

complexities return is in the process of expectation formation - indeed, this process must be at the heart of any dynamic model of trust and cooperation which employs this theoretical perspective.¹²²

Section 2.2 - Institutions and Trustworthiness

Institutions are not the only factor affecting trust. Our expectations as to the trustworthiness of others may have many different sources, including our past experience in similar situations, and our assessment of the personal characteristics of the individual(s) in question, as well our understanding of the institutional strictures under which other actors operate.¹²³ However, there is fair reason to believe that institutions may be especially important to explanations of trust in the economic realm. Russell Hardin argues that “our institutions enhance trustworthiness and, hence, the value of trust far better in economic than in noneconomic relations”, which he attributes to the fact that economic constraints are easier to assess than constraints in other environments, and thus are also easier to incorporate into strong expectations.¹²⁴ A well-functioning system of contract law is likely to increase the trustworthiness of parties to contractual agreements, and thus to lead to higher levels of trust. One can perhaps broaden this argument - not only are institutions likely to play a greater role in economic relations than in other social contexts, but within the economic sphere, assessments of the effects of institutions on the trustworthiness of others will frequently prevail over other sources of expectations. If I am a firm-owner interested in cooperating with the owner of another firm, I most likely will be willing to cooperate without believing that the other party truly has my interests at heart, or is of an exceptionally honest personal disposition,¹²⁵ if institutions exist such that the other party is likely to be punished if she cheats. Except in cases of prolonged personal contact across a variety of social situations, expectations based on the incentives embedded in institutions will typically be less

¹²² Hardin (1993).

¹²³ Levi (1998).

¹²⁴ p. 34, Hardin (1996).

¹²⁵ Although such beliefs will of course lubricate cooperation when they exist.

ambiguous and easier to rely on than expectations based on assessment of individual character for a wide variety of transactions.¹²⁶

I accept that some scholars have taken a different viewpoint on this issue. Andrew Lorenz, who has studied cooperation between subcontractors in the French engineering industry, has proposed that third party enforcement has little relevance to the creation of long term bonds between firms.¹²⁷ Instead, such bonds are based on the gradual expansion of trust between the parties as they test each other's trustworthiness through gradually taking larger and larger risks. Lorenz's account of how long term relationships between subcontractors arise seems to be borne out in the two case studies examined in this dissertation. However, there is reason to believe that institutions may play an important role even still, in conditioning the expectations that actors have of each other within such relationships. As I will show in later chapters, institutions may affect both the set of partners from whom one expects certain sorts of cooperation, and the areas over which cooperation is expected, even in informal bilateral relationships.¹²⁸

Still, in order to make the case that institutions affect how actors trust each other, one needs to specify what one means when one uses the term "institution," and what the nature of the effect is. There has recently been much debate about institutions in political science, sociology and

¹²⁶ Of course, there may be many transactions over which institutions are insufficient to guarantee trustworthiness; in such transactions, individuals will be likely to fall back on other indicators of trustworthiness (such as assessments of character) or perhaps not trust at all.

¹²⁷ See especially Lorenz (1993); also Lorenz (1988) and Lorenz (1992a).

¹²⁸ One can furthermore argue that the study of institutions provides the best base for comparative studies of the effects of trust in different settings; that is, that many of the factors which play an important role in individual trust relations (personal qualities of honesty or dishonesty and so on) are likely to cancel each other out in the aggregate.

economics.¹²⁹ This literature is highly relevant to questions of trust, but has little agreement on many important issues.

The term 'institution' is notoriously one of the vaguest words in the lexicon of the social sciences. Some authors use it to refer to prescriptive rules, norms, laws and conventions, while others (perhaps the majority) use it to refer to organisations, such as firms, political parties, or states. It seems useful to draw a distinction between these two, and indeed, within rational choice, many authors distinguish clearly between institutions and organisations.¹³⁰ For Douglass North, institutions are sets of *rules*, "the constraints that human beings impose on human interaction," whereas organisations are groups of individuals bound together by some common objective.¹³¹ Organisations will themselves almost certainly have institutional structures, and the choice of whether to focus on the organisation as a group of individuals acting in concert within a wider institutional game, or on the way in which the internal institutional rules of the organisation affect the behaviour of the individuals involved in it, is a function of the particular question being asked, and the level of analysis on which an answer is most likely to be found. Jack Knight provides a very useful definition of social institutions as

sets of rules that structure social interactions in particular ways. These rules (1) provide information about how people are expected to act in particular situations, (2) can be

¹²⁹ In both political science and economics, the fashionability of the study of institutions has ebbed and flowed. Political science, prior to the behaviouralist revolution, had institutions as its primary focus, but tended to study them in a rather atheoretical fashion. Behaviouralism had little overt concern with institutions (Shepsle 1989), although there was arguably an implicit institutional focus in much behaviouralist work (Thelen and Steinmo 1992). More recently, a variety of approaches to institutions have sprung up within political science - for the best available overview, see Hall and Taylor (1996), but also Di Maggio (1998). The study of institutions by economists has had a more chequered career - as previously mentioned, the *Methodenstreit* between economists in late 19th century Germany saw the victory of a more mathematically oriented economics over a historical institutional approach. As in political science, historical institutionalism tended to longwinded descriptive accounts of the minutiae of economic institutions. See Schumpeter (1954) for a characteristically robust critique of the historical economists. There has been a recent renaissance in the analysis of institutions within economics - however, in contrast to earlier forms of institutionalism, this recent work has used the tools of the marginalist approach. On varieties of institutionalism in rational choice and economics, see Kato (1996), Eggertsson (1990), Eggertsson (1995), Miller (1998). Sociology, in contrast to political science and economics, has always maintained a strong emphasis on institutions (with the exception of the windier varieties of structural functionalism). This is especially true of economic sociology, viz. Trigilia (1998), Hollingsworth, Schmitter, et al. (1994). While much recent work in economic sociology (Granovetter (1985), Grabher (1993), Wellman and Berkowitz (1988)) has focussed on "networks" rather than institutions, a substantial degree of overlap remains (Shepsle 1989).

¹³⁰ Some authors outside the rational choice tradition also make this distinction; see for example Trigilia (1998).

¹³¹ p.15, North (1995).

recognized by those who are members of the relevant group as the rules to which others conform in these situations, and (3) structure the strategic choices of actors in such a way as to produce equilibrium outcomes.¹³²

In this dissertation project I intend to employ this definition, treating institutions as rules conducive to equilibrium outcomes, and distinguishing them both from organisations and the equilibrium outcomes themselves. While there is broad agreement that institutions matter in explaining political and economic outcomes, scholars still argue about how and why they matter. Three broad approaches may be identified. The first is that of historical and cultural institutionalists, who argue that institutions have force because they involve norms and routines of appropriateness for individuals,¹³³ or more broadly, that they define actors' goals as well as the context in which they pursue those goals.¹³⁴ Second are rational choice scholars, who have tended to discount institutions' effects on actors' preferences, instead looking at how institutions shape the context in which individuals form their strategies.¹³⁵ In particular, many rational choice accounts highlight the way in which institutions provide information to strategic actors as to how other actors will react to their own actions. Finally, a more recent approach has sought to focus on how institutions may have a cognitive role; that is, how

¹³² p.54, Knight (1992). This definition of institutions has some similarities with certain conceptions of political culture; more particularly, those conceptions of political culture that find inspiration in the work of anthropologists such as Clifford Geertz (see, for example Barnes (1988). Knight himself speaks of informal institutions as a component of culture (Knight 1998). From this perspective, the arguments that I advance about the effects of institutions could be considered cultural arguments; with however the caveat that I preserve the assumption of the rational actor so that institutions are external rules that the actor responds to so as to maximise her self interest, rather than internalised norms. Further, I do not incorporate into my arguments the cognitive or heuristic aspects of rules and symbols - that is, how they disclose the world and possibilities of action to actors. It seems to me that this last would be an essential part of any truly culturalist explanation. The respective merits and drawbacks of rational choice and culturalist explanations are discussed at various points in the dissertation.

¹³³ March and Olsen (1989). Note however that Peter Hall and Rosemary Taylor (Hall and Taylor 1996) argue that historical institutionalism is midway between rational choice institutionalism and cultural institutionalism, sharing some of the strengths of both approaches, but also suffering from a regrettable diffuseness in its theoretical microfoundations.

¹³⁴ Thelen and Steinmo (1992). See also Fligstein (1996) who provides a cultural theory of institutions that also pays heed to their cognitive effects. The historical institutionalist literature builds on the earlier work of scholars who sought to "bring the state back in" in the 1980s (Skocpol 1985).

¹³⁵ Much of the interest that rational choice scholars have shown in institutions stems from internal debates with the approach - scholars like Kenneth Shepsle and Barry Weingast were "alarmed" at the inferences that social choice theorists were making about the incoherence and instability of political processes because of their failure to acknowledge the presence and importance of institutions. See Shepsle (1989).

the mental frameworks associated with institutions may provide interpretations of the world which inform the actions of individuals without determining them.¹³⁶

Each of these sets of arguments has merits and drawbacks. While cultural and historical institutionalists are surely right to assert that rational choice accounts miss out on much of what motivates human action, they often tend instead to provide “oversocialised” accounts of human action, in which individuals are little more than the puppets through which institutional routines are played out.¹³⁷ Rational choice accounts, as their critics allege, typically fail to take account of the importance of other-regarding motives, and often discount power relations to stress the efficiency-promoting aspects of institutions.¹³⁸ Although cognitive approaches to institutions hold enormous promise for the future, they remain underdeveloped in many important respects. In this dissertation project, I will employ an explanatory framework which rests on the second, rational choice approach - the one most immediately coherent with the encapsulated interest approach to trust that I employ. While I acknowledge that this approach will not be able to explain all forms of observed human behaviour, and that it furthermore itself rests on implicit cognitive assumptions, it has the merit of providing an approach to the interaction between institutions and individual behaviour upon which one can build a theory with falsifiable implications. This said, I will acknowledge, where appropriate, instances where the rational actor approach does not provide a convincing explanation of data gathered in the course of the dissertation project.

Given the above arguments, institutions are likely to affect how actors trust each other insofar as they have important effects on actors’ trustworthiness, and on the circulation of information about trustworthiness. As already mentioned, the existence of a body of contract law with accompanying enforcement mechanisms is likely to make actors more trustworthy, at least in certain respects. If I know that cheating will be punished heavily if it is discovered because of the existence of a certain institution, and if there is a high likelihood of discovery, I will probably behave honestly. Given social

¹³⁶ See North (1993), North (1995), Beckert (1996). Johnson (1997) argues convincingly that cognitive factors play an unacknowledged role in rational actor accounts, and sets out the foundations of an approach to the interaction between cultural symbols and strategic action that seeks to accommodate the arguments of anthropologists such as Clifford Geertz with rational actor theory. I discuss these issues at greater length in Chapters Four and Eight.

¹³⁷ Granovetter (1985), Knight (1992).

¹³⁸ Swedberg and Granovetter (1992), Hall and Taylor (1996). See however the discussion in Section 2.4.

knowledge of the existence and effects of such institutions, trustworthiness will be relatively predictable in many instances, and thus trust will prevail, at least over those transactions where opportunism is likely to be punished. Further, institutions may exist such as to disseminate information about the relative trustworthiness or untrustworthiness of actors. There may be rules, whether formal or informal, which mandate that information about how actors behave is shared among members of a particular community. Such rules may enhance trustworthiness - they will serve as a disincentive to malfeasance if former cheaters are likely to be treated less favourably in future interactions. They may also affect trust more directly; insofar as the future behaviour of an actor is linked to his past conduct, information about previous actions may reasonably inform the expectations of those who deal with him.

Institutions under this definition will affect actors' expectations in two main ways - either through the information that they embody, or through the sanctions associated with them.¹³⁹ Jack Knight provides a simple example of how institutions can shape actors' expectations through informational effects alone in his discussion of market relations between a farmer and a buyer.¹⁴⁰ The farmer and the buyer have to meet in the market on a particular day so that the farmer can sell his product, but some days suit the farmer more than the buyer, and some days the buyer more than the farmer. Knight argues that if there is an institution which favours one of the days favoured by the buyer, and if the farmer is aware of this institution, he will find that his best choice under the circumstances is to go to market on that day specified by the institution, even though that day would not be the best possible for him if his preferences were unconstrained. Thus, an equilibrium will be selected in which the best possible responses of both buyer and farmer converge on a particular outcome.

However, many forms of cooperation will involve the possibility of sanctions being applied by third parties.¹⁴¹ Such sanctions may be applied by a single organisational actor, such as the state - state-applied sanctions are relevant in many areas of economic life. Alternatively, such enforcement may be provided in a more diffuse fashion, through a community system in which sanctions are

¹³⁹ Knight (1992).

¹⁴⁰ *Ibid.*

¹⁴¹ One should note that Knight's discussion of the role of third party enforcement extends to many institutions that might be considered to be informal institutions

deployed by members of the community in question rather than a third party.¹⁴² There is a recent literature in economic history which is highly relevant to this question.¹⁴³ This literature examines historical instances of institutions which sought to guarantee good conduct on the part of economic actors in the absence of an effective state based system of enforcement, and shows that simple bilateral reputation systems may usefully be supplemented or replaced by a multilateral reputation system, in which information about actors' behaviour is exchanged between the members of the relevant community.¹⁴⁴ In such a system, reputational effects are reinforced by communication between players, so that cheaters may be punished in future actions with other members of the community, rather than only the other actor whom they have cheated. More advanced versions of this system involve coordinated communication through a single actor in order to cut costs. This actor does not herself carry out sanctions; instead she communicates information to the players who then carry out sanctions or not as appropriate. Calvert (1995b) has an excellent overview of the development of this literature, and shows how successively more complex organisational forms - from simple bilateral enforcement without communication, through diffuse communication among players, to communication through a centralised coordinator - may make cooperation possible among successively larger populations of actors.

This literature treats institutions as equilibria in underlying games,¹⁴⁵ and thus is different in important ways from the theoretical perspective adopted in this dissertation in which institutions are

¹⁴² For a somewhat broader, but highly relevant, discussion of community, see Taylor (1982).

¹⁴³ See Milgrom, North, and Weingast (1990), Greif (1994), Greif, Milgrom, and Weingast (1995). Calvert (1995b) argues that this literature has its intellectual roots in the work of Andrew Schotter, who sought to model institutions as equilibria in underlying games. See Schotter (1981).

¹⁴⁴ There is an extensive literature on bilateral reputation mechanisms - perhaps the best known work is Axelrod (1984), although the relevant discussion adds little that was not already present in Taylor (1976). See also Hardin (1982) and Taylor (1987). What this literature shows is that given an indefinite number of repeated plays, and sufficiently low time-discounts, it is possible for two actors in Prisoner's Dilemma situations to reach a cooperative equilibrium based on "tit for tat". Taylor (1987) extends this to discuss how Prisoner's Dilemma problems may be solved in group situations.

¹⁴⁵ Rational choice accounts of politics have typically been driven by the search for equilibria (Riker 1990). More recently, see Bates, Greif, et al. (1998a). However, the original concept of Nash equilibrium has given way to a number of competing refinements of the equilibrium concept. See Harsanyi (1986), Morrow (1994) for relevant discussion, and Kreps (1990b) on the drawbacks of such refinements.

seen as rules which may guide actors towards specific equilibria.¹⁴⁶ Still, one may acknowledge the force of Calvert's contention that game theoretic accounts of institutions should have

no institutional "constraints" or "preferences" aside from those arising out of the mutual expectations of individuals and their intentions to react in specific ways to the actions of others, all in an attempt to maximize utility in a setting of interdependency.¹⁴⁷

In other words, "narrow" rational actor explanations of institutions should not invoke mysterious "institutional" forces to explain social stability, but should instead ask how institutional stability may be explained from the starting point of strategic interaction.¹⁴⁸ This said, not all accounts of institutions-as-rules invoke such forces. The perspective adopted in this dissertation, follows Jack Knight in that it sees institutions not as inducing stability in and of themselves, but rather as influencing actors' expectations in such a way as to lead them to one particular equilibrium rather than others. Under this argument, institutions provide a means of equilibrium selection, so that the behaviour of actors must still be explicable in terms of equilibrium analysis.¹⁴⁹ By the same token, the sorts of equilibria described by authors such as Calvert, Greif, and Milgrom, North and Weingast, can be seen as perhaps being arrived at through such institutions.

Many of these models employ the concept of subgame perfect equilibrium. This is a response to deficiencies in the original Nash equilibrium concept, and requires that

the player's actions constitute a best response to the actions taken by players in every subgame, including those never actually reached. It thus requires that threats or promises be

¹⁴⁶ See Calvert (1995b). One should however note that there is potential for crossover between these two approaches - Calvert, who proposes that institutions should be treated as equilibria, has a brief discussion of how the arguments of Knight (who sees institutions as rules) may be treated in Calvert's own terms. See Calvert (1995c). Andrew Schotter also discusses the possible effects of inequalities in power on equilibrium institutions (Schotter 1981).

¹⁴⁷ p.74, Calvert (1995b).

¹⁴⁸ One may also argue that this contention marks one of the limits of rational choice theory; as some working within the paradigm have acknowledged, institutions do appear to shape peoples' behaviour in a manner which cannot solely be understood in terms of their strategic interests. I will discuss the implications of this theoretical blind spot at the end of this chapter. For discussion of the possibilities for exchange between rational choice and other approaches which are perhaps better capable of capturing these subtleties see Johnson (1993), Bates, De Figueiredo, et al. (1998), Yee (1997).

¹⁴⁹ However, note that I do not at this stage intend to provide formal models of the equilibria resulting from the institutions that I describe; I am instead relying on the insights of authors who have previously used such models.

credible - the players remain on the equilibrium path of play because it would be in the best interests of others to fulfil their threats or promises if they should stray off it.¹⁵⁰

This is highly relevant to the issues at hand - sanctions often involve costs for those who are carrying out the sanctioning. Economically rational actors will not mete out punishment unless they somehow gain from doing so, or are liable to be punished themselves for not acting.¹⁵¹ Thus, an adequate narrow rational actor account of how institutions facilitate cooperation must not only examine how sanctions affect potential opportunists, but must state why it is in the interests of the relevant actors to carry out these sanctions.¹⁵²

So, to summarise the above discussion, there is good reason to believe that institutions will have a particularly important effect on trust between actors in the economic sphere. There are, however, competing accounts both of what institutions are, and of how they affect actors. In this dissertation, I will adhere to a distinction between institutions and organisations, treating the former as sets of rules, and the latter as actors. I will further concentrate on those effects of institutions which are typically highlighted by rational actor accounts; viz. how institutions provide information to strategic actors as to the likely future actions of others. Institutions may work through informational effects alone, or be supported by third-party sanctions. One may highlight two ways in which institutions are likely to affect trust between actors. One, perhaps the most important, is the effect that institutions will have on actors' trustworthiness - the fact that an institution exists such that I will be punished if I cheat may dissuade me from cheating. The second is that institutions may mandate the sharing of information as to the past behaviour of actors. However, it is important to note both that institutions do not have any force independent from the equilibria that they guide actors to, and that under the assumptions of sub-game perfect equilibrium, sanctions promoting trustworthy behaviour or provision of information cannot rely on incredible threats.

¹⁵⁰ p. 10, Bates et al. (1998a).

¹⁵¹ One should emphasise however that in real life, people are often not narrowly rational, and punish others for normative reasons. Indeed, as Jon Elster points out, they may sometimes be advantaged by such irrationality: others will be far less likely to cross you if you have a reputation for carrying vengeance to irrational extremes Elster (1989). The experimental literature confirms that actors may seek to punish others even when it is not rational to do so (Ostrom 1998). Thus, models employing the concept of subgame perfect equilibrium may underestimate the willingness of actors to carry out sanctions, and consequently may misconstrue the consequent expectations of others (even when those others are themselves perfectly rational) regarding the likeliness of such sanctions.

¹⁵² I am grateful to Avner Greif for pressing me to address this important problem.

Section 2.3 - Trust in informal settings.

An argument frequently made in the literature, both implicitly and explicitly, is that the rational choice model, even if it can sometimes help us understand how people react to formal institutions, is of little help in understanding the world of informal human relations. Some critics of the rational choice approach concede that our responses to broadly based institutions such as laws often can usefully be seen as a response to the sanctions embedded in them.¹⁵³ But informal social relations, so the argument goes, cannot properly be understood in a rational actor context. This position, or something like it, is frequently the basis for definitions that limit trust to informal relations. According to this viewpoint, one can distinguish between genuine trust on the one hand, which exists only in relations which are in some sense intimate, and the kind of confidence which results from economic arrangements and institutions on the other hand, which is not really trust.

It is interesting to note that this basic dichotomy informs the positions of two theorists who are quite at odds with each other in other respects. Charles Sabel seeks strenuously to insulate trust, which on his argument derives from a shared interpretation of a common past and destiny, from those forms of cooperation that are based on individual utility maximising, which can at best, in his opinion, lead to a *modus vivendi* which simulates trust.¹⁵⁴ His intention is to show that "studied" trust applies over areas of economic life where neo-classical economists would expect self-interest alone to reign. Oliver Williamson comes to precisely the opposite conclusion from a very similar theoretical starting point. Rather than insulating trust from economics, he wishes to insulate economics from trust, asking

Wherein is trust implicated if parties to an exchange are farsighted and reflect the relevant hazards in the terms of the exchange? ... I maintain that trust is irrelevant to commercial exchange and that reference to trust in this connection promotes confusion. ... If calculative relations are best described in calculative terms, then diffuse terms, of which trust is one, that have mixed meanings should be avoided when possible¹⁵⁵

¹⁵³ This is not of course to deny that law may have some degree of innate legitimacy apart from the sanctioning capacities associated with it.

¹⁵⁴ Sabel (1993).

¹⁵⁵ p.469, Williamson (1993).

Williamson argues that the concept of trust should be confined to personal relations, and that it is very nearly non-calculative. According to Williamson, the arrangements that actors come to in the economic world can typically be described in terms of economic rationality alone.¹⁵⁶

A closely related dichotomy can be seen in discussions of the concept of reciprocity. There is a strong tradition in both sociology and anthropology, dating back at least to Mauss, which argues that economic relations based on reciprocity are fundamentally different from those based on markets. According to this tradition, reciprocity involves gift-relations, and, crucially, does not mean that individuals have a calculative mindset. Market exchange, in contrast, involves exchange and leads more or less ineluctably to individual calculativeness. Thus, according to this argument, economic rationality is not a human universal, but is rather the product of certain institutional settings.¹⁵⁷ As should be apparent, this dichotomy is structurally quite similar to that underlying Williamson's theory of trust, in that it distinguishes a *gemeinschaftlich* sphere of intimate relations in which economic rationality has little or no role from a *gesellschaftlich* sphere of formalised interest relationships in which it can be said to be important. Indeed, the two dichotomies are not only structurally similar, but closely related.¹⁵⁸ It is precisely the kind of trust involved in reciprocal relations that many critics argue cannot be understood in terms of rational calculativeness.

There may be some truth to these distinctions - it is clear that narrow rational actor models will not work well in social situations where actors are motivated by other-regarding concerns. Furthermore, as Jon Elster acknowledges, reciprocity may often be considered to be a non-rational norm.¹⁵⁹ However, the argument that economic rationality is irrelevant both to trust in informal relations and to reciprocity is misleading. An important recent body of work, beginning with Akerlof's

¹⁵⁶ Of course, my own dissertation project analyses trust over market relations in terms of economic rationality. My disagreement with Williamson is both terminological - I believe that trust may usefully describe many relationships which are based on economic rationality, and theoretical - I suspect that even those kinds of trust which are embedded in "thick" relationships may often involve the calculation of interests at some level, even if those relationships cannot themselves properly be understood in terms of a narrow rationality model.

¹⁵⁷ For the most forceful expositions of this view, see Polanyi (1992), Polanyi (1944), Sahlins (1972), Sahlins (1976). See also Tawney (1936). For counterarguments, see North (1990b).

¹⁵⁸ Williamson, for example, argues that informal institutions involve the same kind of nearly non-calculative relations that personal relations do, and perhaps makes an implicit identification between the two. See Williamson (1999).

¹⁵⁹ See the discussion of *guanxi* in Elster (1989).

discussion of labour relations as gift exchange, has shown that certain forms of reciprocity can be sustained by economically rational actors. As Gary Miller argues

The mutual exchange of gifts, leaving both parties better off, is quite rational, *as long as each party expects that the other party's continued participation is conditional on its own contribution.* No more altruism is necessary in the exchange of gifts than in the highly competitive, status-oriented gift exchange economies of the Pacific coast Indians.¹⁶⁰

Furthermore, there is good empirical reason to believe that trust between actors in relations of gift exchange can be based on narrow rationality. Jean Ensminger has carried out anthropological research on agency relations among cattle herders in North East Kenya, where she finds that relations of generalised reciprocity seem to be based on a narrowly rational form of trust.¹⁶¹ The kinds of relations which Ensminger studies would seem at first to be difficult to explain within the rational actor framework. Cattle herding among East African pastoralists involves substantial agency problems; that is, cattle owners must rely on herders who are difficult to monitor. These agency problems are frequently addressed through the use of close kin as herdsmen, or the adoption of "fictive" kin, who come to be treated as if they were family. Gifts are given to herders in a situation of quite diffuse reciprocity. Yet even though these familial, or quasi-familial relations would seem to involve the antithesis of strategic calculation, closer examination reveals that they have a basis in self-interested behaviour. Trust is placed in individuals because these individuals' interests lead them to behave in a trustworthy fashion. Ensminger's research stands as a useful corrective both to those who would argue that familial relations and interest based notions of trust are antithetical to each other, and to those who suggest that the gift relationship necessarily goes hand-in-hand with a different sort of rationality than the calculating rationality of market exchange.¹⁶²

Thus, there is evidence that gift-exchange can be maintained as an equilibrium between narrowly rational actors. However, there still remains the problem of how one reaches a particular equilibrium of gift-exchange under the very many possible equilibria that the "folk theorem" of game

¹⁶⁰ p.204, Miller (1992). Italics in original.

¹⁶¹ Ensminger (forthcoming).

¹⁶² As I have already stated, I am not trying to claim that all forms of giving or cooperation can be explained in terms of selfish rationality. Instead I am making the weaker claim that many kinds of gift exchange, which appear on the surface to be non-rational, can indeed be explained using the concepts of narrow rationality.

theory predicts will arise.¹⁶³ As the previous section states, the theory of institutions that I rely on in this dissertation sees institutions as being important precisely because they may induce actors to arrive at one equilibrium rather than another. The information provided by institutions as to the likely future behaviour of others in a strategic context, as well as the sanctioning capacities associated with an institution, may lead actors to a particular equilibrium outcome. Here, I wish to add that institutions need not be formal to have this effect. Informal customs and conventions may be seen as institutions too, which in the final analysis work for the same general reasons as formal ones.¹⁶⁴ What is different is the enforcement mechanisms associated with different sorts of institutions. Formal institutions rely in the final analysis on the authority of a third-party enforcer, typically the state.¹⁶⁵ Further, they are usually explicitly stated (i.e. as written laws, regulations or guidelines) in a manner which limits, although it by no means eliminates, the risk of differences in interpretation that might lead to social instability.¹⁶⁶ Informal institutions, in contrast, involve unwritten rules, and may rely on diffuse forms of enforcement carried out by all the members of a community rather than by specialised actors outside that community.¹⁶⁷ Indeed, Knight proposes that institutional rules may lead actors to equilibria without being enforced by any actors external to those involved in a particular bargaining situation, suggesting that informal institutions need not rely on external sanctioning at all.¹⁶⁸

Ensminger's empirical research provides a useful illustration of how informal institutions may affect characters' trustworthiness, and thus have an effect on trust and cooperation.¹⁶⁹ The relationships between herd owners and herdsman that she describes are semi-contractual, but trust and trustworthiness seem to be more influenced by informal institutions governing social relationships than by contracts. The greater part of herdsman's compensation is not formally stipulated, but rather depends on informal norms as to what is reasonable under the circumstances. This would appear to

¹⁶³ Miller (1992).

¹⁶⁴ See Knight (1992).

¹⁶⁵ Although the power of the state does not solely consist of its direct coercive capacity. See Hardin (1990).

¹⁶⁶ For discussion of how the interpretation of formal, legal institutions may lead to the dynamic evolution of such institutions, see Calvert and Johnson (1998), Stone Sweet (1999).

¹⁶⁷ Taylor (1982).

¹⁶⁸ Knight (1992). For a more detailed discussion of this point, see the following section. Note that Knight differs here from Calvert, for whom a tit-for-tat norm is not an institution unless it is enforced by other parties than the particular party who is injured by defection.

¹⁶⁹ Although Ensminger uses the term "norm" rather than informal institution.

offer *ex ante* incentives to cheat either to herd owners (when such informal payments are paid after the period of herding is over), or to herdsmen (when such payments are made before), were it not that informal institutions exist such that cheaters are likely to be punished. There are informal institutions stipulating that the kin groups of herders who steal cattle have to compensate the victim of theft.¹⁷⁰ However, Ensminger records an exception to this rule - a notoriously "cheap" herd owner, who failed to get compensation when his cattle were stolen, because of his reputation for treating herdsmen badly. Thus, there would seem to be informal institutions dissuading herd owners from cheating too.¹⁷¹

To return to the discussion at the beginning of this section, many writers seem to distinguish between the kinds of trust that actors have when relations are personalised, and the kinds of trust that they have on the basis of interests, arguing that the latter is not really trust. Other writers distinguish radically between gift exchange and market exchange, arguing that they are associated with quite different kinds of rationality. Both these arguments are overly general, and fail to account for evidence suggesting that many forms of cooperation, even in intimate relationships or in situations of gift exchange, do seem to be based in narrow rationality. In short, the encapsulated interest theory of trust, even in the relatively truncated form which I am using here, is capable of explaining how trust may arise so as to facilitate informal exchange.

Furthermore, I argue that forms of cooperation which involve gift exchange may frequently arise on the basis of informal institutions. That is, informal rules may be in place, on the basis of which actors may reasonably expect that a certain kind of contribution will be rewarded in a certain fashion. Such informal institutions may also be associated with sanctions to dissuade cheating, which frequently involve the exclusion of the cheater from the benefits of the system in future interactions. Under such conditions, quite complex forms of cooperation may potentially be sustained as an equilibrium.

Section 2.4 - The origin and evolution of institutions.

¹⁷⁰ The similarity to Greif's "community responsibility" mechanism is clear. See Greif (1999).
¹⁷¹ I acknowledge that a normative element may enter into such institutions, suggesting that narrow rationality does not provide a total explanation of actors' expectations and behaviour. The so-called "moral economy" approach (Scott 1976), may be better capable of picking up certain nuances in such instances.

This dissertation aims to examine how different institutions may result in different outcomes in terms of how actors trust and cooperate with each other. Problems of available data and theoretical difficulties both limit the extent to which I can discuss institutional evolution and change. However, there are clear problems in not doing so at all. Describing institutions as sets of rules, and going no further, runs the risk of tautology; that is, one may very easily slip into an account that takes whatever differences there are in trust between actors in the two case studies, describes these differences in rule-like form, and attributes the observed differences in behaviour to the “rules” that have just been derived. For example, I may take the presence of one kind of cooperation in one case study and its absence in another, as evidence of the existence of an institution in the first case study which I then describe in terms of the rules that seem to govern this cooperation. This would be a description of difference purporting to be a causal explanation - “institutions” in such an argument would not have much more explanatory power than the “dormitive virtues” of the sleeping powder in Molière’s play.¹⁷²

The only possible response to this is to demonstrate that institutions have an important role *qua* institutions in determining outcomes. In other words, one has to demonstrate insofar as it is possible to show, that institutions exist, and that they do have an independent influence on individuals’ actions. Given the definition of institutions that I am using (which sees institutions as sets of rules), this is best shown by demonstrating that such sets of rules exist, and that people refer to them in assessing how others are likely to behave, conditioning their own behaviour on this assessment.

However, this still begs very many questions - in particular those regarding the origins of institutions and the ways in which they are likely to change. Silence on these matters incurs a further risk. Insofar as this dissertation discusses the effects of institutions on trust, readers may mistakenly assume that my argument is functionalist - that I am stating, either explicitly or implicitly, that institutions exist *because* they underpin trust and cooperation.¹⁷³

¹⁷² Moliere (1962).

¹⁷³ It may in the end of the day turn out that functional explanations of cooperation tell at least some of the story. But this does not mean that functional explanations are a good starting strategy - at the least, they are likely to underestimate the difficulties of cooperation. As Elster says, “I find it as hard as the next person to believe that the existence of norms of reciprocity and cooperation has *nothing* to do with the fact that without them civilization as we know it would not exist. Yet it is at least a useful intellectual exercise to take the more austere view and to entertain the idea that civilization owes its existence to a fortunate coincidence.” P.149, Elster (1989).

Within rational choice, Jack Knight has provided a persuasive critique of functionalist and efficiency driven explanations of institutional origins and change.¹⁷⁴ His arguments are relevant to the matter at hand. To say that an institution allows cooperation or coordination to take place is not to explain how this institution has come into being, or why the institution has assumed the particular form that it has. In most social situations where cooperation would secure social benefits, there are many possible forms that this cooperation could take. These forms will almost certainly have different distributional consequences for the various actors involved. Knight argues that narrowly rational actors will privilege their own particular distributional interests over general social efficiency except in special instances, and will thus struggle for those forms of cooperation which particularly benefit them. Thus, in Knight's argument, institutions are the side-effects of distributional conflicts, in which the interests of powerful actors tend to predominate over the interests of weaker ones. While cooperation may take place, it will not be driven by efficiency considerations, but instead will reflect the interests of powerful actors. Knight shows how distributional conflicts may shape not only those institutions which emerge as a result of direct bargaining, but also institutions which emerge in a decentralised fashion.¹⁷⁵ While institutions may indeed promote trustworthiness and consequently trust and cooperation, this cannot be taken as an explanation for their existence or form. The kinds of cooperation which do take place are more likely to represent the divergent distributional interests, and the power to affect consequences of the actors involved, than to be efficient in any meaningful sense.¹⁷⁶

¹⁷⁴ See Knight (1992), Knight (1995).

¹⁷⁵ Knight argues that the relative power of actors is relevant to the outcome of bargaining (i.e. of coordinating on an outcome). More powerful actors will be less negatively affected should coordination fail to be achieved, and weaker actors will anticipate this, and be more prepared to settle for an outcome that is not the best possible were their preferences unconstrained. Thus, institutions can arise which (a) emerge in a decentralised manner, as the result of a large number of independent bargains among independent actors, (b) do not rely on external sanctions, and (c) perpetuate substantial inequalities.

¹⁷⁶ This is not to say that the outcomes resulting from institutions will not be superior to the outcome should there be no institution at all. Knight's arguments are based on bargaining in so-called "Battle of the Sexes" or mixed motive coordination games, in which the benefits for both actors of coordinating on a particular equilibrium must exceed the "breakdown values" that result should coordination fail to be reached. Thus, outright exploitation is not involved. However, the key point is that there is no reason to believe that the particular outcome which is reached will be efficient in any sense but the trivial one that no actor can do better given the responses of other actors. Less "efficient" (say, in the sense of maximising the overall gains of cooperation) equilibria will be chosen over more efficient equilibria if the former involve larger distributional gains for actors who are powerful enough to ensure that their interests prevail.

There are few studies of how power relations affect institutional development and trust within industrial districts and similar forms of economic organisation, but there is some preliminary evidence that suggests the applicability of Knight's arguments.¹⁷⁷ Such evidence is important insofar as it runs against the general trend of writing on industrial districts, which tends to emphasise the collective benefits they provide, and frequently portrays actors in industrial districts as being motivated by such collective benefits rather than their individual interests.¹⁷⁸

Ronald Dore, for example, has an extended discussion of "moralized trading relationships of mutual goodwill" among weaving firms in Japan, relations which appear to be more or less institutionalised.¹⁷⁹ In an influential article, he suggests that economists since Adam Smith have discounted the importance of "goodwill" between economic actors, but acknowledges that this goodwill involves important inequalities - subcontractors have to show considerably more "sincerity" (cooperativeness) to their buyer firms than their buyer firms have to show to them.¹⁸⁰ This seems to be a clear case of informal institutions being shaped by power relationships so as to benefit the more powerful actors, just as Knight's theory predicts.

One can also cite a case which is geographically closer to the subject matter of my dissertation, Carpi, a town in the province of Modena.¹⁸¹ Carpi has a celebrated industrial district that produces garments and knitwear as well as a service center, CITER (*Centro Informazione Tessile Emilia-Romagna*), an organ of the relevant regional development body which is concerned with meeting the "real service" needs of the district, and which is organised as a sort of local corporate

¹⁷⁷ Herrigel (1993) discusses power in the redefinition of industrial districts, but adopts a rather different definition of power than the one used here. Indeed, he argues that interdependence within the industrial district of Baden-Württemberg results in a "value for cooperation" which motivates action.

¹⁷⁸ By emphasising individual rather than collective interests, I do not seek to deny Bagnasco and Trigilia's argument that the industrial district cannot be analysed on the level of the firm alone (Bagnasco & Trigilia (1993)). But there is still a need to ground macro (or more accurately meso) level conclusions about industrial districts on micro foundations - to state precisely how and why collective benefits at the level of the district may emerge from relations between individual actors.

¹⁷⁹ p.163, Dore (1992).

¹⁸⁰ As Dore points out, this is not simple exploitation - the obligations are unequal but not one-sided. For a useful definition of exploitation, see Elster (1989). The weaker subcontractors are presumably free to leave the relationship if they so wish, but will lose out on real benefits if they do. Thus, to use language which Dore would probably detest, remaining in the relationship is their "best possible reply". The point is that their relative lack of power leads to an institutional setup in which the benefits of cooperation are split in a quite uneven fashion.

¹⁸¹ I owe this story to Nicola Bellini.

assembly.¹⁸² In the late 1980s, CITER introduced a new CAD-CAM system, *Citera*, which aimed to improve the district's competitiveness through introducing efficiencies in the design of garments.¹⁸³ These changes could be seen as a Pareto-improvement; while they made life easier for the designing firms, they did not directly disadvantage anyone else. Indeed, they were arguably of crucial importance to the future prosperity of the district as a whole. In theory, no-one should have objected.¹⁸⁴ In practice, the *terzisti* (small subcontracting firms) perceived that the introduction of the system would lower their own ability to "constrain" the designing firms, and were determined to fight the introduction of *Citera* every inch of the way. According to an academic who was on the board of CITER at the time, the *terzisti* ensured that for every step that was made in implementing the system, concessions were made to shore up their own position.¹⁸⁵ Contrary to what many theorists of industrial districts would predict, business actors were not prepared to put the interests of the district ahead of their own particular interest, and used their power to shore up their particular advantage, blocking and delaying change even when this was potentially to the disadvantage of the district as a whole.

This last example leads to the final, and perhaps most important point - Knight's arguments provide the basis for a theory of institutional evolution and change. They are thus an important complement to standard equilibrium analysis, which is of its nature fundamentally static.¹⁸⁶ Knight argues that there are two main conditions that produce incentives for change.¹⁸⁷ First, there may be changes in the distributional consequences of the institutions. For example, exogenous changes in conditions may mean that institutions which previously resulted in a certain distributional outcome, now result in a new one. If this change adversely affects actors who have the resources to shift the group to a new equilibrium outcome, a new or altered institution may emerge. Second, there may be

¹⁸² For discussion of this district, see Lazerson (1993), Cooke and Morgan (1998), Pyke and Sengenberger (1992), Perulli (1989), Bianchi and Gualteri (1990), Brusco, Cainelli, et al. (1996). More recent interviews carried out in the course of this research project, suggest that this district is currently facing a number of difficulties, some specific to the clothing sector, others apparently similar to those of the packaging machine producers whom I discuss in the main body of the dissertation.

¹⁸³ For details of *Citera*, see Cooke and Morgan (1998).

¹⁸⁴ At least in some people's theory; for a critique of Pareto-improvement accounts of change, see Hardin (1984).

¹⁸⁵ Interview with Nicola Bellini.

¹⁸⁶ Equilibria are by definition static - that is, as each player's strategy is the best response to the strategies of every other player, there is no room for endogenous change, unless one of the actors makes a "mistake." Otherwise, any changes in equilibria must be the result of exogenous change.

¹⁸⁷ Knight (1992).

changes in the relative bargaining power of actors, such that actors are able to bring through changes in equilibrium outcomes that are to their benefit, and thus potentially bring about institutional change.

I will explore the ramifications of these arguments in the body of the dissertation. For now, suffice it to say that they provide an alternative account of how the institutions governing trustworthiness, trust and cooperation may alter over time, than that of prevailing theories of industrial districts. Indeed, the key point to note is that institutional change, under this argument, is *not* a function of the functional need to maintain or extend cooperation, but rather of struggles over how the benefits of cooperation are to be divided among actors. Thus, even when one concentrates, as I do in the account presented here, on the way in which institutions affect trustworthiness and trust between actors, one cannot assume that institutional evolution is driven by the benefits of this trustworthiness.

Section 2.5 - Assessing the model; overall theoretical considerations.

In this chapter, I have endeavoured to set out a theory of the relationship between institutions and trust, drawing heavily on the work of Russell Hardin and Margaret Levi on the so-called “encapsulated interest” account of trust, and on Jack Knight’s theory of institutional emergence and change. I have also set out some preliminary reasons why such a theory may help explain many forms of cooperation in industrial districts. Such findings, which I develop on in later chapters, are potentially important, as previous authors have seen the existence of these districts as empirical evidence which count against the usefulness of the rational actor model. However, it also behoves me to display some modesty. Rational choice accounts, such as the one presented in this dissertation, are often treated with suspicion by social scientists who privilege other sorts of explanation.¹⁸⁸ Let me stress that the research project presented in this dissertation is not intended, either explicitly or implicitly, as an exercise in economic imperialism. I fully accept that there are important aspects of the functioning of industrial districts (and of social life in general) that a standard rational choice account

¹⁸⁸ As Mitchell says, many rational choice theorists are seen by other social scientists as arrogant, right-wing economic imperialists. See Mitchell (1988). Some rational choice and public choice scholars seem to go out of their way to confirm this impression; see for example the extended diatribe identifying non-public choice social scientists as lackeys of the federal government in Rowley (1993).

will capture only imperfectly, if at all. My arguments are intended to provide an alternative perspective to those ones which have hitherto tended to predominate, but this perspective is not intended either to encompass or to supercede its predecessors. There are important limits to the validity and applicability of my model, some of which are laid out in the following discussion. Nonetheless, I believe, and hope to show, that the account which I present has important advantages over many prevailing theories, in that it allows for the meaningful comparison of how trust and cooperation may operate in different institutional settings. Indeed, I hope that the kind of model which I set out here may potentially be applied to the understanding of trust, trustworthiness and cooperation in many other areas of social and economic life than industrial districts.

First, however, I wish to draw attention to some of the limitations of the model. As I have made clear, I employ “narrow” rationality assumptions, and most of the criticisms which are usually made of rational choice models apply to my work too.¹⁸⁹ Thus, for example, I assume that preferences are fixed, and that actors are self-interested wealth maximisers. There is of course a wealth of evidence showing that actors’ preferences may indeed change over time. Furthermore, actors may display other-regarding motives. More generally, actors may be normatively driven in Elster’s sense of the term.¹⁹⁰

More to the point, there is good reason to believe that the assumption of narrow rationality may lead one to underestimate people’s propensity to cooperate. There is clear evidence, both from fieldwork and experimental settings, that actors are inclined to cooperate above and beyond that level which narrow-rationality theories would lead one to expect.¹⁹¹ Physical proximity and the opportunity to communicate have tangible effects on individuals’ cooperation in social dilemma type games, even in situations where game theory would predict that “cheap talk” would not have any impact. Actors frequently seem to treat prisoner’s dilemma games as though they were assurance games, thus making cooperation much easier to achieve. Finally, actors are willing to punish other actors for cheating, even

¹⁸⁹ There is a voluminous literature on the merits and drawbacks of rational choice theory; see for example Cook and Levi (1990), Green and Shapiro (1994), (but also Johnson (1996) and Cox (1999)), Eckstein (1996), Elster (1986), Gamm and Shepsle (1989), Bates (1988), Bates, Greif, et al. (1998a), Beckert (1996), Calvert (1995a), Calvert (1995c), Satz and Ferejohn (1994), Hausman (1995), Johnson (1993), Kato (1996), Levi (1997), Miller and Hammond (1994), Miller (1998), North (1993), Ostrom (1998), Popkin (1978), Riker (1990), Shepsle (1989), Swedberg and Granovetter (1992), Taylor (1989), Taylor (1996), Williams (1988).

¹⁹⁰ Elster (1989).

¹⁹¹ The work of Elinor Ostrom is particularly enlightening in this regard. See Ostrom (1998), Hayashi, Ostrom, et al. (1999).

under circumstances where this punishment is costly to themselves, and thus irrational under the notion of subgame perfect equilibrium. In short, the particular form of the encapsulated interest theory of trust that I employ here will probably lead one to make more pessimistic predictions about individuals' propensity to cooperate than are justified by empirical observation.¹⁹²

However, by the same token, the model developed in this dissertation does seem to capture important truths about trust, trustworthiness and cooperation. Even if it cannot account for all the circumstances under which trust can arise between individuals, it does account for very many of them. It is not unreasonable to suggest that our trust of others is often based in rational deductions of what is in their interests, and that these interests are frequently shaped by the institutional environment in which individuals operate. Finally, even if critics have demonstrated that cooperation is often not based on the sort of factors that rational choice theorists look to, their critiques do not, as yet, come near to amounting to a coherent alternative theory with predictive powers. Such theories as are extant tend to vagueness; that is, they typically fail to distinguish clearly between circumstances in which actors will trust each other, and circumstances in which they will not. Frequently, they go so far as to suggest that trust and cooperation are essentially unproblematic; a position which seems to me to be untenable. The model that I present has the advantage that it makes clear predictions as to when individuals will trust each other and when they will not - trust will be based on trustworthiness, which in turn will greatly be affected by the particular institutional environment. Where it is wrong, it is demonstrably so.

A more direct criticism of the model I present might be that it ignores many of the complex dynamics involved in the development of trust. In my arguments, cooperation between individuals is fundamentally dependent on whether they trust each other or not. And changes in how they trust each other ultimately come about because of changes in the trustworthiness of these individuals, or in the information which is available to them. Such change is itself, I argue, the product of institutional change. Thus, the model that I present is precisely an *institutional* model of trust, in which, ultimately, institutions are the independent variable, and cooperation the dependent one. Critics may quite reasonably adopt a different position - one may as easily argue that trust is an important independent

¹⁹² I wish to stress that many of these criticisms are particular to the model that I set out here, and do not necessarily apply to the encapsulated interest account of trust as such, which can be interpreted far more broadly than I am doing here.

variable driving institutional change as the contrary. Or one may argue that feedback effects may occur in which changes in how individuals trust each other may feed into changes in institutions, which feed back again into how they trust each other, and so on.

I acknowledge the force of these arguments; the causal model that I present does involve the gross simplification of what are undoubtedly complex processes. Yet this is true of any model worth its salt. The important question is that of whether the simplifications involved are of any use in helping us to understand complex realities - I hope to show in the body of the dissertation that the model I employ is indeed of help, even if it cannot comprehend all aspects of the complex relationships that it seeks to map.

Finally, one can argue that my account should lay more stress on learning. Edward Lorenz, who has worked extensively on trust in relationships between firms, provides a forceful critique of economists' arguments about trust.¹⁹³ He also points to an important set of issues which I de-emphasise in my model; that is, the interaction between learning processes and trust.¹⁹⁴ Lorenz argues that economic treatments of trust fail because they fail to understand that individuals are only boundedly rational, and are unable to predict contingencies in a complex world. They thus tend to build up trust in others on the basis of past experience, rather than predictions of where these individuals' interests will lie in the future. Such experiences have effect through learning processes, in which individuals come to evaluate whether or not others can be trusted not to take advantage of unforeseen contingencies. Thus, in Lorenz's arguments, external institutions do not have a determinative effect on how and whether individuals will come to trust each other. Instead, individuals learn about each other and build up "procedural rules" over time as to how to respond to unanticipated events.¹⁹⁵ Trust, in this argument, is very firmly grounded in the particular. While institutions may provide a general framework in which individuals interact, and come to trust each other (or not to trust each other, as the case may be), they do not determine the form which this trust will take.

¹⁹³ See especially Lorenz (1999), also Lorenz (1988), Lorenz (1992a), Lorenz (1993).

¹⁹⁴ I do speak about learning effects in the body of my dissertation, but learning is not one of the major engines of change in my argument. Instead, I focus on how institutions affect the trustworthiness of individuals and thus trust.

¹⁹⁵ These arguments are not at all incompatible with the encapsulated interest approach to trust as Hardin and Levi treat it; see, for example, the discussion of Bayesian learning in Hardin (1993).

Lorenz's arguments capture certain aspects of trust which my model does not. In that sense, they represent an important limit on its applicability. To the extent that institutions do not determine how actors trust each other, my model will be incapable of explaining how trust develops. Furthermore, Lorenz's approach is more sensitive to certain nuances of the trust relationships than mine is. It is capable of understanding differences between individual trust relationships within the same broad institutional framework that mine will tend to overlook.

Yet at the same time, the approach that I outline here has advantages of its own. In particular, it is better suited to certain kinds of comparison between institutional systems. Lorenz's approach highlights the role of contingency in the development of particular trust relations between individuals, and thus their uniqueness and independence from their institutional context.¹⁹⁶ Mine, in contrast, looks at the commonalities across particular relationships that are likely to result from the broad effects of institutions on actors' interests. Both approaches are valid, but my approach is arguably better fitted for the goal I have in mind; that is, to explore how differing institutional contexts may have predictable impacts on trustworthiness, trust and cooperation between actors.¹⁹⁷ To the extent that one can reasonably expect that institutions will have some general effects on how individuals trust each other, and that this institutional effect is mediated primarily through actors' interests, my approach represents a reasonable basis for comparative judgements on trust.

Thus, to sum up my argument, I do not set out to provide a comprehensive model of the workings of industrial districts. I acknowledge that there are important aspects of empirical reality which my model cannot comprehend. Yet I argue that the model which I set out does provide a useful explanation of trust within certain economic relations that are fundamental to industrial districts. In contrast to many prevailing theories of trust in industrial districts it has clearly specified microfoundations. Because of this, one may use it to make clear predictions as to when trust will, or will not, prevail between actors. Finally, it offers the potential for a *comparative* theory of trust across institutional settings. That is, if institutions have the sorts of effects that I argue they have, one may make predictions as to how different institutional settings will affect trustworthiness, and thus trust,

¹⁹⁶ Note the discussion of the development of post-war labour relations in Lorenz (1999).

¹⁹⁷ Which is not to deny that Lorenz's approach lends itself to certain kinds of comparison. But these comparisons would have more in common with the historical institutionalism of Peter Hall and others than the specific kind of comparison that I seek to undertake here. See Hall (1986).

between actors, and furthermore one can make meaningful comparisons between different institutional systems in terms of their effects on trust.

Chapter Three - Introducing the Cases - Mechanical Engineering in Bologna and Stuttgart.

Section 3.1 - Introduction

In this dissertation, I propose to examine and compare trust and cooperation between firms in two cases - the packaging machine industry in the province of Bologna in Italy, and the machine tool industry in the region of Stuttgart in Germany. Before embarking on the comparison proper, I first of all wish to give a broad overview of the two cases, in order to provide a proper context for my findings. Accordingly, I begin this chapter with two sections, one on each of the case studies. These sections provide basic data on the regions and the industries that I study. I then go on to compare the two cases directly in two subsequent sections, which respectively deal with the different political, and associational, and industrial relations structures of the two cases. The final section of this chapter offers some comments on comparability given similarities and differences between the two settings.

Section 3.2 - Emilia-Romagna, Bologna and the Packaging Industry.

Regional Economic Context

Bologna is the capital city of the Italian region of Emilia-Romagna - its surrounding metropolitan area, together with that of the smaller city of Imola, make up the "province" of Bologna. The province of Bologna has roughly nine hundred thousand inhabitants¹⁹⁸ - like many areas of Northern Italy, it has suffered from demographic decline over recent years, due in large part to a low birth rate. As can be seen in figure 3.1 below, it has a strong manufacturing sector, which accounts for nearly 38% of total employment in the area. Within this manufacturing sector, the machine industry, not including basic "metal bashing," (unsophisticated metal processing and basic manufacture) accounts for 22% of total manufacturing employment, including "other specialised machines," which accounts for 10.3% of total manufacturing employment. Thus, while one cannot say that the

¹⁹⁸ Tavolo Unico (n.d.)

specialised machine industry dominates Bologna as, say, textiles do Prato, it does play a substantial role in the city's economy. Furthermore, this role goes beyond the employment that it provides - historical evidence suggests that the specialised packaging machinery industry was the main motor force driving Bologna's economic success in the post-War period.¹⁹⁹

Total Employment	Manufacturing Employment	Machine Industry Employment	Spec. Machine Employment
316951	119420	27372	12340

Based on 1996 Industrial Census Data, Istat.

Figure 3.1 - Employment in the Province of Bologna

Packaging in Bologna should be seen in the wider context of specialised mechanical engineering in Emilia-Romagna as a whole. The available statistics (see figure 3.2) indicate clear differences between the provinces of Emilia-Romagna. On the one hand, there is a clear difference between a "core" group of four provinces with strong activity in mechanical engineering - Bologna, Modena, Parma and Reggio-Emilia, and the rest, which tend to have low levels of activity in this area. The former four provinces make up the most economically developed part of the region; indeed, the so-called "Emilian model" is almost exclusively based on the experience of these provinces rather than on those of the region as a whole.²⁰⁰ Piacenza constitutes an exceptional case - mechanical engineering activity here is strongly conditioned on its vicinity to the "traditional" heavy industry of the north-west. On the other hand, one may distinguish between the specific kinds of mechanical production to be found in these "core regions." This is to some extent reflected in the considerable differences between numbers employed in machine construction in general, and numbers employed in "other" specialised machine production. In Piacenza, Modena, and Reggio-Emilia, the share of other specialised machine producing employment in total machine producing employment is relatively low, reflecting the importance of other machine related activities. In Reggio-Emilia, this reflects the heavy preponderance of agricultural machine production - the agricultural machinery industrial district here has been the subject of academic study.²⁰¹ Piacenza has a local concentration of machine tool producers, which some

¹⁹⁹ Capecchi (1997).

²⁰⁰ Bellini (1990). On the Emilian model, see Brusco (1982).

²⁰¹ Nardin (1993).

authorities consider to be an industrial district.²⁰² Modena does not have any particular specialisation within the machinery industry, while Parma has a strong concentration of food processing machinery producers; one may reasonably surmise that much of its specialised machine employment is also related to food processing machines in some way. In Bologna, mechanical production is dominated by the packaging industry, although some new, unrelated, machine producing specialisms have begun to emerge in recent years.²⁰³ The city also retains some production of motorcycle parts, but this sector has seen very substantial local decline over recent decades, with the important stages of the production process moving elsewhere.²⁰⁴

Province	Machine Industry Employment	Spec. Machine Employment
Piacenza	5634	1366
Parma	9221	5323
Reggio-Emilia	16963	2609
Modena	24643	4533
Bologna	27372	12340
Ferrara	5910	1110
Ravenna	3696	1323
Forli'-Cesena	3240	927
Rimini	3349	2237

Based on 1996 Industrial Census Data, Istat

Figure 3.2 - Mechanical Engineering by Province in Emilia-Romagna.

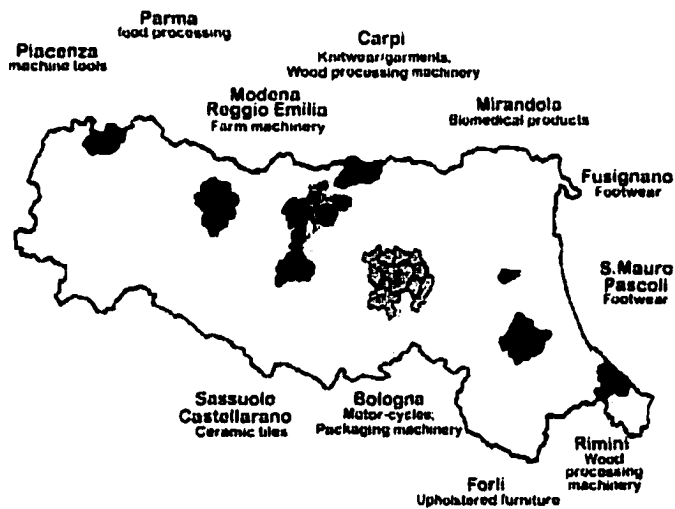
One may also note the existence of a number of other industrial districts in Emilia-Romagna, which include the agricultural machinery cluster in Reggio-Emilia and the food and food processing machinery cluster in Parma which I have already mentioned. The garment producing cluster centered on Carpi has received substantial academic attention, and has also been the subject of important regional policy initiatives, including the setting up of a "real services" center, CITER, to provide

²⁰² Note that this "cluster" only employs some 800 people, and has a very low ratio of small firms. See Brusco et al. (1996).

²⁰³ Interview with Vittorio Capecchi.

²⁰⁴ Brusco et al., (1996)Capecchi (1997).

technological and other support to firms in the area.²⁰⁵ Many of the districts in non-mechanical sectors also have associated machine producers in the area. Thus, in addition to the Parma food processing industry, one may mention the successful Sassuolo tile producing district, which has grown in tandem with a strong local base of ceramic processing machine manufacturers, who themselves have gained an international reputation.



Source - Unioncamere Emilia-Romagna/ASTER

Figure 3.3 - Industrial Districts in Emilia-Romagna

²⁰⁵ Cooke and Morgan (1998), Lazerson (1993).

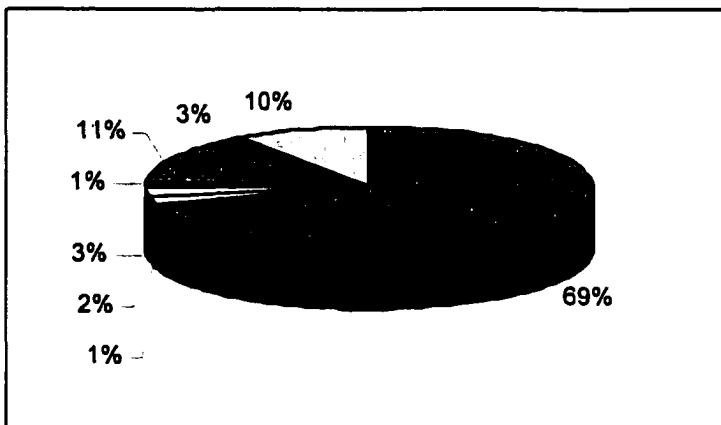
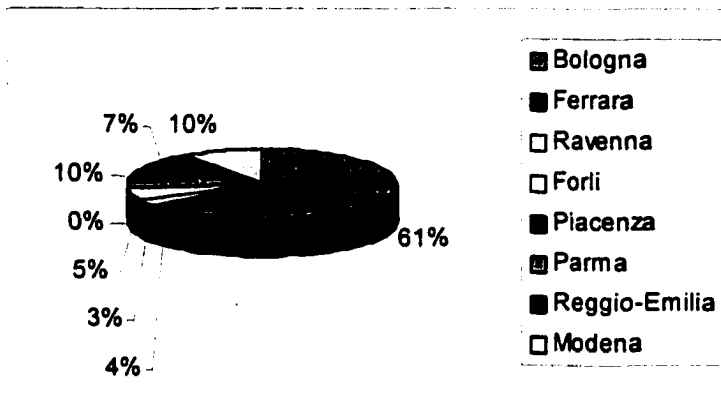
Economic characteristics of the packaging cluster in Bologna

The packaging machinery cluster in Bologna, while it is similar in many respects to other industrial districts in Emilia-Romagna, also has its own particularities. As has already been mentioned, it is located in and around the regional metropolitan and administrative center, which means that it does not dominate the local economy in the same way that many other industrial districts do.²⁰⁶ 1991 census data suggest that it accounts for 7,595 employees; as I discuss below, this is almost certainly an underestimate.²⁰⁷ Emilian producers dominate the Italian packaging machine industry, providing almost 70% of total employment in the sector, which is highly competitive on international markets.²⁰⁸ In 1995, the industry's total sales was 2.5 billion dollars, of which 1.97 billion dollars came from exports. Within Emilia-Romagna, Bologna predominates in terms of both the number of companies (61% of the total number in the region) and number of employees; some 69% of total employment in the industry in Emilia-Romagna is concentrated in the province of Bologna.

²⁰⁶ Indeed, under "statistical" definitions (Sforzi 1996, Burroni and Trigilia forthcoming), "Packaging Valley" in Bologna does not count as an industrial district. On the limitations of statistical definitions, see Brusco et al. (1996).

²⁰⁷ Nomisma (n.d.)

²⁰⁸ Curti and Grandi (1997).



Source - Curti and Grandi (1997)/ISTAT 1991 Industrial Census

Figure 3.4: Geographical distribution of Firms (First Chart) and Employment (Second Chart) in the Packaging Machine Industry in Emilia Romagna by Province.

Other data from the 1991 Census provides some evidence as to the size distribution of packaging machinery firms within Bologna.

Firm Size	36646	36774	36817	20-49	50-99	100-199	200-499	500-999	>1000	Total
Firms	71	25	34	32	8	2	4	2	2	180

Source: *Nomisma/ISTAT 1991 Census*

Figure 3.5 - Size distribution of firms in the Bologna packaging machinery industry

As can be seen from the table above, there is a strong presence of small firms in the cluster. However, one should note two provisos before interpreting the data. First, as I discuss in more detail later, there is an ongoing process of concentration in the industry; many small firms are being bought by larger ones, and no longer are genuinely independent. Thus, the figures above (which in any event are nearly 10 years old) almost certainly overestimate the number of independent firms, especially in the small to medium sized category. On the other hand, the figures also tend to underestimate the number of very small firms which are involved in the sector. Many artisanal firms which act as subcontractors to the larger firms are likely to be categorised by the statistics more generally as specialised mechanical producers, rather than as packaging machinery firms as such. As I show in Chapter 6, these subcontractors are highly important to the working of the district; thus, when I discuss the evolution of the district over time below, I shall use figures for specialised machine production rather than for packaging as such.²⁰⁹

The packaging machinery industry in Bologna has relatively shallow historical roots - before the Second World War, there were only two firms in Bologna producing packaging machines; Acma and Sasib.²¹⁰ The first of these was later to play an extraordinarily important role in the later development of the cluster, as its technicians struck out on their own to found their own firms. Sasib, which had originally produced railway equipment then went on to specialise in tobacco machines,

²⁰⁹ Specialised machines for other purposes corresponds to the Istat statistical classification 29.5, of which packaging machines is the subclass 29.562. Although the latter is obviously rather more specific than the former, both previous research and examination of the figures suggest that the wider class of specialised mechanical engineering in Bologna is for all practical purposes dominated by firms producing packaging machines, especially if one also includes machines for processing tobacco, which are so closely related to packaging machines that firms producing them can be considered to be part of the same cluster.

²¹⁰ For the history of the Bolognese packaging industry, I rely on Capecchi (1997) and Curti and Grandi (1997). Note that although the packaging machine industry is only a relatively recent phenomenon, one could make the argument that, as in Tuscany, previous patterns of social order in peasant society had important implications for how production was organised. See Beccatini (1994).

including both machines to pack tobacco into cigarettes, and to package the cigarettes themselves.²¹¹ A third firm, GD, specialised in parts for bicycles and motorcycles before the war, and machine gun parts and military engines during it; after the war, it was faced with a drying up of military orders, and moved into the sector of automatic packaging machines, with the help of one of Acma's technicians.²¹²

These three firms were to be "mother firms" after the war, as technicians who worked for them moved on to found their own small firms. This was true of Acma in particular; at least ten former Acma technicians went on to form firms which later became important in the local industry.²¹³ At this point in time, it was relatively easy for individuals with technical skills to find new market niches - the mechanical techniques used to build packaging machines in one market segment could be transferred without difficulty to new products, and international markets for packaging machines were expanding rapidly.²¹⁴ Patrizio Bianchi has argued that informal local rules exist in the Bologna packaging industry, as in other such local economic systems, such that firms agree to make complementary rather than competing products.²¹⁵ The historical evidence seems only to lend qualified support to this assertion; while "daughter" firms usually did not compete with their mothers, and sometimes received help from them, it was by no means unknown for daughter firms to make products that competed directly with those of the firm which had given them birth.²¹⁶ The 1950s also saw many employees leaving their firms under less than friendly circumstances, as difficult labour relations led to mass firings.

The packaging industry in Bologna saw rapid expansion during the 1950s and 1960s, producing machines to package food products, pharmaceuticals, cosmetics, chemicals, and a plethora of smaller niche products. During this period, it continued to be easy for technicians to set up their own small firms, which typically made niche products, or which subcontracted for larger firms. National

²¹¹ Both railway signalling machines and tobacco machinery are still manufactured today, but by completely separate companies, which nonetheless share the same premises.

²¹² GD's reliance on Acma's expertise in its early history in the packaging industry was later to be reversed; GD bought Acma in the 1980s from its then (American) owners, to form a single group, within which, however, each constituent firm has remained mostly autonomous.

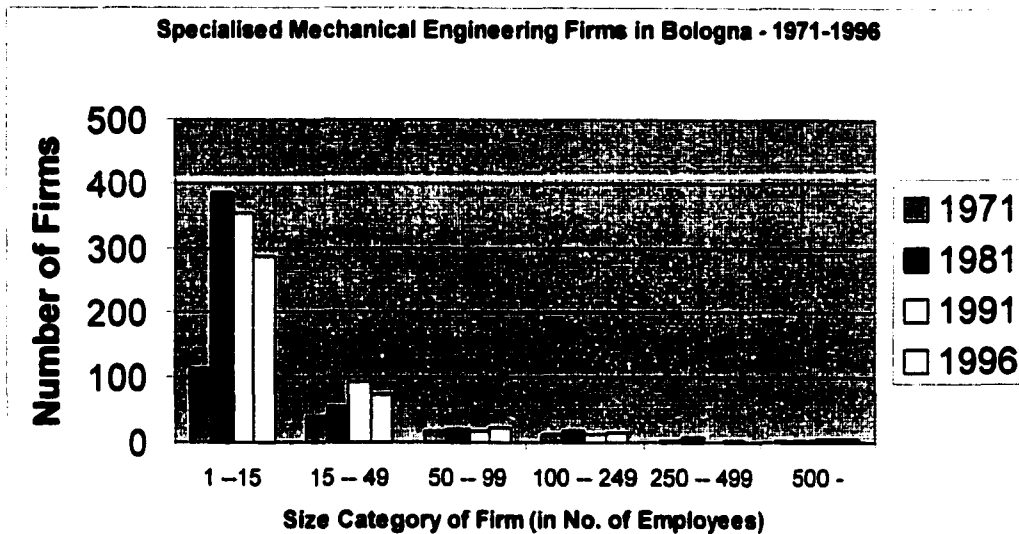
²¹³ Capecchi (1997).

²¹⁴ Ibid.

²¹⁵ Bianchi (1993). See also Curti and Grandi (1997).

²¹⁶ Capecchi (1997).

industrial census statistics, which are available from 1971 on, suggest that the so-called *autunno caldo* of industrial and social unrest had a highly important impact on the structure of the cluster.



Source: Based on ISTAT Industrial Census Data 1971, 1981, 1991, 1996
 Figure 3.6 - Number of Firms by Size Category in Bologna over time.

Figure 3.6 shows an explosion in the number of small firms with between 1 and 15 employees in specialised mechanical engineering between 1971 and 1981, while other size categories see only relatively modest growth.²¹⁷ Employment in this size category nearly tripled over the same period, growing from 672 to 1,863. The changes between 1971 and 1981 almost certainly reflect firm owners' desire to respond to burgeoning demand through increased subcontracting, rather than the taking on of new staff. Comparatively rigid labour practices introduced in the wake of the social unrest of the late 1960s increased the costs of production within the firm as opposed to production outside it. This created more niches for artisanal subcontractors, who could specialise in the production of particular parts, or in special processes, resulting in the near quadrupling of the number of very small firms engaged in specialised mechanical engineering in Bologna. As described by a local small firm association;

²¹⁷ During this period, the number of one man firms in specialised machine production in the province increased by over 1000%, from 10 to 105.

When certain factors lead to problems for the firms ... - the choice was above all to "terialise" - i.e. to put work outside the firm - to put out production, planning, offices, in order to optimise costs.²¹⁸

From 1981 on, however, there is a gradual decline in the numbers of very small firms, and slight increases in the number of firms in other size categories.

The same period saw substantial increases in overall employment in the sector. Overall employment in specialised mechanical engineering in Bologna jumped from 8,296 in 1971 to 12,451 in 1981; it afterwards seems to have gone into slight decline, falling to 11,573 in 1991, and 11,354 in 1996. This decline is broadly congruent with an overall decline in manufacturing employment in the region.²¹⁹

While employment appears to be static, or in slight decline, the industry saw nearly continuous growth in turnover during the 1990s. The serious crisis that hit German machine producers between 1991 and 1993 seems to have had no equivalent in Emilia-Romagna; although machine producers in the region saw some fall in turnover in late 1991 and 1992, the devaluation of the lira within the EMS in September 1992 appears to have helped boost sales considerably in this heavily export-oriented industry.²²⁰ The following years saw continued growth in turnover, reaching a peak of 20.3% between 1994 and 1995. More recently, however, the sector has seen some difficulties as a result of the more general turbulence on export markets in 1998 and 1999. In particular, firms producing tobacco machinery such as Sasib and GD have experienced difficulties, due to a substantial drop in demand from traditional customers (large cigarette producers), which has gone together with a nearly total drying up in demand in new export markets such as Indonesia and China. While some firms and local economic actors who were interviewed believed that these changes might herald future

²¹⁸ Interview with Alessio Festi, Confartigianato.

²¹⁹ Note, however that national employment in the packaging machine industry appears to have increased by 7.1% between 1994 and 1995, and 6.6% between 1995 and 1996, although it fell again by 2.5% between 1997 and 1998. See UCIMA (1998, 1999). Although packaging firms in Emilia-Romagna dominate the Italian packaging machine industry, it is hard to extrapolate downwards from national level aggregate data on employment, given the particular problems faced by Emilian firms (which I describe later in this chapter) in finding qualified workers.

²²⁰ Graziani (1998) provides an informative and relatively up-to-date account of macro-economic developments in Italy, including the circumstances and effects of this devaluation.

difficulties for the industry, the general consensus appeared to be that the problems were conjunctural rather than structural.

Organisation of the packaging cluster

The cluster of packaging firms in Bologna has been studied as an industrial district, and appears to have historically possessed many of the characteristics of such districts. Its economic success seems to have been due in large part to a high degree of interchange between firms in the district, and the generation of those somewhat nebulous positive externalities which Marshall groups under the rubric of "industrial atmosphere."

However, one shouldn't over-romanticise things; there is a tendency among some students of industrial districts to treat them as static, and either to ignore or deplore the internal and external forces promoting change within them.²²¹ As should be clear from the previous discussion, the structure of the Bologna packaging machine industry has not remained static over time. The concentration of production in a few important firms immediately after World War II soon gave way to a more diffuse spread of activity across many small firms as technicians left larger companies for various reasons in order to set up on their own. In addition, the statistics suggest an explosion of small artisanal companies in the 1970s - most of these firms probably found their niches as subcontractors to already established firms who wished to avoid the rigidities of internal production.

Interviews and other sources of data suggest that the industry is still in a state of organisational flux, in part because of external forces for change, and in part because of internal shifts within the district itself. Some changes can be directly traced back to changes in customer demand. Many of the industries which the packaging machine industry supplies to, such as pharmaceuticals, food products, tobacco and cosmetics, have seen important changes themselves in recent years. In particular, there has been a tendency in all of these industries towards concentration, and the formation of large, diversified firms holding a multitude of brands. This has had important consequences for packaging machine firms. Previously, there had been much greater scope for niche manufacturing; a

²²¹ Interview with Nicola Bellini.

small firm which produced machines for a particular stage of the packaging process in a particular industry (say, dosing machines for the pharmaceutical industry) had good prospects of economic success. Now, however, the larger multinational firms which constitute the main customer base for the packaging industry prefer to deal with one machinery manufacturing firm, which can produce an entire line of machines, rather than a variety of different manufacturers, each producing specific machines. Because of this, the packaging machine industry has seen a considerable degree of consolidation, in which small firms have been bought out by larger ones, resulting in the formation of a number of big groups, which play an increasingly important role in the district. These groups are typically horizontally integrated by sector - that is, they seek to provide a range of machines to cover the needs of potential customers in a particular area such as pharmaceuticals or food. Thus, for example, a firm such as IMA will supply a range of machines for the pharmaceutical industry, ranging from dosing machines to fill capsules, through machines to place the capsules into blister packs, to cartoning, and sometimes even palletising machines. In addition, some larger groups have sought to provide complete ranges of machines in more than one product area, in order to make cash flows more stable and less vulnerable to asymmetric demand shocks. Chapter Seven will discuss the long term consequences of this development for the industry in greater detail.

Some observers have argued that this process of concentration spells the end of the flexible forms of production which have hitherto characterised firms in the area. Bennett Harrison, for example, uses the Bologna machine industry as a proxy for the Emilian model of production within industrial districts.²²² He finds that machinery producers in Bologna have historically enjoyed many of the benefits traditionally attributed to industrial districts, including, most particularly, reciprocal subcontracting relationships between firms. However, in Harrison's view, these relationships are being disrupted by the entry of outsiders into the local industrial system. He takes the example of Sasib, which was bought in 1977 by a holding company belonging to the prominent financier, Carlo De Benedetti, who sought to put together a group of manufacturers in tobacco and food processing machinery. The new owners sought to achieve traditional economies of scale through integrating many of Sasib's operations with those of the group as a whole, and acquiring firms in the locality and region

²²² Harrison (1994). See also Bianchi and Gualteri (1990).

which then became subsidiaries. Decisions on subcontractors were taken by the group rather than the individual firm; furthermore, all subsidiary firms were told to send any orders for complex machine parts to Bologna, so as swiftly to amortise the costs of expensive machine tools that the group had acquired. Thus, Harrison argued that diversified subcontracting relations based on reciprocity were being replaced by centralised decision making, and a hierarchicalisation of supply relationships, which would inevitably destroy the network of relations on which the district had depended.

Interviews with firms and local observers suggest that this rather gloomy assessment is only true up to a point. This is a point which I will return to in Chapter Seven, where I explore the evolution of relationships between firms in greater detail, and find that there is some evidence of increasing hierarchicalisation, albeit for different reasons than those that Harrison emphasises. For the moment, suffice it to say that the trend towards centralised decision making and economies of scale which Harrison noted did not last very long. While other large companies in the area experimented with centralised resource management in the early 1990s, all of them abandoned these practices in relatively short order. One large “group” firm in the area (not Sasib) spoke of its experiments in centralised decision making as having been a “complete disaster.”²²³ It had proved impossible to integrate decision making in a way which maximised the value of the company’s various product lines, so that after three years the firm was forced to implement a complete re-organisation of its internal structures. Now, separate product lines are run by separate teams, each of which has a very high degree of autonomy; the aim is to reproduce the kinds of flexibility available to networks of small firms within the internal structure of the firm itself. The different parts of the firm now share certain administrative practices, and use a common sales infrastructure, “apart from that, they don’t have to buy the same components, they don’t have to use a certain sub-supplier, they are completely free.”²²⁴ Sasib itself appears to have adopted a similar strategy; there now appears to be a near-total organisational separation between its food processing machinery and tobacco-processing machinery lines.

Thus, increased integration in customer markets appears to be having a knock-on effect in increasing integration in the packaging machine industry itself. This appears to be going hand-in-hand with a strengthening of ties between customer firms and machinery suppliers. Large packaging

²²³ Firm Interview 11.

²²⁴ Ibid.

machine manufacturers are increasingly seeking to create value-added through re-inventing themselves as service companies, providing a complete “turnkey” service for their customers, with increased emphasis on maintenance, tuning and development of machines on-site, especially in the tobacco machine industry. This said, relationships between packaging machine firms and their customers are still reasonably loose; while long term relationships with customers appear to be the norm rather than the exception, there would appear to be few cases of machinery firms which are dependent on one, or a few, customers for their survival.

While the industry appears to still enjoy a fair degree of economic success and competitiveness on international markets, it has seen increasing problems in recent years. Many of these problems stem from a serious shortage of trained personnel in the locality. Both demographic changes (the drop in population which I have mentioned already), and the relative unattractiveness of a technical career to young people, have resulted in a general dearth of trained and competent young technicians, and a high degree of competition between firms for them. This competition is moderated among the larger firms (see Chapters 5 and 6) but no holds are barred among smaller firms, who frequently seek to “steal” their competitors’ best employees. In many respects, a dual labour market is emerging - one market for large firms, which seek to restrain competition among themselves for employees, and offer relatively stable employment conditions with good, but not spectacular pay, and another, for small firms, with a high degree of mobility of labour between firms, relatively unstable employment conditions, but very high pay. While there are political and sectoral initiatives under way to remedy the shortage of trained personnel, these are likely only to have a palliative effect in the short term.²²⁵

More generally, some commentators fear that the packaging machine district runs the danger of becoming moribund through its failure to incorporate new technology.²²⁶ While both individual firms and regional and local organisations have sought to introduce new innovations, producers have sometimes proved to be uninterested.²²⁷

²²⁵ For an in-depth discussion of the relationship between state action, business initiatives, and outcome in terms of availability of personnel, see Glassmann (forthcoming).

²²⁶ Malusardi (1998).

²²⁷ Interview with Vittorio Capecchi.

Section 3.3 - The Machine-Tool Industry in Stuttgart and Baden-Württemberg

The *Land* of Baden-Württemberg has a population of 8.896 million, of which the region of Stuttgart accounts for over 25%, with a population of 2.27 million people.²²⁸ Like the province of Bologna, the region of Stuttgart contains the territorial capital and most of its surrounding conurbation.

Baden-Württemberg, like Emilia-Romagna, has received an extraordinary amount of attention from scholars working on industrial districts. This was in large part due to its economic success in the 1980s - many saw it as an example of how enlightened industrial policy and flexible manufacturing practices might combine to produce economic growth. However, the economic downturn which the region experienced in 1992 and 1993 has seen a re-assessment in the academic literature both of Baden-Württemberg's status as a putative industrial district, and the degree to which regional policy initiatives have been successful in promoting economic growth.²²⁹

In Baden-Württemberg as a whole, machine construction is the most important branch of industry, accounting for some 75 billion Deutschmark and 264,000 employees.²³⁰ Within Baden-Württemberg, one can see significant local and regional variation, as well as significant social and economic differences between the formerly independent territories of Baden and Württemberg.²³¹ However, some authorities doubt that such differences are enough to amount to regionally distinct patterns of production.²³² More generally, one can say that the mechanical engineering industry (unlike, for example, the car industry) is diffused throughout the *Land*.

²²⁸ IHK (1997a).

²²⁹ The early literature on Baden-Württemberg was largely positive in tone; see Piore and Sabel (1984), Sabel et al. (1989), Herrigel (1993); but also the more cautious assessment of Shmitz (1992). Recent assessments of Baden-Württemberg's regional path of development have been rather more guarded, if not pessimistic, and tend to argue that the market structures and patterns of interaction which previously allowed for success have come under threat (Herrigel (1996a), Cooke and Morgan (1994), Krauss (1999)), that Baden-Württemberg was never all that special in the first place (Grotz and Braun (1997), Staber (1996)), or are undecided between these two positions (Braczyk 1996).

²³⁰ Batz et al. (1998).

²³¹ See Staber (1996). Medick (1993) provides an excellent short overview of regional disparities in the early historical development of the Württemberg economy.

²³² For a general argument that national homogeneities are more important than regional or local variations in explaining patterns of production in Germany, see Glassmann and Voelzkow (forthcoming).

<i>Region</i>	<i>Vehicle Construction</i>	<i>Electronics</i>	<i>Machine Industry</i>
Lower Neckar	14.1%	17.1%	19.1%
South Upper Rhine	no data	14.4%	16.6%
Bodensee-Oberschwaben	12.1%	10.9%	25%
Donau-Iller	15.8%	16.2%	20.4%
Franconia	20.2%	11.7%	21.6%
Upper Rhine/Lake Constance	no data	no data	no data
Middle-Upper Rhine	12.8%	27.6%	12.7%
Neckar-Alb	3.7%	16.2%	25.4%
North Black Forest	6.3%	13.7%	19.9%
East Württemberg	12.2%	14.5%	26.5%
Black Forest Baar-Heuberg	4.3%	20.7%	16.8%
Stuttgart	27.5%	19.5%	17.9%

Source - www.business.germany-southwest.de, undated

Figure 3.7 - Vehicle Manufacture, Electrical Goods and Machine Building - Percentages of overall industrial employment by region in Baden-Württemberg.²³³

As is clear from Figure 3.7, Stuttgart is less dominated by its machine building sector in relative terms than many other regions in the *Land*; indeed, it is unusual in that machine production is not the most important branch of industry in terms of employment. In absolute terms, however, Stuttgart's machine industry has a strong presence in terms both of numbers employed and number of firms (see below); indeed, it accounts for some 33% of the *Land*'s sales in mechanical engineering.²³⁴ Unfortunately, data protection law in Germany means that detailed sub-sectoral statistics are not available at the regional level; it is thus difficult to evaluate the extent to which one may find different specialities within

²³³ Note that figures are unavailable for Upper Rhine/Lake Constance. The lack of data on vehicle manufacture in South Upper Rhine probably indicates negligible activity in the sector in this region.

²³⁴ Semlinger (1995).

machine production in different regions.²³⁵ Previous research does suggest the existence of a machine producing cluster supporting the textile industry in Reutlingen; furthermore, Porter, in his general discussion of manufacturing clusters, has identified a cluster of machine tool producers in Stuttgart.²³⁶ Baden-Württemberg also has a strong general presence in machine tool production - it accounted for an estimated 50% of total West German employment in the sector in 1990.²³⁷ Machine tool firms in Stuttgart are almost certainly more dependent on the local vehicle manufacturing industry than their equivalents elsewhere in the *Land*. This said, some commentators have argued that mechanical engineering firms in Baden-Württemberg, unlike those in Emilia-Romagna, are organised into regional rather than local production clusters.²³⁸ This is also consonant with Gary Herrigel's argument that the whole of Baden-Württemberg can be considered as an industrial district, although one should note that Herrigel's definition of an industrial district goes considerably beyond simple clustering effects.

Within the region of Stuttgart itself, 1996 data suggest that the machine building industry accounted for some 439 companies, who employed 78,791 workers.²³⁹ Detailed data on the machine tool industry (a subsector of the machine building industry), of the sort which I use in my discussion of packaging machine manufacturing in Bologna, are not available at the regional level. National level statistics, however, reveal the extent of the general crisis in the German machine tool industry in the early 1990s; the value of orders in the first quarter of 1993 were only 70.5% of what they had been in the first quarter of 1991. This crisis has been much discussed in the literature. Gary Herrigel suggests that it can in large part be attributed to inflexibility in the internal organisation of the firm; when faced with competition in high market segments from more flexible Japanese and US competitors, German firms could not respond adequately because of rigid internal skill demarcations.²⁴⁰ This was paradoxically exacerbated by a boom in domestic demand resulting from reunification; just at the time when machinery producers were coming under increased pressure on international markets, they were

²³⁵ There is also a relatively high proportion of packaging machines in the Baden-Württemberg area, but with no marked tendency to cluster within the *Land*. Interview with Wirtschaftsministerium, Baden-Württemberg.

²³⁶ Porter (1990).

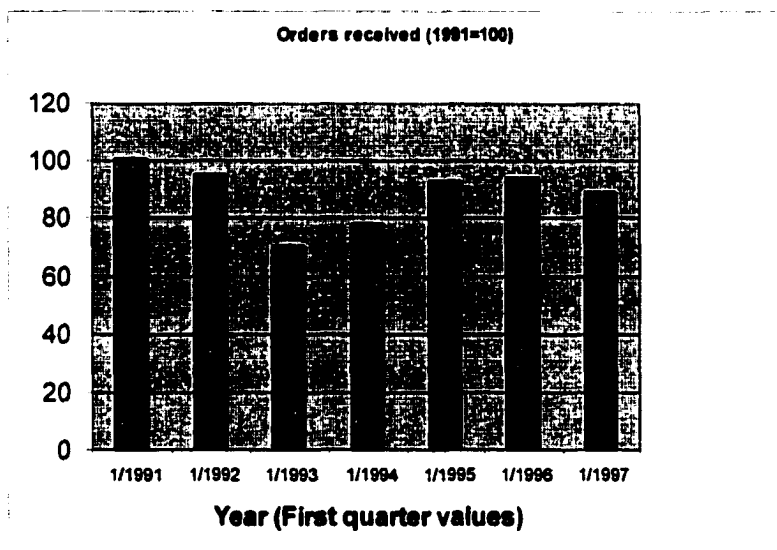
²³⁷ Müller-Jentsch et al. (1998).

²³⁸ Heidenreich (1996).

²³⁹ IHK (1997b).

²⁴⁰ Herrigel (1996a).

lulled into a false sense of security by booming domestic markets.²⁴¹ Unfavourable rates of exchange, and the refusal of banks to extend credit to many firms in difficulty helped exacerbate the crisis.²⁴² Cooke and Morgan go on to identify three forms of lock-in which hampered Baden-Württemberg's governance system - functional lock-in, due to the high degree of reliance on vehicle manufacture, mechanical and electrical engineering; cognitive lock-in, reflected by the slowness of firms to adapt to the changed market conditions that Herrigel identifies, and political lock-in to the extent that government innovation policies are designed to support the traditional core sectors.²⁴³ While there is evidence of government policies which aim to break out of this lock-in, indicators such as the rate of new firm creation (Baden-Württemberg has the lowest rate in Germany), indicate that the *Land* still has some distance to go.²⁴⁴



Source - Taken from figures compiled by Ulrich Glassmann

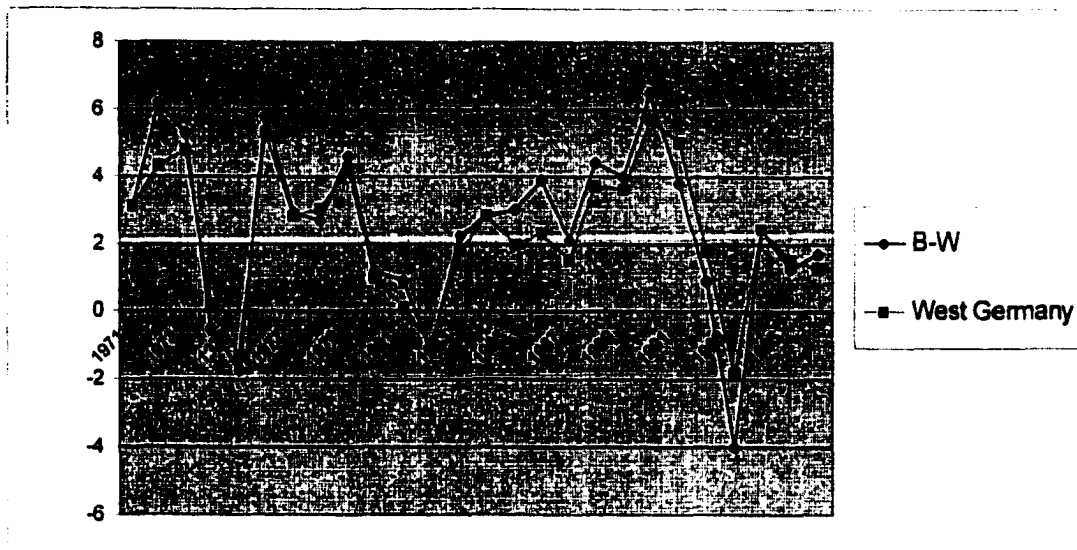
Figure 3.8 - Value of Orders in the German machine tool industry, 1991-1997

²⁴¹ Glassmann and Voelzkow (forthcoming).

²⁴² Ibid.

²⁴³ Cooke and Morgan (1998). For their theory of regional lock-in, they rely on Grabher (1993b).

²⁴⁴ Krauss (1999).



Based on figures taken from IHK 1997a

Figure 3.9 - GDP Growth in percentage terms over time for Baden-Württemberg and (former) Western Germany

There is still some room for debate as to the precise causes of the crisis, and the extent to which it was the result of deep rooted patterns of production.²⁴⁵ What is clear is that in the short term at least, it had very substantial implications for the vehicle and machinery manufacturing industries, and by extension for the *Land* economy as a whole.²⁴⁶ Baden-Württemberg was often taken in the literature as a “model region” for Germany; it was claimed that its economic success was in part the result of successful policies which could be applied elsewhere. And indeed, as figure 3.9 shows, Baden-Württemberg’s growth in GDP was higher than that of West Germany as a whole throughout most of the 1980s. Equally, however, economic crisis, when it came in 1992, was to hit Baden-Württemberg substantially more severely than the other Western *Länder*. Furthermore, Stuttgart was worse affected

²⁴⁵ Glassmann and Voelzkow (forthcoming). Batz et al. (1998) suggests that there has been some recovery in the machinery industry both in Stuttgart and Baden-Württemberg as a whole, which they suggest is in large part due to newly innovative and competitive products.

²⁴⁶ Braczyk, Schienstock and Steffenson (1996).

than other parts of Baden-Württemberg, because of its local dependence on the machinery and vehicle manufacturing industries, both of which saw very serious difficulties during this period. Between 1990 and 1997, the Stuttgart region saw the loss of more than a quarter of jobs in the machine building sector.²⁴⁷ In recent years, both the region and the machinery sector have seen some recovery, but there has certainly been no resumption of the employment and turnover levels of the “boom” years of the early 1990s.

Machine building in Stuttgart has deeper historical roots than in Emilia-Romagna. While Baden-Württemberg industrialised rather later than many other parts of Germany, the first machinery firm in the (then independent) state was founded in 1852, and Baden-Württemberg had a well established mechanical engineering industry by the end of the nineteenth century. Herrigel discusses the history of regions of “decentered industrialisation” at length in his influential volume on the industrial history of Germany; he finds that small firms in such regions (including Württemberg) were favoured by the development of regional institutional infrastructures of support, and by an interweaving of social and business relations among specialised producers, which favoured and fostered non-antagonistic relations among them.²⁴⁸ Firms specialised and engaged in complex patterns of subcontracting among each other in order to take advantage of each other’s specialised knowledge; “[c]ollective experience, communication, and learning, led to mutual recognition, cooperation, and industrial self-regulation.”²⁴⁹ He argues, however, that these arrangements came under pressure in the first three decades of this century, when changed market conditions led to cut-throat competition, which in turn undermined cooperation among producers. In the machine industry, firms sought stability through cartelistic arrangements, arranged through the trade association, which allowed member firms to specialise in particular niches, without having to fear competition from other firms.²⁵⁰ After WW II, in Herrigel’s account, some larger firms withdrew from this system of decentralised production, while cartels were banned (albeit with exceptions that allowed a wide variety of inter-firm agreements). Despite these changes, many small and medium sized firms were able to flourish in areas such as

²⁴⁷ Batz et al. (1998).

²⁴⁸ Herrigel (1996b).

²⁴⁹ Ibid., p.175-6.

²⁵⁰ I suggest in Chapter 4 that there are some relicts of this approach to market organisation in the machinery industry in Baden-Württemberg today.

machine tool production where large firm industrial activity had created market niches for small, flexible suppliers. Many machine tool firms in Baden-Württemberg and Stuttgart succeeded in becoming world leaders in their particular niches; typically they tended to dominate the high end of the market, providing superior quality, albeit at a price. Some machine tool producers, most notably Trumpf, succeeded in becoming relatively large firms, employing thousands of workers. While the 1980s was a boom period for the machine tool and specialised machinery industries in the region, the early 1990s, as I have already mentioned, saw a quite serious and substantial recession. Not all parts of the machinery industry were equally badly affected; packaging machine manufacturers, for example, did not see heavy losses, although they did become less competitive than their Italian rivals due to the devaluation of the lira against the Deutschmark. Currently, the machinery industry, and in particular machine tools are experiencing a modest recovery. However, this recovery still remains limited in extent; some of the most important firms in Stuttgart, such as Malo, went under during the recession, while others saw swingeing cuts in employment and output.

Organisation of the machine tool cluster

There is still a fair degree of controversy among academics as to how the machine tool cluster centered around Stuttgart, and the machine industry of Baden-Württemberg more generally, are organised. On one side, there are the arguments of Charles Sabel and Gary Herrigel, both of whom have tended to analyse Baden-Württemberg in terms of the industrial district literature, and to stress the degree of cooperation that exists among firms. On the other side, there is an array of sceptics, who argue that Baden-Württemberg is by no means atypical among German *Länder*, in terms of the degree of horizontal or vertical cooperation to be found among enterprises.

Gary Herrigel, both together with Charles Sabel and separately, has characterised Baden-Württemberg as an industrial district. Indeed, in his account, the economic success of the *Land* was linked to the existence of dense networks of firms which cooperated in such a way as to allow each individual firm a considerable degree of specialisation. He found that firms were linked to each other both horizontally and vertically, in a commonly constituted order. Furthermore, increased uncertainty on final markets in the 1980s meant, in Herrigel's view, that it made sense for firms to seek

collaborative arrangements with each other. In his earlier work, Herrigel stresses the role of the VDMA, the relevant sectoral association, in providing an institutional forum within which firms can negotiate the definition and demarcation of markets and technology.²⁵¹ He also attributes the success of small and medium sized enterprises in the 1980s to their ability to collaborate with other firms, both subcontractors and peers. In short Herrigel sees machine tool and other specialised machine manufacturers in the region as having been examples (at least in the past) of how horizontal and vertical collaboration between firms may have positive economic consequences.²⁵²

Other scholars have disputed these findings. Cooke and Morgan, in an initial research report on the region, found little evidence of institutionalised horizontal cooperation between firms, either through the VDMA or through other associations.²⁵³ Indeed, they report 60-70% of firms as arguing that there would be no need to collaborate if the government would only leave them alone.²⁵⁴ Udo Staber reports on the basis of some two dozen interviews with business managers that horizontal collaboration does not figure prominently among firms in Baden-Württemberg. Others suggest that this dearth of cooperation is especially marked in the Baden-Württemberg machinery industry. Klaus Semlinger finds that

in contrast to the close cooperation with their customers for which German machine-building firms are famous (vertical cooperation), horizontal cooperation in this industry has traditionally been only of minor significance and only recently - since the industry has faced severe problems - have corresponding ideas received some attention.²⁵⁵

Heidenreich and Krauss express a similar view when they argue that “cooperation between competitors - a factor regarded as crucial for innovative product and production concepts ... plays a relatively insignificant role in Baden-Württemberg”; they also find that the percentage of Baden-Württemberg mechanical engineering firms who report cooperative relations is only marginally above the German

²⁵¹ Shmitz (1992).

²⁵² One may note here that his later, more pessimistic assessment of machine producers in Baden-Württemberg sees their difficulties as primarily originating from internal inflexibilities rather than their external relationships (Herrigel 1996b). More recently, he has suggested that processes of “de-regionalisation” and “re-regionalisation,” in which the nature of regional ties of cooperation between firms is changing fundamentally, is likely to have adverse and perhaps fatal consequences, for the previously existing industrial order; see the discussion below. See Herrigel (1999).

²⁵³ This report is not widely available; I am relying here on the summaries provided in Shmitz (1992) and Staber (1996).

²⁵⁴ Quoted in Staber (1996).

²⁵⁵ p.24, Semlinger (1995).

average.²⁵⁶ Grotz and Braun find, on the basis of a survey covering mechanical engineering in three German regions (including the Neckar-Alb region of Baden-Württemberg) that “in all survey areas there is relatively little co-operation between competing firms.”²⁵⁷ However, one should note that there has recently been some convergence between authors; Cooke and Morgan now accept that horizontal cooperation exists between some firms in Baden-Württemberg, even if they would probably still deny that it plays an especially important role.²⁵⁸

Controversy over the existence of vertical relations, between machine producing firms and their customers on the one hand, and their subcontractors on the other, is rather less marked. All authorities appear to agree that deep collaborative relationships exist between machine manufacturing firms and their customers. This is in part inevitable in the production of bespoke machinery, where the specifications of a particular machine emerge in ongoing negotiations between the customer and the machine producer, but relations between Baden-Württemberg machinery firms and their customers seem exceptionally strong. This is particularly so for machine tool producers in Stuttgart; very frequently their most important customers are the large car manufacturers of the locality. The industrial structure in short is one where the final buyer firms (often large car manufacturers or their system suppliers) play a central role.²⁵⁹ This contrasts with the packaging machinery industry in Emilia-Romagna, where, even though there is an important recent trend towards closer long term relationships between final customers and machinery firms, such relationships still are looser than in Baden-Württemberg. These differences are tied into broader differences in the organisation of production; as Cooke and Morgan argue,

to the extent that there are distinctive inter-firm relationships of long standing [in Baden-Württemberg], they are structured in *vertical* supply chains which often link the *Mittelstand* to large firms at the centre of elaborate inter-firm networks. This, it can be argued with reasonable confidence, is what differentiates the industrial fabric of Baden-Württemberg from that of Emilia-Romagna where lateral and vertical relationships among small firms in tightly defined industrial districts are quite commonly found²⁶⁰.

²⁵⁶ Heidenreich and Krauss (1998).

²⁵⁷ Grotz and Braun (1997).

²⁵⁸ Cooke and Morgan (1998).

²⁵⁹ Shmitz (1992), DiGiovanna (1996), Heidenreich (1996).

²⁶⁰ p.101, Cooke and Morgan (1998).

There is still some disagreement as to the extent of cooperation in vertical relationships between machine producing firms and their subcontractors, as opposed to their customers. While both Herrigel on the one side, and Cooke and Morgan on the other, believe that such cooperation is important, some other academics are more sceptical. Semlinger, for example, finds that buyer-supplier relations often resemble exploitative “henchmanship” rather than genuine cooperation, whereas Staber suggests that there is little solid evidence that inter-firm cooperation of any sort is important in the region, and Grotz and Braun find that “local sub-contractors mainly perform low-level production operations,” of a sort that offers little scope for complex collaboration.²⁶¹ Further, some observers note that machine tool firms in the region are typically highly vertically integrated, and reluctant to subcontract out important parts of the manufacturing process.²⁶² In Chapter Six, I will discuss the relevance of data gathered for this dissertation for these questions, in the context of a wider discussion of differences in subcontracting practices between the two contexts.

There appears to be a broad consensus in the literature that regionally and locally based supply relationships, insofar as they have played an important role, are coming under increasing threat. This is especially apparent in the car manufacturing industry; there is also evidence that supply relationships in the Baden-Württemberg machine industry are also becoming increasingly national or international in scope.²⁶³ Semlinger, for example, finds that firms which have traditionally concentrated production in-house in the vehicle and machine producing industries are beginning to turn to outside suppliers, but that these suppliers may be elsewhere in the country, or even abroad.²⁶⁴ Gary Herrigel sees this as being bound up in wider processes whereby the kinds of flexible production found in industrial districts are being challenged by less locally embedded kinds of flexibility and an accompanying “de-regionalisation and re-regionalisation” process which will likely involve the “killing

²⁶¹ Semlinger (1995), Staber (1996), Grotz and Braun (1997).

²⁶² Semlinger (1993a), Heidenreich (1996).

²⁶³ Although Eastern European suppliers may not be as attractive to Baden-Württemberg machine manufacturers as some local commentators fear; several of the firms interviewed had tried Eastern European suppliers, especially in the Czech republic; almost invariably they had found that these firms could not produce to the required quality.

²⁶⁴ Semlinger (1995).

off" of the old regional order of production.²⁶⁵ He is pessimistic about the ability of those actors affected to remedy matters, but believes that there is some scope for concerted action;

The example of the consequences of the adoption of new principles of flexible production in the industrial district of Baden Württemberg, however, suggests that social actors could conceivably find allies in unexpected quarters of sub-national government.²⁶⁶

The machine tool industry in Baden-Württemberg also faces other problems; whether these are secular or simply conjunctural remains to be seen. I have already discussed changes in export markets; there is also a shortage of qualified staff, which is, however, probably not as serious as that which faces packaging machine producers in Bologna. During the years of crisis, mechanical engineering training was an unattractive option to young people entering the third level education system; as too was apprenticeships in the industry at the vocational training level.²⁶⁷

Section 3.4 - Political Structures in the Two Case Studies.

The previous section has discussed the packaging industry in Bologna, and the machine tool industry in Stuttgart/Baden-Württemberg, in terms of their historical development, geographical distribution and organisation of production. In this section, I wish to discuss the differences between the political systems in which the two cases are located.

Italy, unlike Germany, is not a federal state, although the process of constitutional change might eventually lead to quasi-federal arrangements.²⁶⁸ However, Italy has developed regional and

²⁶⁵ Herrigel (1999). He notes, however, that producers in some niches, such as circular knitting machines, are much less exposed to these pressures.

²⁶⁶ *Ibid.*

²⁶⁷ Again, these issues will be covered in greater depth in Glassmann (forthcoming).

²⁶⁸ While Italy's constitutional reform process is currently stalled, regional authorities have been pressing for reform in this direction; see "Dal Senato delle Regioni al Federalismo Graduale," *La Repubblica*, January 20, 1998, and "Centro e Periferia: Riscrivere il Patto," *La Repubblica*, January 26, 1998; both available at <http://www.repubblica.it>. Direct elections have recently been instituted for regional presidents; see "Presidente della Regione a Elezione Diretta," *La Repubblica*, November 12, 1999, available at <http://www.repubblica.it>. Robert Putnam's celebrated book, *Making Democracy Work* (Putnam 1993) has rekindled interest in the regional level of government; he sees the regional reforms of the 1970s as having been an important political experiment in administrative reform.

local political arrangements which have important consequences for the organisation of its political economy. As the Italian system is currently constituted, there are four levels of government which are relevant to the regulation of the political economy. First, there is the level of the national state, which remains formally dominant in most respects, albeit poorly organised and administered.²⁶⁹ As Richard Locke has emphasised, there is wide micro-level variation between different parts of Italy, so that it is fruitful not only to analyse national level factors in the Italian political economy, but to examine Italy as a composite of diverse subnational systems.²⁷⁰ This has had implications not only for national level reforms - attempts to make the Italian political economy more nationally homogenous and coherent have typically failed miserably²⁷¹ - but also for the effectiveness and relevance of the three subnational levels of government; the region, the province, and the commune.

The history of Italian regionalism is somewhat fraught. The creation of the Italian state in the nineteenth century involved the bringing together of regions and localities which differed extensively from each other economically, politically and culturally; at the time of Unification, only 2.5% of the population could speak Italian, including those Tuscans on whose dialect the national language was to be based.²⁷² The Farini-Minghetti bill, which was introduced in 1861, and approved unanimously by the cabinet, would have involved the creation of extensive regional structures; it was quickly withdrawn as politicians came to fear that centrifugal forces, especially in the South of Italy, could endanger the new-born kingdom.²⁷³ After World War II, the Italian constitution made provision for

Putnam, along with his collaborators Raffaella Nanetti and Robert Leonardi, have pressed the case that Italian regional reforms have been linked to the political and economic success (or otherwise) of the different regions which they have created. See Putnam et al. (1984), Leonardi (1990), Leonardi (1994), Nanetti (1988). However, there has been recent scepticism from some political scientists as to the success and importance of Italian regions; see for example Bull and Rhodes (1997), and Bruno Dente's trenchant assessment (p.180, Dente 1997) that there is "currently, a certain reluctance to discuss the role of the regions; they are regarded almost like a poor relative of whom one is a little ashamed." While Nanetti argues (Nanetti 1988) that the creation of regional structures has been essential to the Italian model of "social capitalism," Carlo Trigilia finds (Trigilia 1991) that it is precisely at the regional level that Italian capitalism is weakest in terms both of interest organisation and policy which might respond to regionally articulated interests.

²⁶⁹ Regini (1997). On recent changes, and most particularly how Europeanisation has simultaneously seen the state withdrawing from certain social spheres and strengthening its influence in others, see della Sala (1997), and, for a more general account of the retreat from *étatisme* in several European states, Crouch and Menon (1997).

²⁷⁰ Locke (1995).

²⁷¹ *Ibid.*

²⁷² Bull (1994).

²⁷³ *Ibid.*

regional authorities, which were established for four “special regions” in 1948 (Trentino-Alto Adige, Val d’Aosta, Sardinia and Sicily), and for Friule-Venezia Giulia in 1963. However, the constitution’s provisions for fifteen “ordinary” regions remained unexercised.²⁷⁴ This was in part for political reasons; the nationally dominant Christian Democrat and Socialist parties had little desire to create a power-base for the Communist Party, which had a strong presence in both Emilia-Romagna and Tuscany.²⁷⁵ Finally, in the 1970s, a series of laws were passed which allowed the regions to come into being as separate administrative and political entities. There were widespread expectations that the regions would be the vector for wide-reaching social reforms; these expectations were disappointed.²⁷⁶

The Italian regions have a governmental structure consisting of Council (parliament), Giunta (government) and President. Initially, the powers they were given were highly limited; following protest and legal action, more substantial decentralisation and delegation of powers was carried through in 1975; detailed legislation, however, was swiftly introduced to limit the regions’ powers in areas such as agriculture, housing, and industrial reconversion.²⁷⁷ Healthcare is by far the largest regional responsibility in terms of funds disbursed,²⁷⁸ but here the regions are merely acting to distribute national funds, with little real autonomy. Perhaps the most directly relevant regional area of authority, has been its role in territorial development, and in particular, its economic planning powers.²⁷⁹ The regions began to exercise this role at their inception,²⁸⁰ before, indeed, they had much in the way of resources to carry through the (sometimes grandiose) visions for their regions that were set out in these plans. Article 3 of Law 142/1990 gives regions authority over the provinces and communes in matters of planning. This does not entirely exclude lower levels of authority from the

²⁷⁴ These regions were and are slightly artificial, not corresponding very well to previously existing historical-geographical entities. See Dematteis (1989).

²⁷⁵ Bull (1994), Cooke and Morgan (1998), Putnam (1993).

²⁷⁶ Nanetti (1988); Anderson (1996) suggests that moves towards greater regionalism in Europe more generally (except in Spain) have been linked to pressures for increased industrial democracy.

²⁷⁷ Nanetti (1988).

²⁷⁸ Putnam (1993). The region in any event plays little role beyond disbursing health care funds to local communes; the fact that each commune in the province of Bologna has its own hospital, regardless of the inefficiencies this leads to, gives some indication of the clout that communes have with respect to regional government in this area of spending.

²⁷⁹ I discuss the other, and perhaps more directly relevant regional initiative in Emilia-Romagna, the ERVET system, below.

²⁸⁰ Nanetti (1988).

planning process. In the words of the official charged with drafting the plan for the region of Emilia-Romagna

we have entrusted the competence for planning of the physical area to the province, with the territorial plans for provincial coordination. We have entrusted to the single communes the competence of more strictly "urban" planning. Naturally, there is a system of approval - the province evaluates the plans of the communes, in terms of their consistency with the plans for the larger areas that they themselves have done, and the region evaluates the plans of the province in terms of how they develop the strategies indicated in the territorial plan.²⁸¹

Furthermore, the provinces and communes are consulted in the preparation of the regional plan. However, it is clear that the regions, and in particular Emilia-Romagna, have sought to use their authority over planning as a means of exerting authority over lower levels of government. This reached its apex (or nadir) in the unsuccessful efforts of regional authorities to displace the provinces altogether through the designation of "planning districts."²⁸² Conflicts between regional and local authorities in Emilia-Romagna have been exacerbated in recent years by the region's attempts to take over control of urban planning, along with wide-ranging powers to dictate the pace and extent of local development.²⁸³ As I discuss below, these conflicts over planning have been linked to more fundamental debates and disputes over the relationship between the region as an economic totality, and its industrial districts. Furthermore, the region's planning competences are still not accompanied by the sorts of policy instruments which would allow it to implement measures to carry through its ambitions.²⁸⁴

What the history of the planning process reveals is a much more fraught relationship between the region and its industrial districts than most academic authorities acknowledge.²⁸⁵ On the one hand,

²⁸¹ Interview with Paolo Matiussi, Office for Regional Planning, Emilia-Romagna. The communes and provinces clearly see their role as more than handmaidens to the regional authority, and have sought to expand their planning competences; see for example Assessorato alle Attività Produttive (1992).

²⁸² See Nanetti (1988). For further discussion of the evolution of the planning system in Emilia-Romagna, and its political context, see Bellini (1990); also Leonardi (1990).

²⁸³ Interview with Nicola Bellini.

²⁸⁴ Dente (1997). Note, however that in some areas relevant to this dissertation, such as innovation policy, recent legal changes may allow the region to play a more effective role. The so-called Bassanini Law (Law 59/1997) includes "among the functions delegated to the Regions, those bound up ... in programmes of innovation and technology transfer." Quoted, p.11, ASTER (1998). This law not only underpins regional competences in the area, but is also likely to make policy considerably more coherent. Interview with Alberto Malusardi.

²⁸⁵ This is a clear underlying theme of Nicola Bellini's work on the subject; see Bellini (1990), Bellini (1998). I am also indebted to Dr. Bellini for the above-mentioned interview, which I draw upon extensively in the following discussion.

the success of Emilia-Romagna's industrial districts gave the regional authorities crucial political credibility. The regional government was dominated by the Italian Communist party (and its later successors), and the success of local producers, who were arguably tied to the Communists, demonstrated that Communist rule did not lead to economic disaster. Thus, much of the region's economic policy aimed to sustain these districts. But these districts also posed problems for regional planners in that they were indisputably local rather than regional in character.²⁸⁶ Regional authorities have sought to use their planning powers to make industrial districts less "localist," but with little success; this bias is still quite clearly apparent in the most recent regional planning document, *La Regione Globale*.²⁸⁷

The provinces are perhaps the weakest level of Italian government; with little in the way of formal powers or competences. They do have control over the disbursement of certain funds to business, and in particular funds for artisanal firms; it should however be noted that the funds available are quite limited.²⁸⁸ In general, the provinces occupy a highly uneasy position between the region on the one hand, and local communes on the other. The Province of Bologna has sought to increase its authority by mediating tensions between the Commune of Bologna and the other communes of the province, which are far smaller, and feel themselves to be the victims of bullying. The recent designation of Bologna as a "metropolitan area" may be exacerbating these difficulties; in theory, the province of Bologna will be replaced by a metropolitan authority, but many of the smaller communes fear that this will involve the commune of Bologna coming to dominate its surroundings even more than it already does.²⁸⁹

The final, and lowest level of Italian government, the commune, has considerable importance for the regulation of local economies, and has been increasing in power and status in recent years.²⁹⁰

²⁸⁶ Another problem was that the districts are confined to a particular zone of the region, which largely coincides with the zone of Communist political domination. Thus, policy aimed at helping industrial districts could be (and was) criticised as being political pork-barrelling. The region has sought to get around this by describing outlying areas as being industrial districts, even when they clearly weren't; see Giunta Regionale (1998).

²⁸⁷ Giunta Regionale (1998).

²⁸⁸ Here one may note that the Assessor for Productive Activities of the Province of Bologna appears to view the activities of business associations such as the CNA as being more important to small firms than the activities of his own office. Interview with Dr. Caseli, Assessor for Productive Activities, Province of Bologna.

²⁸⁹ Ibid.

²⁹⁰ Dente (1990).

The legal reforms of 1990 reinforced their position; they provide social and industrial services that have provided important support at the local level to industrial districts.²⁹¹ Their primary role in this context is to provide indirect support for industrial development - there is little in the way of strong local corporatist interest intermediation.²⁹² However, in some instances at least, commune governments have played a critical role in underpinning local economic development, both through the provision of appropriate infrastructure and the encouragement of cooperation among local economic interests.²⁹³

All of these levels are relevant to some extent for businesses in Emilia-Romagna, including the packaging machine producers in Bologna studied in this dissertation. The main effect of the national state on local firms is the considerable regulatory burden imposed by national level legislation. This is one of the main reasons why business associations play such an important part in the region (and in Italy in general); a substantial portion of their duties involve acting as a buffer between firms of various sizes and the bureaucratic demands and requirements of a state sector that manages to combine high degrees of formality and inefficiency. I discuss this at more length in the following section; one may note, however, that there are state services which are relevant to packaging machine firms. In particular, the strong export orientation of such firms means that SACE (*Sezione speciale per l'Assicurazione del Credito alle Esportazione*) and ICE (*Istituto nazionale per il Commercio Estero*) are potentially important. However, firms interviewed for the research project reported difficulties with both institutions. SACE is supposed to provide insurance for markets where Italian firms would otherwise have difficulty in exporting. Recently, however, it has had a chequered career; like many fund-disbursing institutions of the national state, it appears to have been captured by large firms with good political connections. Even the larger firms of the packaging industry appeared to have difficulties in gaining assistance from SACE; smaller firms complained bitterly that they were systematically losing out to German competitors who had no difficulties in procuring help from their state agencies. ICE, which is charged with providing more general assistance to Italian firms (information on foreign markets and so on), received somewhat better reviews. While firms reported

²⁹¹ Trigilia (1986), Trigilia (1989).

²⁹² Trigilia (1986). On local corporatism, see Hernes and Selvik (1981).

²⁹³ Brusco and Righi (1989).

that it was practically impossible to get the national headquarters in Rome even to respond to their queries, they found that some country offices of ICE at least were helpful and responsive to requests.²⁹⁴

The region is also important to firms; the primary instrument of its industrial policy is the ERVET (*Ente per la Valorizzazione del Territorio*) organisation, created in 1973, with 75% funding from the region.²⁹⁵ Originally, ERVET played a dominant role in setting the region's economic and development policy; as the 1980s progressed however, it became more involved in the practicalities of policy delivery.²⁹⁶ It now acts primarily through a number of service centers, which are intended to provide "real services" to small firm districts, providing these firms with forms of information, coordination and technology diffusion that they would have difficulty in providing for themselves.²⁹⁷ In extreme cases, such as the famous CITER center for the Carpi garments industry, these service centres have provided a sort of informal local governance for firms in the relevant sector. However, ERVET is currently going through a period of retrenchment.²⁹⁸ The hostility of some local business actors, most prominently Confindustria, together with increased budgetary pressures on the regional government, and the perceived failure of some service centers to fulfil their role effectively, led to the redefinition of ERVET's role at the beginning of the 1990s. ERVET's funding from the regional government was no longer ring-fenced; further, it was to be disbursed on the basis of particular project proposals rather than endowed funds.²⁹⁹ Thus, the service centres have increasingly come to resemble private sector providers, seeking a market price, or close to it, for many of their services; furthermore, the ERVET system plans to rely more on associations as well as service centers for policy delivery, and to expand beyond the region in the future.³⁰⁰ Some service centres within the system have also sought additional sources of funding from the national level, or from the European Union; ASTER, the regional technology transfer centre, has gone so far as to reorganise itself internally along the lines of the

²⁹⁴ See Cooke and Morgan (1998) for information on other national level policies for innovation, which, however, do not appear to have a great deal of direct relevance for the particular subset of firms studied for this dissertation.

²⁹⁵ On the history of ERVET, see Bellini, Graziani and Pasquini (1990), Mazzonis (1996), Cooke and Morgan (1994).

²⁹⁶ Interview with Nicola Bellini.

²⁹⁷ Brusco (1992).

²⁹⁸ Mazzonis (1996), Cooke and Morgan (1998).

²⁹⁹ Interview with Alberto Malusardi, *ERVET*.

³⁰⁰ *Ibid.* Some ERVET service centers, such as Democenter, already have a substantial clientele from outside Emilia-Romagna. Interview with Bruno Mussini, Democenter.

different research headings of the European Union's Fifth Framework research funding programme.³⁰¹ Furthermore, there is a discernible shift in ERVET policy away from the old model of real service provision, which sought to support industrial districts and networks of firms as such, towards the targetting of individual firms. The broader aim of this policy change is to encourage firms to form networks not at the local level, but regionally and nationally; thus there is a new emphasis on services such as quality certification (provided by CERMET) which can help Emilian firms present themselves as credible partners to businesses in other countries.³⁰²

The packaging industry in Bologna differs from other important industrial districts in Emilia-Romagna in that it does not have a dedicated service centre. However, three service centres in the ERVET system have some relevance for the packaging cluster, ASTER, Democenter, and CERMET. ASTER, as I have already mentioned, is the agency charged with technology transfer; it is also one of the agencies which has become most Europeanised. It has been indirectly involved with the packaging machine sector through its securing of funding for an UCIMA programme to provide new training opportunities in the industry. This is typical of its role; it increasingly sees itself as an interlocutor between potential project funders (such as the European Union) and local, regional or sectoral associations or bodies.³⁰³ Democenter, which is based in Modena, provides show-rooms in which new technologies relevant to firms in the region may be demonstrated; it also runs programmes in the field of technology diffusion. However, local rivalries between Bologna and Modena have apparently played a role in discouraging Bolognese packaging machinery firms from using its services, despite the short distance between the two cities (some twenty minutes by train). CERMET, which is based in Bologna, is perhaps the most likely centre to have direct and relevant interactions with packaging firms in the future; it provides certification services and helps firms in the interpretation of technical regulations. This last is increasingly becoming an important issue for packaging machine

³⁰¹ ASTER (1999).

³⁰² I do not want to get bogged down in too much detail here; I hope to discuss the evolution of small firm policy in Emilia-Romagna at greater length in forthcoming collaborative work with Ann-Louise Lauridsen and Ulrich Glassmann. However, I will briefly observe that, even while this shift has clear policy justifications (Amin 1998), it may also partly be motivated by regional authorities' suspicion of industrial district localism.

³⁰³ Interview with Maida Demerola, ASTER. Also see interview with Barbara Maccatti, Confartigianato.

manufacturers, who are faced with a bewildering range of national, European, and international regulations on safety and materials.³⁰⁴

Finally, the communes are also of considerable relevance to firms in the packaging industry; and perhaps even more so than in many other industrial districts. The commune of Bologna funds the so-called *Istituto Aldini-Valeriani*, a training institute, which has played a vital role in the creation and subsequent success of the packaging machine cluster.³⁰⁵ This institute was founded as an initiative of the Commune of Bologna in 1844, before the Italian state was founded.³⁰⁶ It initially had little success, and was closed in favour of a demonstration centre in 1859; an Institute for Arts and Crafts was founded in 1878, and the Institute is now run as a technical school.³⁰⁷ It is difficult to overestimate the importance of this Institute for the development of the packaging machine industry in the locality. It not only helped provide the initial base of technical skills on which the industry was fostered, but swiftly adapted itself to the needs of the nascent industry, so that nearly all firm founders and employees in the locality at some stage passed through its gates.³⁰⁸ More recently, the Institute has expanded to include an evening school and a professional school; it is also linked to the local technological museum, and the recently founded *Fondazione Aldini-Valeriani*, which aims to guide the school in introducing new technologies and skills to the local area.

Germany, like Italy, had its beginnings in the unification of a number of smaller states in the nationalist revival of the last half of the nineteenth century. However, the end result has been a state, which unlike Italy, is genuinely federal. In its beginnings, Germany did enjoy many of the trappings of a federal state, and preserved within itself local practices of governance which in part perpetuated previous divisions between principalities and statelets³⁰⁹. Still, in many important respects, the *Kaiserreich* was Prussia writ large; the constitution was deliberately designed so as to perpetuate Prussian dominance.³¹⁰ The Weimar period saw increasing pressures towards centralisation of

³⁰⁴ Garibaldi (1998).

³⁰⁵ See Capecchi (1997), Curti and Grandi (1997). For an excellent brief history of the Istituto, see Curti (1994).

³⁰⁶ Interview with Giovanni Sedioli, Principal, Istituto Aldini-Valeriani.

³⁰⁷ Capecchi (1997).

³⁰⁸ Imola, which is within the province of Bologna, also has an excellent technical school.

³⁰⁹ Herrigel (1996b).

³¹⁰ Wehler (1985). Wehler's book is perhaps the most clearly articulated and historically grounded version of the *Sonderweg* hypothesis, which, roughly speaking, states that National Socialism had its roots in the failure of Germany to complete its modernisation process. As such, it may perhaps

authority, while the period of National Socialism, and the mass population movements after the war, led to the partial dissolution of previously existing social, regional, and local identities.³¹¹ After Germany's defeat in World War II, many policy makers on the Allied side favoured the introduction of a federalist system so as to prevent the resurgence of Nazism. Indeed, some Allied planners had suggested during the War that the best solution might be to break Germany up into its constituent states again. The extent to which the final outcome was the product of Allied intentions, previously existing native German political traditions, or a compromise between the two, is still the matter of debate.³¹² In any event, the final result that was arrived at involved a division of fiscal responsibilities between the *Länder* and the federal government, with both vertical and horizontal fiscal equalisation between states.³¹³ The division of administrative and political competences is complicated; the *Länder* have primacy in education, science and culture, and, through the Bundesrat, a collective veto power over federal legislation. The division of powers of implementation is quite complicated; by the mid-1960s it had become apparent that certain functions dominated by the *Länder*, such as education, agriculture and public infrastructure, required joint federal-*Länder* efforts if they were to be implemented successfully.³¹⁴ In practice, this has led to *Politikverflechtung*, or interlocking politics, often accompanied by pathologies of decision-making.³¹⁵ There is debate among scholars as to whether the long run direction of political development favours the *Länder* or the federal level, and more generally as to whether it favours centralisation, decentralisation, or the more complex forms of intermediation

be criticised for over-stating the dominance of the Prussian *Junker* elite in the *Kaiserreich*. For two influential essays criticising the *Sonderweg* approach to history more generally, and Wehler's approach in particular, see Blackbourne and Eley (1984).

³¹¹ One does not have to accept Ralf Dahrendorf's controversial proposition that National Socialism paradoxically helped complete the modernisation process in Germany (Dahrendorf 1967) to accept that the mass mobilisation practices of Hitler's Germany did partially erode many previously existing social divisions.

³¹² Merkl, for example, finds that the Allies' influence on the drafting of the *Grundgesetz* was "more ostentatious than real," (Merkl 1963, p.115), and argues that the final outcome was the expression of a compromise between German traditions. In his view, the influence of Allied proposals for a federalist structure of government were more cosmetic than real; the Parliamentary Council would most likely have opted for a similar structure in any event. He traces the debate on federalism to a compromise between the SPD and CDU/CSU (which posed problems for the CSU, which took a particularist position so as to try and outflank its local rivals, the Bavarian Party).

³¹³ This system has seen increased strain since reunification, when it was replaced by a new "Solidarity Pact;" see Gunlicks (1995). Richer states such as Baden-Württemberg have sought recourse to the Constitutional Court to resolve issues of federal-*Land* transfers under the new dispensation (Cooke and Morgan 1998).

³¹⁴ Scharpf (1988).

³¹⁵ *Ibid.*

between different levels of government described by Scharpf. On the one hand, Peter Katzenstein finds that “[i]f there is one predominant tendency in the bewildering array of changes in West Germany in the 1980s, it is a trend toward decentralization.”³¹⁶ Likewise, Herrigel states that

just as centralization and integration in the economy during the 1960s fostered centralization and integration in the structure and policy of the state, so decentralization and disintegration in the economy during the 1980s fostered a similar reversal in state structure.³¹⁷

On the other hand, Arthur Gunlicks argues that the *Länder* have seen a more general decline in their power and influence over time, which has only partially been redressed by recent victories (such as their success in ensuring that the federal government bore the main cost burdens of reunification, while Gert-Joachim Glaeßner speaks of a transfer of legislative activity from the *Länder* to the federal level.³¹⁸ Some of this apparent contradiction is due to differences in the time-frame of analysis, while most of the rest can be resolved by closer attention to precisely what these different authors are trying to say; Herrigel makes it clear that the decentralisation process he speaks of did not involve formal reforms, but rather an informal rebalancing of weights between the different levels of government. While the *Land* level now primarily plays the executive role, and the federal level the legislative role,³¹⁹ most policy areas still involve shared competences.

Germany like Italy, has regional/county and local levels of government beneath the level of the *Land*. However, local government is much less important to industrial policy in Germany; while the *Kreis* level of administration does sometimes help deliver policy,³²⁰ it is far less important than the *Land* level. To quote Ulrich Glassmann and Helmut Voelzkow,

Local government plays only a minor role in Baden-Württemberg, and the services of the *Land* government are more important. Economic policy and technology policy is set via tripartite alliances between the *Land* government, leading conglomerates and diverse scientific institutions, with towns and cities playing only a marginal role.³²¹

However, Glassmann and Voelzkow also speak of a new regional assembly for Stuttgart, which was

³¹⁶ p.307, Katzenstein (1989).

³¹⁷ p.280, Herrigel (1996b).

³¹⁸ Gunlicks (1995).

³¹⁹ Cooke and Morgan (1998).

³²⁰ *Ibid.*

³²¹ Glassmann and Voelzkow (forthcoming).

created in 1994. This more or less unique body has worked together with other local associational actors to promote regional development, but has found its efforts hampered by difficulties of coordinating action with other actors within the *Land* (see discussion below).

Perhaps the most important indirect effect of the national level of government on German firms is the level of stability that it provides. The Italian state has been notoriously unstable, generating considerable uncertainties in the business environment, and a pervasive “short-termism” in investment practices.³²² In contrast, the German national institutional framework has been highly stable, underpinning predictability in the business environment. Wolfgang Streeck suggests that the strong constitutional limits on the state have been highly important in this regard.

The result is both immobility and predictability of government policies, precluding rapid political innovation and allowing economic agents to develop stable expectations, pursue long-term objectives, and build lasting relations with one another.³²³

In particular, one may highlight the stability of monetary policy; Cooke and Morgan suggest that the German constitutional order’s “contribution is really to reinforce the bonds of stability that are, in economic terms, provided fundamentally by the policies of the *Bundesbank*.”³²⁴

Assistance to industry tends to be non-selective; the state usually provides general assistance to industry through providing collective competition goods such as innovation aid, rather than pursuing a specific and targeted industrial policy.³²⁵ Furthermore, much of this policy is carried out at a remove from the state by autonomous institutions which rely on, and disburse, extensive state funding in areas such as technology transfer and innovation.

to expand its capacities in line with its responsibilities, the German state has developed an extraordinary ability to assist groups in civil society in organizing themselves, devolving on them governance functions that would otherwise have to be performed by the state or left to the market. It is through state-enabled collective action and quasi-public, ‘corporatist’ group self-government that the German political economy generates most of the regulations and collective goods that circumscribe, correct and underpin the instituted markets of *soziale Marktwirtschaft*³²⁶

³²² Trigilia (1996).

³²³ p.38, Streeck (1997b).

³²⁴ p.87, Cooke and Morgan (1998). Of course, after Economic and Monetary Union, the Bundesbank no longer sets policy.

³²⁵ Streeck (1997b). Of course, as elsewhere, the state may find itself being obliged to help specific industries which are in difficulty; the much-studied *Kohlpfennig* subsidy is a case in point.

³²⁶ p.38-9, *Ibid*.

For example, much scientific research in Germany is carried out - and disseminated to industry - through the local institutes of the nationally based Max-Planck and Fraunhofer societies. The federal state is not the only level of government that acts in this fashion; the *Länder* too very often implement their industrial policy through autonomous or semi-autonomous bodies (including the above-mentioned). Further, there is evidence to suggest that autonomous *Land* action became more important to industrial policy in the 1980s than "cooperative federal" initiatives; Gary Herrigel shows that in 1983, for example, the *Länder* gave out DM 468.4 million in subsidies through their own programmes, and only DM 334.2 million to joint projects.³²⁷

Indeed, the most widely discussed instrument of Baden-Württemberg industrial policy is just such a *Land*-initiated autonomous body; the *Steinbeis Stiftung für Wirtschaftsförderung*.³²⁸ This was set up in 1971 to serve as a bridging institution between the Ministry of Science and the polytechnics; while formally independent of the *Land* government, the head of the foundation is also Commissioner for Technology Transfer, directly responsible to the Minister-President of Baden-Württemberg.³²⁹ The *Steinbeis Stiftung* saw its aegis expand dramatically under the Späth administration, taking over responsibility for technology transfer from the *Landesgewerbeamt*.³³⁰ A network of around 220 technology transfer centers has been set up - in most cases attached to polytechnic institutes - for which the *Stiftung* itself provides overhead services, supervision and coordination. These service centers provide a variety of services centered around technology transfer, business advice, and help in applying for government funding³³¹ Like ERVET in Emilia-Romagna, the *Steinbeis* technology transfer system has become more market-driven in recent years; while the *Stiftung* itself continues to be a not-for-profit independent foundation, the transfer centers increasingly provide their services on the market in competition with other service providers. In 1997, the *Stiftung* earned some DM 125.7 million from its various activities.³³² Again like ERVET, the *Steinbeis Stiftung* has begun to cast its gaze beyond the

³²⁷ Herrigel (1996b).

³²⁸ See for example Semlinger (1993a), Hassink (1993), Heidenreich (1996), Heidenreich and Krauss (1998).

³²⁹ Semlinger (1993a).

³³⁰ Ibid.

³³¹ The Chamber of Commerce system (IHK) also provides help and advice in securing government monies; see IHK in Baden-Württemberg (1997).

³³² Glassmann and Voelzkow (forthcoming).

region in which it originated, seeking to expand to new *Länder*, and indeed to new countries. In addition to the *Steinbeis Stiftung*, Baden-Württemberg has also given birth to the so-called *An-Institutes*, which seek to bridge the technological gap between universities and private business.³³³

The *Steinbeis Stiftung* is perhaps the best known manifestation of a wider phenomenon, the so-called *Späthkapitalismus* approach to economic development which the Land followed, under Minister-President Lothar Späth in the 1980s. Späth sought to build Baden-Württemberg up as a high technology region, following the examples of Silicon Valley and Route 128; his policy involved an astute mix of initiatives aimed at encouraging firms to invest in technological development, and international place-marketing. The extent to which government policy was the key to Baden-Württemberg's economic success is open to debate,³³⁴ and the Späth administration ended on an inglorious note of accusations of cronyism and unhealthy ties between business and government. What is clear is that the Späth era saw a considerable expansion in the scope of Baden-Württemberg's industrial policy. In addition to indirect action through the *Steinbeis Stiftung* and other autonomous actors, the Land government provides direct help to businesses, although directed measures are now carried out by the *Landeskreditbank*, because of European Union strictures on state aid.³³⁵ Non-targetted help is primarily channelled through the *Landesgewerbeamt*, the office for the promotion of trade and industry, which is linked to the Baden-Württemberg Economics Ministry.³³⁶ This organ of government provides business advice, and some financial aid for firms seeking to adjust to market conditions. Given the topic of this dissertation, it is interesting to note that it has sought actively to encourage networking and cooperation between firms in Baden-Württemberg, including firms in the machine construction and machine tool industries.

³³³ Cooke and Morgan (1998). The *Steinbeis Stiftung*, in contrast to the An-Institutes, is primarily involved with the polytechnic system. The list of semi- or quasi-public organisations helping firms which I have given here is by no means complete; one could mention the L-Bank, the Baden-Württemberg state bank, which provides export credit, development loans, and other sorts of assistance to firms at favourable rates, the Baden-Württemberg branch of the RKW, which provides consulting, training and information to firms in a variety of fields, and various specific programmes to encourage innovation and economic development in particular fields. The state itself has underwritten loans for important firms such as Trumpf in the past. However, my intention here is not to provide an exhaustive survey of government economic activity in Baden-Württemberg, but rather to give a general overview of the business environment, so as to provide some context for the specific forms of cooperation discussed in subsequent chapters.

³³⁴ Herrigel (1993), Glassmann and Voelzkow (forthcoming).

³³⁵ Glassmann and Voelzkow (forthcoming).

³³⁶ Ibid.

Two machine industry networks set up with the help of *Land* intervention have been documented in the literature.³³⁷ The Committee of Suppliers, Baden-Württemberg was set up in 1972 when a small firm complained to the *Landesgewerbeamt* about the difficulties which small firms faced in participating in trade fairs.³³⁸ The *Landesgewerbeamt* responded by organising a meeting where this firm could meet with others facing similar problems. This meeting provided the basis on which a loosely knit network of firms could be built up. Starting with around 12 members, the group now has some twenty participating firms, who swap information, visit each others' plants, and engage in collective marketing. These firms are primarily in the fields of electrical engineering, mechanical engineering or tool-making. Semlinger reports that the network faced considerable teething problems; members were initially suspicious of each other, especially as some of them occasionally competed with each other for the same business. The AKZ now has "groups within the group," focussing on areas such as electronic components, precision parts for hydraulic systems, and systems for the machine tool industry.

The second frequently cited example of firm networking in the literature is the Steinbeis Center for Quality Management in Gosheim.³³⁹ Here, a small turnery firm sought to cooperate with others to respond to increased customer demands for quality; however, the firm was unsuccessful in persuading others in its local association to come together with it. It then went to the local council (an unusual instance of local government involvement in economic development) which then went to the county, which in turn approached the *Steinbeis Stiftung* for support. The *Stiftung* set up a project in the area, which attracted the support of about forty firms; the association now has a membership of some 154 small and medium sized firms, ranging across metals, plastics and electronics.³⁴⁰

More generally, Economic Ministry help to firms tends to involve networking on a small scale; typically, the Ministry will set up a pilot project to introduce improvements in technology, involving between three and ten firms and a research institute; usually small to medium sized firms, although occasionally larger firms may also be involved. These joint development projects are

³³⁷ Semlinger (1993a), Cooke and Morgan (1994), Cooke and Morgan (1998).
³³⁸ Here, I am following Semlinger (1993a), which appears to be the original account of these networks.
³³⁹ *Ibid.*
³⁴⁰ Cooke and Morgan (1998).

sometimes problematic - especially when smaller firms are involved - difficulties may arise over patent rights to joint innovations, lack of advance planning etc. The Economics Ministry, like the VDMA (see next section) has also sought to encourage firms to cooperate in setting up joint service centers in foreign markets; here, at least one firm reported itself to be highly satisfied with the outcome of the Ministry's efforts.³⁴¹ However, funding cuts have seen very substantial curtailment in Ministry activities.

Finally, as mentioned above, Stuttgart has recently seen the birth of a new local level of government, the Stuttgart assembly, which has been keen to find a role for itself in economic development. It has cooperated with other associations and bodies in the Stuttgart region to set up an organisation to support firms, the *Wirtschaftsförderung Region Stuttgart (WRS)*. This organisation has sought to market Stuttgart internationally as an investment site, and has also tried to set up an initiative to promote cooperation among suppliers in the car industry (tentatively to be followed by a similar initiative in the machine industry). This has run into political difficulties however, both from the *Land* level, and from other localities within the *Land*, who are loath to see *Land* funds (which are used to support the WRS) being spent on a specifically regional initiative.³⁴² Interviews with firms in and around Stuttgart suggest that the WRS has a very low rate of name recognition; as a new organisation, it has yet to make its mark.

Section 3.5 - Associational and Industrial Relations Structures in the Two Case Studies.

The organisation of economic interests in Italy, like so much else, is complicated, and difficult to describe using the neat schematics beloved of social scientists. First, there are no clear-cut divisions between representative associations and employers' associations as there are in Germany - while there is some specialisation, the same organisation may represent businesses to government, bargain with trade unions, and provide services to its members.³⁴³ Where there are divisions between business associations on the one hand, and trade unions on the other, they very frequently do not obey any

³⁴¹ See Chapter 4.

³⁴² Glassmann and Voelzkow (forthcoming).

³⁴³ Although many sectoral associations do not have a direct industrial relations role.

functional logic, but rather stem from divisions between Christian Democrats, Socialists, and Communists, the three dominant political forces in Italy after WW II. Finally, business associations may also be separated according to the size category of the firms that they represent; one may distinguish between associations representing artisans, associations representing small industrial firms, and associations representing firms of all sizes (which in practice tend to be dominated by large and very large firms).

Perhaps the most important Italian business association is Confindustria. Founded in 1910, the association has a national membership of over 107,000 firms, employing 4.1 million employees. Confindustria tends to be dominated by larger firms, and does not provide the same broad range of services as those business associations which focus more on small and medium sized enterprises. However, Confindustria both lobbies on behalf of its members' business interests, and provides them with information on regional laws and regulations, and opportunities for government funding.³⁴⁴ In Emilia-Romagna, Confindustria has a regional office, and nine provincial offices. Politically, the provincial associations are more powerful than the regional office; they have more direct contact with firms on a day to day basis, both in terms of the information they provide, and their role in labour negotiations with trade unions. The regional office's primary responsibility is lobbying the regional government; while Confindustria is consulted over major industrial policy proposals, it does not enjoy the same sorts of close relationships as other business associations, who are ideologically closer to the dominant political forces in the region.³⁴⁵

Confindustria does not typically itself have much contact with small firms in the packaging machine industry, or in the region in general; interviewees generally perceived it as being dominated by larger firms.³⁴⁶ The Confindustria structure does however encompass sectoral associations, which have closer contacts with firms in certain industrial districts, and also has links with the small firm association, Confartigianato (see below). For the packaging machine industry, the relevant

³⁴⁴ Interview with Confindustria. Confindustria Emilia-Romagna also has its own office in Brussels to lobby European institutions and to gather relevant information for its members.

³⁴⁵ On lobbying and interest representation in Italy, see Pasquino (1989).

³⁴⁶ With one prominent exception, who was an enthusiastic and active member of *Confindustria* for ideological reasons. The importance of artisanal associations in Italy means that smaller firms' interests are not drowned out as they are in other European countries where small and large firms for the most part share the same representative associations. On the difficulties for small firms in such settings, see Semlinger (1993a), Bowman (1998).

Confindustria-affiliated sectoral association is UCIMA (*Unione Costruttori Italiani Macchine Automatiche*), founded in 1984. It has a membership of over 80 companies, which account for 75% of domestic turnover, and 80% of exports in the sector. This organisation is based in Milan, provoking some resentment among the majority of its members, who are based in and around Bologna. This has been exacerbated by the recent decision of UCIMA to close its Bologna office.³⁴⁷ UCIMA provides informational services to its members, as well as organising trade fairs and common stands. It lobbies regional and national authorities on issues specific to the packaging industry, cooperating with Confindustria and Intermeccanica (a grouping of trade associations involved in mechanical engineering) when appropriate.³⁴⁸

Quite different from Confindustria are the associations representing artisanal and small firms. Two of these associations have a substantial presence in Emilia-Romagna, the CNA, and Confartigianato (CGIA).³⁴⁹ The CNA (*Confederazione Nazionale dell'Artigianato e della Piccola e Media Imprese*) is indeed arguably the most influential business association in the region of Emilia-Romagna.³⁵⁰ This dominance is partly for historical reasons; the CNA has traditionally been associated with the Left and the Communist party. Confartigianato, in contrast, was set up as a result of a Confindustria initiative in the late 1940s, and is more closely associated with the right wing of Italian politics.³⁵¹ While it has higher membership figures than the CNA at the national level, it is very much outweighed by the CNA locally in Bologna. Confartigianato and the CNA's members are artisanal and small firms; the latter has 62,700 member firms in Emilia-Romagna alone. Both provide an array of services to their members, as well as lobbying for small firm interests, and representing their members in labour negotiations. Many of these services relate to administration, and in particular to the work involved in complying with the state's regulatory demands; the CNA in Emilia-Romagna handles tax accounting for 40,000 of its members, and payrolls for 20,000 (which represents 50% of those who have one or more employees). This support infrastructure has been extremely important to the small

³⁴⁷ Further, UCIMA tends to be dominated by large firms, for which reason many smaller firms in Bologna are not members.

³⁴⁸ Interview with Dottore Bianchi, UCIMA.

³⁴⁹ There are two other artisanal associations on the national level in Italy, CLAAI, and CASA, but they have a negligible presence in Emilia-Romagna and Bologna.

³⁵⁰ Other business associations testify to the political dominance of the CNA; see interview with Barbara Maccati, Confartigianato, and interview with Confindustria.

³⁵¹ Interview with Barbara Maccati, Confartigianato.

firms of the region, allowing them to operate without high organisational overheads. The CNA and Confartigianato also support their members in seeking loans and credits from banks, facilitating collective guarantees through association or cooperative agreements between firms.

The artisanal association in this case has this kind of function. There is a system which is called guarantee cooperatives, which in practical terms obtains public funds, and succeeds in getting better terms for artisans than the banking institutions. They need the balance sheets to verify that a firm is healthy and able to return the debt, and absorb and shoulder the risk of the investment. [The association] shoulders a part of the risk, in a way so that the bank is able to give more financing.³⁵²

Finally, both organisations provide information and advice services for their members, and in particular advice on dealing with national, European Union, and international regulations and quality norms. At the time when research was being carried out, the CNA in Emilia-Romagna was seeking to set up a project which would help small firms in the packaging industry comply with European Union quality directives; this project was in the early stages of planning, so little information was available.³⁵³ None of the firms interviewed reported links with Confartigianato.³⁵⁴ Interviews with firms suggested a high level of satisfaction with the CNA; interviewees suggested both that the CNA's services were entirely satisfactory, and that the CNA understood the needs of small enterprises, and had people "with the right mentality to relate to small firms."³⁵⁵

Both Confartigianato and the CNA have been seeking to expand their appeal from artisanal (i.e. very small) firms to smaller "industrial" enterprises, perhaps employing 50-100 people. This expansion of the catchment population is to some extent a natural process; as artisanal firms increase in size, they may choose to remain with their old association.³⁵⁶ However, this process is also bringing these firms into direct competition with other associations, most particularly API (*Associazione di Piccole e Medie Imprese*) which has 1,300 member firms in the Bologna area. API is especially strongly represented in the mechanical sector; 70% of its members in the Bologna area are involved in

³⁵² [ibid.

³⁵³ Interview with Roberto Manaresi, CNA Emilia-Romagna.

³⁵⁴ Although discussions with Confartigianato suggested that it has more links with certain parts of the packaging industry, such as technical design studios, which were not directly covered by the research carried out for this project.

³⁵⁵ Firm Interview 3.

³⁵⁶ See for example, Firm Interview 2.

metalmeccanica, including some thirty firms in the packaging machine sector.³⁵⁷ API is in many ways analogous to the artisanal associations, although it clearly focusses on larger (yet still small in absolute terms) enterprises. Thus, perhaps the most important service that it offers for its members is assistance in labour negotiations. This contrasts with the artisanal associations, where the emphasis is on fiscal services and advice (although labour relations issues are still, obviously, important).

Italy also has an extensive system of Chambers of Commerce. As in Germany, these Chambers enjoy a privileged legal status, which was reinforced in 1993 (Law 580/1993). However, Chambers vary widely in their effectiveness and connectedness to the business community. In some contexts, Chambers may act as general representatives of business interests in their area; Paolo Perulli speaks of the Modena Chamber of Commerce as having enjoyed considerable authority in the 1980s.³⁵⁸ In the majority of cases, however, Chambers are relatively isolated both from their constituency - they collect their statutory fees, but otherwise engage only infrequently with firms - and from local and regional government. Bologna would appear to be a case in point. The external services division of the Chamber admits that it has little direct contact with firms,³⁵⁹ and local businesses and business associations tend to be dismissive of it. It does provide some services linked to certification, and basic information on business markets.³⁶⁰

Industrial relations in the region are complicated by divisions between trade unions which parallel some of the ideological differences between business associations.³⁶¹ In June 1944, trade unions signed the Pact of Rome, which committed them to an unified trade union movement, (CGIL).³⁶² This unity swiftly succumbed to Cold War politics; in 1948 the Catholics peeled off to found CISL, in 1949, the Socialists and Republicans founded UIL, and in 1950, right wing forces founded CISNAL, leaving the Communists in control of CGIL. Divisions and weaknesses in the trade union movement, as well as the political dominance of the Christian Democrats led to the dominance

³⁵⁷ Interview with Carlo Rossini, API.

³⁵⁸ Perulli (1989).

³⁵⁹ Interview with Giuseppe Rocco, External Services Section, Bologna Chamber of Commerce.

³⁶⁰ See Camera di Commercio, Industria, Artigianato, e Agricoltura, Bologna (1998/1999) for a list of services provided.

³⁶¹ Locke (1995) describes the recent growth of independent trade unions outside the three "main" families of trade unions below; as none of these unions have a presence in the Emilian engineering industry, I do not discuss them.

³⁶² Nanetti (1988).

of business interests throughout the 1950s; the strikes and social unrest of the *autunno caldo* of 1969, saw institutional and legal changes which favoured labour.³⁶³ These changes did not amount to a nationally coherent whole, however; as Richard Locke has argued

all of these efforts aimed at making the Italian industrial relations system more centralized, quiescent, and predictable - more like that of other nations - turned out to make the Italian system more decentralized, fragmented, and competitive. Initiatives aimed at abating the peculiarities of the Italian system instead accentuated them.³⁶⁴

The end result, according to Marino Regini and Ida Regalia, has been a combination of difficult formal relations at the macro level, and informal concertation between firms and unions (more successful in some regions and firms than others) at the micro level.³⁶⁵

The three main trade union umbrella organisations, CGIL, UIL and CISL all have associated trade unions in the Emilian mechanical engineering industry. Of these, the CGIL affiliated FIOM has the largest membership by far; FIM (associated with UIL) comes second, and CISL a distant third.³⁶⁶ FIOM also has strong ties with the regional government, most recently manifested in the region's creation of the "Istituto per il Lavoro." This body is headed by the former head of FIOM in Emilia-Romagna, and seeks both to provide research and policy positions, and to implement projects on economic development issues from a standpoint that is sympathetic to labour.³⁶⁷

Labour relations have been tense in the past; the region has acquired a name for activist trade unions. More recently, however, trade unions, including FIOM, have adopted a more cooperative approach to negotiations within the firm. Although the union claims that its membership is growing in Bologna, it has also suffered from the tendency of specialised mechanical engineering firms to subcontract rather than employ workers internally which I have described in Section 3.2, and is

³⁶³ Locke (1995).

³⁶⁴ p.75, Locke (1995).

³⁶⁵ Regini and Regalia (1997). For more detail on the development of industrial relations in Italy, see the above-mentioned works, as well as Regini (1983), Cella (1989), Chiesi and Martinelli (1989).

³⁶⁶ Figures are available on union membership; however, these are highly suspect. Conversation with Luigi Burroni.

³⁶⁷ Interview with Francesco Garibaldi, Istituto per il Lavoro. For further information, see Istituto per il Lavoro (1998). This foundation was set up as a result of trade union initiatives; while some business associations (including Confartigianato) have been supportive and have cooperative links with the Istituto, Confindustria, which has generally been opposed to regional intervention in the economy, is suspicious. Interview with Confindustria

worried by the “individualism” of workers in the industry.³⁶⁸ Cooperation between firms and trade unions is most clearly seen in the artisanal sector, where EBER (*Ente Bilaterale Emilia-Romagna*), a joint creation of the trade unions and artisanal associations, provides important collective goods both to workers and to firms. EBER owes its existence to an accord reached between the trade unions and artisanal associations in 1988.³⁶⁹ On the one hand, it provides social insurance for firms in difficulty, paying 40% of the salaries of their workers for a set period, while on the other hand it helps underpin union representation at the regional level (internal representation within the firm is impossible for most artisanal companies), and monitors and provides information on safety in the workplace. EBER was established in Emilia-Romagna in 1991, and began its activities proper in 1993; despite considerable initial scepticism, 85% of the relevant population of firms are now members.³⁷⁰

Industrial bargaining occurs at a number of different levels. First, there is the national level, where a national contract for the “metal-mechanical industry” is hammered out between Federmeccanica and the trade unions. Despite recent moves towards more concertation at the national level,³⁷¹ this contract is not binding on firms or unions at the local level;

The national contract imposes rules on the territory, but the national contracts are not laws. The national contract is an agreement between private citizens - the representative organisation of the firms, and the representative organisation of the workers. A rule laid out in the national contract, may be applied or not applied in the territory, made better or made worse.³⁷²

To a great extent, this reflects the local and regional variegation of the political economy of Italy; rules agreed for workers and firms in Sicily may not be appropriate for their equivalents in Tuscany. While it thus allows flexibility, it also leads to incoherence, unpredictability, and a system of trade union organisation which “is, to use a metaphor, a structure of the feudal hierarchical type,” complete with

³⁶⁸ Interview with Roberto Bennati, Secretariat, FIOM Emilia-Romagna. This “individualism” is clearly associated with the tightness of labour markets; skilled technical workers who are in high demand do not need collective bargaining mechanisms in order to secure high pay and good working conditions.

³⁶⁹ See pp.69-70, EBER (1997) for a copy of this agreement. Perulli and Catino (1997) provide an excellent and comprehensive discussion of the origins and development of *Enti Bilaterali*, which makes reference to EBER.

³⁷⁰ Interview with Enrico Mattei, Director, EBER.

³⁷¹ Regini and Regalia (1997).

³⁷² Interview with Roberto Bennati, Secretariat, FIOM.

unruly barons.³⁷³ The unions at the provincial level hold most of the cards; they bargain with firms individually over how the national contract is to be applied; the regional level, in contrast, is almost powerless. Thus, firm-level bargaining remains the most important level for industrial relations in Italy, except for artisanal firms, whose associations negotiate a regional agreement with the unions.

While Baden-Württemberg has many regional specificities, in many respects it can be taken as an exemplar of the German “model of capitalism.”³⁷⁴ In this model, one can distinguish between three different types of business association.³⁷⁵ First, there are trade or sectoral associations, which act to lobby on behalf of their members’ interests, and also provide services to them. Second, there are employers’ associations, which represent employers’ interests in the collective bargaining process. Finally, there are chambers of commerce, which are regionally based associations of private businesses; they are legally mandated, and membership is compulsory. While all of these associations are organised on a national basis, they are typically active on the regional level as well, albeit with regard to different issues

The level of the *Länder* is extremely important for the representation of interests in the Federal Republic of Germany, even if one has to keep it in mind that the questions which concern interests organised at the *Land* level are quite different from those that concern the peak organisations at the national level.³⁷⁶

The German associational landscape is rather less fragmented than the Italian; the list of associational actors relevant to the machinery industry is considerably shorter. Furthermore, small firm associations play a relatively minor role; unlike their Italian equivalents they tend to be underfunded, with little ability to provide comprehensive services or to lobby effectively.³⁷⁷ The two most important trade associations for producers of machine tools, the VDMA (*Verein Deutscher Maschinen- und Anlagenbau*) and the VDW (*Verein Deutscher Werkzeugmaschinenfabriken*) both have regional branches in Baden-Württemberg.³⁷⁸ Although the same firms are usually members of the machine tool division of the VDMA, and of the VDW, the two organisations are independent of each other.

³⁷³ *Ibid.*

³⁷⁴ Streeck (1992), Glassmann and Voelzkow (forthcoming).

³⁷⁵ In the following, I adapt the discussion in Semlinger (1993a).

³⁷⁶ p.201, Mayntz (1990), my translation.

³⁷⁷ Semlinger (1993a).

³⁷⁸ Cooke and Morgan (1998).

Politically, the VDMA is the more important of the two, and perhaps one of the most important political actors in Baden-Württemberg. It has enjoyed friendly relations with the *Land* government, especially during the Späth era, and acts as an authoritative voice for the regional and national machine industry. Cooke and Morgan provide an example of the VDMA's power to affect public policy in their discussion of the crisis that hit the automobile industry of the region in the early 1990s.³⁷⁹ The VDMA became aware of a proposal made by Mercedes Benz and other car manufacturers that suppliers should bear more of the burden of producing innovation, which would have had adverse implications for many of their members. The VDMA expressed its concerns to the Land Economics Ministry, which commissioned an economic consultancy to look at the issue; the consultants suggested a program of cooperation between small firms, and a series of pilot projects, involving the Fraunhofer Institute was set up less than a year after the problem had first been identified.

More generally, the associational structure of Baden-Württemberg is one in which business associations, along with other institutional actors and important large firms, have tended to have substantially more influence than the trade unions, which for a very long time were excluded from key policy discussions.³⁸⁰ Before the crisis, the terms of industrial policy were frequently set by informal discussions between important business and policy actors, or by "Expert Commissions" from which trade unions were excluded. The CDU led government only properly began to involve trade unions in discussions in the late 1980s, when the *Land* invited IG Metall, the metal workers' union to participate in the discussions leading up to the creation of a "technology city" in Ulm. Even then, the unions were clearly treated as "junior partners" in a policy process which Heinze and Schmid characterise as "business-led corporatism."³⁸¹ Union influence on policy in Baden-Württemberg has increased somewhat in the wake of the crisis of the machine and car industries, and national level efforts to reach a consensus on the causes of this crisis and possible remedies.³⁸² A change in government also helped for a time

The new government pursued a modified policy, and a political statement was [included] in the coalition agreement between the CDU and SPD with new elements, that among other

³⁷⁹ Ibid.

³⁸⁰ Herrigel (1993), Semlinger (1993a).

³⁸¹ Heinze and Schmid (1994).

³⁸² Müller-Jentsch et al. (1998).

things foresaw the founding of the "Future Commission 2000" and a stronger working relationship with the trade unions.³⁸³

Efforts by the Stuttgart branch of IG Metall to start a wide ranging discussion of the crisis in the machine industry led to a constructive dialogue with the VDMA and VDW. Müller-Jentsch et al. (1998) give a detailed account of this dialogue, which they see as evidence that a new form of meso-corporatism, "centralised bipartism," may be arising in Baden-Württemberg. Perhaps the trade-union's more limited description of these relations as involving "interest oriented co-management" is more accurate; although trade associations and trade unions have reached consensus on some regional economic issues, the actual scope of cooperation remains quite limited.³⁸⁴

Apart from its lobbying role, the VDMA also provides services to its members. Interviews suggest that firms' primary interest is the training and technical information seminars which the organisation provides. These seminars also provide a setting for loose networking between firms, and the creation of informal contacts. Interestingly, firms interviewed in Stuttgart seemed to avail frequently of VDMA services in other *Länder* than Baden-Württemberg, suggesting that they related to the organisation as a whole, rather than just to its regional branch. The VDMA also organises trade fairs and exhibitions for its members. Gary Herrigel speaks of the VDMA's "norm committee" as having been extremely important to the constitution of the machinery industry, allowing firms to agree on their specialisations. It is unclear whether the VDMA still plays this role, although there is evidence that firms still act informally to "regulate" market segments.³⁸⁵ The VDMA has sought to encourage its member firms to cooperate in development and other areas; while Klaus Semlinger suggests that it has had great difficulty in persuading them to work together, Cooke and Morgan report at least partial success.³⁸⁶

Another association which plays an important role for engineering in Baden-Württemberg, although it is not an association of firms, is the VDI (*Verein Deutsche Ingenieure*). Founded in 1856,

³⁸³ p.113, *ibid.*, my translation. The CDU-SPD government has now been replaced by a CDU-FDP coalition which is less open to cooperation with the trade unions for ideological reasons. Note, however, that the trade union and its associated policy institute, the IMU, have increased their activity at the regional (as opposed to *Land*) level; they were among the actors advocating the setting up of the WRS.

³⁸⁴ Interview with IG Metall, Stuttgart.

³⁸⁵ See Chapter 4.

³⁸⁶ Semlinger (1993a), Cooke and Morgan (1998).

this association of engineers provides a forum in which engineers can make informal contacts with each other, and with political figures; it also provides training seminars, and acts to represent the interests of engineers in the policy process. The Württemberg branch of the VDI was founded in 1946, and has a relatively high level of activity, which is supported by a relatively high level of voluntarism among its members.³⁸⁷

The so-called “dual system” of German industrial relations has been the subject of extensive academic analysis.³⁸⁸ In this system bargaining occurs at two levels. First, there is a relatively centralised bargaining process at the national level involving twelve multi-industrial unions. Typically, the overall pattern is set by the agreement reached between IG Metall, the metal industry trade union, and Gesamtmetall, the federation of metal industry employers’ associations. However, strictly speaking, this agreement is not made at the national level; although IG Metall is nationally organised, Gesamtmetall consists of fifteen different regional associations, with only a relatively weak peak association to unite them. Thus, the pattern is typically set by regional negotiations between IG Metall and one of the member associations of Gesamtmetall; typically the Württemberg association.³⁸⁹ In other words, the agreement reached between the employers’ association and the relevant trade union in Württemberg usually sets the pattern for the cross-sectoral wage settlement in Germany as a whole. This has both benefits and disadvantages for local employers and trade unions; the Stuttgart branch of IG Metall believes that it could have gotten a better deal for its members last year if it had not had to take into account the national repercussions of the settlement that would be reached.³⁹⁰ This agreement involves basic wage increases, and the fundamentals of the labour relationship (the number of hours to be worked in broad outline etc).

The second level is that of the work council, which negotiates the factory specific aspects of the work relationship. Work councils cannot bargain over wages, but they can bargain over a wide variety of shop floor issues, and have had authority to bargain with employers over the details of the recently introduced reduction in the working week.

³⁸⁷ Interview with VDI, Württemberg.

³⁸⁸ See in particular Thelen (1991) and for recent developments, Müller-Jentsch et al. (1998), and Thelen and Kume (1999).

³⁸⁹ This year was an exception to the rule; the pattern was set by negotiations between IG Metall and the North-Rhine Westphalia branch of Gesamtmetall.

³⁹⁰ Interview with IG Metall, Stuttgart.

This system has been coming under increasing strain. On the one hand, the relatively high degree of centralisation has caused difficulties for both firms and employees who wish to adapt flexibly to specific local, sectoral, or firm level circumstances.³⁹¹ In particular, employers' associations have increasingly demanded greater "flexibility"; small firms have been especially vocal about the difficulties they face in applying "one size fits all" agreements.³⁹² These pressures for decentralisation have been most intense in the metal industry, and the VDMA has pressed for reforms in which work councils could regulate matters that are currently in the domain of the unions.³⁹³ Centralised bargaining has also increasingly been attacked by liberals opposed to the "social market."³⁹⁴ Recent changes in the relationship between work councils and the centralised bargaining system are in part a response to this set of problems; as "flexibility" related issues have become increasingly important, so too has work council level bargaining assumed a new significance.³⁹⁵ Although the system of centralised bargaining has confounded many of its critics by continuing to survive, it is coming under increased threat, not so much because of union weakness, as because of the increasing difficulties of employers' associations. Associations such as Gesamtmetall have seen both defections of member firms (who are then no longer legally bound by the centralised bargaining system) and a "growing tendency on the part of member firms to undercut informally the terms of the central agreement."³⁹⁶ This last is a particular problem in former East Germany, but is growing in the West as well; Thelen and Kume quote research indicating that 15.6% of West German firms and 29.8% of East German firms with work councils breach collective agreements. While many employers are still attracted to collective bargaining, and the stability it provides, others want to opt out, and fragmentation of employer interests is arguably a greater threat to the "German model" of industrial relations than union weakness.³⁹⁷ Smaller firms in the metal industry in particular are seeking to "free ride" on the collective benefits provided by the system. Trade unions such as IG Metall are clearly worried by this trend. At the time of writing, IG Metall has just signalled a radical shift in its negotiating position, which now aims less at reducing

³⁹¹ Herrigel (1996b).

³⁹² Thelen and Kume (1999).

³⁹³ *Ibid.*

³⁹⁴ *Ibid.*, Dyson (1995), Schroeder and Weinert (1998).

³⁹⁵ Müller-Jentsch et al. (1998).

³⁹⁶ p.480, Thelen and Kume (1999).

³⁹⁷ *Ibid.*

working hours than at ensuring that workers are rewarded for their flexibility and productivity through an increased share in the earnings of their firms, whether through shares or pension funds.³⁹⁸

Gesammetall has cautiously welcomed this proposal, but it remains to be seen how this new approach will be realised in the next round of negotiations.

Finally, Germany also has a well developed system of chambers of commerce, the IHK. Unlike their equivalents in anglophone countries, German chambers of commerce have compulsory membership and important regulatory functions. In Wülke's summation, "trade associations must be understood as associations that are in society and outside the state, whereas the Chambers of Commerce are outside of society, more precisely between society and the state."³⁹⁹ The IHK fulfils a number of statutory functions, and is strongly involved in the dual training system; it also is involved with the AHK (*Auslandshandelskammern*), an international system of German chambers of commerce operating in some 70 countries. The system extends nationwide, with 82 regional IHK: the *Region Stuttgart* IHK has some 122,000 members.

Section 3.6 - Conclusions

The previous survey of industry, regional politics, and associational structures in the two case studies is intended to outline a broad context in which the specifics of the four succeeding chapters, which are the "meat" of the dissertation, can be understood; it is in these chapters that my main arguments will be presented. My focus in these chapters will be on economic relations between firms themselves, rather than the wider issues that I have discussed in this chapter. Therefore, this chapter has been largely descriptive, setting the broader scene for the more detailed discussion which is to follow; its subject matter is not the main focus of my dissertation.⁴⁰⁰

However, the industrial, political and associational structures which I have discussed are

³⁹⁸ See "IG Metall Deutet einen Kurswechsel An," p.1, *General-Anzeiger*, 15/16 April 2000.

³⁹⁹ Quoted in Herrigel (1996b).

⁴⁰⁰ As I discuss in the Appendix, this dissertation project uses research gathered for a wider project on the "governance of local economies." I, together with Ulrich Glassmann and Ann-Louise Lauridsen, will be comparing the industrial and associational structures of the two cases in a more rigorous fashion in forthcoming research within the context of this project.

relevant to my broader theme in at least three ways. First, they may have a direct effect on whether firms cooperate or not. This is especially so for the industrial structures of the two case studies - the sorts of firms in the two regions, and the broad relationships that they have with each other, will clearly have an important influence on cooperation (see below). But political actors may also affect cooperation between firms; this will most clearly be so when political agencies (as in Baden-Württemberg) adopt a policy of encouraging firms to work together. It is important not to exaggerate this effect; in Emilia-Romagna, there would appear to be little direct effort on the part of government to encourage machinery firms to cooperate, and what there is in Baden-Württemberg primarily takes the form of limited pilot projects. Equally though, one has to acknowledge that it exists. Finally, associations may, and do, encourage their members to cooperate together, although their efforts have had mixed results.⁴⁰¹

Second, industrial, associational and political structures may have broader effects on the environment that firms work in, and thus on their propensity to cooperate. This is a theme that I return to in Chapter Seven, when I seek to situate my findings in the context of a broader body of work about the differences between Italy and Germany. Let me be clear: it is impossible to make country level generalisations on the basis of two case studies of particular industries in particular regions. But I can at least talk about how my data might be interpreted in light of the relevant previous literature; this is what I intend to do.

Finally, not all of the differences between cases can easily be reconciled with my model. This implies the need to control, even if only at a very basic level, for exogenous variables which may confound my results. Thus, when interpreting the data which I present later, it is very important to be aware of the clear differences that exist between the case studies. In some instances, these differences imply clear limits to a trust-based theory of differences in cooperation between cases.

Let me canvas a couple of these issues. While both machine tool and packaging manufacture can be classified as forms of mechanical engineering, there are some differences between the two industries. Two of these differences seem potentially relevant. First, the machine tools sector is more

⁴⁰¹ See the already cited discussions in Semlinger (1993a) and Cooke and Morgan (1998) on Baden-Württemberg. I discuss the difficulties that associations in Emilia-Romagna have had in encouraging cooperation among their members in Chapter Five.

internally heterogenous than the packaging machines sector; it includes a wider variety of manufacturing techniques and areas of application. This may have effects on the relative propensities of machine tool and packaging manufacturers to cooperate, but the direction of these effects is unclear. On the one hand, greater heterogeneity of techniques might imply less potential scope for useful exchange of information between machine tool firms, but on the other hand the diversity of areas to which these techniques can be applied, would suggest that there is also less potential conflict of interest between manufacturers, which ought to encourage cooperation. Second, many areas of machine tool manufacture are more technologically advanced than packaging machine manufacture. This clearly leads to important differences between the industries in terms, for example, of the skill profile of their workers, but again it is unclear to me precisely how this might differentially impact relations of trust and cooperation.

A more serious set of difficulties arise from the different industrial structures of the two case studies. These structures may to a great extent be traced back to differences in institutions between the two national systems in which the cases are located. In Bologna, as in the rest of Italy, labour law and practice imposes a heavy burden on employers, who therefore frequently prefer to subcontract work than to take on new employees. This has clearly had important consequences for the structure of the packaging machine industry, helping to sustain a system in which there is a multitude of small, highly specialised, subcontractor firms. While Germany also accords considerable protection to workers, German labour law is not as extensive, and has not had the same effects as in Italy; German machine producers have typically responded to these rigidities by seeking "high-end" market niches rather than making labour more flexible through outsourcing.⁴⁰²

Clearly, this implies that the specific patterns of subcontracting relations between firms in these two countries can only partially be ascribed to differences in trust and cooperation. Industrial structure is also affected by other important variables. Still, one can still argue that even if differences in trust (which I will argue can be traced back to institutional differences) are not the only factor which affects cooperation in subcontracting practices, certain sorts of trust are still *necessary conditions* for certain kinds of cooperation. In other words, while a certain sort of trust may not in itself "explain" the

⁴⁰² Streeck (1997a).

Italian pattern of production, it nonetheless is essential to this pattern: a far-reaching disintegration of the production process cannot be achieved without certain sorts of trust between producers. I will address this argument at greater length in Chapter Six.

Chapter Four - Alternative Explanations of Trust - Culture, Identity and Interest

Section 4.1 - Introduction

As I have stated in Chapter 2, this dissertation asks whether a particular version of the so-called “encapsulated interest” account of trust can be applied usefully to the understanding of trust and cooperation between firms in industrial districts. The encapsulated interest account seems to have a plausible account of certain important features of trust, locating, as it does, trust and the cooperation consequent on that trust in expectations based on interest. However, as I have said, this is not the only approach to trust prevailing in the literature. Many other accounts of trust are diffuse, and theoretically underspecified. Nonetheless, one can distinguish at least two other theories of trust which seem on the face of it reasonable, and which have been applied to the kinds of economic relationship in which I am interested.

One such account can be found in political culture discussions of trust. Such accounts have a considerable pedigree - trust between individuals is an important concern of Almond and Verba’s *The Civic Culture*, as well as of other important texts in the literature.⁴⁰³ Almond and Verba saw trust as an important variable explaining social outcomes - more recent work in the tradition, such as that of Ronald Inglehart, continues to see trust as a key explanatory variable.⁴⁰⁴

Another possible perspective is provided by those authors who root trust in some theory of collective identity. While differing in important respects, Francis Fukuyama and Charles Sabel both believe that trust is embedded in communities of fate, where individuals come to share a belief that their destinies are intertwined.

⁴⁰³ Almond and Verba (1963). On some accounts, the political culture approach has far deeper roots than Almond and Verba; Eckstein, for example, sees *The Civic Culture* as a manifestation of a tradition dating back at least to Comte. See Eckstein (1996).

⁴⁰⁴ One should acknowledge that more recent variants of the political culture approach are more nuanced than *The Civic Culture*. In Almond and Verba’s original account, the relationship between culture and institutional structure is hardly explored at all, so that cultural variables such as the presence of diffuse interpersonal trust, were seen as determining political outcomes rather than being determined. This led to heavy criticism [Barry (1978), Almond and Verba (1980)], and advocates of the political culture approach have recently tended to stress that the arrows of causality run both ways (Inglehart 1990). However, criticism continues - in the view of Jackman and Miller, the political culture approach is still based on the dubious assumption of the primacy of subjective orientations over objective conditions (Jackman and Miller 1996a).

In this chapter, I will first lay out these different theories of trust, and what they respectively predict. I will then go on to set out the forms of cooperation between firms that have been observed in the two case studies. Next, I examine the extent to which these observations tally with the predictions of the various theories, concluding that the encapsulated interest approach provides the best overall approach to trust in the two case studies, although it has difficulties in accommodating some observed facts, at least in the form adopted here. I conclude by arguing that I do not want to argue that other explanatory frameworks are not useful – a theory of trust that took more account of “cultural” factors, while acknowledging the importance of interest as a motivation for human behaviour, could probably encompass the arguments provided in this chapter. However, it would be difficult to conduct the sorts of generalised comparisons which I embark on in the succeeding chapters using such an approach.

Section 4.2 – Culture, Identity and Interest as Sources of Trust.

As I have stated above, different theorists see trust as having its source, respectively, in culture, identity, or interest. I should acknowledge at the outset that it is not really possible to “test” these approaches against each other in any very satisfactory fashion. At best, one can reach conclusions which hold for the two case studies in question, although one can (as I hope to do) point to possible general implications of these conclusions. Further, it is obviously impossible to observe actual trust formation, which involves internal processes of cognition, directly. It is necessary instead to rely on indirect indicators, and on individual respondent’s accounts of why they trust or distrust others. Such evidence is often difficult to interpret without distortion. Still, even if these provisos are granted, one can still reasonably argue that the different proposed sources of trust are likely to be associated with quite different empirical outcomes. Thus, even if one cannot prove in any absolute sense that one theory of trust prevails over the others, one may at least be able to show that one or another seems to provide an explanation with a better overall fit to the observed data.

Political Culture Accounts of Trust

Political culture accounts of democratic and economic development have been concerned with trust and cooperation since they began to become popular in political science in the 1960s.⁴⁰⁵ In an argument that foreshadows the claims made by Robert Putnam thirty years later, Almond and Verba observe that the propensity to form political groups is almost absent in some social settings, and very common in others. They believe that this can be explained to a considerable extent by cultural values.

The tendency to engage in cooperative activity within the political influence process appears, therefore, to be rooted at least partially in a set of social values that stress cooperative behavior among individuals. In the two countries where this fusion is most complete the dominant social values stress cooperative behavior; and the degree to which cooperative interpersonal behavior is valued is directly related to the propensity to create political structures.⁴⁰⁶

This argument was quickly picked up and elaborated by other authors using the political culture perspective, who came to see cooperation as being rooted in political values and beliefs conducive to trust. Lucian Pye argued that trust was one of the primary themes of the relationship between political culture and political development.

Political cultures are built either upon the fundamental faith that it is possible to trust and work with fellowmen or upon the expectation that most people are to be distrusted and that strangers in particular are likely to be dangerous ... The presence of diffuse distrust seems to impede seriously the creation of the kinds of public organizations essential for national development.⁴⁰⁷

Others went on to apply these arguments to particular national settings, arguing that a country's level of diffuse interpersonal trust was an important factor in explaining its level of political and economic development. Much of this argument was constructed on the case of Italy, and in particular Southern Italy, which was viewed by many authors as a virtual synonym for cultural distrust and underdevelopment, crippled by political fragmentation and an ethos of "amoral familism."⁴⁰⁸

Later applications of the political culture concept, while more sophisticated in many respects, still continued to use trust as a key explanatory variable. Ronald Inglehart, for example, found that high levels of interpersonal trust were linked to high levels of economic development, and that

⁴⁰⁵ For reasons of space, I am only able to give a sketchy overview of the political culture approach here, concentrating on those aspects of it which are particularly relevant to my theme. For more general overviews or discussion of the political culture approach, see Barnes (1988), Elkins and Simeon (1989), Dickson (1992), Eckstein (1996), Inglehart (1988), Johnson (1994), Taylor (1989), Ross (1997).

⁴⁰⁶ p.284, Almond and Verba (1962).

⁴⁰⁷ p.22, Pye (1965).

⁴⁰⁸ See La Palombara (1965), and on amoral familism, Banfield (1958).

interpersonal trust and subjective wellbeing are closely linked to stable democracy.⁴⁰⁹ Robert Putnam's book, *Making Democracy Work*, which I will discuss in later chapters can in many respects be seen as a continuation of this tradition.⁴¹⁰

Political culture accounts of trust share a number of important features. First of all, they are generally concerned with *diffuse interpersonal trust*. That is, proponents of the political culture approach argue that the extent to which people are likely to trust (say) fellow national citizens on a generalised basis will have important implications for social, political and economic life. To some extent this is a product of research methods. Most of the prominent exponents of the political culture approach work with surveys in which the questions tend by their nature to be quite general, and not well suited to exploring the nuances of how people's trust in one another may be affected by particular situations.⁴¹¹ Thus, they are usually interested in exploring how these general measures of trust relate to other politically or economically relevant variables.

Second, the dominant research tradition among scholars of political culture has seen culture, and cultural beliefs and values, as the result of socialisation. Harry Eckstein defines cultures as the "*variable and cumulatively learned patterns of orientations to action in societies*,"⁴¹² stressing that orientations are socialised; they are imparted by previously socialised carriers of culture. Political culture, under these accounts, is learned rather than considered. The implication is that culture is relatively slow to change.⁴¹³ Insofar as interpersonal trust can be seen as a cultural belief, it too is unlikely to change drastically in the short term. Furthermore, insofar as such beliefs are successfully

⁴⁰⁹ Inglehart (1990). Together with colleagues, Inglehart has also attempted to integrate cultural factors into the sorts of "endogenous growth" models that have recently become fashionable in macroeconomics. See Granato, Inglehart and Leblang (1996a); also Jackman and Miller (1996b) for a rejoinder, and Granato, Inglehart and Leblang (1996b) for a reply to this rejoinder.

⁴¹⁰ Putnam (1993). Putnam himself denies that his book can be considered part of the political culture tradition, but Sidney Tarrow and Jim Johnson provide good reasons to believe that it is. See Tarrow (1996), Johnson (1994).

⁴¹¹ Survey data may not be an especially good source of information on political culture. More sophisticated theories of culture tend to treat it as shared assumptions rather than individual attitudes, thus introducing problems when one seeks to map the deeper levels of culture from the examination of relatively undetailed individual level data. On this problem see Johnson (1994), Barnes (1997).

⁴¹² p.26, Eckstein (1997).

⁴¹³ On the stability of political culture, see Barnes (1988), Eckstein (1997).

instilled, they are unlikely to be consciously considered, providing instead the “scripts” for individual action.⁴¹⁴

A version of this argument would seem to be the basis of Robert Putnam’s arguments on the importance of associational membership to civic life, and by extension to the successful functioning of the polity.⁴¹⁵ Unless one posits some socialisation process through which people learn to work together and trust each other, it is difficult to see how membership in birdwatching societies and soccer clubs can materially affect the kinds of trust operating in political life.⁴¹⁶ For Putnam too, trust would appear to be in large part the result of socialisation.⁴¹⁷

These arguments very likely have some general merit as a theory of trust. As no less an economist than Kenneth Arrow says, it is impossible to imagine economic exchange without some minimal level of trustworthy behaviour, which cannot be reduced to calculations of strategic interest, being present.⁴¹⁸ Socialisation would seem to be a likely source of such trustworthy behaviour. Furthermore, the argument that we learn to trust through our interactions with others would seem both to possess intellectual merit, and to find empirical confirmation.⁴¹⁹

However, it is a different question as to whether these processes underlie the forms of trust and cooperation between firms which I am interested in here. If they do, one would expect to observe a number of regularities. Trust in others would be largely unconsidered and non-calculative, the result of socialised beliefs rather than active consideration. As a result there would be little or no calculation of others’ interests; indeed, at the limit, there would be little or no distinction between individuals in terms of their trustworthiness. Instead, individuals’ trust or distrust of others would be the result of

⁴¹⁴ See, for example, Eckstein (1988, 1997). Jim Johnson argues (Johnson 1994) that current political culture approaches have a radically underdeveloped theory of action, failing to see individuals as intentional agents, and instead relying on a suspect version of functionalism. However, some theorists of political culture do not see culture as a simple result of socialisation, and do acknowledge a role for individual agency; see for example Elkins and Simeon (1989) and Barnes (1988).

⁴¹⁵ Putnam (1993).

⁴¹⁶ Although, to be fair, soccer supporters’ clubs have been an important vector of political mobilisation in certain instances; proving useful, for example, to the political careers of Slobodan Milosevic, the late Franjo Tudjman, and Silvio Berlusconi.

⁴¹⁷ This, while it seems to me the most reasonable interpretation of Putnam’s argument is only an interpretation: Putnam himself is silent as to the precise mechanism through which “the willingness to act together for mutual benefit in a small group [translates] into willingness to act for the common good or become politically engaged.” p.220, Cohen (1999).

⁴¹⁸ Arrow (1990). See also Eggertsson (1995a).

⁴¹⁹ However, it is also possible to capture many of the dynamics of learning within a rational choice model. For a Bayesian account of how we may learn to trust, see Hardin (1993).

generalised beliefs about the trustworthiness or untrustworthiness of others in the society they inhabited.

Identity and Trust

Another tradition of enquiry sees trust as being fundamentally dependent on some form of shared identity. This approach is commonly applied to industrial districts and to economic cooperation. It has two important variants, exemplified in the work of Francis Fukuyama and Charles Sabel respectively. Fukuyama's main concern is how and why levels of trust contribute to differences in the economic success of nations. In a rather sketchy survey of various countries, he finds that patterns of trust have an important effect on economic outcomes. But he wishes to argue that this effect is not a willed one; trust does not arise because it is seen as a strategy leading to economic success, but as a by-product of the creation of communities.

... the reason that these economic actors behaved as they did was not necessarily because they had calculated these economic consequences in advance; rather solidarity within their economic community had become an end in itself. Each was motivated, in other words, by something broader than individual self-interest. As we will see, in all successful economic societies these communities are united by trust.⁴²⁰

Thus, trust arises from the existence of communities with shared "ethical habits," rather than state institutions, which for the most part can only provide a second-best solution in those societies where trust is still linked to the family rather than associations.⁴²¹ Fukuyama seeks to establish the existence of different national cultural "traditions" of trust, or lack of trust, arguing that the societies which are most economically successful today are precisely those where there are the highest degrees of trust. Like Putnam, he tends to see these traditions as being relatively stable over time, although

⁴²⁰ p.9, Fukuyama (1995).

⁴²¹ Fukuyama does rather grudgingly allow that the state has facilitated cooperation in some instances. For a critique of his position, and exploration of how the state may underpin trust, see Levi (1998).

perhaps vulnerable to the forces of modernity; he worries that trust is being eroded in the US, which is living off the social capital accumulated in previous generations.⁴²²

Like Fukuyama, Charles Sabel sees trust as being bound up with forms of common identity.⁴²³ Where he differs is in his conception of that identity. The theoretical underpinnings of Fukuyama's arguments are often ambiguous; however, it would appear that Fukuyama believes that community identity is relatively difficult to change or to create. Societies where trust is underdeveloped have difficulty in fundamentally improving their situation. Sabel, in contrast, argues that community identity is not historically congealed, and that it is possible to re-invent it in circumstances which would appear, on the face of it, unpropitious. In Sabel's argument, human beings are reflexive creatures, with an inherent capacity for trust; the self's "defining capacity is the ability to choose through reflection which possible self will actually motivate action."⁴²⁴ Because we are all reflexive, and because we can all imagine other selves behaving in a loyal fashion, we can imagine that we ourselves will behave in the same way. Thus, we can redefine our identities; trust can be produced even in situations of distrust; how this occurs is simply an "empirical question."

Sabel finds that commonly agreed upon stories circulate in industrial districts. Parties which were previously in contention with each other come to agree on a story of a shared past in a way that fosters and underpins trust.

Instead of expressing a consensus, the stories in this view are part of the process of creating it. They create a past in which the prior conflicts resulted from mistakes and misunderstandings rather than fundamental differences, and suggest a future in which all subsequent conflicts will be limited by virtue of being defined in advance as family fights.⁴²⁵

Previous struggles are redefined in such a way as to create consensus; the redefinition of identity proves a solvent to conflicts of interest. This process of story creation is greatly facilitated by the existence of councils or arbitration boards through which these stories can be agreed upon. In later

⁴²² Fukuyama's belief that community virtues are being eroded by the market and state is reminiscent of the conservative school of social thought emanating from Tönnies. I have benefitted from conversations with Luigi Burroni on this topic.

⁴²³ Sabel (1993), Sabel (1997).

⁴²⁴ p.112, Sabel (1993).

⁴²⁵ p.117, *ibid.*

work, Sabel suggests that trust is linked to what he describes as “constitutional orders,” in which identity may be negotiated.⁴²⁶

In summary, both Fukuyama and Sabel agree that trust is embedded in forms of common identity. They both reject the notion that trust can be arrived at by economically rational actors – Fukuyama argues that patterns of trust come about “as the result not of rational calculation but from inherited ethical habit,” whereas Sabel, as I have outlined in Chapter 2, sees the sorts of arrangements which may be reached on the basis of forward-looking economic rationality as being a poor substitute for genuine trust.⁴²⁷ Where they disagree is in their conception of the nature of the common identity which communities or other groups share. Fukuyama sees this identity as being to a great extent historically given, whereas Sabel sees trust as the product of identities which are fundamentally open to revision. Their differences have important policy implications. For Fukuyama, identity and trust are unresponsive to conscious attempts to create them; peoples’ ethics “can be shaped only indirectly through conscious political action and must otherwise be nourished through an increased awareness and respect for culture.”⁴²⁸ Sabel, in contrast, sees trust as the product of identities which are malleable, if not protean; actors can consciously produce trust by bringing disputing parties together so that they may arrive at a common story in which differences can be transcended.

If these authors’ arguments are applicable to the case studies examined in this dissertation, one would expect to find that trust would be strongly linked to identity. In other words, actors’ trust, or lack of trust for each other, would to a very great extent be based on their perception that they formed part of a shared ethical community, or that they shared a common history. The pursuit of individual economic interest would at most play a secondary role. The precise nature of that identity and the trust reliant upon it - whether rooted in fixed historical verities, or open to change as dictated by circumstances - would depend on whether Fukuyama or Sabel’s argument better applied to the particular situation.

Interest and Trust

⁴²⁶ Sabel (1997).

⁴²⁷ p. 20, *ibid.*

⁴²⁸ p.5, *ibid.*

In Chapter 2, I have laid out an alternative theory of trust to those outlined above. I do not propose to repeat myself. However, I will briefly observe that the particular version of the encapsulated interest theory of trust which I employ would lead to quite different predictions than either culture or identity based theories of trust. First, unlike the cultural theories outlined, the encapsulated interest theory would predict that trust will be the result of the calculation of others' interests, rather than a pre-given disposition resulting from socialisation, a shared moral identity, or the reflexive redefinition of one's own identity.⁴²⁹ In contrast to the political culture account of trust, it will not be generalised; under the encapsulated interest theory, I trust a certain individual with regard to a particular matter, after having considered whether it is in that individual's interest to behave in a trustworthy fashion. In effect, I trust an individual because her interest encapsulates my interest. And in contrast to the identity based account, my version of the encapsulated interest account would argue that shared membership in a community or participation in common stories ought at best have a marginal effect on my trust of others, except where this membership or participation materially affects interests (for example, through associated sanction mechanisms of the sort which Avner Greif describes for his "community enforcement mechanism").⁴³⁰ I do not wish to exclude all effects of communal identity on trust and cooperation; even if actors are narrowly rational, one might reasonably suppose that the shared languages and dispositions which many communities have might help prevent failures of communication that could lead to distrust or the failure of cooperation. However, my theoretical framework does suggest that identity, insofar as it cannot be understood within the language of self-interest, will at most have a limited impact on how people trust.

So, to sum up the discussion of this section, there are a number of competing explanations of trust which might be applied to the understanding of cooperation in industrial districts. One sees trust as being rooted in cultural values or beliefs which result in large part from socialisation; in its most common form, this argument would see individual trust decisions as being rooted in quite general

⁴²⁹ Let me make myself plain; I am not trying to claim that all cultural theories of trust must assume that it is a semi-automatic routine arising from socialisation, even though this is the impression that one gets from much of the existing literature. In the closing section of this chapter, I suggest that a theory of culture which borrows from modern anthropology may provide important insights about trust.

⁴³⁰ Greif (1999).

principles such as whether it was possible or not to trust others in one's society. Another sees trust as being linked to identity; albeit with very different takes on how trust comes about, and what it is likely to be linked to. On one account, trust results from shared moral rules in a relatively stable community of values. On another, trust comes about from the continuous re-interpretation of identity in the context of commonly negotiated and re-circulated "stories." Finally, on the encapsulated interest account, as I interpret it here, trust arises from the consideration of others' interests, and whether these interests encapsulate the (potentially) trusting party's interests. Here, trust is likely to be empirically linked to conditions which structurally affect interests.

Section 4.3 – Cooperation among firms in Emilia-Romagna and Baden-Württemberg

In the previous section of this chapter, I have outlined three theories which respectively locate trust in culture, identity, and interest. In this section I wish to outline what sorts of cooperation were found in the two cases, before going on in the next section to examine how applicable each of these theories is to explaining them.

First of all, it is necessary to specify exactly what I mean by cooperation. As I have stated in Chapter 2, I take cooperation to mean that an individual undertakes an action with immediate negative consequences for herself, but positive consequences for others. Thus, cooperation involves actions which will be costly if they are not reciprocated. This implies that cooperation is inherently risky; there is some separation between the "quid" and the "quo." While this definition covers many instances of what we would call cooperation in everyday language, there are others which it covers only partially, if at all. For example, many of the firms which were interviewed had to adapt their machines so as to work with the machines of other companies, in order to fulfil their customers' wishes. In order to do so, they had to swap technical details with the other companies in question. One may describe this as cooperation in everyday language, but it does not necessarily involve cooperation under the definition which I employ above – some of the time it is simple coordination, making sure that one machine works with the other, with little risk or effort attached for either party. On the other hand, this definition of cooperation covers some actions which would perhaps not be described as cooperation in

everyday usage. One could say, using this definition, that a firm “cooperates” when it does not renege upon a commitment that it would be in its immediate interests to renege upon; this might seem a strange use of the word in common speech.

Also, one should note that I am only interested in *direct* cooperation among firms. Some work on industrial districts includes services provided by third parties to firms under the rubric of cooperation. For example, Sebastiano Brusco sees the provision of accounting services by trade associations to firms as a sort of cooperation.⁴³¹ I do not dispute the importance of such services to the success of industrial districts; but I do wish to state that they do not as such constitute cooperation among firms under the definition I am using here.⁴³² For this reason, among others, I do not examine business interest intermediation in the political realm; in the two case studies, this was almost exclusively carried out by specialised representative associations, or else by firms lobbying on an individual basis.

Even given these restrictions, there is an enormous number of ways in which firms can cooperate with each other. One can categorise possible forms of cooperation according to the relations between the firms in question. Broadly speaking, there are three categories of relationship between the firms in the two case studies. First, there are horizontal relations between firms who do not have a direct business relationship of buying from, or selling to, each other. Second, there are relations between a firm and its customer firms; those that buy its final products. Finally, there are relations between a buyer firm and its subcontracting firms.⁴³³ This last will be covered separately in Chapter 6: there are important and interesting differences in subcontracting practices between the two case studies.⁴³⁴

Horizontal cooperation

⁴³¹ Brusco (1992).

⁴³² The point is that these services, even if they are “club goods” in some sense, are provided more or less as market services by the organisation in question, rather than by the firms themselves.

⁴³³ To avoid confusion, I will stick to this (perhaps somewhat arbitrary) distinction between a buyer firm (i.e. a manufacturing firm which subcontracts some of its work out) and a customer firm (a firm which purchases and uses machine tools or packaging machines) throughout the dissertation.

⁴³⁴ However, I will draw on some evidence from subcontracting relations in the next section.

There is a very extensive literature on horizontal cooperation between firms in industrial districts.⁴³⁵ Broadly speaking, there are six sorts of cooperation between firms which have been posited as occurring in industrial districts – supply cooperation, sales cooperation, exchange of market information, exchange of technical information, market-shaping arrangements, and help in the production process.

There are a number of ways in which firms with similar needs might cooperate in order to obtain supplies more advantageously. Brusco, and others who have studied Italy, refer to the existence of purchasing consortia in many industrial districts.⁴³⁶ Such consortia reduce the price of basic inputs by purchasing them in common. Alternatively, firms may come together themselves so as to produce some input that all of them require.

Only one of the firms interviewed spoke of being involved in such an arrangement; this was a large integrated mechanical engineering firm in Germany, which purchased basic materials together with a manufacturer of saws.⁴³⁷ The interviewee emphasised that there were no genuine cooperation with firms in the same sector. There was evidence to suggest that this dearth of cooperation was often because of firms' unwillingness either to trust or to cooperate with each other, rather than because such cooperation was unattractive in principle. For example, a very substantial percentage of the total number of German lathe-making firms can be found in a 35 kilometer area near Stuttgart, between Esslingen and Salach. One interviewee, who worked for such a firm, commented that he had often thought it would be ideal to have a central foundry and other such facilities in the area, so that firms could use them in common. However, this sort of cooperation had never arisen; despite the high density of firms with similar needs in the area, the only sort of cooperation that took place was "fair weather groupings" (*Schönwetterverbände*).⁴³⁸ Attempts by a commercial firm in Italy to encourage its packaging machine manufacturing clients to pursue common purchasing were similarly unsuccessful; this time due to a "mentality" in which every firm sought to act independently.⁴³⁹ A German firm

⁴³⁵ The literature on this subject is voluminous; some examples are Bagnasco (1996), Bianchi and Gualteri (1990), Brusco (1982), Brusco (1990), Brusco (1996), Cooke and Morgan (1998), Dei Ottati (1994), Dei Ottati (1996), Franchi and Rieser (1990), Glasmeier (1994), Harrison (1992), Herrigel (1993), Lorenz (1992a), Pyke and Sengenberger (1992), Trigilia (1992), Zeitlin (1992).

⁴³⁶ Brusco (1992).

⁴³⁷ Firm Interview 27.

⁴³⁸ Firm Interview 25.

⁴³⁹ Firm Interview 2. For further details, see the section on sales cooperation below.

thought that it might be possible to bring local firms together into a business park, so as to share common facilities. In this case, firms were too distrustful of each other to come together in this fashion; the interviewee reported that “many of them thought that we would take their customers away, even though we are not competitors.”⁴⁴⁰

Another potential form of cooperation involves sales and after-sales service. It is often possible for firms to cut costs by selling as a group, or by operating common service centers. The advantages may extend beyond simple cost-cutting; where firms offer complementary products, they may be able to attract new customers by providing them with an integrated service.⁴⁴¹

In both Italy and Germany, there was evidence of some firms cooperating together in sales and after-sales service. Some of this cooperation was on an occasional basis. Sometimes manufacturers would be asked to provide complete lines of machines for a customer firm, and would then make arrangements with other firms (usually small niche producers) for machines that they themselves did not make. Sometimes this took place on a more permanent basis. Many smaller firms in the Italian case were feeling pressure from their larger competitors. As outlined in Chapter 3 and Chapter 7, a process of concentration was taking place in the industry, in which big firms were buying up niche producers, so that they could present an integrated line of machines to their customers. One small firm was seeking to respond to these competitive pressures by looking for other firms with complementary machines, with whom they could cooperate on sales, so as to be able to sell an integrated line to customers abroad.⁴⁴² At the time of the interview it was not clear whether this effort would meet with success.⁴⁴³ Other smaller Italian manufacturers relied on export companies for their sales; these export companies brought together a small group of manufacturers with complementary activities, so as to present a common face on the market.⁴⁴⁴ There is evidence that some cooperation between firms took place in the context of these small groups, but of a limited sort. One commercial firm was seeking to

⁴⁴⁰ Firm Interview 19.

⁴⁴¹ This is especially true of the packaging industry; many small firms offer only machines for a single stage of the packaging process, such as dosing, boxing, or palletisation. However, customer firms are typically seeking to purchase an entire packaging line; thus firms, or groups of firms which are able to offer complete lines may have a competitive advantage.

⁴⁴² Firm Interview 3.

⁴⁴³ Some interviewees were highly doubtful about whether small firms, except those in certain isolated niches, could succeed in responding to the challenges posed by the integrated larger firms. See for example Firm Interview 14, Firm Interview 11.

⁴⁴⁴ These export companies might also represent firms from other countries than Italy.

persuade its client manufacturers to cooperate more, through integrating financial services, accounting, purchasing, the production of parts and so on.⁴⁴⁵ These activities would be carried out by specialist companies within the group, thus obtaining the sorts of savings available to bigger firms, while avoiding the need for joint shareholding or other sorts of direct integration, and allowing each individual firm to retain a high degree of independence. However, the commercial firm had encountered stiff resistance – common sales through an agent was the maximum amount of joint activity that these firm owners were prepared to contemplate.

In the German case, one machine tool manufacturer which was interviewed had established a joint service center in China with three or four other manufacturers, also from Baden-Württemberg.⁴⁴⁶ This center had been organised through an initiative of the *Land* Economics Ministry, which has programs aimed at encouraging such joint initiatives between firms.⁴⁴⁷ The joint initiative was rated by the firm as highly successful; while the other firms involved were also machine tool manufacturers, none of them were direct competitors, meaning that things were, in the words of the interviewee, “easy to handle.”

A third form of horizontal cooperation between firms is the exchange of commercial information; for example on potential customers or sales opportunities. Exchange of information of this sort between firms appeared to be relatively common among the Italian firms interviewed. For example, one firm sold machines for wrapping chocolates; it had an informal arrangement with a nearby firm which sold plant equipment for chocolate factories⁴⁴⁸. Whenever one of the firms sold a machine to a customer, it let the other firm know, so that it would be aware of any possible opportunities for sales. Other manufacturing firms reported similar arrangements, again with firms that offered complementary activities.

there are specific cases where there are firms who make complementary machines, ... there is a positive relationship with them of competition and of collaboration; we exchange with them the names of customers who are asking for things, that they can use, ... and vice versa⁴⁴⁹

⁴⁴⁵ Firm Interview 2. See also the discussion of supply cooperation above.

⁴⁴⁶ Firm Interview 18.

⁴⁴⁷ See the discussion in Chapter Three on regional government projects encouraging firms to cooperate.

⁴⁴⁸ Firm Interview 12.

⁴⁴⁹ Firm Interview 7.

Similarly, commercial firms maintained friendly relations of information exchange; when one firm received an inquiry from a potential customer which it was unable to meet itself, it would pass on information about the customer to other firms who might be able to help.⁴⁵⁰ Help of this sort appeared to take the form of reciprocal favour-giving; no commissions or direct payments were involved.

Another, rather more delicate, area where information could be shared was the technical realm. In both the machine tool and packaging machine industries, there is, at least in principle, considerable scope for exchange of this kind of information. Techniques used by one firm may usefully be applied by another. However, by the same token, such information is highly sensitive.

The data gathered suggested that firms in both case studies, unsurprisingly, were typically reluctant to share technical information, particularly with competitors or potential competitors. Many firms stated that the sharing of such information was unthinkable. In the words of one German interviewee,

Cooperation in the sense of common development or a transfer of knowledge doesn't come into the question. One must protect one's know-how.⁴⁵¹

Opinions of this sort were frequently expressed by interviewees. Another German firm, although it acknowledged that sharing information of this sort might make commercial sense, did not engage in any form of cooperation with outsiders whatsoever, for fear that sensitive information might leak.⁴⁵² Even outsourcing was "out of the question," except for non-sensitive components, such as Siemens and Bosch control systems. Another firm, when it needed help, preferred to go to local institutions than to other firms, because of the risk of proprietary information getting out.⁴⁵³

The rationale behind this reluctance was quite clear. In both the machine tool and packaging machinery sectors, a firm's proprietary technical knowledge is typically key to maintaining its competitive position. As one Italian firm-owner stated when describing its specialty:

In Bologna, there are probably another five firms which do this. If I have a problem to resolve in that the current machine produced by [my firm] does 60 packages a minute, and a customer

⁴⁵⁰ Firm Interview 12.

⁴⁵¹ Firm Interview 20.

⁴⁵² Firm Interview 32.

⁴⁵³ Firm Interview 26.

wants a machine which can do eighty a minute, I have two possible routes. Change the machine completely, and make a new one, or try to modify the existing machine, to see if it can do 70 or 80 a minute ... I am sure that the other four or five firms also have had this problem ... there is competition, but there is not exchange of information. Absolutely not. Because this is part of power in the end, leads to customers and competitiveness. This is clear. Because if there are customers who [need] eighty packagings a minute, if I do not give a positive response, but the competitor gives a positive response, I will lose the customer.⁴⁵⁴

The same individual occasionally exchanged help with friends in the Bologna area in order to solve technical problems; but - crucially - these friends did not work for firms which were direct competitors.

Indeed, nearly all of the arrangements for technical cooperation which interviewees reported were with firms who were not in direct competition with them. This finding makes common sense, and accords with much of the previous research in the field. In their research on Baden-Württemberg, Cooke and Morgan argue that the AKZ, a "club" of firms who cooperate on technical development, has only been successful because none of the firms compete with each other.⁴⁵⁵ Firms clearly found it much easier to contemplate cooperation on technical development when the potential partner was not in direct competition. In the words of a German firm,

as for technical cooperation; I could imagine, that when there is someone doing milling machines, and here there is someone doing lathe machines, and we are doing saws, that one could come to quite a cooperative arrangement. Even certain competitors, who are not direct competitors, could complement each other.⁴⁵⁶

All this said, one interviewed firm, based in the Stuttgart region, did engage in joint technical development, even with competitors. This firm did not produce machine tools as such, but rather measuring instruments for machine tools, and was engaged in the development of digital electronics together with a competitor which was also interested in such developments. The rationale for this cooperative project was quite pragmatic, and involved benefits for both sides. Given the risks involved in such cooperation, the interviewee quite understood why others would not wish to engage in it; "

⁴⁵⁴ Firm Interview 3. See also Firm Interview 1.

⁴⁵⁵ Cooke and Morgan (1994). The authors further argue that firms in the region fear competition, and are in general highly protective of proprietary knowledge. However, in later work, Cook and Morgan identify at least one (non-mechanical engineering) firm in Baden-Württemberg which is not reluctant to share knowledge with potential competitors. See Cooke and Morgan (1998).

⁴⁵⁶ Firm Interview 28.

Each firm must clarify for itself: is cooperation with competitors advantageous for me, or are the disadvantages bigger.⁴⁵⁷

A fifth form of potential cooperation is the one which has traditionally concerned economists - market-shaping arrangements, or, to use the pejorative term, collusion. Beginning with Adam Smith's famous dictum that "people of the same trade seldom meet together ... but the conversation ends in a conspiracy against the public," classical and neo-classical economists have railed against arrangements in which firms agree not to compete with each other.⁴⁵⁸ Be that as it may, there is substantial historical evidence that the machine tool industry in Baden-Württemberg and Germany as a whole was organised cartelistically for long periods of time, and that firms frequently agreed not to compete with each other for certain markets.⁴⁵⁹ The market for machine tools may be said to have been highly organised, and much of this process of organisation took place through the VDMA, the relevant sectoral representative association. In contrast, there is no evidence of overt efforts to organise the market in the history of Bologna; while the "daughter" firms of existing companies often found new niches, they sometimes competed directly with their mothers.⁴⁶⁰

The evidence gathered in this research project seemed to confirm some continuity in these patterns of development. Three of the firms interviewed in the Stuttgart area spoke of having created market splitting arrangements with competitors or potential competitors. Given the sensitivity of such arrangements, one may reasonably suspect that other firms were engaged in similar practices but not prepared to talk about it, and that concerted attempts at market-shaping still frequently characterise the German machine tool industry.

However, such arrangements did not appear to be mediated through the VDMA any more; instead they appeared to be based on personal ties. One firm had personal contacts with a Swiss competitor, with which it made an agreement not to compete in certain segments of the market.⁴⁶¹ After

⁴⁵⁷ Firm Interview 35.

⁴⁵⁸ p.144, Book I Ch.10 Pt. 2, Smith (1976). This animus expanded its target, so that many economists became convinced that all forms of collaboration on the market were inherently cartelistic and efficiency-reducing; one of the key aims of Oliver Williamson's work has been to correct (and arguably over-correct) this bias. See Williamson (1975), Williamson (1985).

⁴⁵⁹ See Herrigel (1996b) for a brief but comprehensive history of the organisation of the German and Baden-Württemberg machine tool industries.

⁴⁶⁰ Capecchi (1997).

⁴⁶¹ Because this information may reasonably be regarded as quite sensitive, I do not identify the firms in question, even by interview number.

some period, the arrangement broke down, when the other firm ceased to adhere to it; this apparently was not because of any change in competitive conditions, but because of the lapsing of the personal contact in question. Another firm had come to an informal agreement with a competitor that they would not compete with each other; they had also begun to perform some development work in common. They coordinated together so that one would not undercut the other when dealing with customers. This arrangement had been working for two years; it was highly secret. A third firm had agreed with a competitor that it would supply specialised tools whereas the competitor would supply standardised ones. Again, this was based on personal contacts – the senior person in the competitor had been an employee of the interviewed firm for many years.

No evidence was found of such practices in the Italian case, except in one limited instance; the labour market. As mentioned in Chapter 3, the market for skilled mechanical labour in Bologna is extremely tight, causing problems for both small and large firms. While small firms engage in unbridled competition with each other for skilled technicians, resulting in higher wages, the large firms have been encouraged by UCIMA, the relevant sectoral association, to swap personnel information with each other so as to prevent inordinate salary rises or poaching of staff.⁴⁶² This has helped result in the creation of an unusual dual labour market, with high pay disparities between small and large firms. As described by Silvano Bertini, a local economic researcher;

I have friends who are engineers, who are working in the automatic machine industry. They have the choice between working in a stable firm for a good salary - poor salaries are the exception - or working for small firms, which pay a lot more, but they cannot be sure that their position will last across the years. Technicians with a certain level of experience who work for small firms can earn three times the normal figure⁴⁶³.

Finally, one may refer to the help that firms may give to each other in the production process. This is something of a catch-all category, intended to capture the sorts of diffuse help that firms may give each other in times of difficulty.⁴⁶⁴ Pyke gives a good example of what I am talking about in his discussion of a British yarn-processing establishment, where the premises and machinery burnt down; some of the firm's workers were able to keep producing on machines made available by competitor

⁴⁶² Firm Interview 11.

⁴⁶³ Interview with Francesco Garibaldi and Silvano Bertini, Istituto per il Lavoro, Bologna.

⁴⁶⁴ Firms may also give this kind of diffuse aid in other areas than production, such as sales; see the discussion below of cooperation in customer relationships.

firms in their own mills.⁴⁶⁵ In some instances, where reciprocal aid of this sort is more or less institutionalised, it can serve as a sort of informal insurance for firms against unforeseen risks.

There was some evidence of this sort of help being lent by one firm to another, but only sporadically. One German firm had begun to send its apprentices to another firm for training in areas where they were weak.⁴⁶⁶ Another German firm, which eventually lost nearly all its workers as a result of the 1993-1995 crisis, had helped other firms through swapping employees as necessary, once taking on some employees from a firm which was then unable to support them.⁴⁶⁷ This was apparently done for self-interested reasons; in the firm owner's opinion, an engineering firm was not a charity, so that there had to be some use to cooperation. Firms also sometimes swapped diffuse technical information with competitors, so as to improve the production process.⁴⁶⁸ A few firms stated that they had helped other firms in unspecified ways in the past, and that they could imagine that other firms would help them in turn. However, in both case studies, the prevalent opinion seemed to be that such help was unlikely without an immediate and tangible return, such as shares or indeed the takeover of the company which was in trouble. In the German case study in particular, there were often strong relations between customer firms and producers. Two German firms believed that they could expect assistance from their customers if they were in financial difficulty; one indeed had explored the possibility of such aid during the crisis that afflicted mechanical engineering in Baden-Württemberg in the early 1990s.⁴⁶⁹ Again, there was a good self-interested reason for customer firms to help in this way: both firms had proprietary technology that their customers would have had great difficulty in getting access to elsewhere. Some firms could imagine help on smaller matters, such as filling an order which was too large for the firm to handle on its own. However, again the implication appeared to be that help would be given because of the immediate benefits involved for the helping firm.

Trust and Cooperation with Customer Firms.

⁴⁶⁵ Pyke (1988).

⁴⁶⁶ Firm Interview 33.

⁴⁶⁷ Firm Interview 34.

⁴⁶⁸ See, for example, Firm Interview 32.

⁴⁶⁹ Firm Interview 21, Firm Interview 35.

Cooperation in relations with customers has received less attention than horizontal cooperation or supply-side cooperation in the literature on industrial districts. Here, I propose to distinguish between three potential areas of cooperation between machine manufacturers/sellers and customer firms – the sales process itself, technical cooperation, and diffuse aid.

It may seem odd to describe the sale of the machines itself as involving cooperation, yet there is scope for opportunism on both sides - insofar as both parties behave in a non-opportunistic fashion, they may be said to be cooperating. Manufacturing firms will typically have to sink quite substantial resources into making a machine before they get paid in full. They are thus vulnerable to opportunism on the part of customer firms who may refuse to pay all or part of the agreed cost of a machine. Equally clearly, customer firms are potentially vulnerable to opportunism on the part of manufacturers. They may get machines that are shoddily made, or that do not perform required functions.

The research clearly shows that manufacturing firms, and commercial firms selling on behalf of such manufacturers, are aware of the risk that customer firms will behave opportunistically. This was a particular problem for smaller Italian firms exporting to developing countries. Exporting to these markets can be highly risky, and, unlike their German counterparts, Italian firms find it extremely difficult to get export credit insurance.⁴⁷⁰ While there is a government agency, SACE, which is charged with providing such insurance, it has substantially curtailed its activities in recent years, and tends to concentrate its assistance on larger firms.⁴⁷¹ In the absence of such insurance, Italian firms are reluctant to do business with firms in these countries, who will not necessarily pay for machines that have been purchased.

the problems begin when one comes into contact with countries like the Soviet Union, like Belarus, like the Balkans ... or ... Asia ... Or ... South America. ... the first thing which we ask [is] ... how do they intend to pay, and what guarantees are given. The guarantees, you probably know ... are zero. Because they go to their bank, their bank is not accredited, or their bank doesn't give a guarantee to our bank, and so it goes. It is all a matter of a closed cycle. ... Why would I hold this customer to be trustworthy, when the banks do not trust it?⁴⁷²

⁴⁷⁰ Firm Interview 3, Firm Interview 14.

⁴⁷¹ See Chapter Three.

⁴⁷² Firm Interview 14.

Thus, possible sales opportunities are lost because the potential customer firm cannot be trusted. In the words of another Italian firm; “in a country where financial instruments are not yet well accredited, the moral is that when one has a financial problem, one doesn’t do business”⁴⁷³

There was some evidence that customer firms occasionally successfully reneged on agreements, and failed to pay in full for machines that had been delivered. However, the manufacturing firms could, in some circumstances, extract payments from defaulters. Two firms, one in Italy, and the other in Germany employed the same tactic; refusing to repair or deliver spare parts for machines that had not been paid for.⁴⁷⁴ To quote one firm owner;

The whip-hand is always mine, because the first time that the machine stops ... then I always make money. And if they haven’t paid by then, one doesn’t go to set the machine right. ⁴⁷⁵

The risk of opportunism is clearly greatest when it involves unknown parties in one-off relationships. However, manufacturers of both machine tools and packaging machinery tend to have relatively close contacts with their customer firm, which typically last over the longer term. The original manufacturer may supply spare parts and maintenance services for the machines, and repeat orders for new machinery appear to be quite common. It is clear that relations between machine manufacturers and customer firms bear little resemblance to perfect market competition, nor even to the situation described by Harrison White where a “tangible clique” of producers confronts a largely anonymous, and much larger, category of buyers.⁴⁷⁶ Instead, the numbers on both sides are relatively small; all the more so as both machine tool manufacturers and packaging machine producers tend to specialise in particular market niches. Both suppliers and customer firms tend to know each other very well; in the words of one interviewee, “the area of automatic machines is a big family; but it is very small. One knows everyone. Everyone!”⁴⁷⁷

No customer firms were interviewed for this research project, so there is no direct evidence on why or whether they trust manufacturing firms not to behave opportunistically. However, there is indirect evidence that the manufacturers believe that opportunism on their part will be punished both

⁴⁷³ Firm Interview 7.

⁴⁷⁴ Firm Interview 17, Firm Interview 28.

⁴⁷⁵ Firm Interview 17.

⁴⁷⁶ See White (1988), White (1993).

⁴⁷⁷ Firm Interview 14.

through loss of reputation and loss of repeat orders from the firm which had been cheated.⁴⁷⁸ As one Italian firm put it;

A firm like ours which has been there on the market since 1964, if it wants to still be alive in 1999, to still be alive in 2010, in 2020, must have perfect conduct.⁴⁷⁹

Manufacturing firms may cooperate with customer firms in the area of technology exchange. One should note, however, that manufacturing firms may learn from their customers in ways that did not involve cooperation, in my sense of the word. Nearly all of the firms interviewed produced non-standardised or semi-standardised machines, that could be modified to meet the particular needs of the customer. Thus, there were usually ongoing negotiations over specifications and requirements between the customer firm and the producing firm before and during the building of the machine(s). The customer firm's technicians were often directly involved in such negotiations. Firms could garner valuable information from filling particular orders; lessons learnt in fulfilling the requirements of one particular customer could often be applied to others.⁴⁸⁰

Learning of this kind does not necessarily involve cooperation in the strict sense that I employ – frequently it is no more than a “positive externality,” an unintended benefit for producing firms arising from the need of customer firms to clearly specify exactly what they want.

However, there were instances of cooperation which went beyond this rather passive sort of learning. Usually, cooperation was once-off, involving, for example, a customer firm lending resources or personnel to a machine manufacturer to help in a particular project. One Italian firm which manufactured for the tobacco industry relied on its customers for the final development and testing of machines.⁴⁸¹ Occasionally, however, it went further. One German machine manufacturer relied on customer firms to help in the development of new machines over a long period.

⁴⁷⁸ I expand on this theme in the next chapter.

⁴⁷⁹ Firm Interview 5.

⁴⁸⁰ This may of course generate resentment in the original customer firm. The development of the ceramics industry in Emilia-Romagna has gone hand-in-hand with the growth of companies producing machines for ceramics. These machine producers are now using their specialised knowledge to sell machines to ceramics producers in Spain and elsewhere, leading to vociferous complaints among their original Italian customers.

⁴⁸¹ Firm Interview 6.

It may be that we agree with a customer that we ship him a machine tool, telling him that it is a prototype, so that he agrees that this machine tool will not have its full productivity for a period of one or two years, and he agrees in doing the full development of the product in his company with his assistance or with our assistance.⁴⁸²

The advantage to the customer firm of this arrangement was that it would have access to cutting edge technology ahead of its competitors. However, this form of development meant that the machine firm had to tell the customer firm “things we would never tell anybody.”⁴⁸³ Therefore, it was only possible where the firm had a very strong relationship with the customer; usually, the customer had to be a “100% [name of firm] buyer.”

Finally, more diffuse forms of cooperation may arise between firms producing or selling machines and their customers. There was one very clear and interesting example of such cooperation, which I will deal with at greater length in the following chapter. This involved the head of an Italian commercial firm, who was able to ask long-standing customers for business when times were bad. Such favours were reciprocated; when the interviewee’s friends needed special payment terms, they would get them.

Section 4.4 – Comparing Explanations of Cooperation

In the previous section, I have detailed, at some length, the various forms of cooperation between firms found in the two case studies. In this section, I want to ask what theory of trust best explains these forms of cooperation, as well as those instances where cooperation failed to take place.

The theories which I discuss differ in their predictions both as to how individuals come to trust others, and the empirical circumstances under which trust is likely to arise. In this section, I discuss the fit between these theories and the empirical findings under both headings.

As set out in Section 4.2, the various theories canvassed differ not only as to the sources of trust, but as to how it comes about. Briefly and baldly, political culture approaches stress socialised values and beliefs, the identity based approaches speak either of the creation of ethical habits

⁴⁸² Firm Interview 18.

⁴⁸³ Firm Interview 18.

(Fukuyama), or the reflexive redefinition of the self (Sabel), and the interest based approach posits that trust arises from rational calculation of the likely interests of others.⁴⁸⁴ The theories also differ as to the empirical circumstances under which trust is likely to arise. Political culture theorists would argue that trust over specifics is likely to come about when diffuse, interpersonal trust is present; that is, where people believe that others in their society can be trusted. Under Fukuyama's argument, trust will be associated with communities of value, while according to Sabel, it will be in large part the result of collectively circulated stories. Finally, under the encapsulated interest account, trust will be associated with circumstances under which individuals are perceived to have an interest in behaving in a trustworthy manner over the issues in question.

As stated, the dominant variants of the political culture approach see cultural variables such as trust as the result of socialisation. Under this account, trust is instilled rather than considered, and at the limits is semi-automatic, economising on the need for consideration. This account seemed insufficient to explain the sorts of trust and cooperation observed in the case studies. As I go on to show below, there is good evidence to suggest that actors' trust was considered rather than automatic. I do not mean to suggest that cultural factors such as beliefs and symbols did not play a role in affecting actors' trust of each other – this is a point I will return to at a later stage of this chapter. However, the evidence suggests that socialisation-based accounts of political culture (as opposed to the more Geertzian accounts of Elkins and Simeon and some others) radically underestimate the degree to which trust arises as a result of conscious consideration rather than socially instilled values and beliefs.

Certainly, the argument that trust is rooted in individuals' generalised and unconsidered beliefs about the trustworthiness of others in society did little to explain the regularities and variations in trust and cooperation which were observed. Such generalised beliefs may have exerted a more or less subtle influence, but interviewees appeared to be perfectly well capable of distinguishing between those who could be trusted and those who could not, in a manner which suggested that they reflected consciously on the matter. Furthermore, they seemed capable of distinguishing between the areas over

⁴⁸⁴ Let me stress again that it is impossible to observe internal mental processes directly, so that one must rely on indirect evidence, rendering conclusions somewhat tentative. Still, one may arrive at reasonable judgements as to how theories accord more or less with evidence.

which those others could be trusted, and the areas over which they could not, again implying limitations to the explanatory power of the concept of diffuse impersonal trust in such circumstances.

Identity based accounts of trust likewise have problems in explaining the kinds of cooperation observed. There was some evidence that the shared ethical habits that Fukuyama emphasises had an effect on trust between actors, especially in the Italian case. However, as I will go on to argue in the next chapter, such codes only seemed to play a secondary role in generating trust and trustworthiness to institutions that materially affected interests. There was little evidence of the strong sense of community that Fukuyama sees as the bedrock of trust. Self interest seemed to play a far stronger role than collective interest in defining the possibilities and limits of trust and cooperation. This was not true for all interviewees; for example, one firm in Baden-Württemberg spoke of how it preferred to work with suppliers from the locality when at all possible, in order to preserve an economic future for the children of the area.⁴⁸⁵ This is presumably the sort of collective interest that Fukuyama would see as evidence of trust. However, the response of another firm from the same region was perhaps more typical - it stated that it would quite happily go elsewhere for suppliers if there was a cost advantage; after all, it was in business for itself and not for Baden-Württemberg.⁴⁸⁶

Nor was there any evidence that the observed cooperation was rooted in the sorts of reflexive changes of identity that Sabel describes, although it is admittedly difficult to imagine how one would gather evidence to falsify or support this account of trust creation. This is not to say that shared narratives of the sort which Sabel discusses did not exist. In both cases, there were local traditions of production of which interviewees were clearly aware, and in many cases proud. Baden-Württemberg has a tradition of the *Tüftler* or “tinkerer” with deep historical roots. The packaging industry in Bologna has shallower roots, and there is some evidence to suggest that its identity is an “invented tradition” of relatively recent historical vintage.⁴⁸⁷ Still, as Sabel and others would argue, this does not

⁴⁸⁵ Firm Interview 31.

⁴⁸⁶ Firm Interview 28.

⁴⁸⁷ Hobsbawm and Ranger (1983). The packaging industry in Bologna appears to have had relatively little self-awareness until the recent past (interview with Vittorio Cappechi). The enthusiasm of the curator of a local technological museum, together with the efforts of a small group of academics and researchers, seems to have played an important role in generating a sense of shared past among local firms, which was given concrete form by a series of publications emanating from the museum and trade association. Many of the interviewees gave accounts of the origins of the industry, which all corresponded in their main points with each other, suggesting that commonly circulated stories existed.

necessarily invalidate it as a source of trust – in Sabel’s account, the “stories” on which trust is built are continuously re-written.

What is missing, however, is evidence that such shared narratives served as a source of trust or cooperation between firms. For example, firms in Bologna shared a common heritage in a “family tree” of firms, descending from ACMA, and they shared a common “creation myth” which resembled a biblical genealogy; ACMA begat GD which begat ..., and so on. Still, this “story” did not appear to have any systematic effects on trust or cooperation between firms; common origins proved insufficient to transcend individual interests. Sabel might reasonably reply that unlike many other industrial districts, neither Bologna nor Baden-Württemberg has any collective institutions of arbitration through which disputes can be resolved and stories reformulated.⁴⁸⁸ However, there is evidence (such as the example I cite from CITER in Modena in Chapter 2) to suggest that even where there are such institutions, the “almost mythologically extolled consensus” that Sabel speaks of may not be present.⁴⁸⁹ In summation, factors linked to identity did not appear to play a major role in generating trust or cooperation in the two case studies.

There was reason to believe that the version of the encapsulated interest account which I employ provided a good (although by no means perfect) account of trust formation. As it would predict, the evidence strongly suggests that trust between business actors was limited in the two case studies - there was little to no evidence of business actors being prepared to trust those in other firms unreservedly, and the forms of cooperation which were seen were usually fairly specific. Moreover, there was evidence to suggest that trust, in most cases, was considered. That is, individuals’ trust or lack of trust in others seemed to be based in deductions about those others’ likely behaviour.⁴⁹⁰ Finally, those deductions seemed to refer typically to those others’ interests. In other words, trust was placed, by and large, in those who were perceived as having an interest in behaving in a trustworthy manner with respect to the matter at hand.

⁴⁸⁸ While Baden-Württemberg has a strong associational structure, and has had many initiatives involving cooperation between economic actors at the level of policy formulation, it is arguable that none of them touch directly on the kinds of cooperation I am examining.

⁴⁸⁹ P.119 Sabel (1993).

⁴⁹⁰ Note that there is no implication that these deductions were correct.

This can be seen more clearly if one re-examines some of the examples of cooperation given in the previous section. It is immediately apparent that certain forms of cooperation, such as the exchange of technical and commercial information, tended to take place only between firms which had complementary rather than diverging interests.

There is a tendency for the last two or three years, for collaboration between firms which do not have, I would say, conflicts of interest. For example, if you make headphones, and I make, I don't know, electronics.⁴⁹¹

Firms whose interests were in conflict, such as firms in direct competition, tended not to cooperate. This pattern, which seems to hold in other industrial districts than the ones studied,⁴⁹² is just what would be predicted by the encapsulated interest of trust.⁴⁹³ Clearly, it is extremely difficult for such firms to trust each other enough to come to cooperative arrangements, even when such cooperation would be advantageous to both. The rewards for defection are too high.

One of the German firms interviewed provides an excellent example of this problem in practice.⁴⁹⁴ The firm's parent company was forced by political pressure to buy another firm which produced the same kinds of machine as the interviewed firm. Originally, the group's management planned to integrate together many of the functions of the two firms – administration, personnel and so on. However, it proved impossible to implement this plan because the sharing of information in such an arrangement would lead to risks of opportunism and consequent problems of trust.

When one has already brought the administration together, then one runs a risk. For example, a tender comes from [an outside firm]. ... And they say then, OK, who do I give the tender to. [my firm] or [the other firm]? It is clear, it goes to both. But if everything is already thrown together in the firm, ... then they can say that [my firm] is stealing their customer data, and [my firm] can say that [the other firm] is looking at my customer data. One could put it

⁴⁹¹ Firm Interview 12.

⁴⁹² See for example p. 31, Brusco (1990), "Competition also develops among peer companies, which is to say companies that produce the same products or carry out the same activities. As a consequence, there is much horizontal competition, in the sense that companies who do turning are inclined to compete with each other. On the other hand, there is a considerable level of horizontal cooperation in the sense that firms which carry out turning are very ready to cooperate with companies that do drilling or planing." My translation.

⁴⁹³ Although this theory might have problems in explaining the occasional exceptions to this pattern. Further, as I argue below, not all failures of cooperation between firms which result from divergent interests can be attributed to failures of trust.

⁴⁹⁴ Firm Interview 18.

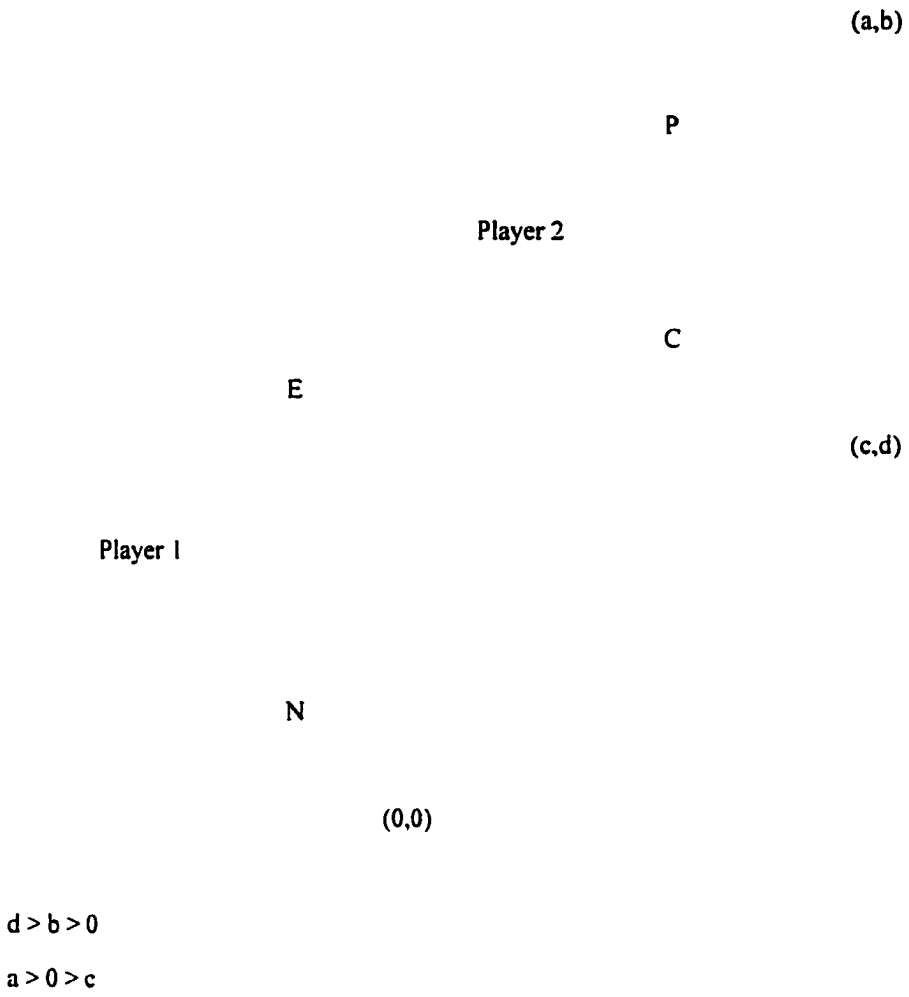
together on the system, but it is clear that the bond of trust *{Vertrauenverhältnis}* has not been created.⁴⁹⁵

In other words, the interviewed firm was not prepared to trust, or cooperate, with a firm whose interests clearly diverged from its own, and vice versa, even though both firms were part of the same group. Furthermore, this lack of trust was based on consideration of interests; that is, on the competitive advantage that either firm could acquire by stealing the other's information. Thus, the potential savings of a joint administrative system were lost, because neither firm could trust the other not to behave opportunistically with its customer data.

Problems of trust can also arise in situations when interests did not diverge so blatantly. One may refer to the example in the previous section of exports to unknown firms in developing countries. Here, exporting firms face a dilemma that closely resembles the one shot version of Partha Dasgupta's Dishonest Salesman game, which I present, in an adapted form, below.⁴⁹⁶

⁴⁹⁵ Ibid.

⁴⁹⁶ Dasgupta (1988).



In this game, the exporting firm has the choice to export (E), or not to export (N). If it does not export, the game ends, and both parties receive zero payoff. If the firm does export, then the buying firm has the option of paying (P), or cheating by refusing to pay (C). The payoffs reflect the absence of institutional or other strictures that would make cheating less attractive, so that C strictly dominates P, and the buying firm will always cheat when it can. By backwards induction, the exporting firm realises that the buying firm will cheat, and refuses to export in the first place, so that both parties end up at the equilibrium {0,0}, even though both parties would be better off if the exporter exported, and the buying firm paid.

This abstract representation does seem to correspond reasonably well with the reasoning adopted by the exporters interviewed.⁴⁹⁷ Interviewed firms believed that unknown firms from developing countries could not be trusted to pay, unless they were backed by credible guarantees from financial institutions that are themselves credible. Therefore, the interviewed firms refused to export to these firms. While, as I have mentioned in the previous section, producers do have some means of retaliation against buyers who do not pay, this is clearly not enough to prevent cheating in many instances. Again, the encapsulated interest account seems to provide a good explanation of why exporting firms were not prepared to trust buying firms who had no interest in behaving in a trustworthy manner.

The encapsulated interest account was able to explain trust as well as distrust, between firms. Riskier forms of cooperation were more likely to occur with firms whose interests did not seriously clash with those of the trusting firm, and where there was a long-standing, and preferably semi-exclusive relationship with the firm in question. Thus, for example, the firm which developed its prototypes together with customers was only prepared to trust those customers with which it had long-term ties of exclusivity. Others might leak important information to competitors. This is, broadly speaking, how you would expect rational actors to behave; there is well documented theoretical work showing that cooperation can take place in circumstances of indefinitely iterated play between players

⁴⁹⁷ Although they also face another problem; even if the firm wants to pay, it may not be able to. Firm Interview 7.

who do not discount future rewards too much.⁴⁹⁸ Firms, when they are embarked on risky cooperative ventures, seem to base their trust on the perceived interest of the other party to behave in a trustworthy manner.

More generally, many of the forms of cooperation which were observed seemed to rely on patterns of reciprocity, ranging from informal agreements on splitting markets to the mutual swapping of favours such as information on potential customers. I will be addressing such relations in further detail in the two succeeding chapters. For now, I will merely repeat the assertion that reciprocity of this sort can be maintained by rational actors so long as each party believes that the other party's contribution is conditional on his own.⁴⁹⁹ While it is not possible to show this definitively, it seems at the very least a reasonable hypothesis that reciprocal cooperation between firms was usually conditional in this way. In other words, one can argue that each firm was prepared to cooperate (say, by giving information) because it trusted that the other firm would cooperate in turn. Thus, if one firm failed to contribute, the other firm would fail too once it came to know of this. One can point to the example of the lapsed arrangement between two firms to divide their markets which I discussed in the previous section. Once one firm failed to cooperate, the other firm had no incentive to cooperate either, and resumed competitive relations.

Thus, the version of the encapsulated interest account of trust which I am using seems to provide a good account of the trust or distrust underlying many of the observed instances of cooperation or non-cooperation. However, I wish to state some provisos. First, as I have already said, I am not trying to "test" these theories against each other in any grand sense.⁵⁰⁰ My arguments draw on only two case studies, and even with regard to these case studies one must be hesitant in drawing

⁴⁹⁸ However, such models have their limitations; most notoriously in that they do not predict whether cooperation will take place or not, only whether it is possible, and in their assumption that it is necessary for play to be *indefinitely* iterated to prevent unravelling.

⁴⁹⁹ Miller (1992).

⁵⁰⁰ Gary Herrigel has suggested to me that even if I show that the sorts of cooperation I study can more easily be explained by interests than by reflexive alteration of identity, that Sabel's theory is still arguably superior to mine, because it can incorporate my findings and arguments, whereas mine would have difficulty in incorporating his. One possible reply is that much depends on how you define superiority – while I do not want to get bogged down in debates on falsifiability, research programmes and the like, it is clear that comprehensiveness is by no means always a proof of superiority. More substantively, even if Sabel's theory can accommodate selfish interest based cooperation in principle, he and others tend in practice strongly to de-emphasise interest as an explanation of cooperation. As I hope to illustrate in this dissertation, much more cooperation in industrial districts can be explained in terms of self interest than many students of industrial districts acknowledge.

conclusions about intangibles that can't be directly observed. Furthermore, I am only examining one set of relations within industrial districts, albeit an important one, according to the existing literature. I am happy to acknowledge the possibility that identity plays an important role in generating cooperation, say, at the level of regional policy formulation within industrial districts.⁵⁰¹ Finally, as I will make clearer later, I do accept that an explanation which pays more attention to "cultural" beliefs and other such factors might subsume the argument I am making here; the crucial proviso is that such an explanation would still have to pay much more attention to the role of interest in generating trust and cooperation than most accounts of trust in industrial districts have done to date.

Furthermore, my theoretical framework does not account well for certain empirical observations, two of which I outline below, and others which I discuss in later chapters.⁵⁰²

First of all, not all "failures" of cooperation can be attributed to failures of trust. Sometimes, cooperation fails to take place because the actors involved do not really want it to. One may divide such instances into two classes, one of which poses no problems for my argument, and one of which does.

First, divergences of interest can have effects on cooperation which are independent of their effect on trust. Take for example the reluctance of firms to exchange technological information with their competitors. In part, as I have stated above, this can be explained as a failure of trust – it is difficult for firms in these circumstances to come to arrangements which will forestall opportunism. However, another important factor is that relative advantages in technology are often more important to firms than absolute advantages. If I own a firm with the most advanced technology on the market, and make substantial profits as a result, I may be unwilling to cooperate with other firms, even if such cooperation would allow me to make technological advances in an absolute sense, as long as such cooperation would allow the other firms to make relative gains. Thus, cooperation is *ex-ante* much less attractive to me, even before issues of trust enter into question.

This does not pose a major problem for my arguments; in such examples interests are such that the question of cooperation doesn't really arise in the first place, as at least one of the parties has

⁵⁰¹ Although one can hypothesise that if identity indeed plays a more important role in these contexts, this is in part because it is more congruent with interest.

⁵⁰² In particular, note the discussion in Chapter 5 of how reciprocity may involve considerations other than selfish gain.

nothing to gain from exchange. However, more troubling is clear evidence that in many cases cooperation failed to occur, even where it would have been economically beneficial, because actors valued their independence too much to want to cooperate in the first place. This appears to have been relatively common; I cite some examples above, and further evidence will be presented in Chapter 5, where I examine this question in more detail. What it indicates is that, contrary to the assumptions of my theoretical framework, actors in the two case studies do not always seek to maximise economic gain. In certain circumstances they are prepared to forego such gain for the pleasure of working on their own. This is not in itself a startling or amazing finding, but it is clear that my theory has difficulty in accommodating it. As such, it signals one of the limits of my approach.

Section 4.5 - Conclusions

In this chapter, I have examined three broad theories of trust, which seek to locate it, respectively, in culture, identity, and interest. Under these broad headings, I have examined specific models of trust, and then sought to apply them to the sorts of direct cooperation between firms that this dissertation is concerned with. I have found that the version of the encapsulated interest theory of trust which I am using seems to provide a good, though not perfect account of trust and cooperation, and distrust and lack of cooperation, between actors in the two cases. In contrast, prevailing theories which locate trust in political culture and identity did not seem to explain the sorts of trust and cooperation which were observed very well.

Thus, there is good evidence that an interest-based theory of trust, which incorporates the assumption that people seek to maximise wealth and that other people expect them to do this, provides a useful account of trust and cooperation in the two cases. Still, there are certain factors which it fails to take into consideration. I have mentioned that there is evidence that individuals often privilege other goals (such as a preference for independence) over wealth maximisation. In later chapters I will discuss

the inability of my model to incorporate other-regarding motives and other factors that may influence trust (or, more precisely, trustworthiness).⁵⁰³

This all suggests that my arguments might perhaps be encompassed in a wider explanatory framework, which, while it acknowledged the importance of material interests as an explanation for human action, also took more account of other-regarding motives. Such a framework might go further, and usefully invoke cultural factors as an explanation for beliefs held by individuals, and thus, indirectly, for trust and cooperation.⁵⁰⁴ I accept that an alternative approach of this sort is both possible and legitimate.⁵⁰⁵ However, I still hold that a simpler model, even if unable to account for all sources of variation in trust and cooperation, has its own advantages. In particular, it allows one to make certain sorts of comparison between cases that would be extremely difficult with a more holistic approach. As I hope to demonstrate in the succeeding chapters, it allows one to isolate certain important effects that *institutions* have on trust and cooperation in different settings. I suggest that an approach which sought to combine rational choice and non-rational choice modes of explanation would have difficulties in doing this. One may find some support for this belief in the writings of scholars who advocate eclecticism. Peter Hall and Rosemary Taylor, for example, advocate a “historical institutionalist” approach which borrows insights from both rational choice and cultural sociology.⁵⁰⁶ However, they freely acknowledge that such an eclecticism has its particular problems; in particular, historical institutionalists have not developed a sophisticated theory of the relationship between institutions and behaviour. Exactly such a theory is a necessary prerequisite to the broader arguments which I wish to develop in succeeding chapters, about the relationship between institutions and trust, and (by extension) between institutions and cooperation. I therefore suggest that a more limited approach to the

⁵⁰³ I stress again that these problems are specific to the “truncated” version of the encapsulated interest theory of trust that I employ. I have no doubt that many of them could be tackled in a more expansive version of the theory.

⁵⁰⁴ Here, I am implicitly arguing for a heuristic approach to culture, of the sort advocated by Elkins and Simeon (1979) (see also the discussion of Geertz in Barnes (1988)) as opposed to a view of culture as simply consisting of socialised orientations Almond and Verba (1963), Eckstein (1997). Such a view is more readily reconcilable with the sorts of rational choice arguments I am making here than one might think at first; see Johnson (1997), Johnson (1994), if it is not indeed an essential complement to it North (1993), North (1995). I discuss this further in Chapter Eight.

⁵⁰⁵ I do note however that the microfoundations for holistic approaches of this sort are still nowhere near as solid as one would like them to be. Thus, caution is advisable; the promiscuous commingling of different approaches may lead to muddy thinking. See, for example Gamm and Shepsle (1989).

⁵⁰⁶ Hall and Taylor (1996).

explanation of trust and cooperation has important theoretical advantages as a basis for comparison, even if it does not account for all sources of variation. In the succeeding two chapters, I hope to flesh out this suggestion.

Chapter Five – Can One Compare Trust and Cooperation across Institutional Contexts?

Section 5.1 - Introduction

In the last chapter, I examined the relationship between interest and trust, and argued that a version of the so-called “encapsulated interest” theory of trust provides a reasonably good explanation of the forms of cooperation which were observed. However, I did not discuss how these interests had been formed at any length. As I have suggested in Chapter 2, there are good grounds for believing that institutions may have an important effect in defining the interests which underlie trust and cooperation in many economic relationships. If this is so, it is a useful result, as it allows the meaningful comparison of different institutional systems in terms of their effects on trust and cooperation. In this chapter, I hope to make the case that such institutional comparisons are both possible and fruitful.

However, I should begin by acknowledging the existence of a strong counter-theory to my own. Wolfgang Streeck, in his arguments on “diversified quality production” has put forward the thesis that cooperation between firms has radically different roots in Germany and Italy. According to Streeck, cooperation in Germany is indeed based on institutional constraints, but cooperation in the industrial districts of Italy does not rely on institutions; instead, it is the product of “communitarian voluntarism.” If Streeck is correct, then the particular sorts of comparison which I am trying to make are nonsensical - comparing apples to oranges, if not to orang-utans.⁵⁰⁷ The effects of institutions on cooperation and trust would only be important in one of my two case studies.

In this chapter, I propose to examine how Streeck’s arguments apply to the kinds of cooperation which I have discussed in the previous chapter. I set out evidence which suggests that cooperation between firms in Italy, as well as in Germany, is governed by institutions. The difference is that many of these institutions are informal, rather than formal. However, they are quite as “strong” as their German equivalents in that they primarily act on the basis of actors’ interests rather than their communitarian leanings. While this would suggest that the basis on which Streeck makes his

⁵⁰⁷ On the logic of comparison, see Sartori (1984), but also Collier and Mahon (1993).

comparison is incorrect, it is nonetheless in broad agreement with his underlying argument, which is that strong institutional constraints are the most important source of cooperation between firms.

Section 5.2 – Institutions versus Voluntarism as Sources of Cooperation.

The literature on industrial districts and associated phenomena tends towards case studies rather than comparative assessments, and what comparisons there are do not usually make generalisable claims. The districts of Emilia-Romagna and Baden-Württemberg are among the most widely studied in the field, and there have consequently been a few comparative studies.⁵⁰⁸ However, such studies have tended to compare the regional governments' policy towards firms and patterns of innovation, contenting themselves with only occasional comments on differences in patterns of cooperation. Perhaps the only sustained theoretical argument on differences of cooperation which is applicable to the cases studied for this dissertation is that made by Wolfgang Streeck.⁵⁰⁹

Streeck seeks to distinguish a pattern of industrial production which he dubs "diversified quality production," from the "flexible specialisation" described by Piore and Sabel. Many of the differences that Streeck posits between these two concepts are not of direct interest to me; what is, however, important is that he identifies the two theories with radically different sources of cooperation. Streeck sees flexible specialisation as growing from the "soft" Italian experience, whereas diversified quality production has grown from the "hard" German case, and is best exemplified by the economic success of Baden-Württemberg. Diversified quality production has thus kept its distance from the "communitarian voluntarism that informs the more speculative chapters of Piore and Sabel's book."⁵¹⁰ Streeck goes on to express the distinction between the two even more forthrightly, in an argument which is worth quoting in full.

The most important difference between the two concepts may be that unlike flexible specialization which often appears to be based primarily in communitarian-cultural-contractual-voluntary bonds, in the generation and operation of diversified quality

⁵⁰⁸ See for example, Cooke and Morgan (1994), and Heidenreich (1996).

⁵⁰⁹ Streeck (1992).

⁵¹⁰ p.9, Streeck (1992).

production organized conflict and hard and formal institutions like trade unions, employers' associations, the law and the national state continue to play a constitutive part. As will be pointed out below, diversified quality production has been found to thrive on the presence of competing and even incompatible perspectives and interests that may need to be accommodated through overt social conflict. In particular, it requires that the rational-individual pursuit of economic advantage be embedded in, and constrained by, institutionally enacted and enforced social obligations, on the assumption that the free 'rational' decisions of individuals and organizations are by themselves insufficient for moving an economy-cum-society towards diversified quality production. The implied claim, of course, is that the 'softer' cultural mechanisms on which Piore and Sabel (1984) essentially rely to contain competition and enforce obligations in their industrial districts, will in reality not be able to perform that function, or will at least in the long run fail to ensure the reproduction of advanced neo-industrialism.⁵¹¹

The above implies a clear basis for comparison between the sorts of cooperation to be found in Italy and Germany. On the one hand, there is flexible specialisation, "the paradigm case of [which remains] the Italian industrial district," in which cooperation is not bound by institutions; that is, it is based on community, culture, and voluntaristic spirit.⁵¹² On the other is "diversified quality production," in which cooperation is the result of institutional constraints on rational individualism. Further, Streeck argues that the cultural mechanisms underlying cooperation in flexible specialisation are likely to fail, if not in the short term, then at least with the passage of time.

It is worth noting that the tenor of Streeck's underlying argument is quite similar to the one that I develop in this thesis. That is, he suggests that certain sorts of economic cooperation between actors will probably only be consistently possible when institutions exist to constrain those actors, so that they are compelled to cooperate for the common good. Where there is disagreement is with regard to the empirical facts. Streeck accepts (at least rhetorically) Piore and Sabel's assertions that trust and cooperation in Italian industrial districts is largely based on communitarian voluntarism, which would imply that this trust is not the result of institutions, or that if it is, it comes about through very different institutional effects than the ones I am studying in this research project. If Streeck is correct, one might possibly compare cooperation in Germany and Italy using the "governance" perspective which he and others have developed.⁵¹³ Under this approach, one can make basic comparisons between economic

⁵¹¹ p.10, Streeck (1992).

⁵¹² p.9, Streeck (1992).

⁵¹³ The classic statement of the "governance" approach is that of Streeck and Schmitter (1985). For later developments, see Hollingsworth, Schmitter and Streeck (1994), and Hollingsworth and Boyer (1997).

systems which operate according to quite different logics; for example, one might argue that cooperation in Italy is relatively strongly affected by “community” structures in which affective bonds still play an important role, whereas in Germany, “state” and “hierarchical” structures tend to predominate. However, the kinds of comparison that I would like to make on the basis of my arguments in the previous chapter would be impossible.

It is also worth pointing out that Streeck’s arguments about the differences between diversified quality production and flexible specialisation bear more than a passing similarity to the commonly drawn distinction between the kind of trust that one observes in situations dominated by formal institutions, and the kind that one finds in informal settings.⁵¹⁴ Various authors have argued that one can distinguish radically between the two; while the former can be explained by reference to interests and economic rationality, the latter cannot. I have already discussed the general literature on this subject in Chapter Two; there is also a body of work which applies this basic dichotomy to the study of relations between firms. Lyons and Mehta provide one of the better summations of this approach in their discussion of the distinction between “self-interested trust” (SIT) and “socially oriented trust” (SOT).⁵¹⁵ In the first, trust is rational with regard to one’s own specific interest, while in the second, it is affectual, traditional or value rational.⁵¹⁶ They loosely identify the first with what Mari Sako has called “contract trust,” that is, the trust one firm may have that another will faithfully fulfil its contractual obligations, and the second with “goodwill trust,” the trust one firm may have that another will not take advantage of it, even when difficulties arise which were not foreseen in the original contract.⁵¹⁷ Such an argument might provide further theoretical underpinnings for Streeck’s distinction between Germany and Italy; insofar as one case study appears to have trust relations which depend in the end on formal relationships, and the other one does not, one might predict that trust in the first was based on self interest, and in the second was based on social orientations.

Thus, I have to advance convincing counter-arguments if I am to show (a) that institutions do have effects on trust and cooperation between actors in the two cases (b) that these effects can mostly

⁵¹⁴ See my discussion in Chapter 2, Section 3.

⁵¹⁵ Lyons and Mehta (1997).

⁵¹⁶ The distinction between goal-oriented rationality (*Zweckrationalität*) and value-oriented rationality (*Wertrationalität*) is one of the basic tenets of Weberian sociology. For an excellent discussion, see Brubaker (1984).

⁵¹⁷ See Sako (1991) for a good brief statement of her position.

be understood in terms of the interests that these actors might be expected to hold, and (c) that one can thus make meaningful comparisons of institutional systems in terms of how they affect interests, and thus trust and cooperation between actors. I have already begun to do this in the previous chapter, where I sought to show that interests, rather than political culture or identity, provided the best account of how and why business actors trusted each other. However, as I have made clear, my theory does not provide a total explanation of trust and cooperation in the two case studies. Thus, the possibility remains that observed variations in the two case studies are due to underlying differences in variables outside my model, of the sort suggested by Streeck, rather than to the factors that I seek to highlight. Therefore in this chapter, I seek to show that an interest based account of trust provides a better basis for *comparison* in the two case studies than Streeck's account, in which interests account for cooperation in only one of the two case studies. There are at least three ways in which one might do this.

One way would be to challenge the argument that cooperation in Italian industrial districts is not sometimes constrained by "strong" formal institutions; such institutions do exist, albeit usually at the local rather than national level. For example, one of the aspects of the German institutional system in which Streeck is interested is how formal agreements with labour may impose economically useful rigidities on firms.⁵¹⁸ The Italian national industrial relations system, which has until quite recently been highly disorganised, would seem to offer little scope for formal restraints of this sort.⁵¹⁹ However, local level labour agreements play an important role in the regulation of economic relations within industrial districts.⁵²⁰ Other local associational and political actors also have parts to play in the regulation of industrial districts.⁵²¹

A second possible response would be to examine, in detail, the ways in which various of the collective goods which concern Streeck are provided in Germany and Italy. There is preliminary evidence to suggest that many important collective goods are provided in Italy, without the sorts of formally binding institutions that one finds in Germany, but also without much in the way of appeal to

⁵¹⁸ See Streeck (1997); also Streeck (1989), Streeck (1992).

⁵¹⁹ See my summary in Chapter Three.

⁵²⁰ See Trigilia (1989), Trigilia (1990), Perulli (1989).

⁵²¹ Trigilia (1986).

voluntaristic spirit.⁵²² For example, EBER, which I have discussed in Chapter 3, both provides a collective insurance scheme for artisanal firms and helps ensure safety standards for workers. Membership in this scheme is entirely voluntary, yet it covers some 85% of the eligible population of firms in Emilia-Romagna and seems to provide the relevant collective goods with a fair degree of efficiency.

Neither of these potential responses would be entirely satisfactory for my purposes. The sorts of cooperation which I have discussed in Chapter 2 do not, in their Italian incarnation at least, seem to be directly dependent on formalised agreements. Nor, for the most part, do they involve the provision of broad collective goods. Instead, they seem to take place on a much more informal basis, between relatively small numbers of firms. I therefore wish to advance a third, and quite different response to the two already outlined. What I want to do is to suggest that many (although not all) of the sorts of cooperation that I have described in the Italian case study, rest on *informal* institutions, which, *contra* Streeck's distinction, can and do constrain actors who are motivated by individual interest. I will seek to show that this provides a superior explanation to that provided by Streeck, and that an interest-based theory of trust and cooperation forms a useful basis for comparisons between different institutional systems.

Section 5.3 – Norms and Cooperation between Firms in Italy

As I have stated in the previous section, Wolfgang Streeck provides an argument which suggests that many forms of cooperation in Germany will be the results of formal constraints on actors, whereas cooperation in Italy will most likely be associated with informal community voluntarism. This contrast should not be overdrawn; Streeck does make it clear that informal regulatory institutions “beyond contract” may play an important role in underpinning cooperation within diversified quality production.⁵²³ Still, Streeck's contention would seem to be that the durable varieties of cooperation that one sees in Germany rest, in the final analysis, on formal institutions which constrain actors.

⁵²² Forthcoming work by Ulrich Glassmann will compare two important examples of collective good provision in Emilia-Romagna and Baden-Württemberg – vocational training and technology transfer.

⁵²³ Streeck (1992).

The findings of this dissertation project provide some support for Streeck's analysis of the German case. The encapsulated interest account of trust is much better suited to specific case-by-case assessments of trust in specific situations than to blanket judgements about the relationship between broad institutional systems and general trust. Nonetheless, cooperation in Germany did often seem to rest on formal constraints. Even cooperative arrangements which would seem by their nature to be "extra-legal," such as agreements not to compete in certain market segments, could be bolstered by formalised agreements between firms.⁵²⁴ Some forms of cooperation were both formal and initiated directly by the state, such as, for example, the joint service center operated by various firms in China.⁵²⁵ As I argue below, there is some evidence that the relatively effective legal structures of Germany helped prevent certain kinds of opportunism that ran rampant in the Italian case. This finding is bolstered by other scholarly research. Burchell and Wilkinson find that the risk of opportunism in German business relations is substantially mitigated by formal institutions.⁵²⁶ Formally mandated trade associations act to regulate against practices such as late payment and unfair pricing, and both the general legal code and the Standard Contract Terms Act protect vulnerable firms against exploitation by the more powerful. They further argue that while they do not wish to play down the importance of morality or ethics, the enlightened self interest of firms seems to be the foundation of trusting relations in this context. In a related piece of research, Arrighetti, Bachmann and Deakin find that formal institutions, including legal institutions, do provide an important basis for trust and cooperation between firms in Germany.⁵²⁷ While actual recourse to legal action is rare, bearing out a large body of research suggesting that firms only infrequently take each other to court, the high degree of juridification reduces uncertainty by enabling firms to calculate the costs and outcome of legal action; "it was these factors which made *actual* recourse to law unnecessary except in very unusual cases."⁵²⁸ Empirical research conducted by the authors found that German firms were unusually well aware of the legal framework, and of the potential costs and outcomes of legal action. Arrighetti, Bachmann and

⁵²⁴ Interview with German firm; details withheld for reasons of confidentiality. Herrigel (1996b) reports that while cartels are against the law in Germany, a wide variety of cooperative relations between firms are legally permitted.

⁵²⁵ Firm Interview 18.

⁵²⁶ Burchell and Wilkinson (1997).

⁵²⁷ Arrighetti, Bachmann and Deakin (1997).

⁵²⁸ *Ibid.*, p. 189, emphasis in original. Game theory may very easily accommodate such judgements, in which analysis of possible outcomes off the path of play influences actors' strategies.

Deakin also provide evidence to support Streeck's contention that informal cooperation in Germany usually rests in the end on formal institutions.

flexibility ... is not achieved in spite of or regardless of the contract, but on the contrary is built on a foundation of formalised contractual understandings, which are underpinned in turn by the stable systems of norms external to the contract. Here, then, the presence of goodwill trust ... cannot be seen in isolation from a comparatively rigid, stable institutional framework.⁵²⁹

At first glance, Streeck's comparative arguments would appear to hold considerable weight for Italy as well. There was little evidence of the sorts of effective and generalised formal institutional structures which underpin many aspects of economic cooperation in Germany. Marino Regini argues that Italy is a case of "weak institutional regulation" – while apparently comprehensive formal institutions exist, they are not accompanied by correspondingly credible means of enforcement.⁵³⁰ The evidence gathered in the dissertation project clearly supports Regini's contentions. An overwhelming majority of opinion among interviewees regarded both the Italian state and legal system as ineffective. The ordinary courts in Italy, which deal with civil actions, are notoriously inefficient, slow, cumbersome and unpredictable.⁵³¹ This discouraged firms from taking legal action, even where a clear case for such action existed. In the words of one firm-owner,

No, no, no, [legal action] is spending money for no purpose *{spendere soldi per niente}*. Because in a legal action, one spends money on the lawyers, then it goes on, in practice, for two years, three years, four years, five years, ten years, then it never finishes.⁵³²

This had particularly clear effects in the area of intellectual property. Patents did enjoy some legal protection - firms whose patents were infringed could seek redress reasonably speedily from the courts.⁵³³ However, many mechanical innovations in the Italian packaging industry were difficult to patent; while they were protected under normal commercial law, the inefficiency of the ordinary court

⁵²⁹ Ibid, p. 190.

⁵³⁰ Regini 1997. See also my discussion in Chapter Seven.

⁵³¹ Arrighetti, Bachmann and Deakin (1997). For a more general treatment of the problems of the Italian legal system, see Volcansek (1990). In one ongoing case, not related to the dissertation research, the plaintiffs have been advised that they can bring a sustainable case to the Court of Human Rights in Strasbourg over the inordinate amount of time that Italian courts take to reach a decision. See "'Lettori' Resist Second-Class Status with EU Aid," *Irish Times*, February 05, 1999.

⁵³² Firm Interview 17.

⁵³³ Firm Interview 3.

system meant that it usually wasn't worthwhile for firms to pursue cases against other firms who had copied their machines. Thus, there was a general problem of copying in the industry

there is a large problem. There is nothing that you can patent, because there are movements that are known, etc. You give a look, and you understand the machine more or less. If there is something good, you pick up the good [things] from 1,2,3,4 machines, and then you design your own machine without difficulty.⁵³⁴

One firm had found that a former collaborator had stolen one of its machines wholesale, "They had taken exactly our machine, copied it and put it into production."⁵³⁵ There was a clear legal case against the offending party, but the injured firm did nothing, because "in the end, you consider that in Italy a judicial action always lasts five years."⁵³⁶ This general problem was exacerbated by the shortage of skilled technicians in the region. Packaging firms very frequently "stole" employees from each other, and these employees brought their previous employers' specific technical knowledge and machines with them.

If I work in a firm, and another firm says that I should come to them for a bigger salary, I carry with me my background, but also my experience and my knowledge of this firm.⁵³⁷

In the absence of effective legal redress, firms which had their designs copied could do little, except perhaps to retaliate through self-help; one firm retaliated against those who had stolen employees and machine designs from it by stealing these employees back after a few months and copying their competitors' machines in turn. Other firms who spoke about the problem accepted it philosophically; they sought to deal with it by continually improving their machines and staying one step ahead of the competition. All of this seemed to contrast with the German case study, where copying, although it was a concern, did not seem to be endemic as it was in Bologna - firms were able to take effective legal action to prevent former employees passing their proprietary technological information on to others.⁵³⁸

Nor did trade associations or chambers of commerce enjoy the sorts of authority that they did in Germany. While, as detailed in Chapter 3, they often served as "interfaces" between firms and the

⁵³⁴ Firm Interview 2.

⁵³⁵ Firm Interview 3.

⁵³⁶ Ibid.

⁵³⁷ Interview with FIOM.

⁵³⁸ See Firm Interview 30.

state, helping reduce a regulatory burden that firms would otherwise find unbearable, they did not typically arbitrate between firms or deal directly with inter-firm disputes.⁵³⁹ The local chamber of commerce did, at least in theory, have the possibility of acting to resolve disputes between firms. For some time, it has had a general arbitration procedure, and recent legal changes (Law 192/1998) had enabled it to conciliate disputes between parties over sub-contracting arrangements.⁵⁴⁰ However, the evidence showed that packaging firms in Bologna were reluctant to take up this service.⁵⁴¹ Overall, only five or six cases a year were referred to the Conciliation Service in Bologna; most of these involved disputes in the commercial (i.e. shops and offices), or building sectors. The Chamber of Commerce had no records of ever having been involved in conciliation between firms in the packaging machine industry, or indeed in mechanical engineering more generally.

Despite this lack of formal institutional foundations, certain forms of cooperation took place on a regular and more or less predictable basis. When asked about the basis for this cooperation, Italian interviewees talked in the kind of language that one might expect, given Streeck's interpretation of the differences between the two cases. It was seen as being rooted in a "moral ethic,"⁵⁴² or in "affections that you find in certain ways ... of thinking, of sharing things,"⁵⁴³ or in a "professional ethic."⁵⁴⁴ At first glance, motivations of this sort would seem rather easier to explain by referring to voluntaristic norms or ethical motivations than to the rational assessment of interests. So were these sorts of cooperation in Italy motivated by a culture of communitarian voluntarism?

There was little, if any evidence to support the view that there was any generalised culture of cooperation in the Italian case.⁵⁴⁵ One may refer to the previous chapter, in which I provided evidence which suggested that explanations based on interest provided a better account of trust and cooperation in both cases than explanations which relied on cultural socialisation or identity. But even insofar as non-wealth maximising motives played a role for Italian firms, they seemed usually to militate against,

⁵³⁹ The exception to this, which does not bear directly on my arguments, is the undoubted role that associations had in increasing the bargaining weight of artisanal firms vis-a-vis banks.

⁵⁴⁰ On the arbitration powers of the Chamber, see Camera di Commercio, Industria, Artigianato, e Agricoltura, Bologna (n.d.). On its powers to resolve subcontracting disputes, see Camera di Commercio, Industria, Artigianato, e Agricoltura, Bologna (1998).

⁵⁴¹ Interview with the Conciliation Service of the Chamber of Commerce, Bologna, Italy.

⁵⁴² Firm Interview 5.

⁵⁴³ Firm Interview 16.

⁵⁴⁴ Firm Interview 12.

⁵⁴⁵ On the problems of generalised accounts of trust and cooperation, see Trigilia (1999).

rather than for, voluntarism and cooperation. There is a considerable body of research suggesting that engineering firms in Baden-Württemberg are individualistic, and sometimes unwilling to cooperate with each other, even when such cooperation would be mutually beneficial.⁵⁴⁶ The research conducted for this project not only found support for this contention, but found an array of evidence suggesting that firms in Emilia-Romagna were often quite as disinclined to cooperate with each other as their German counterparts. Bolognese business associations reported that firms were highly individualistic, and resistant to attempts to encourage them to cooperate. As one association described it;

The businessmen are very individualistic from this point of view ... We have sought to organise certain things, above all in the field of subcontracting - firms which work for other firms. However, we have seen that there were considerable difficulties in practical terms.⁵⁴⁷

And in the words of another

One of the various problems of small firms is their lack of cooperation among themselves. This is a problem. They have to learn to make a bit of a system among themselves. Hitherto, this has not happened ... there is a lot of individualism from this point of view, which has probably, in my opinion, penalised small firms.⁵⁴⁸

This verdict was confirmed by the firms themselves

the associations have tried [to encourage cooperation] a lot of times, but with little success ... In my opinion, [this is] because there is not a maturity among firms. There is no maturity, there is always this fear.⁵⁴⁹

Vittorio Capecchi, who has done extensive historical and sociological work on the packaging industry in Bologna, argues that this set of attitudes is widespread, and associated with a particular mentality, that of the inventor of machines

An inventor is very suspicious - he has not the mentality to cooperate - he is able to invent. But to have an ideology of cooperation, you need a more financial mentality. You have to see that if I do an alliance with you, I may earn more.⁵⁵⁰

⁵⁴⁶ See Semlinger (1993), Semlinger (1995), Cooke and Morgan (1994), Grotz and Braun (1997).

⁵⁴⁷ Interview with API.

⁵⁴⁸ Interview with Confartigianato.

⁵⁴⁹ Firm Interview 4.

⁵⁵⁰ Interview with Vittorio Capecchi.

This bias towards individualism did not involve a simple reluctance to allow outside associations to become involved in organising cooperation, but a resistance to certain sorts of cooperation *tout court*. In the previous chapter, I mentioned the efforts of a commercial firm to encourage the various producers that it was associated with to meet certain needs through common structures involving joint provision of spare parts, financial services and so on. These efforts failed precisely because of an unwillingness of firms to cooperate over certain areas.

Everybody wants to be independent, to do everything himself, doesn't call you because he doesn't need you, etc, etc. And this is absolutely wrong, it is a problem. We are there for serving, like a financial company would be there for serving. Or accounting. The other one for the parts to help everybody. Spare parts would be there. But this is impossible. Already, a commercial company is a big, big, big step.⁵⁵¹

Other interviewees in contrast saw this desire for independence as being fundamentally positive in its effects.⁵⁵² They may well have been correct. One can certainly make a good case that it had historically been one of the main motors behind the creation of small firms in the district, motivating technicians who wished to work on their own to strike out from their employers and set up their own businesses.⁵⁵³

So, in short, explanations of differences between Germany and Italy which invoke a broad cultural propensity to cooperate among Italian producers seem to be disconfirmed by the evidence. However, one might argue for more subtle differences. Even if there is no broad cultural tendency, firms in Emilia-Romagna might be more willing to cooperate with other firm owners where strong personal links existed. Or, alternatively they may have been more willing to cooperate with other firm owners who shared common values or a common ethical approach, whether because of membership in a community, or for other reasons.

There was evidence to suggest that personal links often had an important bearing on trust among Italian firms. One stark example of this is the case mentioned in the previous chapter, of the Italian commercial firm which felt able to ask for orders from its customers when business was

⁵⁵¹ Firm Interview 2.

⁵⁵² Firm Interview 13.

⁵⁵³ See Firm Interview 14. Note also that this process of small firm generation is arguably an instance where non-wealth maximising motives had very important effects on the shape of the industrial district, illustrating the explanatory limits of "narrow" rational choice models - such as mine!

difficult. In the words of the interviewee

The majority of my customers are friends. And when I say friends, they are really friends. In moments of difficulty ... there have been very recent examples in which I have gone to the customers, and said "Look guys, you find me with a lack of orders, can you give a hand?" [They said] "Certainly, right away."⁵⁵⁴

This was not a simple case of altruistic generosity; the interviewee went on to specify that he in turn did favours for his friends when they needed special payment conditions. By the same token, it would be grossly reductionistic to explain it on the basis of a narrow rationality model. There seemed little reason to doubt that this was a case of genuine friendship, involving other-regarding motives of a kind which such models are unable to account for.

Other interviewees also referred to the importance of personal contact and acquaintance as a basis for cooperation. Indeed, in many cases, informal cooperation appeared to be based on such contacts between individuals rather than on the relationship between firms as such. The effects of personal acquaintance may well have gone beyond those which are readily explainable using standard rational choice (by which I mean game-theoretic) models. As I have stated in my theory chapter, the experimental literature gives one good reason to believe that such contacts may affect individuals' willingness to cooperate, even when they are of quite a minimal sort.⁵⁵⁵ Thus, the general explanatory framework which I adopt in this dissertation does not capture certain ways in which personal contact may affect cooperation. This said, friendship relations deep enough to allow the sorts of diffuse and generalised cooperation referred to above seemed to be the exception rather than the rule. Other interviewees, when describing their relations with third party firms, referred to the limits of the cooperation that might be expected from others, or that they themselves would give. This widespread set of expectations was well represented by one Italian firm, which, after describing how it cooperated with others on the basis of acquaintance, felt it necessary to add that "of course, this is a business world, and therefore you can't expect anything from the others, and the others can't expect anything from us."⁵⁵⁶ While personal acquaintance might facilitate cooperation, it was not usually an adequate

⁵⁵⁴ Firm Interview 14. See also the discussion below of cooperation on the basis of local community ties.

⁵⁵⁵ Ostrom (1998).

⁵⁵⁶ Firm Interview 2.

foundation in itself upon which extensive forms of cooperation could be constructed. The effects of personal acquaintance were limited by, and very often largely defined by, interest. The result of the conflict between trust based on friendship and divergent interests was described by one Italian interviewee.

I place trust in you - I am able to trust 100%. However I know, and this is personal to you, for one reason or another, independent of what you want, you can betray [my trust] a little bit. Because, you represent, when everything is taken into consideration, another firm. Thus, if you start from the presupposition from which I am starting, I am here to represent [my firm] in some way, which is fine. I am thus from [my firm]. We are trying to converge on what is in common in all of our interactions, not to create any problem. But at the moment when a problem is created, I am from [my firm]. In the ultimate analysis, there exists the presupposition of a breaking point [*una rottura*]⁵⁵⁷

In other words, even when someone was trustworthy as an individual, the fact that he was working for another firm and had divergent interests, meant that the scope for trust, and thus for cooperation, was limited. The interviewee went on to state that this was not only his personal approach; in his opinion, it characterised the people working for different firms whom he came in contact with.⁵⁵⁸

What this suggests is that the effects of personal ties across firms can for the most part be described in the vocabulary of self-interest. Of course, there are exceptions, such as the one I have previously described, where friendship clearly involved more than mutual back scratching. But personal contacts across firms more usually seemed, in Andrew Lorenz's lapidary phrase, to be between "neither friends nor strangers."⁵⁵⁹ Like Lorenz's French engineering firms, interviewees often stressed the importance of personal contact, and sometimes described their relationships using the language of friendship. But in the majority of cases, this does not seem to have involved deep emotional or ethical commitments to the other; rather, the language of friendship provided a compass to orient social relations which were primarily instrumental.⁵⁶⁰

Interviewees in Baden-Württemberg also stressed the importance of personal acquaintance to certain sorts of cooperation.⁵⁶¹ Local observers in the German case spoke as well of the importance of

⁵⁵⁷ Firm Interview 7.

⁵⁵⁸ Conversation with interviewee after interview.

⁵⁵⁹ Lorenz (1988).

⁵⁶⁰ On this point, see the useful discussion in Lorenz (1993).

⁵⁶¹ Firm Interviews 19, 20, 29, 32, 33.

informal networks to cooperation between firms.⁵⁶² On the basis of this research project at least, it was not possible to conclude that there were demonstrable differences in patterns of personal association which could be connected to different patterns of trust and cooperation.⁵⁶³ Of course, this finding cannot be taken as conclusive in any real sense; it may just as well be the result of limitations to the research carried out as of genuine similarities across the cases.⁵⁶⁴

Another possible source of trust and cooperation which would be compatible with Streeck's arguments is ethical or moral bonds. These could either be universal or limited to members of a particular community.⁵⁶⁵ As I have mentioned already, some firms spoke in language which would seem, at least at first glance, to indicate that a general ethic played an important role. One firm spoke of how it was necessary to have a "moral ethic" to survive in the sector, another of how it sought to work with firms with a "professional ethic."⁵⁶⁶ Again, however, cooperation of this kind could usually be explained in terms of interest. The firm which spoke of moral ethics went on to elaborate on what it meant.

One never thinks of cheating on a customer, because a customer, one year after, or after two or three years, will have the need of other machines. And we have to act so, because we would not get more from them if we had cheated over the years. It is exactly a matter of [*uno discorso di*] our advantage, it is not that we do it for other motives; it is always better to behave well, all in all.⁵⁶⁷

Clearly, one may infer from this that the "ethic" which the firm referred to did not have any innate

⁵⁶² Interview with Steinbeis Stiftung.

⁵⁶³ Except insofar as "personal" relations were governed by informal institutions; see my argument later in this chapter, and in Chapter 6.

⁵⁶⁴ For example, one possible avenue of investigation might be the different role of associations in the two cases. The association of German engineers, the VDI, had a very strong presence in Württemberg, and seemed to be a locus for potentially cooperative interpersonal relations (Interview with VDI). There seemed to be no exact equivalent for this organisation in the Italian case. It may be that these, and other differences of the same general sort, have measurable effects on the differences in trust and cooperation between actors in the two case studies. This, of course is the domain of network theory; see Wellmann and Berkowitz (1988), Granovetter (1985), Granovetter (1973), Håkansson and Johanson (1993), Grabher (1993a). On how interest based approaches and network theory can inform each other, see Markovsky (1997).

⁵⁶⁵ There is of course a voluminous debate, which I have no intention of getting involved in, between liberals and communitarians about the benefits of universalism and cosmopolitanism as against more immediate and bounded forms of identity.

⁵⁶⁶ Firm Interview 5, Firm Interview 12.

⁵⁶⁷ Firm Interview 5. See also Firm Interview 14, "what must be done with selling is to create the base for a future, to continue selling, to continue to be interlocutors with these firms."

binding force. It referred instead to expectations held by other firms, which the interviewed firm had to meet if it was to continue and prosper in the future. In other words, cooperation resulted because the firm was acting according to its narrow economic interest, rather than because it felt that cheating a customer was innately wrong. The “moral ethic” here, like the language of “friendship” that I have previously referred to, had force because it led to a convergence of the supplying firm and customer firm’s expectations.⁵⁶⁸ One may reasonably suspect that general ethical considerations had some role to play in leading to cooperative and honest behaviour – as I have said, the narrow rationality model which I use almost certainly under-predicts’ humans’ willingness to cooperate with each other. What one interviewee charmingly described as “the minimum sense of scruples which one gets from one’s mamma” may well have played a role in forestalling opportunism.⁵⁶⁹ But speaking more generally, cooperation seemed better explained by reference to the interests firms had in behaving in a cooperative fashion, given the expectations of those who they were dealing with, than by strong universal moral bonds.

There was evidence that a few Italian firms were prepared to cooperate on the basis of particular, as opposed to universal, ethical bonds. That is, they were more easily prepared to cooperate with local firms, with whom they shared common experiences and understandings, than with others. For example, one firm spoke of its relations with other firms in the area in terms of

affections that you find in certain ways ... of thinking, of sharing things. There is a lot here; there is a feeling, all in all. For me, I can think of phoning up: “I have a problem, can you help me?”⁵⁷⁰

Another commercial firm spoke of a “certain spirit of being able to help. There is not a closedness. I am among my parishioners, am inside my garden.”⁵⁷¹ It believed that when certain firms were in

⁵⁶⁸ The reader might find this extended discussion banal – intuitively it may seem quite obvious that the manufacturer will seek to keep the customer firm happy, and therefore will not cheat on him. However, it is not as simple as it looks; to use the language of game theory, the firms can converge on more than one equilibrium. For example, there is evidence that certain kinds of opportunism between supplier and customer firm are expected in the UK mechanical engineering industry; if a firm supplies a certain number of badly machined components, this is not grounds for cancellation of the relationship, even if it is more or less clear that this involves opportunism, because the customer firm cannot expect better from the other firms that it goes to. Thus, different expectations on the part of supplying and customer firms can lead to different equilibrium outcomes.

⁵⁶⁹ Firm Interview 12.

⁵⁷⁰ Firm Interview 16. These bonds were strengthened by personal relations.

⁵⁷¹ Firm Interview 14.

difficulty, others might be prepared to give them orders so as to help them. These forms of mutual help and cooperation were likely not wholly motivated by self-interest, although they were limited by it - the firm which spoke of the importance of "affections" stressed that cooperative relations were impossible with direct competitors, as everyone wanted to sell the same thing.⁵⁷² Several other firms made it clear that they did not see any spirit of mutual cooperation or help in the area or the industry; firms could only be expected to cooperate when it was in their interests.⁵⁷³ Furthermore, while certain sorts of cooperation existed at a community level, they had their limits, and certain forms of opportunism were rife among firms in the area. As I have mentioned already, firms in the Bologna area quite happily stole each other's employees and intellectual property when they felt they could get away with it.⁵⁷⁴ Thus, while there was evidence that a few firms were prepared to cooperate on the basis of affective community ties, there was no evidence that such affective ties provided a general explanation of cooperation.

In this section, I have sought to examine whether there is evidence to support Streeck's contention that cooperation in the German form of "diversified quality production" is based on the existence of formal institutional strictures, whereas cooperation in the "flexibly specialised" industrial districts of Italy is instead based on voluntarism and community bonds. While the evidence tends to suggest both Streeck's analysis of cooperation in Germany is broadly correct, and that there is little corresponding formal institutional basis for cooperation in Italy, there does not seem to be sufficient grounds for believing that cooperation in the industrial district studied is based on communitarian norms or voluntarism.

⁵⁷² Firm Interview 16. The second firm interview cited above (Firm Interview 14) did speak of the possibility of cooperation between competitors, but this cooperation was extremely limited in extent.

⁵⁷³ See Firm Interview 13; also Firm Interviews 1, 2, 7.

⁵⁷⁴ As I will go on to argue, this seems to suggest that "community" serves as a basis for cooperation among firms primarily insofar as community institutions exist such that firms have an interest in cooperating. In other words, community spirit or identity is unlikely to serve as a general explanation of cooperation insofar as such cooperation is limited in scope: i.e. there are certain kinds of opportunism and taking of advantage which exist among community members. I propose, on the basis of previous research by Sebastiano Brusco and others, that it makes more sense instead to see community not in terms of identity, but in terms of informal rules which see certain forms of opportunism being punished (most likely by exclusion from future exchange opportunities), and certain forms of opportunism, which are not covered by rules, going unpunished. By focussing on rules rather than broad-reaching (and rather fuzzy) notions of collective identity, one can come to a more nuanced appreciation of why communities may prevent certain kinds of opportunism among members while permitting others.

This finding seems further borne out by the general scepticism that many Italian academics express about theories which attribute cooperation in industrial districts to a diffuse communitarian trust.⁵⁷⁵ One researcher, who was familiar with the mechanical engineering industries in both Italy and Germany, failed to see any fundamental difference in why firms in the two countries cooperated, and saw cooperation in both contexts as rooted in individual economic advantage.

I do not share the opinion of theorists of industrial districts that there is an almost fraternal trust. It is a trust in commercial terms, as developed among Italian entrepreneurs and German entrepreneurs. It is a trust that is based on relationships that become consolidated over time, and that are profitable for both parties.⁵⁷⁶

This is not to say that norms had no explanatory worth: certain actors do appear to have been motivated in ways that are difficult to explain by reference to narrow self-interest. Yet not only was “normative cooperation” in the Italian case study limited by the interests of actors; there was also considerable evidence to suggest that, as might be expected given my arguments in the previous chapter, most forms of cooperation appeared to be grounded in self-interest. Furthermore, interviewees usually expected self-interested behaviour on the part of others - that is, they did not usually trust others in circumstances where it was not in the economic interests of those others to behave in a trustworthy fashion.

Section 5.4 - An Alternative Explanation of Trust between Firms in Italy - The Effect of Informal Institutions

Left on its own, the discussion of the previous section is only a marginal advance on the arguments presented in Chapter 4. That is, I have shown that there is evidence suggesting that comparisons of the two cases which start from the premise that cooperation in the one is individually rational, and in the other is based on voluntaristic spirit, probably do not tell us very much. In this and the next section I wish to advance an alternative basis for comparison, which is based on the supposition that cooperation in both cases is more or less rational, and seeks to explain differences in

⁵⁷⁵ See Interview with Nicola Bellini, Interview with Silvano Bertini.

⁵⁷⁶ Interview with Silvano Bertini.

cooperation between the two in terms of institutions.

At first glance, one does not need to refer to institutions in order to explain the forms of cooperation between firms which were observed in Italy. Insofar as such cooperation was rational, much of it could potentially be explained in terms of the game theoretic literature on “tit for tat” cooperation and gift exchange in bilateral relations, coupled with the kinds of reputational mechanisms that Kreps, among others, has discussed.⁵⁷⁷ As I have already mentioned, there is good reason to believe that certain kinds of “gift exchange” can be sustained between narrowly rational actors, without relying on any outside institutional structures. There was evidence to suggest that certain kinds of cooperation observed in both the Italian case and German cases could best be explained in these terms. In many cases, cooperation appeared not to be institutionalised, or to have reference to anything other than the particular relationship between the actors in question. One party did not necessarily expect another *ex ante* to cooperate in a certain fashion given a particular situation arising; such cooperation might, or might not, occur, depending on the parties in question. For example, while firms engaged in complementary activities might swap useful information on customers with each other, there was no evidence of a perceived obligation to do so.

In other instances, reputation played a highly important role in explaining cooperation between firms.⁵⁷⁸ To quote one Italian interviewee,

This is a very small world. Reputation spreads in three days ... in three hours, not days. This is a small world, everybody knows everybody, and this is good in one sense, because if you have a good reputation, I repeat you can capitalise on it, because you are known and this is bad, because if you have a bad reputation and have done something wrong, everybody knows it, and they try to avoid you.⁵⁷⁹

Firms which behaved opportunistically were likely to suffer for it in the future.

All this said, a simple rational choice explanation that only invoked bilateral relationships and reputational mechanisms would still leave a lot to be explained. I have suggested in the previous section that norms of friendship and ethically motivated behaviour did appear to influence the conduct

⁵⁷⁷ Kreps (1990).

⁵⁷⁸ Although, as with Lorenz’s engineering firms, reputational mechanisms alone did not explain trust and cooperation between firms. See Lorenz (1993).

⁵⁷⁹ Firm Interview 2. On the importance of reputation, and the close-knit nature of the packaging industry, see also Firm Interviews 1, 5, 7, 8, 13, 17.

of actors, even when those actors seemed to behave in a self-interested fashion. While reputational mechanisms and bilateral punishment clearly may underpin such norms, they do not explain the content of the norms themselves. Furthermore, the fact that such norms had force suggests that not all cooperation between firms in Italy was happenstance bilateral cooperation. There were instances where cooperation was clearly institutionalised, including certain forms of cooperation with customers, with suppliers, and with other firms supplying machines to the same customer. This is to say that certain forms of cooperation were expected in these contexts, and typically received; opportunism, while it existed, was relatively unusual.

In order to present a richer account, it is necessary to turn to a sometime critic of the rational choice approach, Sebastiano Brusco. Brusco has provided a compelling critique of earlier rational choice attempts to explain cooperation in Italian industrial districts.⁵⁸⁰ He argues that “narrowly economic” explanations which invoke credibility and reputation as explanations for cooperation between firms are formally correct, but tend to impoverish our understanding of industrial districts rather than making them easier to grasp. He believes that it is better to examine cooperation in industrial districts in terms of unwritten community rules.

This rather special climate is a result of the fact that, alongside state regulations, there is a second set of rules that derives from the community to which all the companies belong. This set of rules, shared by everyone and to which everyone has to adapt, originates in civil society, and also carries a series of sanctions: whoever breaks the rules of the game is excluded from the community and can no longer work with it.⁵⁸¹

Gabi dei Ottati makes similar arguments about the celebrated industrial district of Prato, in Tuscany. Here, informal norms are enforced both on a “community” basis within bilateral relations and by organisational actors such as trade associations and the local government.⁵⁸² Dei Ottati further provides a sophisticated theory of the “social market” in which trust and cooperation between firms in Italian industrial districts is associated with these norms.⁵⁸³

What the work of both of these authors suggests is that sanctioning mechanisms and

⁵⁸⁰ Brusco (1992).

⁵⁸¹ p.182, *ibid.*

⁵⁸² See dei Ottati 1994a, dei Ottati 1996. She presents her arguments in more general form in dei Ottati 1994b.

⁵⁸³ Her work builds on the ideas of Michael Taylor; see Taylor (1982), Taylor (1987).

reputation do have an important role to play in underpinning cooperation between firms in Italian industrial districts. However, these factors do not amount to the full story; in order fully to understand cooperation and trust in such settings, one also needs to pay attention to the “unwritten rules” or “norms” which lend these reputational mechanisms life and meaning. As Brusco states, these rules are accompanied by means of punishment; that is, those who do not obey them are likely to suffer for it. The rules indeed define what is considered to be punishable behaviour and what is not; certain forms of cheating may be regarded as allowable social behaviour.⁵⁸⁴ Brusco and Dei Ottati’s conception of community as to a great extent consisting of sanction-supported rules is much narrower and more specific than identity-based arguments such as that of Fukuyama in which common forms of identity serve to forestall opportunism in general. Furthermore, under Brusco’s arguments, compliance with community rules can be an optimal strategy, even for selfish actors.

While Brusco argues against rational actor approaches to the study of industrial districts, much of the force of his argument can be accommodated by more recent developments in the rational choice study of institutions. The “community rules” and “norms” that are described by Brusco and dei Ottati can clearly be identified as informal institutions under the definition, borrowed from Jack Knight, which I advanced in Chapter 2. That is, they are rules which are known to everyone in a particular group, which embody expectations as to behaviour, and which are conducive to particular equilibrium outcomes. The fact that these institutions are informal, and do not rely on the sanctioning power of the state does not detract from their power to constrain rational actors. Informal institutions can affect cooperation and trust between actors just as surely as formal ones. Further, such institutions are likely to have emerged through just the sorts of decentralised processes that Knight identifies; that is, through a series of discrete encounters between certain classes of agent, from which rules eventually emerge to guide the behaviour of those agents towards one equilibrium rather than another.⁵⁸⁵

By incorporating informal institutions into the analysis one can answer Brusco’s quite legitimate objection against rational choice explanations that do not take account of the importance of informal rules. More particularly, one can also begin to explain how a so-called moral ethic, or the language of friendship, may influence the behaviour of actors even when they are narrowly rational.

⁵⁸⁴ Brusco (1992).

⁵⁸⁵ I discuss the question of institutional emergence at greater length in Chapter 7.

When a firm, such as the one quoted in the previous section, speaks of “moral ethics” which are clearly not internalised, such ethics have force because they rest on institutions in the sense that I am using here. That is, the “moral ethic” which the firm was talking about can best be understood as a set of rules of behaviour which the firm in question adhered to, and which was expected of it by customer firms. This explains why these rules were obeyed, even though they did not appear to have any innate moral or ethical binding force for the interviewee. They had effect because the firm had reason to expect that opportunism would be punished by the customer firm, which would not make repeat orders if it cheated.

There would seem to be good reason to believe that such expectations were more or less generalised across the industry, and there is also evidence suggesting that such rules supported cooperation more generally among firms. One Italian interviewee, when asked why firms did not cheat each other in the absence of legal sanctions (the interviewee had previously indicated that legal action was almost unheard of), replied that a firm which did not cooperate

comes to be excluded from the system. Slowly, one does not have credibility any more, which allows one to remain in the system. The world of packaging is very small - even if it is big it is very small. It is thus that it is, there are many personal relations that serve also sometimes to avoid situations which ... do not have to be solved through legal means. He who doesn't keep to this rule - these aren't written rules - well there you are! *{beh!}*⁵⁸⁶

The firm-owner's response almost precisely recapitulates Brusco's description of the importance of informal rules. He clearly indicates that personal relations between firms, insofar as they served as a basis for cooperation in the absence of legal constraints, were governed by informal rules, which were accompanied by sanctions. Those who did not adhere to these rules were liable to be punished, and gradually to be excluded from the community and thus prevented from doing business. In short, community institutions played an important role in governing cooperation, but these institutions did not need to rely on moral or voluntaristic attitudes on the part of the firms which they governed. Firms within the community had an interest in obeying them, in that if they did not they would eventually

⁵⁸⁶ Firm Interview 8. I have translated the almost untranslatable Italian expletive *beh!*, as “well, there you are,” its most neutral and general interpretation. Equally valid translations might be “So much for that” or “So much for him.” I'm grateful to Colin Crouch for a discussion of the intricate meanings of *beh!* and the superficially similar expletive, *boh!*, which is unfortunately not printable in an academic treatise.

find themselves excluded from future possibilities of exchange.

These sorts of informal institutions seemed to apply at the level of the industry - producer and buyer firms interacted often among each other to constitute a community of actors.⁵⁸⁷ Other informal institutions - which I will be discussing in Chapter 6 - seemed to be particular to the local community of packaging firms in Emilia-Romagna. In any event, there was evidence to show that cooperation among the interviewees in Emilia-Romagna *was* governed by rules, even in the absence of credible state or legal enforcement mechanisms. These rules could reasonably be considered to be informal institutions. Furthermore, the evidence indicates that compliance with these rules was usually in the interest of actors; those who sought to break them were likely to find themselves excluded from future opportunities for exchange. Not all of the cooperation observed can be explained by these interests; some actors were clearly motivated by concerns which are difficult to capture in a narrow rationality account. This said, the evidence suggests that while such other-regarding concerns may certainly have lubricated the workings of these institutions, the institutions themselves rested on the interests of actors.

Furthermore, insofar as such informal institutions were binding on rational actors, one may predict that cooperation in this industrial district and others were not as fragile as Streeck suggests.⁵⁸⁸ Streeck's scepticism about the power of voluntary commitments to maintain cooperation echoes that of Williamson, who has argued that

One of the implications of opportunism is that "ideal" cooperative modes of economic organization, by which I mean those where trust and good intentions are generously imputed to the membership, are very fragile. Such organizations are easily invaded and exploited by agents who do not possess those qualities.⁵⁸⁹

⁵⁸⁷ The interviews suggest that the sorts of extremely close dependence between machine producers and customer firms that one sometimes found in the German case were rare - most interviewees had a considerable variety of customers. However, interaction between the producers and customer firms was usually repeated in a context where potential customers and potential producers knew of each other, and each other's reputation.

⁵⁸⁸ This is to say that these forms of cooperation cannot be considered *ex ante* to be more vulnerable to change than forms of cooperation based on formal institutions. The topic of how formal and informal institutions may change is a vexed one, but there is no convincing theory that I know of to suggest that informal institutions must necessarily be more vulnerable than formal ones to changing external circumstances, and empirical observation would suggest that the opposite is often (perhaps even mostly) the case. As I go on to argue in Chapter 7, there is some evidence to suggest that the kinds of informal cooperation I describe may be coming under threat, but the same may be said of the more formally bound varieties of cooperation that Streeck describes; see Streeck (1997b).

⁵⁸⁹ p.64, Williamson (1985).

Very clearly, the institutions examined here were not “ideal” in Williamson’s sense. Those who failed to observe unwritten community rules against certain sorts of opportunism were unlikely to prosper by so doing.

Section 5.5 - Comparisons of Trust and Cooperation across Contexts on the Basis of Institutions.

In the above discussion, I hope that I have provided good reason to believe that one may usefully compare cooperation and trust across the two case studies in terms of the effects of institutions. I have examined an alternate hypothesis current in the literature, that of Wolfgang Streeck, who argues that cooperation in Italian industrial districts, unlike cooperation among German firms, does not derive from institutional constraints but from communitarian voluntarism. If this hypothesis were borne out, the argument that cooperation in Italy was based on institutional constraints would be falsified, and comparisons in terms of such constraints would be meaningless. In order to make the case that such institutional comparisons are both possible and fruitful, I have examined whether the evidence gathered in this research project supported Streeck’s assertions or not. I have found that there is no evidence of any generalised communitarian voluntarism in the Italian case study, but that there is evidence of systematic cooperation between firms. An alternative account of cooperation in Italian industrial districts, that put forward by Sebastiano Brusco and Gabi dei Ottati, seems to provide a superior explanation of cooperation. The relative dearth of opportunism in certain areas of interaction among Bolognese packaging machinery manufacturers seems to derive not from a voluntaristic ethic, but from unwritten rules of conduct, associated with sanctions for malfeasance. Such rules can easily be incorporated into an analysis of the sort which I wish to undertake in this dissertation; they can be treated as *informal institutions*.

This finding has important implications. Streeck’s arguments seem to rest on the unstated assumption that only formal, legally stated institutions can be binding on rational actors, and that in contexts where such institutions do not exist one needs to turn to “soft” cultural factors in order to

explain why individuals trust each other and are prepared to cooperate⁵⁹⁰. The analysis of the case study in Bologna suggests differently. Informal institutions need not be “soft” norms that are maintained only through a voluntaristic ethic. They can be “strong” in the sense that they represent real and binding constraints, even on actors who are only motivated by their particular interest. Firms which break certain informal rules are likely to find themselves excluded from the business community. In short, an analytic scheme which rests, as Streeck’s seems to, on a distinction between binding formal institutions and voluntaristic norms will be a poor basis for analysis of cooperation across many contexts. Likewise, my findings argue against the general theoretical claims of those authors whom I refer to in Chapter 2, who suggest that rational actor models only help us understand contexts in which formal institutions apply. Even when institutions are informal and unwritten, their effect on individual behaviour may often be understood within the terms of the rational actor model.

In short, institutional analysis may be applied to the understanding of cooperation in Bologna just as well as in Baden-Württemberg. This means that comparisons across the two contexts which rest on the assumption that different institutions will likely be associated with different patterns of trust and cooperation may provide useful and interesting findings.

Note, however, a couple of caveats. I wish to emphasise again that I am not asserting either that institutions are the only factors affecting relations of trust and cooperation between actors, or that all forms of trust and cooperation can be understood within the terms of narrow rationality. The evidence suggests otherwise, but it also gives good reason to believe both that institutions, whether they be formal or informal, are a very important factor affecting trust and cooperation, and that much (and perhaps even the greater part) of their force derives from how they shape and affect the narrow interests of actors.

Furthermore, I do not wish to replace one set of overly broad generalisations with another. To assert that informal institutions play an important role in Italy, even when there are no formal means of enforcement, is not to imply that there is a simple distinction between one setting (Germany) where formal institutions almost exclusively predominate, and another one (Italy) where informal institutions apply instead. Informal institutions may very well exist in Germany too, and have important effects on

⁵⁹⁰ See also the discussion of the sources of trust in Streeck (1997).

cooperation between firms, although they will probably usually be affected by the formal environment, and have a less pervasive effect on firm behaviour.⁵⁹¹ The opposite may also be true - there are certain areas in which formal institutions are likely to affect the behaviour of actors in Italy. One can still generalise to a limited degree. German firms, if they are subjected to certain forms of opportunism, often have the option of taking action through formal, as well as informal avenues. Italian firms, in many similar situations, do not. Yet the logic of my arguments suggest that comparisons ought to be specific and limited - the encapsulated interest theory of trust which I employ stresses that trust is limited both with regard to the person trusted and the matter that she is trusted over. Insofar as one may compare the impact of institutions on trust and cooperation across contexts, one ought to be looking at the effects of particular institutions on particular forms of trust and cooperation between particular actors, rather than drawing general and simplistic conclusions from specific instances.⁵⁹²

In summation, I have provided arguments and evidence to support the assertion that institutional comparisons between the two cases may shed light on trust and cooperation between actors. In the following chapter, I seek to carry out such comparisons in subcontracting relations, which are perhaps the most important area of potential cooperation between firms in the two case studies.

⁵⁹¹ I explore reasons why this may be so in Chapter 7.

⁵⁹² However, I will speculate in Chapter 7 as to how broad differences in context between Italy and Germany may have had important consequences for the development of institutions in these two countries.

Chapter Six - Exploring the Effects of Institutions on Trust in Baden-Württemberg and Emilia Romagna

Section 6.1 - Introduction

In the previous two chapters, I have sought to provide building blocks for a comparative approach to how institutions may affect interests, and thus trust and cooperation in industrial districts. Chapter 4 provides reasons to believe that interests provide a compelling explanation of many aspects of trust and cooperation in industrial districts, contrary to the main thrust of much of the existing literature. Chapter 5 expands on this basic argument to make the case that interest-based institutional comparisons provide a better way to the understanding of trust in industrial districts than the main extant alternative. In this chapter I wish to make the final step in articulating this comparative approach; that is, to examine concretely how institutional differences may be associated with differences in the ways that actors cooperate with, and trust each other, in different settings.

As I have stated in the previous chapter, I am not seeking to argue that institutions were the only basis for cooperation in the case studies - certain kinds of cooperation and trust in the two settings may have been based on purely bilateral relationships between individuals which institutions affected only indirectly, if at all. Indeed, it would be hard for me to advance such broad claims even if I wanted to. The encapsulated interest account of trust does not easily lend itself to the explanation of generalised trust - it starts from the premise that trust is discrete and particular, both with regard to the individual trusted and the matter that she is trusted over. All this said, there is clear evidence of institutional differences resulting in differences in patterns of trust and cooperation in various areas of interaction between firms. I have briefly referred in the previous chapter to evidence suggesting that important commercial relations between firms were governed by rules, even in the Italian case, where there was little evidence of formal mechanisms to back up such rules. I have also discussed evidence suggesting that differences in the effectiveness of legal institutions were associated with differences in cooperation and opportunism in the area of proprietary technical knowledge.

In this chapter I wish to focus rather more closely on one area of potential cooperation between firms - vertical or, more particularly, subcontracting relations. Vertical relationships have been the subject of extensive study, especially within the "new institutional" economists of Coase, Williamson and others. These economists seek to understand the conditions under which firms will seek to carry out operations internally, through "hierarchy" and when instead they will rely on contracts with outside parties. As I will go on to argue, there is strong evidence that substantial differences can be observed in the extent to which firms rely on subcontracting in the two cases.⁵⁹³ To a considerable extent, these differences seem to turn on questions both of trust and of coordination. However, the arguments advanced by Williamson and others seem inadequate to capturing the reasons for these differences across the cases. Instead, I suggest that one should turn to recent work by scholars such as Gary Miller and Jean Ensminger, who argue that one may introduce the anthropological concept of "gift exchange" into rational choice to understand how it is that actors may come to cooperate with each other. "Gift exchange," although it does not rely on formalised sanctions, may be bounded by informal rules, and the presence of such a set of rules at the community level in one case, and apparent absence in the other, goes some considerable distance to explaining observed differences in cooperation.

I begin this chapter with a discussion of the literature on opportunism and vertical integration in relations between firms. I then go on to outline the empirical evidence on vertical relations between firms in the two case studies. Next, I examine how this evidence may best be interpreted in light of the body of existing theory. I finish by suggesting that the comparative evidence provides useful insights on how different institutional settings may lead to different cooperative outcomes.

⁵⁹³ Before beginning the actual discussion, I want to raise a potential methodological objection to my approach. In this chapter, I am examining an area in which there does seem to be evidence that institutional differences across the case studies are linked with differences in cooperation. This means that I may be accused of "selecting on the dependent variable," which has recently become the social-scientific equivalent of a reserved sin (King, Keohane and Verba 1994). My defence against this charge rests on two planks. First, as I state, I am not making an argument that institutions are universally important as an explanation of trust and cooperation; merely, that they do have substantial effects in many instances, including the ones under examination. Second, this particular instance - vertical relations between firms - is one of considerable importance. As my later discussion shows, it has been one of the main focusses of a much-debated school of thought in economics - the so-called "new institutional economics." Insofar as my results provide useful insights on this topic, they are of relevance to contemporary debates, regardless of whether they illustrate universal insights on the importance of institutions for trust or not.

Section 6.2 - Theoretical Perspectives on Vertical Relations, Opportunism and Cooperation.

There is a substantial body of theoretical work on vertical relations between firms within the rational choice tradition. Scholars working within the “new institutional economics” of Coase and Williamson have studied these questions at length. This is not the approach that I adopt in this dissertation; while my arguments are linked to many concepts which are also used by new institutional economists, such as credible commitments, I seek inspiration from recent work applying game theory to the study of cooperation rather than the transaction cost economics advocated by Williamson and others. In order to state my position more clearly, I will first present a brief overview of how new institutional economists see vertical relations between firms. I will then examine what I believe to be the limits of this approach, before going on to elaborate an alternative understanding of how rational actors might cooperate in vertical relationships.

It is only a slight exaggeration to claim that vertical relations between firms is the core of the research agenda of the new institutional economics.⁵⁹⁴ More precisely, the problem that new institutional economists have set out to solve is why there should be firms at all; that is, why some degree of economic organisation is necessary, given that economic theory predicts that efficiency maximising outcomes should result from anonymous market transactions between individual agents. This is clearly the main concern of the classic article by Ronald Coase, which gave birth to the approach.⁵⁹⁵ Coase suggests that the reason for hierarchy (firm organisation) is that “there is a cost of using the price mechanism” which governs free markets.⁵⁹⁶ It is costly to discover what prices are, to negotiate them, and so on. Firms are likely to emerge where very short term contracts are unattractive for one or more of these reasons, and involve long term, quite general contracts, in which one actor is given broadly defined authority over another. Coase thus invokes an efficiency argument - firms exist because it is more efficient to organise certain transactions under hierarchy than under pure market relations. The firm will expand until that point when the costs of organising another transaction within

⁵⁹⁴ Here I am referring to the tradition of research beginning with Ronald Coase, and most prominently represented by Oliver Williamson. The work of Douglass North and his colleagues, although often grouped under the same rubric, adopts a rather broader perspective.

⁵⁹⁵ Coase (1991a).

⁵⁹⁶ p.21, Ibid.

the firm become equal to those of carrying out by means of market exchange, or within another firm.

The focus of the new institutional economics is on the transaction, and more specifically on the costs which make it more or less efficient to organise it in one fashion or another. Oliver Williamson, in his formulation of these arguments, adds two further factors affecting these costs - the bounded rationality described by Herbert Simon and others, and opportunism.⁵⁹⁷ In Williamson's formulation, the task of economic organisation is to

devise contract and governance structures that have the purpose and effect of economizing on bounded rationality while simultaneously safeguarding transactions against the hazards of opportunism.⁵⁹⁸

Unlike Coase, Williamson does take direct account of the possibility that economically rational individuals may cheat each other; and furthermore, he posits that the risk of opportunism cannot be eliminated *ex ante* by far sighted contracts, given the limits of human rationality. Williamson suggests that firms will seek to mitigate or eliminate the risks of opportunism through choosing appropriate governance structures, or, if no such structure is available, through not engaging in the transaction at all. The choice of governance structure depends in large part on the degree of asset specificity - that is, on the degree to which one party must invest in assets that have high value in the relationship between principal and agent, and low value outside.⁵⁹⁹

The main test bed for these arguments has been vertical relations between firms, an emphasis which stems naturally from the theory. Scholars in the new institutional economics have tried to explain when a firm seeks to handle a transaction internally through hierarchy, when it chooses to put it out to another firm or economic actor, through contracting, and when it seeks to handle it through an intermediate mode of governance between the two, such as neo-classical contracting or relational contracting.⁶⁰⁰ In short, they seek to provide a theory of when transactions between economic actors are best handled within the firm, and best through vertical relations between firms.⁶⁰¹

⁵⁹⁷ See especially Williamson (1975, 1985); also Williamson (1988, 1991, 1993).

⁵⁹⁸ p. xiii, Williamson (1985).

⁵⁹⁹ Petersen (1993).

⁶⁰⁰ Williamson introduces the latter in Williamson (1985).

⁶⁰¹ The focus on vertical relations between firms is well exemplified by Klein, Crawford and Alchian's (somewhat controversial) account of the relationship between General Motors and Fisher Body. See Klein, Crawford and Alchian (1978).

Certain transactions are difficult to organise on a market-contractual basis, because of the risk of opportunism. Thus, firms will prefer, by and large, to handle them through deeper relationships with the firms carrying out the transaction (relational contracting) or through incorporating the transaction within itself through vertical integration. Williamson provides an elaborate schematic as to when firms will prefer to carry out a transaction under one mode of governance or another - he argues that as asset specificity and the frequency of transactions increases, firms become more likely to move from pure market transactions, through mixed modes of governance, to hierarchy. The main reason for this is that asset specificity makes a firm more vulnerable to opportunism - to the degree that a firm has *ex ante* invested in costly resources specific to a relationship with another firm, which cannot easily be redeployed to other uses, it may find *ex post* that the other firm seeks to redefine the relationship to its own advantage. One area of asset specificity which is especially relevant to this dissertation involves specialised components. Scott Masten argues that firms will be unlikely to outsource components which are both highly specific and complex, because this would create a dangerous dependency on the subcontracting firm, which could then take opportunistic advantage.⁶⁰² He provides statistical evidence from the US aerospace industry which appears to support this contention. As Gary Miller summarises the argument;

Not only would a supplier have a degree of monopoly power as a result of the lack of competitive suppliers for a specific item, but the necessity of coordinating a highly complex item with the producers of other parts would add to the bargaining power of the subcontractor. Aerospace firms evidently are not confident of their ability to get the necessary degree of cooperation from producers of highly complex parts when those producers also have the market power that goes with the production of a specific component.⁶⁰³

In summary, the new institutional economics tends to see vertical economic relations as efficient solutions aimed at minimising transaction costs. Such costs often involve the risk of opportunism between actors, and the decision as to whether to deal with transactions within the firm (under hierarchy), through neo-classical or relational contracting, or through pure market contracting, depends to a great extent on the extent to which these transactions involve dependencies which might potentially be exploited by parties outside the firm. Such dependencies result from asset specificity.

⁶⁰² Masten (1984).

⁶⁰³ p.56, Miller (1992).

The new institutional economics would predict that as the risk for opportunism in a particular transaction increases, the firm is likely to move from pure market relations, through mixed modes of governance, to the incorporation of the risky transaction within the firm itself, under hierarchy.

In this dissertation, I adopt a different theoretical perspective. Williamson and his colleagues see the arrangements which firms reach - the so-called "economic institutions of capitalism" as being efficient responses to a relatively simple problem; the risk that firms may behave opportunistically *ex post*, given bounded rationality, and the consequent inability of firms to foresee every contingency in their *ex ante* contracts. The overwhelming focus of their work is the "hold-up" problem resulting from what Williamson describes in quasi-alchemical language as the Fundamental Transformation, where a competitive situation of many potential partners is transformed into one of bilateral monopoly, where firms find themselves vulnerable to opportunism from their partners.⁶⁰⁴

It is arguable that this theoretical stance radically underestimates the complexity of the issues. The focus of the new institutional economics on hold-up problems works well in explaining the US experience of arms' length contracting or internal procurement; it does poorly in explaining what happens in other settings. This has long been a complaint of economic sociologists; it is echoed by economists such as Holmström and Roberts, who find that

The Japanese pattern [of subcontracting] is directly at odds with transaction cost theory ... In Japanese practice, explicit contracting is not used to overcome the incentive problems involved in outsourced design and ownership of specific assets. In fact, the contracts between the Japanese automakers and their suppliers are short and remarkably imprecise, essentially committing the two parties only to work together to resolve difficulties as they emerge. Indeed, they do not even specify prices, which instead are renegotiated on a regular basis. From the hold-up perspective, the prospect of frequent negotiations over the price of parts that are not yet even designed would certainly seem problematic.⁶⁰⁵

They suggest that these subcontracting practices are best understood through the theory of repeated games rather than transaction cost economics.⁶⁰⁶

One can extend this critique further. Firms do not face the simple "negative" task of mitigating opportunism in their relations; they are typically confronted by the far more complicated problem of encouraging cooperation. Which is to say, *contra* Williamson, that there is little theoretical

⁶⁰⁴ Williamson (1991).

⁶⁰⁵ p.81, Holmström and Roberts (1998).

⁶⁰⁶ *ibid.*

or empirical reason to believe that firms, involved, say, in a subcontracting relationship, will necessarily converge on an efficient solution to the problems of opportunism that they face. Instead, they may find themselves arriving at any one of an enormous number of outcomes, which can differ substantially from each other in terms of the levels and sorts of cooperation involved, and the consequent efficiencies achieved or not achieved. Reaching a genuinely “efficient” cooperative outcome may be quite difficult; furthermore, it cannot be achieved through the standard incentive schemes beloved of public choice economists and Taylorist management theorists.

Here I am drawing on the work of Gary Miller, which I have already referred to in Chapter Two.⁶⁰⁷ Miller provides what is to my mind an unassailable demonstration that standard economic arguments for the efficiency of hierarchy fail on their own terms; that is, they are undermined by powerful general results in economic theory which indicate that standard hierarchical incentive mechanisms will not produce efficient outcomes. Miller suggests that recent work in game theory provides a better context for understanding cooperation in hierarchies. The “folk theorem” suggests that economically rational actors can arrive at a potentially infinite number of equilibrium outcomes in an indefinitely iterated game; game theory itself has no means of predicting which.⁶⁰⁸ Miller suggests that one possible means through which actors can converge on one equilibrium rather than another is through conventions.⁶⁰⁹ He goes on to argue that the anthropological concept of “gift exchange” can be understood as a convention - rational individuals may contribute above and beyond what is called for by formal incentive schemes when they understand that the contribution of others is dependent on their own contribution. Thus, hierarchies are likely to be efficient not when they have the proper incentive schemes, but rather when they get the “politics” right, so that workers and managers are able to solve their respective commitment problems to each other on the basis of an informal reciprocity. Here, I want to differentiate my position from Miller’s, but also to extend his argument by suggesting that it also applies in non-hierarchical settings. Describing gift exchange as a convention limits its explanatory power to pure coordination problems; there are good reasons to believe that conventions

⁶⁰⁷ Miller (1992), Miller and Hammond (1994).

⁶⁰⁸ Note that there are difficulties in applying folk theorem arguments about the possibility of conditional cooperation to many finitely repeated games; see Osborne and Rubinstein (1994).

⁶⁰⁹ Here, “convention” has a quite specific technical meaning - see Lewis (1969).

have scant effect when actors have divergent preferences over outcomes.⁶¹⁰ Instead, I suggest that gift exchange can usefully be seen as itself being an equilibrium outcome where the cooperation of each actor is conditional on the cooperation of others, as in standard folk theorem accounts of cooperation.⁶¹¹ The difference here is that I am not assuming that gift exchange is an inherently attractive solution to coordination problems; rather that it is one possible outcome among many.⁶¹² The prevailing institutional architecture may be an important factor in guiding actors to one equilibrium outcome rather than another.⁶¹³

This said, Miller's arguments not only provide an intuitively appealing account of cooperation within hierarchy; they also have clear implications for non-hierarchical relationships. If, as Miller suggests, hierarchy achieves its efficiencies when it is the seed-bed for informal reciprocity between economic actors, then the same can be said for other social environments, such as community,⁶¹⁴ where reciprocity will rely not on the informal rules and expectations that govern relationships between hierarchical superiors and subordinates, but rather on informal community rules of behaviour. This is not an extraordinary suggestion; indeed all it does is to return discussions of gift exchange and reciprocity to their original setting. As discussed in Chapter Two, Jean Ensminger provides an insightful discussion of how "rational" trust may underlie even quite diffuse notions of reciprocity in communities. Marshall Sahlins provides an often quoted schematic of reciprocity, which ranges from negative reciprocity (characteristic of market relations, where someone tries to get something for nothing, if possible) through balanced reciprocity (in which relations of gift exchange tend not to involve serious imbalances), to general reciprocity (in which a reciprocal relationship can tolerate imbalances over lengthy periods of time).⁶¹⁵ Ensminger's contribution is to show that quite generalised forms of reciprocity can be sustained by rational actors in a community setting, contrary to prevailing

⁶¹⁰ Knight (1992).

⁶¹¹ Furthermore, "gift exchange" may involve inequalities in the value of the "gifts," which are likely to reflect power asymmetries. See my discussion of Dore's weaving firms in Chapter Two.

⁶¹² I acknowledge that this may empirically underestimate the attractiveness of gift exchange insofar as people are not narrowly rational actors.

⁶¹³ The point here is that institutions may guide narrowly actors to equilibrium outcomes even when these actors have diverging preferences, whereas conventions can't. See Knight (1992). For an effort to extend the logic of conventions to situations involving divergence of preference, see Sugden (1998). For my purposes it makes better sense to think of gift exchange as the outcome itself, perhaps resulting from informal rules, rather than as an external factor conducive to the outcome.

⁶¹⁴ Taylor (1982).

⁶¹⁵ Sahlins (1972, 1976).

opinion, including that of Sahlins himself.

In the remainder of this chapter I intend to show how this perspective can give us important insights on subcontracting relationships between firms. The belief of new institutional economists that the “economic institutions of capitalism” are necessarily efficient is theoretically unsustainable as well as empirically empty.⁶¹⁶ I propose to borrow insights from game theory, recent work on reciprocity and gift exchange, and the new rational choice institutionalism and apply them to the questions that new institutional economists have traditionally been concerned with - vertical economic relations between firms. I suggest that not only does the perspective I adopt provide a more nuanced and differentiated account of subcontracting relations between firms, but that it discloses aspects of inter-firm cooperation which the new institutional economics would have difficulty in predicting. Before going on to do so, however, I first examine the basic empirical differences in subcontracting practice between the two case studies.

Section 6.3 - Empirical Evidence on Subcontracting Practices in Baden-Württemberg and Emilia-Romagna.

Firms in both the packaging machine and machine tool industries produce complex products, with a corresponding need for specialised components. This is all the more so as firms in both industries tend to produce in short series, or even to produce unique machines on a bespoke basis for customers. Sometimes, clearly, it is possible to combine standardised components in novel ways to meet the particular needs of customers, but more often it is also necessary to rely on parts specially designed and produced for particular tasks. These components can either be produced in-house, or can be subcontracted out to specialised producers. The flexible specialisation literature has argued that changing economic conditions have meant that it often now makes sense for producers to rely on networks of subcontractors rather than internal production - putting out makes it easier for firms to take

⁶¹⁶ This may seem a sweeping indictment - when I say “empirically empty,” I refer to the ever shifting definition of what constitutes efficiency, and the near-impossibility of falsifying many new institutional economic claims about it. I am grateful to Neil Fligstein for a long conversation about the empirical weaknesses of the new institutional economics.

advantage of each others' special skills, and to respond to rapidly shifting markets.⁶¹⁷ In both cases, there was evidence of subcontracting of this sort. However, the patterns of subcontracting were quite different across the two cases.

As discussed in Chapter Three, there has been some controversy over the extent and character of subcontracting among mechanical engineering firms in Baden-Württemberg. Gary Herrigel has spoken of an important trend towards vertical disintegration and collaborative subcontracting in the region in the 1980s.⁶¹⁸ In Herrigel's view, this means that one can genuinely speak of Baden-Württemberg as an industrial district, where firms could collaboratively draw on the strengths of other producers in the region. Furthermore, these practices were essential to the success of small firms.

During the 1980s ... the real key to the success of small- and medium-sized producers was undeniably their ability to shift to more intensive and collaborative subcontracting.⁶¹⁹

Philip Cooke and Kevin Morgan, who have disagreed with Herrigel about the prevalence of horizontal cooperation in the region,⁶²⁰ seem to accept that "thick" vertical subcontracting relations play an important role. However, Grotz and Braun disagree with Herrigel's characterisation of Baden-Württemberg.⁶²¹ While they acknowledge that firms sometimes engaged in close collaboration with their subcontractors, they find that the important subcontracting relationships were typically national or international, rather than regional in scope. Local subcontracting relationships, according to their data, usually only involved low-level inputs.

The findings of the research conducted for this project, while by no means definitive, do not support the proposition that thick subcontracting relations were general among firms in the region of

⁶¹⁷ Although one should acknowledge that the flexible specialisation literature no longer focusses primarily on networks of small firms; it also now examines the possibilities for flexible patterns of production within larger firms, a set of issues beyond the remit of this dissertation.

⁶¹⁸ Herrigel 1996b. However, see also his more recent work, which expresses considerable pessimism about the long term viability of the "decentralised order" of production in Baden-Württemberg. He predicts that new forms of flexibility are likely to weaken regionally specific supply relations (Herrigel 1999).

⁶¹⁹ *Ibid.*, p.184.

⁶²⁰ Although see Cooke and Morgan (1998), which would seem closer to Herrigel's position than much of their previous work.

⁶²¹ Grotz and Braun (1997).

Baden-Württemberg.⁶²² By the same token, they tend to disconfirm the counter-argument of Grotz and Braun that they were absent or unimportant. It was difficult to discern any coherent overall pattern of subcontracting practice. As might be expected, some of the variation in the extent to which firms subcontracted could be predicted by their position on the supply chain. That is, firms which were lower down the chain, and were themselves subcontractors to larger firms, were less likely to subcontract out work themselves.⁶²³ But apart from this, there was a very wide variety of practice.

A number of the firms interviewed claimed that they did not subcontract out work at all, or that they only subcontracted out work of marginal significance.⁶²⁴ The reasons for this reluctance to subcontract were varied. In one case it was the result of fear that important technical knowledge might leak to other firms.⁶²⁵ In contrast, another firm had given up subcontracting, not because it was afraid of opportunism, but because it itself had successfully behaved opportunistically in the past.⁶²⁶ It had previously relied on a subcontractor for specialised technical knowledge, but had been able to eliminate this dependency by “stealing” two of its subcontractor’s employees, and getting them to train its own people in the requisite techniques.

In other cases, firms did not want to subcontract out parts, because this would decrease their flexibility to respond rapidly to changing needs, rather than increasing it. One firm, when asked whether it outsourced work, responded that it preferred not to, because of the time that it took to negotiate with subcontractors.⁶²⁷ The firm did put gear wheels out to subcontractors, because it would otherwise have had to spend 3 million marks on specialised machinery, but it clearly wished to avoid outsourcing whenever possible. Another firm adopted a similar approach - it only outsourced minor parts of the production process, because this meant that it could respond more flexibly than if it had to rely on subcontractors who might or might not deliver parts on time.⁶²⁸ The quality of parts could also be an issue. One firm had previously had outsourced work to a foreign firm, but had ceased because of

⁶²² In this dissertation, I am only presenting a broad overview of subcontracting practices; a more detailed account, with arguments as to the more general implications of possible changes for the region, will be forthcoming in joint work with Ulrich Glassmann.

⁶²³ My thanks to Ulrich Glassmann for focussing my attention on this.

⁶²⁴ One may reasonably surmise that some of the firms which claimed not to subcontract at all were exaggerating - they may well have subcontracted out standardised parts to outside firms.

⁶²⁵ Firm Interview 30.

⁶²⁶ Firm Interview 23.

⁶²⁷ Firm Interview 33. I discuss this firm in more detail below.

⁶²⁸ Firm Interview 25.

quality concerns with the components that were being supplied. Now it produced all of its work in-house.⁶²⁹

Several of the other firms interviewed did outsource components, but only where such components were not critical to the firm's specialist strengths. One firm had recently begun a strategy of putting out as much work as it could, but only

that part that is neither time-critical, nor quality-critical and that has no significant value-added for us. In this way, we want to concentrate on our core competences, and reduce our in-house production (*Fertigungstief*).⁶³⁰

Another firm, which supplied highly technologically advanced machines, sought to use subcontractors to supplement its own specialised technical skills. When customers made new requests, it first examined whether it itself could meet these requests; if not, it sought subcontractors to fill the necessary gaps.⁶³¹

Finally, there was a group of firms which went rather further, and seemed willing to put important components out to other firms, even where they themselves might potentially have supplied them. Frequently, this strategy had been introduced in the relatively recent past. In part, such developments seemed to be the result of changes in ideas of what constituted best management practice.⁶³² Many firms, like the one already cited, spoke of the need to concentrate on the "core competences" of the firm, and to farm out processes and parts which were not directly related to these competences. One of the larger mechanical engineering firms in the region spoke of its new policy of outsourcing, "but not at any price."⁶³³ In the 1970s and 1980s it had sought to produce entire machines in-house; now it adopted a rather different approach, whereby it was seeking to establish its core competences, and rely on outside subcontractors where this was cheaper. It relied on long term contacts with its supplier firms, and found that subcontracting allowed it to deal flexibly with peaks in demand. The firm's relationship with these subcontractors seemed to involve those forms of close

⁶²⁹ Firm Interview 20.

⁶³⁰ Firm Interview 21. See also Firm Interview 18, Firm Interview 29.

⁶³¹ Firm Interview 22.

⁶³² For an interesting, if sometimes inconclusive, survey of the effects of previous ideas in management on firm behaviour in Baden-Württemberg, see the articles collected in Braczyk and Schienstock eds. (1996), especially Braczyk (1996), and Braczyk, Schienstock and Steffensen (1996).

⁶³³ Firm Interview 27.

collaboration discussed by Herrigel and others. However, they were not geographically confined to the region, or even to the country.

In an interesting development, other firms had come to rely more on subcontractors because of the crisis in the industry in the early 1990s. The dramatic fall-off in available work had meant that firms sought to cut their standing costs, often through heavy reductions in employment numbers, and to rely instead on subcontracting as much as possible.⁶³⁴ Under the circumstances of the recession, not only did outsourcing involve less fixed costs for the firm putting out work, but potential subcontractors often badly needed the work and were prepared to offer favourable terms. For one firm, this turn to subcontracting had been a simple matter of short term expediency, to be abandoned when circumstances changed for the better. This firm spoke of how

The trend previously was to work more with subcontractors. That was also naturally affected by the recession, in that one sought to keep as little in-house as possible, so as to reduce costs. I am rather positive to the opposite strategy, namely making a lot in-house. In other words, now that we are over the worst years I would rather take a risk and add an employee.⁶³⁵

Other firms, in contrast, continued to put out work as a long term strategy, even after the difficulties of the early 1990s had been resolved. One firm, which had started to outsource in the 1993-1995 period because it could get good prices from subcontractors, had substantially changed its policy as a result of its experiences. Now, every time it had to decide whether to replace capital equipment, it would first carefully examine whether it might not be better to rely on subcontractors for the relevant part of the production process.⁶³⁶ Another firm fired half of its staff during the period of crisis, eliminating many levels of its internal hierarchy. It compensated for this through a radical policy of outsourcing, so that some 90% of parts, and 50-60% of value added, was produced by subcontracting firms.⁶³⁷ This extraordinary reliance on subcontracting was highly unusual among the firms interviewed in Baden-Württemberg. This firm, like others which put out important components to subcontractors, relied on long term relationships with particular subcontracting firms, a point which I will return to in the next section.

⁶³⁴ Firms which did not usually employ subcontractors found this period difficult, because they could not pass on costs. See Firm Interview 20.

⁶³⁵ Firm Interview 35.

⁶³⁶ Firm Interview 18.

⁶³⁷ Firm Interview 36.

The evidence gathered for the dissertation suggested the need to qualify heavily Grotz and Braun's suggestion that local subcontracting relations in Baden-Württemberg tend to be shallow, and only to involve unimportant components. As I will discuss at further length at a later point, the evidence did suggest that German firms were more willing to resort to subcontractors in the country as a whole, or abroad, than their Italian equivalents were. However, some firms still had good reason to rely on local subcontracting relationships. The evidence is too sparse for definitive conclusions, but subcontracting relations which involved substantial geographical distances, seemed usually to fall into one of two categories. First, there were standardised components, where the need for coordination with the producing firm was relatively low. Thus, for example, one firm which had switched to a modular system of production, in which parts were largely standardised, was able to rely on subcontractors in the Czech Republic.⁶³⁸ Other firms distinguished between standardised parts, which they were happy to obtain across large distances, and specialised components, which they preferred to source locally.⁶³⁹ Second, there was a group of highly technologically advanced firms, which seems to be the basis of Grotz and Braun's arguments, which had extremely specific needs from their suppliers. One very specialised firm, which employed laser technology, was willing to seek subcontractors globally; it considered itself to be so far advanced that it was difficult to find local partners.

Despite the above, locality effects remained important for some of the firms interviewed. A few interviewees simply cited a large pool of potential subcontractors in the area,⁶⁴⁰ or transport costs⁶⁴¹ as reasons why they were more likely to work with local subcontractors. However, others referred to the need for communication in the production process.⁶⁴² This reflected their need for specialised components, which could be integrated without problem into a larger machine; subcontracting out such components was far easier if the firm could visit its subcontractors to ensure that they were being made properly, send back components for modification, and so on. The interviews indicated that cooperative relations of this sort could only feasibly be carried out in an 80-100km radius. This did not mean that firms' subcontracting relations were necessarily confined to this circle,

⁶³⁸ Firm Interview 28.

⁶³⁹ Firm Interview 36.

⁶⁴⁰ Firm Interview 18.

⁶⁴¹ Firm Interview 24, Firm Interview 32, Firm Interview 35.

⁶⁴² Firm Interview 21, Firm Interview 27.

but it did mean that firms were often prepared to pay a premium to have their components produced locally rather than at a remove.⁶⁴³ Thus, contrary to Grotz and Braun's arguments, localised subcontracting relationships, which necessarily involved extensive cooperation, remained important for many firms in Baden-Württemberg.

Italian firms adopted radically different subcontracting practices from most of their German counterparts. The differences between the two systems are quite well captured by the response of one interviewee. When asked a specific question about differences between the Italian and German training systems, he responded with a general statement about differences in the two production systems as a whole.

They are two different approaches. The German system sees the firm, which is to say the unit of production, as an almost complete system, where one carries out all of the activities which form the product. In Italy, social organisation is different, historically. ... I can give you a little example, which is significant enough if you want to understand the mechanism. A industrial firm in Bologna - however, it is more or less like this in the rest of Italy too - plans this part for itself, which makes up part of a complete machine. It does the design, and then there is an entire series of external workers, to which it sends the design for getting the primary material. And then, it passes this on to another who does the first stage of work, and then onto another who does another stage of work; this is the procedure for returning a finished part, or perhaps [it is] already assembled into a small group which is mounted onto the principal machine.⁶⁴⁴

As can be seen from the evidence which I have just presented, the reality of production in Germany is rather more differentiated than the interviewee allows. Still, even if the dichotomy was not as stark as the above quote suggests, it certainly existed. While there was little overall pattern to subcontracting in the German case, German firms tended to keep a substantial proportion of production, which usually involved the key parts, in-house. In contrast, Italian manufacturing firms (with the exception of a few very large ones) tended to put out the manufacture of *all* components to other firms - to quote one interviewee, "It is not what we subcontract out, we entrust a part of the cycle of production to the outside."⁶⁴⁵ As a local economic research organisation described it;

the production cycle in the mechanical sector is broken up into various phases of work, which leads to a high reliance on the flexible specialisation model. Because of this, we have systems in which the firms at the center are specialised in certain phases of production, solely

⁶⁴³ Firm Interview 27.

⁶⁴⁴ Firm Interview 8.

⁶⁴⁵ Firm Interview 1.

assembly and planning, and all the phases of the production process are delegated to other firms, which are specialised.⁶⁴⁶

Thus, the manufacturing of packaging machines in Bologna, like manufacturing in other Italian industrial districts, was highly vertically disintegrated - production was usually carried out by a multitude of artisanal firms, each specialising in a particular phase of the production process, working on behalf of larger firms which sold the final product.⁶⁴⁷

little artisanal outfits that ... provide particular mechanisms [are] a Bolognese tradition. Firms do not produce one part of the goods that they may come to sell; they are made by subcontractors.⁶⁴⁸

Usually, although not always, the artisanal firms were smaller than the manufacturers that they worked for; often they consisted of only one or a few workers. In a few cases, *terzisti*, or subcontracting firms, were larger than some of their customers, with fifty or more employees. These larger subcontractors themselves might put work out to smaller firms.⁶⁴⁹

Some commentators have characterised cooperation in Italian industrial districts as being "horizontal," as opposed to the "vertical" cooperation to be found in German subcontracting relations.⁶⁵⁰ The argument here is that Italian producers frequently change their position on the supply chain - a firm which is the final producer for one project may find itself to be the subcontractor for another, so that relations which might be handled through vertical arrangements in another context, were here handled through horizontal relations of relative equality between producers. Such arguments have some merit, but they fail to capture important characteristics of the Bolognese packaging machine cluster. There was a very marked distinction between those firms which produced final machines, and

⁶⁴⁶ Interview with Nomisma.

⁶⁴⁷ Note that there was some disagreement as to whether the packaging machine cluster in Bologna constituted a genuine industrial district - the experts in Nomisma who I have just cited felt that mechanical engineering clusters in Emilia-Romagna could not really be described as industrial districts, because they often subcontracted parts from outside. However, the interviews conducted for this project suggested that subcontracting relationships for specialised parts did indeed tend to be confined to the Bologna area, suggesting that on this set of criteria it is indeed a district. This is confirmed by other research (Brusco et al. 1996) which finds only a moderate tendency to outsource outside the locality.

⁶⁴⁸ Firm Interview 9.

⁶⁴⁹ Firm Interview 4.

⁶⁵⁰ See Heidenreich (1996), Herrigel (1996b).

the artisanal firms which made particular components for these firms.⁶⁵¹ The latter were often technologically sophisticated up to a certain level, with advanced machine tools, but they typically had little or no capacity to design their own machines, or to operate in the final market.⁶⁵² Instead, they relied on the manufacturing firms who commissioned parts from them to supply specifications and necessary technical help in the manufacturing process.

The usual arrangement was thus one in which final producers designed the machines, sent the specifications for particular parts and mechanisms to smaller producers, and then assembled, sold and maintained the final product. The process of assembly [*montaggio*] was more important than it sounded; indeed it was perhaps the most strategic part of the manufacturing cycle.⁶⁵³ Italian manufacturing firms usually did wish to retain some control over the process of ensuring that components manufactured by different firms worked well together. But firms sometimes put even this vital part of the manufacturing process out to others.

The situation is that we don't produce anything inside. We make everything outside - that is typical. We only do the planning and the assembly. And the testing. Then, not only [the above], we sometimes subcontract out the assembly, when we have a lot of requests. Thus, one also sometimes subcontracts out planning. Technical studies. Thus, the only thing that we don't want to subcontract is the sales.⁶⁵⁴

Another firm consistently relied on one of its subcontractors for assembly; after it had worked successfully with a group of artisans who came into its workshop to carry out the assembly process, it had suggested to them that they undertake the assembly in their own workshop.⁶⁵⁵ This arrangement had led to "excellent results."

This style of manufacture meant that final producers often had to handle a vast number of individual subcontractors. One small to medium sized firm with 100 people had relationships with

⁶⁵¹ Sometimes, there was some contracting out of work between final producers; that is, a final producer might secure a contract for an entire line of machines, not all of which it could manufacture itself, so that it would rely on other final producers for certain parts of the line. This practice appeared to be becoming less common, as large firms sought horizontal integration so that they could provide complete lines. Further, the firms securing the order tended to be the large ones, so that there was relatively little "swapping" of position. See Chapter Seven for more details.

⁶⁵² One of the firms interviewed had been a subcontractor until relatively recently; in order to start making its own machines, it had bought a smaller firm which had design capabilities. Firm Interview 16.

⁶⁵³ Firm Interview 1, Firm Interview 21.

⁶⁵⁴ Firm Interview 7.

⁶⁵⁵ Firm Interview 3.

some 600 subcontractors.⁶⁵⁶ This was perhaps larger than average (the firm produced other machines as well as packaging machines) but seems not to have been extraordinary in the district. By and large, subcontractors seemed not to be dependent on one particular manufacturing firm, although, as I go on to argue in the next chapter, this may have been changing.⁶⁵⁷ This meant that subcontractors often enjoyed a strong bargaining position vis-à-vis manufacturing firms, especially when business was booming, and their services were in high demand.⁶⁵⁸

There was one clear exception to the above pattern; one of the larger and older firms in the district relied only to a limited extent on outside firms for components manufacture.⁶⁵⁹ It only put out some 30% of components for outside manufacture; those where special processes were involved, or non-specialised components which could be produced more cheaply by others. This was almost certainly linked to its position on the margins of the packaging world; despite its venerable history in the area, it considered itself to be engaged in “a very atypical and special industry” which had rather more sophisticated technological requirements than the packaging industry as a whole.

Two other very large firms which were interviewed appeared not to depend as much as their smaller counterparts on subcontractors; as one might have expected, their larger employment figures reflected a greater reliance on internal, rather than external organisation.⁶⁶⁰ This difference was relative rather than absolute; one firm had used the possibility of outside subcontractors to grow rapidly during a period of increasing demand, outsourcing 70% of components to other firms in the peak years of growth.⁶⁶¹

There was evidence to suggest that subcontracting relations were highly geographically delimited; in most cases occurring within the confines of the province of Bologna. Larger firms may have proved a partial exception to this - one interviewee stressed that his firm had no particular

⁶⁵⁶ Firm Interview 16.

⁶⁵⁷ In Chapter 7, I examine evidence which suggests that the increasing dominance of large groups of firms in the Bologna packaging cluster may be leading to changes in patterns of cooperation within subcontracting relationships. Even among smaller firms, however, relations of dependence could exist - one very small enterprise spoke of its relations with five or six artisanal firms, which seemed to work for it on a basis of near exclusivity. Firm Interview 17.

⁶⁵⁸ Firm Interview 3.

⁶⁵⁹ Firm Interview 6.

⁶⁶⁰ These firms' respective approaches to subcontracting will be described in Chapter 7.

⁶⁶¹ Firm Interview 11. This firm also saw its size as being a possible disadvantage; it had sought to imitate the flexibility of small firm subcontracting practices by having a radically decentralised approach within the firm, in which units operated more or less independently.

preference as to whether its suppliers came from Italy, Germany, Britain or elsewhere, but in general, firms seemed to be almost exclusively reliant on local subcontractors for non-standardised components.⁶⁶² This orientation may have been changing - two interviewees suggested that there was a new tendency in the area to seek subcontractors in Italy as a whole rather than just around Bologna.⁶⁶³ However, this tendency seems to have been limited; interviewees also spoke of the difficulties of going outside Bologna.⁶⁶⁴ Suppliers from other areas were less likely to understand the particular needs of packaging machine producers, who worked in short series. In addition, geographical distance had negative implications for the complex coordination required by the radically decentralised style of production practiced by these firms; it resulted in a "scanty quality of relationships."⁶⁶⁵ There was one case of a firm which used subcontractors across Europe; this firm had developed a strong relationship with a major Swedish packaging company, and drew upon that company's network of subcontractors for certain common projects.⁶⁶⁶ These international relationships seem to have involved more or less standardised components; when it required specialised parts it went back to its extensive local network of suppliers.

In general, the extent of subcontracting carried out by Italian firms meant that it was difficult, if not impossible, to rely on subcontractors who were not close by - the creation of complex, specialised components required continual contact and supervision. Geographical proximity, an important factor in subcontracting relations for many German firms, was crucial in the Italian case.

Section 6.4 - Applying Theory to Subcontracting Practice.

The evidence laid out above, as well as further research results which I will describe below, have useful lessons for the application of economic theory to subcontracting practice. Here, I want to begin by acknowledging that the most immediate such implication of the evidence is that such theory

⁶⁶² Ibid. He may have been exaggerating so as to stress the international orientation of his firm; in the same interview he spoke about how local suppliers gave his company an important competitive advantage.

⁶⁶³ Firm Interview 9, Firm Interview 10.

⁶⁶⁴ Firm Interviews 3,12.

⁶⁶⁵ Firm Interview 9.

⁶⁶⁶ Firm Interview 16.

(including my own) has clear limits. That is, a theoretical approach which stresses transaction costs and the risk of opportunism alone, as Williamson's does, or the need for trust and cooperation between producers, as mine does, is unlikely to produce a general and complete understanding of subcontracting practice between firms without degenerating into *ad hoc* and suspect functionalist arguments. It is fairly clear that the range of subcontracting practice encountered is not predicted by considerations of trust and opportunism alone. One also has to take into account such intangibles as the specific technical needs of firms, the fit between the organisational "style" of different firms, learning processes as firms seek to adapt to an environment full of uncertainty, and so on.

For the above reasons, I don't pretend to offer an overall theory of hierarchy and relations between firms. Instead, I want to ask a narrower, and more tractable question - can it be said that issues of trust and cooperation had an important impact on firm's subcontracting practice? In the remainder of this chapter, I provide arguments to suggest that they did indeed have such an impact, and that one can furthermore make a good case that important differences in subcontracting practice between the two cases substantially revolved around these issues. Finally, I provide some reasons to believe that these differences in trust and cooperation between actors can in large part be traced back to institutional differences between the two cases.

As I have shown in the previous section, there were strong, even stark, differences in the organisation of production in Emilia-Romagna and Baden-Württemberg. In the one, production was highly disintegrated, with individual firms handling particular parts of the production process. In the other, firms usually preferred to handle key parts of the production process internally. This difference presents an interesting puzzle; why is it that such strong divergences obtained? It seems difficult to explain using the new institutional economics - while there may have been some intra-industry differences between the kinds of transaction involved in the production of packaging machines and the production of machine tools, these hardly seem enough to account for the general differences in patterns of cooperation seen in the two case studies.⁶⁶⁷ It is all the more difficult for the new

⁶⁶⁷ In part, this weakness stems from the failure of new institutional economists in Williamson's tradition to incorporate the effect of macro- or meso- level institutions on micro-level interactions between firms. Apart from a few asides in Williamson (1985), and some more developed (if still very simplistic) propositions in Williamson (1993), there is no sustained attention to these issues. This contrasts with North (1990) which seeks to model just such effects.

institutional economics to deal with given that the Italian system seemed to attain economic efficiencies from the division of labour that were only partially captured by German manufacturers.⁶⁶⁸

To quote an Italian firm-owner again

[The system of production in Emilia-Romagna] has allowed one to have wide specialisation with modest investments. Why? Because the artisan, who has acquired this machine for doing this stage of work, [does] eight hours, twelve hours, fifteen hours, twenty hours. One specialises in this sector, and amortises the cost of the machine much more quickly ... In the German "system," between inverted commas, a big firm buys machines, and works to do this stage of work only for those pieces which it needs for its own production. Probably, this machine remains unused most of the time. Then, the amortisation of costs is slower.⁶⁶⁹

Given that the Italian method of production was apparently, in certain respects, a more "efficient" way of using resources and dealing with a particular set of transaction costs, new institutional economists might have expected German firms too to converge on this particular form of production. The evidence suggested no such general convergence.

In order to understand these differences, it is necessary to focus on the particular problems of trust and cooperation faced by firms in these industries. As Susan Helper has argued, the fact that firms may organise their relations in fundamentally different ways means that transaction costs are in large part endogenous to patterns of firm interaction rather than exogenous givens resulting from the nature of the transaction itself.⁶⁷⁰ What this means in practical terms is that any attempt to understand cooperation between firms in subcontracting relations has to pay attention to specificities of the industry in question, rather than seeking to derive the forms of organisation used in those industries from some general notion of transaction costs.

Firms in both industries, as I have already stated, needed to be flexible in ways that firms which mass-produce goods do not. While standard problems of opportunism were an issue for firms, they also faced more particular problems that had to do with the needs of their markets. One can make a strong case that the sorts of flexibility required to adjust to rapidly changing markets meant that

⁶⁶⁸ As I hope is clear, I am not trying to argue that one system was inherently more efficient than the other in some general sense; just that one form of organisation captured certain efficiencies better than the other. Indeed, arguments over the relative economic efficiency of one form of organisation compared to another are quite tangential to the main thrust of my dissertation.

⁶⁶⁹ Firm Interview 8. For a more general overview of this question, see Miller (1992).

⁶⁷⁰ Helper (1993).

firms, if they were to rely on subcontractors for essential inputs, faced a quite particular set of problems.

The special difficulties of cooperation faced by firms which seek to produce flexibly stems in large part from three factors - variability in demand, the frequent need to change the specifications for orders on the fly, and the need for high quality components compatible with the rest of the machine.⁶⁷¹ Firms that produce both machine tools and packaging machines experience a high degree of variability in demand - lulls in work may be succeeded by rapid spikes of activity in a quite unpredictable manner. Furthermore, producing specialised or customised machinery often requires that firms change specifications on the fly, to meet the changing needs of customers. If final producers are to rely on subcontractors to produce specialised components for these machines, they require that these subcontractors be themselves highly flexible, able to respond rapidly to changing needs, and to work for long hours on short notice. Finally, it is important that each subcontractor produce well tooled components which are compatible with the other components of the machine, which may be produced by other firms. The buyer firm needs to engage in a process of complex coordination, which is only possible if it is sure that each subcontractor is preparing components to high standards of quality. Again, this requires that firms be highly responsive to the technical needs of the buyer firm, and be prepared to make changes in the course of the production process.

This involves commitment problems for both parties. The firm putting out work has to be sure that it can rely on the subcontractor to respond flexibly, and with a high degree of attention to technical detail, at short notice. However, this sort of flexibility involves short term costs for the subcontractor, which may find itself unexpectedly having to commit its staff to work overtime, or over weekends and holidays, so as to meet a particularly urgent order from the buyer firm. In the absence of some substantial arrangement between the two parties, it will often not be in the interests of the subcontractor to respond to the needs of the ordering firm; working over a weekend or during the holiday period may cost more than it is worth. On the other hand, when demand is slack, the subcontractor may find itself faced with long periods of inactivity and no guaranteed income. Furthermore, the buyer firm needs to be sure that the subcontractor does not skimp on quality. If the

⁶⁷¹ For a different take on commitment problems and flexible production, which is rather closer to Williamson in the diagnosis of the problem, although not the proposed solution, see Lorenz (1993).

subcontractor behaves opportunistically, and supplies substandard components, this can have an enormous impact on the overall quality of the machine, which will sometimes not emerge for some time, causing serious (and potentially expensive) delays, even if the faulty component can be returned for re-working.

The most obvious solution to this problem is a long term relationship between the final producer and the subcontractor, in which the producer is prepared to pay a premium to reward the subcontractor's commitment. In such a relationship, the subcontractor's short term costs may be counterbalanced by longer term profits deriving from the relationship. However, this also involves a commitment problem, this time on the part of the firm making the order. It has to be able to commit credibly to maintaining a long term relationship, in order to convince the subcontractor to cooperate in the short term where this is necessary.

This problem may be analysed precisely in terms of reciprocity and gift exchange. The problem that firms face stem from the likelihood that temporary imbalances will arise in an unpredictable manner between the parties. That is, the final producer may have to ask subcontractors to cooperate in ways that involve short term costs for the latter, without being able to specify in advance when and for how long such short term costs will be required. Furthermore, the unpredictability of demand and of customer needs means that such imbalances may have to be tolerated over periods of time. In short, some degree of generalised reciprocity is needed.

There is good evidence to suggest that firms in both case studies perceived this problem, and that it had implications for how they handled production. In both case studies, firms laid an emphasis on delivery times as a highly important factor in their relations with subcontractors, and furthermore spoke of the need to adjust order schedules flexibly when it was needed for particular orders. Furthermore, in both industries, machines were often built on the basis of continuous negotiations with the customers as to their specific needs, so that the specifications for a particular part might have to be changed at short notice. In other words, if a machine producer was to rely on subcontractors, it had to be certain that these subcontractors would respond flexibly to its changing needs while maintaining a high degree of quality. Otherwise, it would have to rely on internal production and hierarchy as a

means to flexibility.⁶⁷² Finally, it was clear that the need for flexibility, and to integrate components into a pre-conceived whole, meant that quality considerations were extraordinarily important for firms who relied on subcontractors. As one Italian firm put it

When I go to assemble it, and it does not correspond to the technical specifications I have given, this can block all of the mechanism of assembly in certain cases. This costs time, lengthening the time of consignment, which notably ruins productive activity.⁶⁷³

In both case studies, firms which relied on extensive cooperation with subcontractors used long term relationships as the basis for this cooperation. In the words of a German firm,

For things of central importance, we have long term relationships. When someone uses production parts that are of elementary significance for the machine, than one can't go on the principle of "Here today, gone tomorrow." It doesn't work. One then needs long term relationships.⁶⁷⁴

and an Italian;

They are long term relationships. We seek to consolidate, to give continuity, because it is only with continuity that we are able to have a guarantee of loyalty [*fedeltà*].

These long term relationships gave subcontractors some guarantee of continuity, but at the same time were not unconditional. In both contexts, there was evidence that buyer firms would end their relationship with a subcontractor if they felt that this subcontractor had behaved opportunistically - thus, the cooperation of one party was conditioned on the cooperation of the other.⁶⁷⁵ This appeared to be a more credible threat than legal action, even in the German case study where courts were relatively effective - the relatively small amounts of money involved were not worth the hassle of legal proceedings.⁶⁷⁶

⁶⁷² Here I am skirting over the topic of how flexibility may be achieved within the firm as opposed to between firms, although, as I have stated, theory suggests that one should be deeply suspicious of traditional Taylorist claims as to how hierarchy achieves efficiencies.

⁶⁷³ Firm Interview 1.

⁶⁷⁴ Firm Interview 36.

⁶⁷⁵ One Italian interviewee stated that he had taken on a subcontractor again which had cheated, after a few years of "punishment." The literature on cooperation in indefinitely iterated games suggests that punishments of limited duration can sustain cooperative outcomes. See Osborne and Rubinstein (1994).

⁶⁷⁶ Firm Interview 32.

However, there were still very important differences between the case studies, both in terms of the extent and (arguably) the form of such relationships. It would appear that it was considerably more difficult for firms in Baden-Württemberg to achieve the kinds of generalised reciprocity necessary to this flexibility. This was one factor that helped explain why a large proportion of firms in Baden-Württemberg preferred not to rely on outside subcontractors except for standardised inputs. As I have mentioned in passing in the previous section, some German firms preferred not to work with subcontractors, because of the time wasted in bargaining, or because firms could not be relied on to deliver parts on time. As one firm responded, when asked whether it outsourced work,

No, we have an in-house production of over 90%. This is clearly related to the fact that we face ever shorter times for our products, and therefore can't spend a lot of time negotiating over supplies - "Can you make me this, and what does it cost," and so on. That doesn't work.⁶⁷⁷

Another firm found that it could be "simply more flexible" if it relied on internal production rather than outside firms. It had found that it could not rely on subcontractors to deliver in a timely fashion; "it has sometimes happened that a supplier says 'I cannot supply this part this week any more.' And I need it urgently."⁶⁷⁸ A third firm reported similar difficulties in getting subcontractors to deliver on time; it had also sometimes received parts which were unusable, or which required extensive re-machining.⁶⁷⁹ A fourth firm spoke of the problem of information transfer; it couldn't be sure that firms at a geographical remove would consistently implement technical changes to improve the product.⁶⁸⁰

Clearly, a group of firms in the region had managed to surmount these problems. What evidence there is tends to suggest that these firms had long term contractual relations with their subcontractors, in which both price and the quantity of goods to be specified over a period of twelve months or longer were specified.⁶⁸¹ This conclusion is highly provisional, given both the initial number of firms interviewed, and the fact that very few of the relevant interviewees in Baden-

⁶⁷⁷ Firm Interview 33.

⁶⁷⁸ Firm Interview 25.

⁶⁷⁹ Firm Interview 32.

⁶⁸⁰ Firm Interview 35.

⁶⁸¹ Firm Interview 18, Firm Interview 19.

Württemberg spoke about their specific contracting practices.⁶⁸² Nonetheless, there is at least one case where such long term contracting seemed to be a direct response to the problems of obtaining flexible cooperation from subcontractors. This firm spoke of the need to have close relationships with its subcontractors so as to obtain flexibility.

We need those strong connections because we need to be as flexible as we are. We cannot work with subcontractors who are not willing to change designs shortly before delivery, whatever that means in detail. We cannot place an order four months before the delivery and not be able to change anything in-between.⁶⁸³

It was able to obtain this flexibility because it was willing to make a long term contractual commitment to the subcontractors.

That is why our subcontractors usually know the amount of work that they will have for us. We do not order individual components from them. We contract the amount of business for the next year or for the next two years or for the next three years, so they have already contracted all the work they will have for us for the next three years. The only thing which is not fixed is the date of the delivery for the individual components. So we have very long term contracts with companies, and that is why they are easily willing to help us when we need changes.⁶⁸⁴

The firm was prepared to pay a considerable premium for this sort of relationship with subcontractors who provided key components - it had found that shifting to cheaper producers usually resulted in disaster. For this firm at least, relations with its subcontractors involved exactly the sorts of problem which I have discussed - it needed to ensure that subcontractors were prepared to be flexible at short notice. It did this through making a credible commitment to its subcontractors, a legally binding contract in which it undertook to purchase a certain amount of components from the subcontractor over an extended period of time. Since subcontractors were assured of the long term relationship, they were prepared to reciprocate in terms of short term flexibility in meeting the shifting needs of the producer firm in the short term. Such reciprocation was rational, because the long term relationship was not indefinite; subcontractors knew that the contract would be re-opened at some point. Insofar as the shadow of the future lay across their decisions, they had an incentive to cooperate in the short term. In

⁶⁸² This would agree with previous research which finds that German firms in general tend to use long term contracts far more frequently than Italian firms. See Arrighetti, Bachmann and Deakin (1997).

⁶⁸³ Firm Interview 18.

⁶⁸⁴ Ibid.

short, credible commitments provided the basis for trust between the firm and its subcontractors, and consequently for certain sorts of cooperation which were necessary to the flexible production of machines.

Italian producers faced the same sorts of problem as their German counterparts; they too had to ensure that their subcontractors would be prepared to respond flexibly to unpredictable changes. However, they seemed more generally successful in solving these problems; Italian interviewees consistently spoke of subcontracting relations in terms which indicated that there was a high degree of cooperation and flexibility between producing firm and subcontractor. Interviewees spoke of the necessity of cooperation with subcontractors.

The subcontractors are of critical importance, because when we delegate the making of pieces outside, it is as if we put a half, a part of the firm outside.⁶⁸⁵

and

In practice, it might be as if they were ours, to have relationships thus, consolidated over the long term, without disagreements, always with respect for these relationships which we had before. Always working in good harmony, with the consequence of good results. This is fundamental. Precisely because it is a decisive part of the machine.⁶⁸⁶

and more generally,

I would say that the characteristic of this sector is this; an extreme interchange and collaboration between ... suppliers, and firms who produce the goods.⁶⁸⁷

These relationships of collaboration and exchange involved a very high degree of flexibility on the part of subcontractor firms. Several firms spoke of the willingness of subcontractors to work long hours for them at short notice.

From this collaboration comes the availability on their part to work also 12 hours a day for a week, in order to finish a machine.⁶⁸⁸

and

if we have a date thirty days away, or at the end of the month, I will telephone them and say "

⁶⁸⁵ Firm Interview 7.

⁶⁸⁶ Firm Interview 5.

⁶⁸⁷ Firm Interview 9.

⁶⁸⁸ Firm Interview 3.

Look, the piece has to come fifteen days early, because something unexpected has turned up, and can you do it soon.⁶⁸⁹

and

One also has to have the possibility of working Saturday and Sunday if it is necessary. And we have obtained this on occasion, precisely thanks to these relations which we have with our suppliers in this network, which participate in our results.⁶⁹⁰

More interestingly still, this high level of cooperation was *not* obtained on the basis of formal contractual commitments to purchases in the long term. Instead, producer firms' relationships with their subcontractors usually took the form of a series of discrete commissions. It would appear that subcontractors were willing to cooperate, even though these relationships could in theory be terminated at any time. This was an important source of competitive strength for Italian machine producers - because they did not need to commit to long term contracts with their subcontractors, they were able to deal more flexibly with shifts in demand. As one interviewee put it

There is always a turnover of work ... one never does contracts of one year, two years. It is always specific to the product. ... *Not ever with the difficulties [that there would be] for a firm of our size in making long term contracts with external suppliers.*⁶⁹¹

The firm went on to speak of the "extreme flexibility [of the relationship], especially where the quantity of work is extremely reduced."⁶⁹² It is clear that such cooperation was, in a very important sense, the basis of the system of production which Italian firms had adopted. Without a high degree of collaboration between different firms, it would have been impossible to produce the machines in a timely fashion, while maintaining a high level of quality. The high degree of vertical disintegration seen in the Bologna packaging machine industry, although it is paralleled in many other Italian industrial districts, is extraordinary in terms of the economic literature on cooperation between firms. It is more extraordinary still, because it appeared to take place on the basis of a quite diffuse cooperation between firms, without formal contracts to make commitments concrete between actors. This very fluidity was obviously a source of economic strength for the firms involved - it allowed them more

⁶⁸⁹ Firm Interview 1.

⁶⁹⁰ Firm Interview 16. See also Firm Interview 15, Firm Interview 17.

⁶⁹¹ Firm Interview 9, my italics.

⁶⁹² *Ibid.*

freedom in adapting flexibly to changing economic circumstances. The wide and diffuse trust that existed between firms allowed the production process to be decentralised to an extraordinary degree - simply put, many of the efficiencies which economists often attribute to intra-firm hierarchy appeared to be available in a diffuse setting of inter-firm cooperation.

Thus, to sum up my argument to this point, there were clear differences between the two case studies. It would appear that certain kinds of cooperation between firms were difficult, although certainly not impossible, for firms to achieve in Baden-Württemberg. What evidence there is, although it is only suggestive, seems to indicate that where cooperation was achieved, it was on the basis of long term contractual commitments between firms. In contrast, in Emilia-Romagna, such cooperation was not only widespread, but in an important sense appeared to form the basis of the production system. Furthermore, this cooperation did not take place on the basis of long term contracts; instead, it was embedded in relationships that took the form of a series of discrete commissions. This allowed a greater degree of flexibility in the production process, but it also raises questions - why were Italian subcontractors prepared to tolerate short term imbalances in their relationship with buyer firms without these buyer firms formally guaranteeing a long term commitment?

The answer to this question would appear to lie in the existence of informal institutions which governed interaction between firms in the Emilia-Romagna packaging industry. There are clear qualitative differences between inter-firm relationships in the two case studies: in Emilia-Romagna it appears that firms dealt with each other on a far more personal level than in Baden-Württemberg. To recapitulate the argument of Chapter 5, this is not to state that firms typically cooperated with each other because of fraternal bonds or friendships which involved genuine other-regarding orientations. Genuine friendship would in any event be an unlikely general basis for cooperation, given that a firm might have relationships with hundreds of subcontractors. Instead, personalising relations meant subjecting these relations to those informal rules and norms which governed interaction in a community setting.

These rules laid a very important stress on personal probity in non-formal dealings between actors. In the words of one interviewee,

there is a saying in these parts that a handshake is worth more than a piece of paper with

writing on it ... this is an approach which is particularly characteristic of someone from Emilia-Romagna. If someone steps out of line once, tries to be clever in some way ... there is a characteristic tendency which is particular to this area ... to cancel [the relationship].⁶⁹³

Furthermore, this didn't just apply to the particular deal in question; it usually meant a "freezing off" [*freddatura*] of relations extending into the future.⁶⁹⁴ What this suggests is that there were a set of self-reinforcing expectations about honest behaviour in personal dealings. As the other Italian interviewee whom I quote in Chapter 5 remarked, those who failed to abide by these unwritten rules were likely to find themselves gradually unable to do business any more. They could expect to have their relationship with the party whom they had cheated cancelled. In addition, the packaging community in Bologna was relatively tight-knit, and gossip got around; they might also find that they had difficulty in forging new relationships with other firms.

from the point of view of the subcontractors a mistaken behaviour, [with] a rather small yield, will become known very quickly in the productive system to the other customers, and thus it is easy to exclude this firm from the relations of production. In this case we have a transparency of the market which makes it much more difficult to maintain incorrect behaviour.⁶⁹⁵

Under these conditions, honesty could be a rational strategy for firms; the costs of being excluded from future dealings outweighed the short term benefits of cheating. Informal rules appear to have led to an outcome which closely resemble game theoretic models of non-state enforcement; in particular Randall Calvert's Tit-for-Tat with Multilateral Communication (TFT/MC) equilibrium.⁶⁹⁶ There is little evidence for such a set of informal community rules governing subcontracting relations between firms in Baden-Württemberg. The evidence suggests that opportunism between buyer firms and subcontractors was more common in Baden-Württemberg than in Emilia-Romagna.⁶⁹⁷ The absence of opportunism in some subcontracting relations seemed to be based more on those specific relationships than on generalised informal rules of conduct. One interviewee suggested that reputation, which had previously been important to inter-firm relationships, was no longer sufficient to prevent opportunism - reputational factors had once been more important than they were today.⁶⁹⁸

⁶⁹³ Firm Interview 16.

⁶⁹⁴ Ibid.

⁶⁹⁵ Interview with Nomisma.

⁶⁹⁶ Calvert (1995a).

⁶⁹⁷ See, for example, Firm Interviews 23, 24, 32, 36.

⁶⁹⁸ Firm Interview 24.

In Emilia-Romagna, community rules did not function perfectly to prevent opportunism in subcontracting relationships; firms did on occasion try to cheat each other. For example, one of the larger firms in the area had been unable to monitor subcontracting relations adequately during a period of rapid expansion, and found out afterwards that some of its subcontractors had taken advantage of this by charging inordinate amounts for parts.⁶⁹⁹ The firm then broke off relations with the subcontractors in question. Such instances were relatively rare. While firms did often monitor their subcontractors, they also gave them substantial leeway, even in areas where these subcontractors might have short term incentives to cheat, such as pricing. As one firm put it,

Price is also a very vague area, because there is never an equal price [*i.e. other firms will probably quote different prices*]. Then we are in this relationship of knowledge - if it seems to me that you are working well, you stay on.⁷⁰⁰

Another firm seemed prepared to put work out to subcontractors without necessarily knowing in advance what the end-cost of the part was going to be; artisanal firms often lacked the organisational capacity to spell out prices in advance of production.⁷⁰¹ While the interviewee complained about this, artisanal firms did not take advantage of the non-specificity to jack up prices *ex post* as transaction costs economists might have predicted; instead the difficulties arose because the interviewee's firm had to provide quotes to end-customers on machines without necessarily knowing the costs of the inputs. Such diffuse and generalised trust could be seen as economically rational, in a context where the trusted subcontractors knew that their valuable relations with the buyer firm would come to an end if they cheated. Informal institutional rules, and their effect on possible outcomes off the path of play helped to dictate honesty in relations between actors.

Nor did these rules precisely dictate the form of relations between firms. There is evidence to support the assertion of Edward Lorenz that trust may arise between firms as a result of learning processes which are independent of external institutions.⁷⁰² Firms only engaged in long term relations with subcontractors after a period of testing and mutual learning, and didn't rely exclusively on

⁶⁹⁹ Firm Interview 11. Unlike other interviewees, this firm typically had difficulties in getting artisans to produce according to agreed schedules, and often found itself having to put pressure on them.

⁷⁰⁰ Firm Interview 13.

⁷⁰¹ Firm Interview 10.

⁷⁰² Lorenz (1999).

external reputational factors. To quote one firm, “while it is clear that reputation can be a starting point *{elemento di partenza}*, it is certainly not the finishing point; of trusting blindly.”⁷⁰³

What the rules did do was to provide a “technology of commitment” - a means through which firms could credibly agree to commit over time to their subcontractors, without the fixed costs and inflexibility of a clearly specified long term contract. Firms might agree prices over the longer run with their subcontractor, in broad terms, but they did not fix quantities. Instead, they relied on informal relationships with the artisans who worked for them, which were predicated on personal guarantees of continued work as economic circumstances permitted. This can best be understood by turning to the words of the firms themselves.

The long term things, I would say that there is nothing written. In practice, there is nothing like a contract. There is a tacit consensus, whereby we have work and make orders from these subcontractors.⁷⁰⁴

and

with Italian subcontractors, or in the neighborhood, one has to work *{giocare}* on the personal and emotional plane. It is verbal, not all written down.⁷⁰⁵

and

To have then the work of the artisan at the beginning of the year, one makes an accord. We ask for the best work. With the duty of doing the best work for us. ... most times it is a verbal agreement.⁷⁰⁶

and

There is no formalised contract, one works a lot on reciprocal knowledge, on reciprocal trust.⁷⁰⁷

and

There is no specific kind of contract, because normally, it is a relationship on commission. We see the quantity of work for a certain time and a certain cost; then one closes. What is applied

⁷⁰³ Firm Interview 1.

⁷⁰⁴ Firm Interview 4.

⁷⁰⁵ Firm Interview 16.

⁷⁰⁶ Firm Interview 13.

⁷⁰⁷ Firm Interview 10.

is not a specific contract, it is a personal relationship between an office which puts out work and a small artisanal organisation which produces it.⁷⁰⁸

Subcontractors could trust buyer firms, even on the relatively stringent conditions of the encapsulated interest account of trust, when these buyer firms had made an informal commitment to a long term relationship, because the buyer firms would suffer real reputational costs if they were to default on their side of the bargain. By the same token, these informal rules, when combined with specific learning relationships between firms, helped ensure that subcontractors stayed honest in matters such as price and quality.

Additionally, informal agreements, insofar as they did credibly provide valid safeguards against opportunism, were also better suited to framing relationships under conditions of uncertainty than a clearly specified contract would have been. One may refer to Jean Ensminger's findings about cooperation between African cattle herders, which suggest that

if I reward work based upon a consensus of what is deemed reasonable after the fact, given the applicable circumstances, I am bound by norms, as are you, but not by a contract that might have been inappropriate given the unforeseen circumstances.⁷⁰⁹

The analogy is by no means exact - Bolognese packaging firms, unlike Ensminger's cattle owners and herders, did usually agree prices in advance. Nevertheless, the continued relationship was not based on the fulfillment of contractual conditions, but rather on compliance with informal rules which mandated against cheating in subcontracting relations. Informal rules allowed firms to trust each other so that a pattern of diffuse gift exchange could be maintained - buyer firms were prepared to give a commitment to a long term relationship in return for short term flexibility, high quality, and reasonable costing practices from their subcontractors. This pattern of gift exchange was sometimes bolstered by other forms of reciprocal help. One small firm spoke of how it often gave technical help to its subcontractors.

Because sometimes they have had small machines - thus the technical office has given them

⁷⁰⁸ Firm Interview 9. See also Firm Interview 14, Firm Interview 17 for further evidence on the lack of resort to formal contracts in subcontracting relations in the area. There is one interviewee who suggests that formal contracts are becoming more important than hitherto - see Firm Interview 8. Also, see Chapter 7 on the differences between large and small firm relationships with their subcontractors.

⁷⁰⁹ Ensminger (forthcoming).

plans, designs, feasibility studies that are used to make these small products of theirs. I would say that this has helped conserve a relationship of absolute non-competition.⁷¹⁰

This assistance was reciprocated by the subcontractors' increased availability to lend a hand when the buyer firm needed help urgently.

Thus, in summation, there is good evidence to suggest that cooperation in subcontracting relations between firms in Emilia-Romagna was underpinned by a set of informal rules which demanded a high degree of openness and honesty in personal relations between actors. These rules allowed firms credibly to commit to each other in a manner which supported patterns of gift exchange between buyer firms and subcontractors, and furthermore did so in a manner which allowed a great degree of flexibility in responding to changing circumstances.

This is not to say that relations between buyer firms and subcontractors were non-conflictual. Long term commitments co-existed, as might have been expected, with vigorous bargaining over price. The informal rules that allowed cooperation over certain issues did not always extend to creating a consensus over how the fruits of this cooperation were to be shared. Moreover, the terms of bargaining shifted in response to outside circumstances - subcontractors could take advantage of periods when their services were in great demand to drive hard bargains.⁷¹¹

Also, while it is clear that a narrow rationality explanation can account for these sorts of cooperation, I stress again that I don't want to deny that other factors also played an important role. Here, I wish to return briefly to my discussion in Chapter Two of the concept of subgame-perfect equilibrium, which requires that it not only be rational for actors to obey a rule, but it also be rational for actors to enforce it. Although I do not intend to do it here, I have no doubts that the sorts of relationship which I have discussed here could be modelled quite easily as constituting a subgame-perfect equilibrium.⁷¹² But I am not at all sure that such a model would fully reflect reality - there is evidence to suggest that some of the force of the informal institutions which I have described derives from extra-rational effects. The willingness of firms to "punish" those who had cheated them seems to have involved at least as much moral outrage at being cheated, as rationalistic calculation of the future

⁷¹⁰ Firm Interview 3.

⁷¹¹ Ibid.

⁷¹² Greif's modelling work on Maghribi traders could easily be applied to these results; see Greif (1994).

consequences of not retaliating.⁷¹³ It is clear that the theoretical base of my arguments underestimates the degree to which people were willing to punish others under community rules, and perhaps the degree to which people were willing to abide by these rules.⁷¹⁴

To return to my original question, it is clear that issues of trust and cooperation did play a very important, although not determinative, role in shaping the form of firms' subcontracting relations in the two case studies. Moreover, if one goes back to the comparison between the two case studies, it is equally clear that much of the difference in practice between the two revolved around questions of trust and cooperation. This is not to deny the importance of other factors which I have not discussed, such as industrial structure, in creating differences between the two cases; it is merely to observe that it was clearly more difficult for firms in Baden-Württemberg to obtain certain sorts of cooperation from subcontractors than their Italian equivalents. This meant that the sorts of radical decentralisation of the production process that Italian firms engaged in were usually unattractive to German firms. Furthermore, in those instances where German firms did enjoy strong cooperative relations with their subcontractors, there is some (albeit hardly conclusive) evidence that this was on the basis of long term contractual relations, which by their nature were less flexible than the informal agreements that firms in Bologna made among themselves. Finally, there is evidence to suggest that these differences in trust and cooperation were to a considerable extent the result of institutional differences between the two cases. There was evidence in Bologna of informal, "community" institutions which allowed firms to make credible commitments to each other without being backed up by formal enforcement mechanisms. There is no evidence from the research project of any extensive corresponding set of community rules governing interaction between firms and their subcontractors in the German case study. While cooperative subcontracting relations were clearly possible in Baden-Württemberg, and occurred in several instances, their success was by no means guaranteed.⁷¹⁵

⁷¹³ See especially Firm Interview 16.

⁷¹⁴ But equally, I wish to reiterate the statement in Chapter 5 of my belief that broad "communitarian" accounts of cooperation in communities do a bad job of explaining the nature and limits of cooperation. The merits of the approach I offer here is that it focusses on cooperation in communities as involving rule bound activity, even if it sometimes underestimates the binding force of these rules.

⁷¹⁵ I should note here that my choice of cases may lead to misinterpretation - my claim that one setting appears to have involved considerably more cooperation in subcontracting relations than the other should *not* be taken as an attack on arguments that Baden-Württemberg has more "thick" subcontracting relations than many other regions. I am not seeking to evaluate these claims, and my

Section 6.5 - Conclusions

A careful comparison of subcontracting practices in Emilia-Romagna and Baden-Württemberg shows that comparative studies using the encapsulated interest account of trust can be very worthwhile. As I have stated in the body of this chapter, such a comparison does not explain all features of subcontracting practice in the two cases, nor all the differences between them. But if it did, it would give grounds to suspicion - after all, firms' decisions about whether or not to subcontract out work turns on other issues in addition to trust and cooperation. What it does is to show that trust and cooperation, although not the only causal factors, do have important effects on subcontracting relationships between firms. Furthermore, different institutional settings may be associated with different patterns of trust and cooperation.

These are useful results. The literature on industrial districts has historically been weak on comparisons. There is a clear sense among authors in the field that the industrial district model often draws too heavily on the "original" industrial districts of Emilia-Romagna and Tuscany, and that comparative international work on industrial districts should be based on a "thin" model which can generate variation.⁷¹⁶ My arguments here can be seen as being "thin" in this sense, and capable of accommodating and explaining variation, even if they may prove initially unpalatable to some students of industrial districts.

Further, the comparisons I have carried out provide some more general reasons to believe that institutions can have important effects on trust, and that these effects can be understood comparatively.⁷¹⁷ It is evident that institutions count as important causal factors contributing to different outcomes of trust and cooperation in the two case studies. I don't want to pretend to any great originality in my theoretical arguments, many of which simply recapitulate and recontextualise the work of other scholars. But what I can say is that my empirical research seems to lend some credence to important recent bodies of work in rational choice on institutions and on the conditions under which

argument is confined to the comparison of the cases in question. Indeed, I suspect that if I carried out a different comparison, say of machine tool producers in Baden-Württemberg and their equivalents in Coventry, Baden-Württemberg would shine out as an example of a high-cooperation economy.

⁷¹⁶ Zeitlin (1992).

⁷¹⁷ Jackman and Miller (1996) provide strong arguments for the merit of this kind of institutional, comparative approach.

actors will trust each other. It demonstrates that this work can be applied to empirical cases, and provide causal theories and explanations which provide a good (if not perfect) fit with the evidence, and which arguably offer certain advantages over the theories which have prevailed in this field to date.

Chapter Seven - Institutions: Looking at Their Sources and Evolution in Industrial Districts

Section 7.1 - Introduction

In this dissertation, I have tried to make the case for a rational choice institutionalist approach to trust. The last three chapters have sought to demonstrate that such an approach can usefully be applied to the understanding of trust in industrial districts, contrary to the claims of many authors in the field. However, the approach that I have adopted still leaves some important questions unanswered. My theory, broadly speaking, treats trust as the dependent variable and institutions as the independent variable, predicting that the kinds of trust (and consequently of cooperation) in a given situation will in large part be a function of the institutions governing actors in that situation. I have defined institutions as consisting of rules, formal or informal, but this still leaves open the question of how institutions themselves may evolve and change. If trust results from informal or formal institutions, where do these institutions themselves originate, and how might they change over time?

Unfortunately, the data gathered for this dissertation can only give provisional answers to these questions. First, as I will go on to argue below, it is quite clear that the importance or lack of importance of local or national level institutions in a particular setting will to a very great extent depend on the national institutional framework within which this setting is located. However, this research project has only studied two cases, one in each national setting. This means that the effects of national institutional frameworks and local level institutions will inevitably be confounded. It will often be impossible to distinguish between the effects of local and national level institutions on trust between actors; furthermore, one cannot arrive at anything except highly provisional conclusions about how one institutional level affects the other.

Second, the arguments which I have presented in the preceding chapters are mostly based on comparative statics: it is risky to extrapolate past or future trends on the basis of such data. This said, the interviews conducted to gather data for this research project were designed to elicit information

about changes over time, generating some useful data. Still, it is necessary to be cautious in interpreting these data, especially if one wants to predict change in the future. The field of industrial district theory is littered with the corpses of ambitious predictions that have failed to be sustained by events.⁷¹⁸

What I intend to do then, in this chapter, is to fit my findings to a wider body of research results on industrial districts and economic organisation in Italy and Germany. By doing this, I can at the least mitigate the problems of insufficient data referred to above. In the next section, I lay out the theoretical background to my later arguments. Next, I seek to situate my findings in a broader framework, which examines the different relations between national and local level institutions in the two countries. The section after that discusses institutional change over time, and adapts Jack Knight's arguments to make some predictions about the likely future path of institutional evolution in the Italian case study. Finally, I conclude by examining the predictive weaknesses and strengths of rational choice as compared to other approaches in the social sciences.

Section 7.2 - Different levels of Institutional Analysis.

The rational choice theory of institutions has made enormous advances in recent years. Unfortunately, many areas still remain relatively unexplored, including the relationship between different levels of institutional development.⁷¹⁹ Most recent work on the evolution of institutions has been "bottom up" - that is, it seeks to work upwards from basic principles of social order to discover how both formal and informal institutions may arise.⁷²⁰ And indeed, one may argue that this approach is better suited to discovering the fundamental principles of institutional evolution and change. However, many institutions which are of interest to empirical political scientists are embedded in wider institutional systems, where at least some causal arrows run downwards. As matters stand, there is little work which systematically explores interaction between different institutional levels, or how higher

⁷¹⁸ See, for example, my discussion of Bennett Harrison's claims about Italian industrial districts in Chapter Three, and more generally the account of the different waves of literature in Crouch and Trigilia (forthcoming).

⁷¹⁹ I am grateful to Jack Knight for a very useful conversation on this topic.

⁷²⁰ See for example, Knight (1992), Calvert (1995b).

level institutions may affect lower level ones through “top down” effects.⁷²¹

Unfortunately, such effects are clearly relevant to the subject matter of this dissertation. In the final level of analysis, national level institutions such as the state must rest upon fundamental, self-enforcing social institutions which are articulated at a broader level.⁷²² Yet national level institutions may also in turn have important effects on local or regional institutions, which are arguably just as relevant to the particular kind of analysis I am engaged in. Thus, one needs an approach that captures both “top down” and “bottom up” effects in order to properly explore the process of institution formation.

On the other hand, models which place too high an emphasis on “top down” effects run the risk of providing an overly deterministic model of the relationship between higher and lower levels. In other words, by emphasising the effect of higher levels on lower levels, one may run the risk of underestimating the possibilities for independent action at these lower levels. One of the main points established by the recent literature on local and regional economies is precisely that one cannot take it for granted that national systems of economic governance determine the form of local systems. Furthermore, it seems reasonable to expect that the extent to which the national level affects local and regional levels is likely to vary across cases.

This implies that any account of the relationship between national and local institutional levels should both (a) be able to accommodate variation at the local level *within* national contexts, and (b) be able to accommodate variation in the extent to which the national level determines local outcomes *across* national contexts. As it turns out, a rational choice approach to institutions can arguably meet both these requirements.⁷²³

Here I want to return to Chapter Two’s discussion of the problem of equilibrium selection. The use of game theory to predict social outcomes has been plagued by “folk theorems” in indefinitely repeated games, which “state, in effect, that nearly any reasonable outcome can be sustained by some

⁷²¹ The “structure-induced equilibrium” approach advocated by Kenneth Shepsle and Barry Weingast does study how institutions have “top down” effects on actors, but not on other, embedded, institutions. See Shepsle (1989). Tsebelis has examined how actors’ strategies in one game may be influenced by another that they are playing at a different level, but his approach fails to capture the dynamic aspects of change that are of interest to me (Tsebelis 1990).

⁷²² Calvert (1995c).

⁷²³ I use the term “approach” deliberately. The arguments that I advance here are some considerable distance from being a fully (or even partially) fledged theory.

equilibrium of individual strategies.”⁷²⁴ This means that equilibrium analysis has little predictive power in complex social situations where interactions are repeated indefinitely: while it is possible to show that an equilibrium can be sustained under a given set of parameters, one cannot confidently predict that this particular equilibrium will be reached rather than one of the many others which are possible. While many game theorists have sought to overcome this problem through refining the concept of equilibrium, their success is at best debatable.⁷²⁵ The distinguished game theorist, Ariel Rubinstein provides a salutary assessment of such efforts.

There exists a widespread myth in game theory, that it is possible to achieve a miraculous prediction regarding the outcome of interaction among human beings using only data on the order of events, combined with a description of the players' preferences over the feasible outcomes of the situation. For forty years, game theory has searched for the grand solution which would accomplish this task. The mystical and vague word "rationality" is used to fuel our hopes of achieving this goal. I fail to see any possibility of this being accomplished.⁷²⁶

However, from another perspective, this proliferation of equilibria is not a flaw particular to game theory, but a deep truth of social life.⁷²⁷ The same starting conditions (which game theory formalises as parameters) may be associated with a very wide variety of ultimate outcomes.⁷²⁸ Game theory itself cannot predict which outcome is most likely to occur, but other theories associated with rational choice may provide at least some guidance. The selection of one equilibrium over another may result from conventions,⁷²⁹ salience,⁷³⁰ or institutions which derive from power differentials between actors,⁷³¹ evolutionary selection,⁷³² or market competition.⁷³³

Superficially, it might seem that many of the “top down” effects of national level institutions on local level institutions can be captured by parametrising them. In other words, national level institutions may affect local level institutions by helping to set the parameters of the games which local

⁷²⁴ p.29, Ordeshook (1990).

⁷²⁵ Kreps (1990b).

⁷²⁶ p.923, Rubinstein (1991).

⁷²⁷ Calvert (1995c).

⁷²⁸ Here there is a very interesting convergence between game theory and the historical approach to economic sociology advocated by Mark Granovetter and Richard Swedberg on the one hand, and the “worlds of possibility” discussed by scholars of flexible specialisation on the other. Game theoretic approaches have little difficulty *a priori* in accommodating historical contingency.

⁷²⁹ Lewis (1969), Miller (1992), Sugden (1998).

⁷³⁰ Schelling (1960), Sugden (1995), Schiemann (2000).

⁷³¹ Knight (1992).

⁷³² Knight (1995).

⁷³³ Ibid.

actors play with each other⁷³⁴. The values of these parameters may make certain equilibria possible or impossible. Randall Calvert provides an excellent discussion of how different forms of “social order” may be possible or impossible under given parameter ranges.⁷³⁵ For example, decentralised “community” institutions (operating on the principle of tit-for-tat with multilateral communication) may only prevent dishonest behaviour when the number of actors, and the cost of communication between them, is sufficiently low.⁷³⁶ Yet at the same time, under most realistic parameter values, a wide variety of potential equilibria will still be possible. Thus, a simple application of arguments from game theory would seem to fulfil the first of the criteria which I have set down above; it shows how national level institutions may affect local ones (by setting their parameters) without fully determining them (there may be considerable variation between different sets of local institutions in different settings, even if the starting parameters are the same).

However, this does not tell us very much about the relationship between different levels. First, it only captures one of the directions in which the causal arrows flow. Furthermore, while such arguments may allow us to exclude certain possible outcomes, most of the time they will still leave too many other possibilities open to offer substantial, testable hypotheses. In short, they offer too wide a range of possible outcomes to have useful predictive or explanatory power. It is thus necessary to go beyond game theory as such; in the words of Bates et al.

Repeated games, for example, can yield a multiplicity of equilibria. To explain why one outcome occurred rather than another, the theorist must ground his or her explanation in empirical materials, seeking the forces that shaped the selection of a particular equilibrium. The existence of multiple equilibria thus compels the analyst to combine theory and empirics. Deductive theory thus becomes an engine of empirical discovery.⁷³⁷

Not only is it necessary to supplement game theory with narrative; such narrative has to be theoretically informed if it is not to end up telling “just so” stories with pretty diagrams and equations. More specifically, except in situations where the model indicates only one possible equilibrium, such accounts should make overt theoretical reference to the mechanism through which equilibrium

⁷³⁴ Of course, this assumes that local level actors take the boundaries which are set by national level institutions as givens, which will not be true in all circumstances.

⁷³⁵ Calvert (1995a).

⁷³⁶ For other models in this tradition, see Milgrom, North and Weingast (1990), Greif, Milgrom and Weingast (1995).

⁷³⁷ p.15, Bates et al. (1998a).

selection takes place.

For the above reasons, I suggest that it may be better to take an alternative approach. Rather than seeking to evaluate the relationships between different institutional levels as such, it may be helpful instead to see the relative weight of institutions at different levels as itself being the outcome of a game played between actors. This statement is rather gnostic; it probably requires some unpacking. What I mean to say is that the extent to which local institutions predominate over national ones, or national institutions over local ones, may be regarded as the result of a game being played between actors at different levels, each of which seeks to act according to its own particular advantage. Here, one may usefully refer again to the work of Jack Knight: the institutions that emerge from such processes are often likely to reflect the relative power positions of the actors in question⁷³⁸. Actors will seek to ensure that equilibria are reached which maximise their particular distributional advantage, and more powerful actors will tend to prevail over less powerful actors in this bargaining process. Hence, the institutions that emerge, and the equilibria selected on the basis of these institutions, will reflect these inequalities.

In practical terms, this suggests that the relative weight of local institutions as against national institutions will be a function of the relative bargaining weight of national actors (typically, although not always linked to the state) as against local ones. Such an account seems compatible with much previous academic work in the traditions both of the new institutional economy of the state, as discussed by Douglass North and Margaret Levi, and the “predatory state” literature most prominently represented by Charles Tilly.⁷³⁹ The relative importance of local and national levels may be seen as resulting from struggles, many of them dating back to the “grand era” of state building, between actors at different levels of power, each seeking to maximise their own benefit.

It should be quite clear that this formulation only paints a broad-brush picture of the relationships between different institutional levels in different settings. I happily acknowledge that it does not accommodate more subtle channels of institutional influence, including many of the complexities of federalism in the German case, or even locality-region-nation relations in the Italian

⁷³⁸ See my discussion in Chapter Three.

⁷³⁹ See Levi (1988), North (1990b) on the one hand, and Tilly (1985) on the other. Such an account of the development of institutions also seems to me to avoid the “anti-political” bias of much writing on social capital, on which see Bagnasco (1999), Trigilia (1999), Levi (1998), Tarrow (1995).

case. Nonetheless, it does highlight important differences between the national contexts of the two case studies, which, I would argue, have had important effects on institutions, and consequently on trust relations between individuals. It also accommodates both those sorts of variation that I have suggested are necessary for a theory of this sort. When the relative weight of different institutional levels reflects struggle between actors at those levels, one can reasonably expect variation both within and between national settings. In the next section, I seek to provide an overview of relationships between national and local actors in the two case studies which applies this perspective to the existing literature, with references to my own research findings where appropriate.

Section 7.3 - Relations between National and Local Level Institutions in the Two Case Studies

As I have said in the introduction to this chapter, the data gathered for this dissertation does not allow one to make statements about relationships between national and local institutional levels with any great degree of confidence. Data may shed light, say, on the relationship between the national legal system and local relations between firms in the Bolognese packaging machine industry, but even here one has to exercise caution. It may be difficult to disentangle local factors from national ones, and it is quite impossible to extrapolate from one particular local case to general arguments about the relationship between national and local levels in the country as a whole. Furthermore, when making comparisons between cases in different national systems, it is often impossible to determine what effects are caused by local factors, and what effects are caused by national factors. The very least that one would require to make such judgments would be a large scale comparative project which examined several cases in each of the countries under study.

What this means is that it is impossible to say definitively, on the basis of the specific data gathered, whether the strong differences that I have found (especially in Chapter 6) are representative of broader differences between the countries as a whole, or merely reflect the particularities of the cases (or even the samples from the cases) which I have chosen. One possible solution to this dilemma is to refer to the work of other researchers. The existing body of literature provides at least a partial proxy for other case studies in the countries which I am examining. Furthermore, insofar as there is

broader evidence regarding national-local relationships in Italy and Germany, I may use this evidence to situate and contextualise my findings.

Here, it is quite clear that my arguments can most easily be accommodated into a literature which on the one hand stresses the importance of localism and particularism in the Italian political economy, and which on the other hand sees the German political economy as a relatively (and I use the qualifier advisedly) coherent national whole. For Italy, I refer to the work of a group of sociologists and political scientists, most prominently Arnaldo Bagnasco, Richard Locke, Marino Regini, and Carlo Trigilia. And for Germany, I refer to a new study of the German political economy conducted by Ulrich Glassmann and Helmut Voelzkow, and the work of “sceptics” of the industrial district thesis’s application in Germany, such as Udo Staber.⁷⁴⁰

Marino Regini speaks of two traditions in the study of Italian capitalism, one of which focusses on the national system, as a distinct variety of capitalism, and the other of which focusses on Italy as “an amalgam of subnational patterns, each characterized by its own relationships between economy and institutions.”⁷⁴¹ As Regini, Richard Locke and Carlo Trigilia all show, these approaches are complementary rather than contradictory in their objects of study: a high degree of formal disorganisation on the national level permits and perpetuates considerable variation at the local level.⁷⁴² In Regini’s characterisation, the relationship between institutions and firms in Italy is much more intricate than a simple mix of modes of regulation⁷⁴³

It has been widely observed that even when public policies apparently assign a leading role to state regulation, as is the case, for example, with fiscal policies or labour market policies ... mechanisms for circumventing them are often set in motion; or else the state rules are only weakly and inefficiently implemented, with the consequence that even the opposite result may be achieved. From this point of view, Italy is therefore a case of weak institutional regulation deriving from the duality between what can be called the ‘overt’ aspect of the Italian institutional environment - the existence of apparently tough constraining mechanisms - and

⁷⁴⁰ The Glassmann and Voelzkow study is forthcoming in the first volume produced by the “Governance of Local Economies” project, which examines national-local relations in Germany, Italy, France and Great Britain. The data used for this dissertation project was gathered for the second stage of this project, which will look at specific cases in each of the four countries. For more information on the project, see the Appendix.

⁷⁴¹ p.102, Regini (1997).

⁷⁴² Regini (1997), Locke (1995), Trigilia (1996).

⁷⁴³ For an example of the “mix of modes of regulation” approach, see Chiesi and Martinelli’s categorisation of different sectors of Italian business in terms of their associational mode of governance (Chiesi and Martinelli 1989).

the more 'covert' aspect of their inadequacy which enables constraints to be circumvented.⁷⁴⁴

As Regini notes, this apparently chaotic system can enable as well as constrain; the ineffectiveness of formal mechanisms provides room for a voluntaristic and ad-hoc system of informal regulation which is frequently strongest at the local level.⁷⁴⁵ The absence of universalistic rules has hampered large firms which prefer a stable environment, but has presented less difficulty for systems of small firms.⁷⁴⁶

The relative weakness of formal, national level institutions in Italy has deep historic roots.⁷⁴⁷ While Putnam has argued that the primary cause of differences between the regions of Italy can be found in different patterns of associationalism, these patterns may themselves be traced to more "political" structural factors.⁷⁴⁸ To quote Richard Locke,

The composite pattern of Italy's economy is the legacy ... of Italy's uneven political and economic development in which different areas were industrialised and enfranchised at different times.⁷⁴⁹

This irregular pattern of state development culminated in very substantial regional and local differences. Most of the south of the country became locked in a pattern of economic decline and retrograde politics, with little capacity for local economic development, and state development policies which often did as much harm as good.⁷⁵⁰ In contrast, certain areas of the north east and center experienced local civic development as a vigorous reaction against the totalising forces of market and state, which later permitted diffuse economic development in these areas.⁷⁵¹ Thus, the uneven process of state development, and struggles between "local" and "national" actors can be linked both to the economic backwardness of some parts of Italy, and the economic success of others.

⁷⁴⁴ p.106, Regini (1997).

⁷⁴⁵ Although, as Regini notes, the situation is far more complex than a simple center-periphery dualism. Ibid.

⁷⁴⁶ This account seems intuitively more attractive to me than that of Fukuyama (1995) who attributes the lack of large firms in Italy to indelible "cultural" traits among Italians.

⁷⁴⁷ See the account of attempts to extend the Napoleonic state in Graziano (1978). There is evidence that the state was more successful in destroying local communities in the South than in the North, although it did little more than to reinforce patron-client relations in their stead (Sabetti 1996, Tarrow 1996).

⁷⁴⁸ Here I follow Tarrow (1996).

⁷⁴⁹ p.23, Locke (1995).

⁷⁵⁰ Trigilia (1990).

⁷⁵¹ Bagnasco and Trigilia (1993).

The consequence of these historical precedents is the co-existence of social forms which have different temporal and spatial roots. Italian society is today indubitably an advanced capitalist society with the tendencies to complexity typical of this phase of development. Nevertheless, the fashion in which it expresses these tendencies reflects the original complexity that we have referred to. This has resulted in a general situation of great structural discontinuity which is at the bottom both of the difficulties in governing the whole and of the vitality and adaptability which Italian society is generally recognised as possessing.⁷⁵²

Most relevant to this dissertation, scholars adopting this perspective have argued that these structural factors are linked not only to economic and political difference, but to particular patterns of trust and cooperation in Italy. Robert Putnam, in *Making Democracy Work* has argued that a deep rooted and generalised “civic” community of trust and cooperation between actors is the result of high levels of associationalism in certain parts of Italy. Bagnasco, Trigilia and others take a more qualified view. In Arnaldo Bagnasco’s view, both the “amoral familism” of certain parts of the South, and the civic activism of the Center and North East are the result of the weakness of the state and bureaucracy.⁷⁵³ What this means is that civiness, where it may be found in Italy is *bounded*, and only capable of supporting limited forms of trust. Carlo Trigilia concurs, finding that relations in Italy are “not based on a depersonalised and general trust but rather on a kind of trust that is personal, direct, and individualised or (sometimes) local.”⁷⁵⁴ Again, this means that little trust reposes in centralised institutions, especially those removed from direct personal experience. In short, the economic sociological literature on Italy suggests that relationships of trust and cooperation in the Italian political economy are bounded where they exist. In some parts of Italy, there appears to be little trust of anyone apart from immediate family members.⁷⁵⁵ And where there are wider forms of trust, they are still typically limited, depending on particular relationships or informal local institutions. *Contra* Putnam, associationalism in the “civic” regions of Italy does not appear to involve a diffuse and general trust, but rather specific and localised relations of trust between individuals.⁷⁵⁶ Industrial districts are of course the most widely studied examples of such locally based trust systems. Such systems are bolstered by local community rules, accompanied by sanctions, which provide the basis for an informal

⁷⁵² p.13, *Ibid.*, my translation.

⁷⁵³ Bagnasco (1994).

⁷⁵⁴ p.9, Trigilia (1996).

⁷⁵⁵ The classic work on this is of course Banfield (1958).

⁷⁵⁶ I return to this point in my Conclusions (Chapter Eight).

reciprocity in market relations between actors.⁷⁵⁷

This general account of the relationship between national institutions and local institutions, and how this impinges on trust relations, seems readily compatible with the research findings of my dissertation. To recapitulate, I have found that there does appear to be evidence that informal rules govern trust relationships between firms in the Bologna packaging machinery industry. Furthermore, the rules which are associated with the “richest” forms of cooperation - those between final producers and subcontractors - seem to be primarily local in character. National level institutions, most importantly legal norms and laws, appear to have played a much less important role in conditioning trust or cooperation between actors than informal norms. This is not to say that they were entirely irrelevant; behaviour in many spheres of economic relations (such as, for example, industrial relations) was still importantly affected by nationally ordained rules. But what appeared to be quite clear is that these rules were often insufficiently well enforced to make the future behaviour of actors predictable. They thus were often not enough in themselves to permit trust. Just as Bagnasco and Trigilia emphasise, the weakness of national level rules, and the strength of local level ones would seem to be dual aspects of a single phenomenon.

In the Bologna machine producing industry at least, the weakness of national regulations, and the existence of local associational and community ties appear to have given space for informal rules which could govern the behaviour of firms. In some respects, these rules would appear to have been more limited than formal, legal, regulations would have been. One can reasonably surmise that the intense localism of subcontracting links in part reflected the limited extent of local rules and understandings, which almost certainly did not extend to “outsiders.”⁷⁵⁸ Such localism has limited economic development in Italy.⁷⁵⁹ But equally clearly, forms of diffuse cooperation were possible within these limits that would have been difficult to achieve through more impersonal kinds of

⁷⁵⁷ Dei Ottati (1994b).

⁷⁵⁸ But only in part; the reliance on local subcontractors was clearly also bound up with the system of production. The need to ensure that complex components worked together meant that producer and subcontractor needed to be relatively close together. The relationship between the system of production and local informal rules is a vexed one; it is perhaps impossible to fully disentangle the various causal factors.

⁷⁵⁹ See Trigilia (1989), Bagnasco (1994). Interviewees also referred to this localism as a problem; see for example Interview with Bruno Mussini, Democenter, Interview with Paolo Matiussi, Office for Regional Planning.

regulation.

One may still ask Putnam's question - why is it that cooperation of this sort appears to have been possible in Bologna, but not, say, in Apulia?⁷⁶⁰ I do not propose to engage in a major exercise in historical exegesis, but much of the answer would seem to lie in the modern economic and social history of Bologna and its surrounding region. Bologna lies within the "red belt" where the Communist party played an important role in building up associations and institutions (in the classical political science sense of the word) at the local level.⁷⁶¹ Even before Communism, local substructures played an important role in fostering the later roots of community, through initiatives such as the creation of the Aldini-Valeriani.⁷⁶² Even today, in very important ways, packaging machine producers in Bologna constitute a community, in Michael Taylor's sense.⁷⁶³ This is to say that producers tend very often to know each other (most firm owners and employees have passed through the Aldini-Valeriani at some stage), there is a relatively low degree of hierarchy among actors (although this may be coming to an end - see below) and they are often engaged in multiplex relations with each other. All of these are favourable conditions for the generation and maintenance of informal norms of the kind observed.⁷⁶⁴

Thus, in summary, the Italian political economy appears to be characterised by a relatively incoherent national institutional system, and (in some cases at least) strong patterns of localist regulation. On the one hand, the lack of a credible and universal set of laws, with associated enforcement mechanisms, means that there is a far wider degree of variation across local political economies in Italy than in many other countries. To the extent that national laws do not produce uniformity across the national territory, the result is a diversity of local subsystems. On the other hand, the weakness of the national system also provides greater opportunities to local actors to shape the institutional environment, meaning that local institutions may often be more relevant to actors than national institutions. Not only is there important variation between institutional subsystems, but in general these subsystems will tend to be more important than in more coherent national institutional

⁷⁶⁰ Putnam (1993).

⁷⁶¹ Trigilia (1986). On the history of the region, see Capecchi (1997).

⁷⁶² See Chapter Three.

⁷⁶³ Taylor (1982), Taylor (1987).

⁷⁶⁴ This still only goes part of the way to answering the question - but since I have not directly studied cases in the "uncivic" parts of Italy, I am hesitant to make any stronger arguments than I do here.

systems. Both of these would appear to be the result of an uneven pattern of state development; simply put, the national state was nowhere near as effective in destroying local patterns of regulation and substituting its own authority as in many other parts of Europe (most particularly France, but also Germany). The result has been a system in which strong local patterns of regulation, which vary widely from place to place, co-exist with a relatively incoherent set of national institutions. Further, the entrenched power of local actors has prevented state and “national” level actors from reforming national institutions (as well as regional actors from transforming regional institutions) in such a way as to create a higher degree of coherence.

Germany, like Italy, had its beginnings in a patchwork of smaller states and principalities, which united in the second half of the nineteenth century. As I have already discussed in Chapter Three, Germany, unlike Italy, has a highly developed federal system, in which the *Länder* enjoy a great deal of power over the implementation, and in many areas the forming, of policy. An outsider might reasonably expect that Germany, like Italy, would have a political economy with a high degree of local variegation, and indeed that local and regional differences might well be more pronounced in Germany than in Italy. In fact, the opposite is the case. Here, I am not trying to argue that there is no local or regional variation within the German political economy. But what I do wish to assert is that such variation is far less extreme than in Italy, with the obvious exceptions of the differences between former West and former East Germany, which are the result of a more or less unique set of historical circumstances. Furthermore, as Glassmann and Voelzkow argue, there is good reason to believe that clustering effects within Germany, insofar as they occur, are not, as in Italy, associated with locally distinct small firm governance systems.⁷⁶⁵ Instead, they can usually be more easily explained through reference to the presence of large firms (around which smaller supplier firms cluster), or to the positive externalities resulting from geographic happenstance (for example the steel region of the Ruhr). While there have been “industrial districts” in Germany’s past (the famous Solingen cutlery and steel products cluster), modern clusters, even when they resemble districts, do not usually seem to be governed by the same sorts of local institutions as their Italian equivalents. Instead, national level institutions appear to be more important to the behaviour of firms. Here, I agree with recent work by

⁷⁶⁵ Glassmann and Voelzkow (forthcoming).

Ulrich Glassmann and Helmut Voelzkow on the constitution of the German political economy. In the words of Glassmann and Voelzkow

We argue against [the view of Germany as composed of different industrial orders] and claim that ... local economies ... are not characterized by the decentralized provision of collective goods, but are (in most cases) sustained by large firms and the national regulations and institutions of managed capitalism. We thus strongly emphasize the existence of local economies in Germany, not as deviant forms of economic or social interaction, but as locally concentrated and specialized industries which are patterned by the ways in which collective goods are provided in Germany.⁷⁶⁶

What this suggests is that the kinds of informal regulation which appear to characterise Italian industrial districts (including my own case study in Bologna) are less a product of the decentralisation of political power to the regional and local level as such, than the products of a stalemate in the process of state and national market formation in Italy, wherein local actors were successfully able to prevent the state and other interested actors from fully displacing them. In contrast, in Germany, there is evidence to suggest that the process of creating a national state, with its accompanying institutional paraphernalia has been more or less successful. This is not to deny that the political development of Germany has not been characterised by vigorous disputes between local, regional and national levels of authority. As Herrigel eloquently documents, there clearly have been such disputes, and they have been important to Germany's historical development.⁷⁶⁷ The pertinent question though, is whether these disputes, and the existing federal system have helped preserve substantial local variation in political and economic practice up until today. There is at best mixed evidence of this.

First, there is some historical evidence that the process of state formation often involved the systematic eradication of local practices, even before the unification of Germany. While I have neither space nor time to engage in a complete historical reconstruction of the modernisation process, I do wish to refer in particular to the "Gottingen" approach to the modern history of Germany. Historians such as Alf Lütke, Hans Medick and David Sabean have employed a brand of anthropological theory that borrows heavily from Pierre Bourdieu to describe the gradual encroachment of the state on social life in the "modernisation" of Germany.⁷⁶⁸ For example, David Sabean's "Power in the Blood" applies

⁷⁶⁶ Glassmann and Voelzkow (forthcoming).

⁷⁶⁷ Herrigel (1996b).

⁷⁶⁸ See Medick (1987) for a programmatic statement of this approach.

this approach to the archives of a Württemberg village between 1580 and 1800, to demonstrate how state authorities were able to extend their *Herrschaft* over a period of centuries, gradually penetrating and corroding “traditional” local forms of social organisation.⁷⁶⁹ This process, whereby localised forms of social organisation have been replaced by national ones, has arguably continued. In particular, one may point to the period of National Socialist dominance, when many old identities appear to have been scoured away, and to the period immediately following it, when large scale population movements helped erode regional identities.⁷⁷⁰

The current political system is undeniably a federal one, which delegates considerable power to the *Länder*, and decentralisation has continued, more on an informal than a formal basis, throughout the recent past. Nonetheless, the particular form of German “cooperative federalism” is one which arguably puts as much of an emphasis on creating similarity across regional contexts, as it does on flexible responses to differences in regional circumstances. This is most clearly manifested in the complex system of fiscal transfers involved in horizontal and vertical equalisation between *Länder*. But it may also be seen in rapid learning processes between *Länder*: policy innovations that prove successful in one *Land* are likely to be taken up swiftly in others. Also, many, and perhaps most of the important aspects of the German system of business regulation, are national in scope. There is a uniform body of regulation and contract law covering businesses across the country as a whole. Both private business associations, and quasi-public bodies such as the IHK are usually organised nationally, preserving a considerable degree of coherence across contexts. Industrial relations agreements, as I have discussed in Chapter Three, are negotiated regionally, but adopted nationally.

Finally, and most importantly, one can make the simple and obvious point that disputes between actors at different levels of governance have not in Germany, as in Italy, resulted in a stalemated and incoherent system of national regulation. As Fritz Scharpf has argued, the complex division of labour between *Länder* and federal authorities has often led to pathologies of policy.⁷⁷¹ But it has not, as it has in Italy, prevented the creation of a relatively stable, national institutional environment, in which firms can feel secure and have some idea of their likely future circumstances.

⁷⁶⁹ Sabean (1984). On the role of the state in Prussia, see Lütke (1979).

⁷⁷⁰ Schoenbaum (1980).

⁷⁷¹ Scharpf (1988).

This means that German firms find it easier than Italians to trust other actors whom they do not know, at least in those situations where formal institutions mandate trustworthy behaviour. Formal, national level institutions give rise to a high degree of predictability in German firm behaviour across many issue areas. While the German political economy differs in vitally important respects from the visions of those new institutional economists who favour pure market exchange, there is little doubt that national level German institutions are quite capable of supporting relatively anonymous exchange between actors with a high degree of security. The same cannot always be said for Italy.

Indeed, it may well be that the existence of successful institutions to guarantee impersonal exchange may be causally connected to the dearth in Germany of the “rich” forms of local informal regulation that are seen in Italy. Here, I do not want to make my argument stronger than it should be: it is clear that rich informal cooperation is possible between firms, even in situations where formal institutions predominate.⁷⁷² Simple *Gemeinschaft/Gesellschaft* type distinctions are a mistake. Nonetheless, it seems reasonable to argue that informal local rules, of the sorts seen in Italian industrial districts are almost certainly harder (although not impossible) to maintain in highly formalised national settings. There are two, linked, reasons for this. First, community enforcement usually relies on informal sanctions within a community of actors, which are much less likely to deter misbehaviour when exit is cheap. If I do not need to deal with the members of a particular community again, it won't worry me that they will punish me for cheating in future interactions.⁷⁷³ The existence of national, impersonal regulations will in many circumstances create just such an opportunity for exit. Second, community often involves *multiplex* relations.⁷⁷⁴ If I interact with someone else in a number of different social spheres, the possibilities for mutually beneficial cooperation, and for punishment in the event of default, multiply. Thus, community rules are more easily achievable. Highly formalised

⁷⁷² And indeed, the “folk theorem” results that I have described in the previous section provide some reason to believe that overly strong causal models are likely to underestimate the role of contingency and happenstance.

⁷⁷³ As the existing literature demonstrates, most of the contexts where strong community regulation does take place within national formal institutional settings, involve just such high exit costs - Hasidic diamond merchants, certain sectors of the City of London, etc. If one cheats, one is effectively excluded from the marketplace. Another clear example is the extension of credit within immigrant communities; as for example among Cuban immigrants to Florida. Here, new immigrants look like a bad risk to most “normal” lending institutions, so that default on an intra-community loan is likely to result in financial disaster for the cheater, who will find herself unable to secure credit from other sources.

⁷⁷⁴ Taylor (1981), Dei Ottati (1994b).

settings tend to separate out each social sphere from each, attenuating such links; furthermore, insofar as even one important sphere of social interaction becomes “formalised,” a complex web of informal bargains across such spheres may collapse.⁷⁷⁵ This is all the more so because small firms may not need to cooperate in Germany to the same extent as they often do in Italy: many important collective goods are provided by the state, or by formal associations, and thus do not need to be produced by the firms themselves.

Thus, in short, there may be good reasons why the German institutional system discourages the creation of strong local systems of informal rules. First of all, one may look back to the period of political modernisation in Germany, in which state actors, unlike their peers in Italy, were relatively successful first of all in displacing local systems of regulation, and later in imposing nationally articulated and coherent rule systems in their stead. Second, insofar as these actors have been successful in creating a relatively homogenous system of national institutions, even when this system involves the devolution of significant powers to lower levels of government, it does not automatically create spaces in which local economies with rich informal rules may spring up. The existence of formal institutions at the national level, which permit anonymous exchange, makes it difficult to maintain the twin conditions of high exit costs and multiplexity which usually are required to sustain such rule systems. Finally, firms in Germany may not need to rely on cooperative ties to the same extent as in Italy, given both the existence of institutions to underpin anonymous exchange, and the provision of many collective goods by the state or by associations.

To sum up my discussion, by referring to the existing literature, I can provide a context within which my research findings can be interpreted. This is, of course, some considerable distance from proving their generality. There exist other perspectives on the issues of local-national relations which I have discussed; in Italy, one may refer to the work of Robert Putnam and his colleagues, who identify rather different causal relations to the ones that I privilege in my account, and in Germany to Gary Herrigel, who asserts that differentiated regional “industrial orders” have been vital to the development of the German political economy. I do not intend to engage in these arguments between viewpoints; while my own work may be viewed as providing some further evidence for the points of view that I

⁷⁷⁵ On such interlinking, see Dei Ottati (1994b).

canvas above, it is insufficient in itself to support or disprove hypotheses in these larger debates, for all of the reasons that I have already mentioned. Instead, I have the more modest objective of showing how the broader perspectives that I outline may possibly be used to interpret some of the evidence that I have gathered. I wish to demonstrate complementarities, and put forward an interpretation of different national patterns of development as a *provocazione*, rather than to make definitive assertions.

Still, the picture painted by scholars of Italy such as Bagnasco, Locke, Regini, and Trigilia, seems to accord well with my research findings. Interviewees in Bologna seemed to refer to just those sorts of local institutions that these authors describe, and also broadly saw national level institutions and the organisations that sought to enforce them as being ineffective. In Germany, in contrast, firms often seemed to be nationally, rather than locally oriented; while they were often aware and proud of the local tradition of machine making, their horizons were national or international, rather than regional or local.

Here, I would like to bring up an issue which I have mentioned in passing in Chapter Six: the extent to which subcontracting relations are geographically bounded. As I have stated, there is clear evidence that subcontracting relations in Italy tend to be almost exclusively with supplier firms in the near locality. In Germany, in contrast, there seems to be a much greater willingness on the part of firms to seek subcontractors elsewhere in the country, or in Europe as a whole.

The prominent differences between the two case studies cannot entirely be attributed to institutional differences between them. As I have suggested, there are sound economic and organisational reasons for sourcing complex parts close to their destination, regardless of the institutional infrastructure. And indeed, some firms in Stuttgart as well as in Bologna referred to the importance of geographic proximity. But there is also good reason to believe that the differences in the willingness of Italian and German firms to resort to outside subcontractors was, at least in part, due to institutions. The existence of a local “tradition” of extensive subcontracting in Bologna may have been relatively recent, but it seemed to be rooted in older informal rules relating to personal honesty between actors. These informal rules supported patterns of informal cooperation which gave Bolognese machine producers good reason to use local subcontractors, above and beyond simple geographic proximity.

A researcher from Nomisma cites these patterns, as well as more traditional justifications for localised production, as reasons why Bolognese machine manufacturers prefer to work with local subcontractors

There is a tradition of communal cooperation. It has existed for many years here, and for many years among the suppliers of mechanical engineering firms. There are reasons of quality of work, and proximity is undoubtedly of advantage for coordination. And also costs - when one wants to transport a machine measuring five or six metres by air, it is expensive - thus transport is important.⁷⁷⁶

In contrast, German firms, even when they relied extensively on local producers, did not seem to be influenced by local customs or practices as such; instead, they seemed motivated by transport costs, and the way in which geographic proximity eased the process of coordination. As Udo Staber says, in Baden-Württemberg in all probability, "network relations both within and outside a district are informed more by economic calculus than social considerations or historical habit."⁷⁷⁷

Here, economic sociology may usefully be supplemented with game theoretic reasoning, as developed in the work of Avner Greif.⁷⁷⁸ In a seminal article, Greif uses a formal model to describe the differences between collectivist and individualist societies.⁷⁷⁹ The former tend to have "segregated" social structures, in which each individual primarily interacts with members of a specific group, and enforcement is usually on the basis of informal norms. Greif models these different forms of social organisation, and shows that under many circumstances, collectivist societies find it less attractive to engage in external economic trade through local agents than individualist societies: collectivist beliefs drive a wedge between profitability and efficiency.⁷⁸⁰ Individualist societies, in contrast, have far less difficulty in engaging in external trade through local agents. I do not want to oversell my case here, but there would seem to be some important analogies between collectivism and the Italian way of doing business, as seen in industrial districts (but also, more generally, in the high reliance on family members and personal ties in business relationships), and individualism and the German way (where firms seem to be far happier in transacting with other firms with which they have no personal

⁷⁷⁶ Interview with Nomisma.

⁷⁷⁷ p.304, Staber (1996). Of course, I argue that economic calculus (albeit in different institutional conditions) was the main source of trust relations in *both* case studies.

⁷⁷⁸ Greif (1994).

⁷⁷⁹ Ironically, his historical example of an individualist society is mediaeval Genoa.

⁷⁸⁰ Here I am guilty of bastardising a complex and fascinating thesis, which lends a strong theoretical foundation to the arguments of economic geographers on localised path dependence. I refer readers to the original article.

relationship).⁷⁸¹ Without getting into the questions of which style of business is more or less “efficient” - I accept the arguments of the new economic sociology that there is no single “most efficient” way of doing business - it is clear that these two different patterns of economic organisation, and their associated (and underlying) institutions, are likely to lead to be associated with different economic consequences. Most pertinently, as I have tried to show in Chapter Six, they will be associated with different patterns of trust and cooperation.

Section 7.4 - Institutional Evolution over Time.

In the previous section, I have discussed how differences in the importance of national and local institutions in the two countries of the case studies may be responsible for many of the research findings of my previous chapters. In this section, I wish to discuss the evolution of institutions over time, and how these may affect the relations of trust and cooperation which I have described.

Again, it is difficult to make claims about the evolution of institutions in the two case studies with complete confidence. The data for this dissertation were collected within a relatively short time period: while the interviews were designed to elicit subjects’ opinions on the past evolution and future trends of the industries and localities in question, this is an imperfect substitute for proper longitudinal data. This proviso stated, I believe that there is enough information available to discern many of the processes of institutional evolution in at least one of the cases, and to frame useful hypotheses about institutional evolution and change. On a more fundamental level, the data also suggest strongly that any discussion of institutional development should proceed on the premiss that firms typically place their own particular interest ahead of the interest of the community of firms as a whole. This runs counter to the main trend of discussion on industrial districts, which tends to assume, either implicitly or explicitly, that firms are often or even usually prepared to put the interests of the whole ahead of their own interests, and that this shapes the evolution of institutions among these firms.⁷⁸²

⁷⁸¹ There is anecdotal evidence at least that Italian firms, when operating abroad, very frequently rely on a family member as their representative: if this indeed is a general phenomenon, its congruence with Greif’s arguments is almost startling. I am grateful to Sam Barnes for this piece of information. On the dependence of business in Italy on personal relations, see Firm Interview 15.

⁷⁸² See my discussion in Chapter Three.

In the following discussion, I only look at institutional evolution in one of the case studies; the packaging machine industry in Bologna. The reason for this follows from my discussion of the previous section. I suggest that both my own work and (more convincingly) the work of others supports the contention that it is formal national level institutions rather than local level institutions which are of primary importance to relations of trust and cooperation between German firms. This clearly implies that the institutional changes which are important to the subject matter of my dissertation do not occur at the local level in Germany. One might seek to see how national-level institutional changes may result in changes in firm strategies at the local level,⁷⁸³ but this is clearly a very different exercise from discovering what caused these institutional changes in the first place. In contrast, in Bologna, many important institutions seem to arise from interaction between local level actors. Accordingly, one can seek to trace how changes in the relative situation of these actors do, or do not, affect the informal institutions that govern relations of trust and cooperation between them.

Here, yet again, I refer to Jack Knight's theory of institutions. Knight, in his major book length work, presents, and argues for, a bargaining theory of institutions.⁷⁸⁴ In later work⁷⁸⁵, he specifies more clearly the conditions under which a bargaining theory is best likely to explain institutional emergence and change, and the conditions under which other approaches - an evolutionary approach to the emergence of conventions, or selection through competition - are likely to provide a better account. While the bargaining approach emphasises distributional gains for individual actors, both the evolutionary and contract approaches stress improved social efficiency. Using a simple two person coordination game, Knight suggests that the evolutionary approach (which relies on theories of salience) is likely to work best when parties are more or less indifferent between "beneficial" equilibrium outcomes. Contract accounts of institutional emergence are likely to provide a good explanation when neither of the two actors is more powerful than the other. Power here is a function of the breakdown values, the payoffs to each player when cooperation is not achieved. Some actors will be more adversely affected than others, and, as a consequence will be more eager to achieve

⁷⁸³ This would involve surveying the literature on national level institutional change in Germany (see for example, Streeck 1997b), and seeking to understand how these changes affect local level actors.

⁷⁸⁴ Knight (1992).

⁷⁸⁵ Knight (1995, 1998).

coordination, even if they have to settle for a smaller piece of the overall pie. In contrast, other “more powerful” actors will be less seriously affected by a failure to achieve coordination, and will be able to use their relative indifference as leverage to secure distributional benefits. These breakdown values are a function of the alternatives available to actors in the case of non-coordination; actors who have a wide variety of alternatives in the case of breakdown can use this fact to press for more distributionally advantageous coordination solutions.

Knight’s more recent work therefore not only provides a theory of how institutions may arrive from bargaining between actors, but a “meta-theory” of the circumstances under which a bargaining approach is better able to explain outcomes than other approaches, and vice versa. For example, actors may find themselves in an initial situation where each of them faces more or less the same alternatives, and thus the same breakdown values; there will be relatively few asymmetries of power, and thus whatever institutions arise from voluntary contracting between these individuals may reflect the desire for efficiency gains.⁷⁸⁶ However, if external circumstances change so that some actors acquire new alternatives in case of breakdown, whereas other actors face the same, or a more constricted, set of alternatives as they had previously, then asymmetries of power may emerge, and a bargaining theory of institutional evolution will begin to provide a better explanation than a contracting/efficiency one.⁷⁸⁷ There is some evidence to suggest that this is precisely what is happening among packaging machinery firms in Bologna.

Here, it is necessary to return briefly to the history of the packaging district. As discussed in Chapter Three, the cluster had its beginning in the late 1940s, in a situation of rapidly expanding markets. Entry costs were very low, allowing individual technicians to set up their own firms with a high probability of success. A second, quite different, wave of small firm creation began in the early 1970s. Here, the impetus was the introduction of restrictive labour practices, which encouraged firms to put work out rather than handling it internally through hiring new workers. This encouraged the creation of small subcontracting firms, some of which later went on to become final producers in their own right.

Evidence suggests that both horizontal relationships of cooperation between peer firms, and

⁷⁸⁶ North (1990), Williamson (1985).

⁷⁸⁷ Knight (1998).

vertical subcontracting relationships between final firms and their subcontractors were relatively egalitarian. This was predicated on a rough equality of power between firms, which in turn rested on two foundations. The first was the nature of the external market. Rapidly rising demand for packaging machines in a wide variety of markets meant that it was impossible for any single firm or group of firms to dominate: when firms felt that they were coming under too much pressure in their existing market segment, they could very easily refit themselves for new ones. The second condition depended on the first; it was the relative proliferation of small firms producing for final markets. This allowed for a rough equality between subcontractors and their buyer firms: subcontractors had the choice of dealing with a wide variety of buyer firms, and buyer firms had the choice of a considerable variety of subcontractors. In short, the conditions were similar to those which Knight identifies as underlying the efficiency achieving contract model of institutional evolution. All actors in the packaging machine cluster had a considerable range of alternatives open to them, which precluded substantial asymmetries in power from emerging.

There is good evidence that this situation is changing. Here, I do not want to fall into the same trap as previous authors (cf Bennett Harrison) who claim that the failure of small firm districts is ineluctable or inevitable.⁷⁸⁸ There is evidence (which I discuss later) that the phenomena which I discuss in Bologna are partly representative of a wider trend in Italian industrial districts. But this trend is not inescapable, and is dependent on external market conditions as well as increasing differentiation within the district: changes in these underlying factors may in the future lead to changes in the phenomena which I am talking about.

Still, evidence seems to suggest that there is an increasing differentiation among actors within the industrial district. In particular, it is indisputable that large "group" firms are emerging as an important, and perhaps dominant form of organisation. As I have already discussed in Chapter Three, these groups seek to provide integrated ranges of machines within a particular sector, and sometimes in more than one sector.⁷⁸⁹ Originally, as Harrison has suggested, this phenomenon was given impetus by the desire to seek economies of scale through integrating operations and subcontracting procedures.

⁷⁸⁸ Harrison (1994).

⁷⁸⁹ The reason for making packaging machines across more than one sector is to make future income more stable, and less dependent on the changing fortunes of customers within a particular sector (such as pharmaceuticals or foods).

Now, it seems to be more driven by demand markets; large integrated customer firms prefer to deal with a single, integrated supplier, rather than with a variety of supplier firms.

the market reacts better certainly to a well-integrated range of products, rather than to a main supplier with sub-suppliers. It is not seen as reliable - the supply done by your main supplier with sub-suppliers.⁷⁹⁰

Previously, a large firm might have had several formal or informal partnership agreements with smaller firms, which produced specialised machines that complemented its range. This is becoming less and less common as such firms are either being bought by larger firms, or finding their niches disappearing. This is all the more marked because of changes in customer requirements. Increasingly, large customer firms do not ask simply for machines, but for a broad array of services relating to these machines, of a sort which smaller firms would have difficulty in producing. Some large firms in the area, most notably IMA and GD, are seeking to reinvent themselves, providing a complete "turnkey" service to their customers, and perhaps eventually actually taking over parts of these customers' manufacturing processes for them. Relationships between machine producers and their final customers appear to be getting closer and closer, with knock on consequences for large firm strategies.

The [customer] firms, in pharmaceuticals, food etc, do not want anymore to have engineering offices internally and thus high costs, and they turn outside to expert people who are able to do everything. Considering that this doesn't exist, slowly the bigger firms, which have the economic possibilities, tend to acquire on the market those machines that they lack, or the firms that they lack for their chain.⁷⁹¹

And, in the words of one of the large firms which has been most active in seeking to buy smaller firms.

a lot of companies are asking now just to have one supplier for the complete line of the complete factory. So they force you to create a pool of different suppliers in order to interface them with just one person, one face. So the reason for the concentration is also because our customers are pushing us to concentrate.⁷⁹²

Thus, smaller, specialised firms in the area have increasingly been bought out by larger ones. Furthermore, those smaller firms that remain independent are finding it increasingly difficult to gain access to customers. Some small firms are seeking new markets in the developing world, where

⁷⁹⁰ Firm Interview 15. See also Firm Interview 11.

⁷⁹¹ Firm Interview 14.

⁷⁹² Firm Interview 11.

customers are likely to be less technically demanding, and also less insistent on having a single supplier.⁷⁹³ However, it is far more difficult for small firms to find new market niches than twenty or thirty years ago; the packaging machine industry is no longer expanding exponentially, and shows increasing signs of being a mature industry.

All of this means that the Bologna packaging machine industry is coming to be dominated by a few large “group firms,” most prominently IMA, Acma-GD, Sasib and Gruppo Marchesini. In addition, some foreign group firms, such as Körber have bought important local companies. All these group firms have close, long run relations with customer firms, from which other, smaller firms are gradually being excluded. The result is an increasing degree of hierarchy in the packaging machine cluster. Large firms dominate more and more. Some highly successful small firms still produce for niches which are unattractive for one reason or another to larger firms, but very many small firms now face the unpalatable choice of integrating their operations with larger firms (being bought out or becoming a dependent subcontractor) or going out of business

in this field we exist really, when we have the control of the final customer. In manufacturing of industrial or capital equipment like this, if you manufacture capital equipment you have got to have the grip on the customer yourself. What you could say is that there is a space for a small company, but they will supply mostly through the sales organisations of larger companies. That means they are nothing, they can be purchased easily, or destroyed or eliminated. Because the market here is not for this machine, it is for these customers, and if you don't have these customers, you don't exist. You have got to have these customers to exist.⁷⁹⁴

Thus, the relative equality which used to exist between final producers no longer applies. Larger “group firms” are increasingly able to block others from gaining direct access to customers. This increasingly allows them to dictate terms to smaller final firms, which they can take over, or treat as dependent suppliers, or, if necessary, destroy or eliminate.

Smaller final firms in the packaging machine industry are highly aware of this problem, and have sought to respond to it. One possible answer has been to increase cooperation among each other, forming loose groupings of firms which seek to present a common face to customers on international markets.⁷⁹⁵ This has been helped by the existence of small firms in the district which specialise in sales

⁷⁹³ Firm Interview 2.

⁷⁹⁴ Firm Interview 15.

⁷⁹⁵ See Firm Interview 2, Firm Interview 3.

abroad, and work on commission. However, such efforts still face substantial difficulties. In addition to the standard problems of collective action (firms have an incentive not only to stint on their contribution to common goods, but also sometimes to cheat by seeking business on their own rather than through the group), small firm owners in Bologna are highly independent, and have serious difficulties in forms of cooperation which they see as weakening that independence.⁷⁹⁶ Given the lock that larger firms have on important customers, one sympathetic observer believes that small firms in the area will face “huge difficulty” in sustaining their position.⁷⁹⁷

This has knock-on effects for relationships between final producers and subcontractors. Previously, subcontractors might have a wide range of buyer firms to choose from. Now, their options appear to be narrowing more and more, as smaller final firms in the district are bought up by larger “group firms.” While subcontractors have less buyer firms to choose from, the opposite is not true; large buyer firms face a veritable profusion of small subcontractors, which increases their ability to win favourable terms from them.

It is obvious that the big firm has the ability to play around, because there are too many [subcontractors] today for the needs of the market. If one makes a contract on the market, supply is greater than demand.⁷⁹⁸

The larger firms in the area have increasingly sought to make their relationships with their subcontractors more formal and “arms length” than they had been previously. In part, this has been accomplished through making subcontractor relations quasi-hierarchical. In contrast to the previous system of relations where large firms (like the smaller ones which I have described in Chapter Six) interacted directly with a large number of subcontracting firms, the larger firms of the district are now increasingly seeking to develop a small number of subcontractors as “sub-suppliers.”⁷⁹⁹ These sub-suppliers manage subcontracting relations on behalf of the final firm so that the large firm, like Japanese manufacturers, is at the apex of a vertically oriented “Christmas tree” of supplier relations. Increasingly, the packaging machine industry in Bologna is being dominated by what Crouch and

⁷⁹⁶ See my discussion in Chapter Five.

⁷⁹⁷ Firm Interview 14.

⁷⁹⁸ Interview with Barbara Maccati, Confartigianato. Note however that Carlo Rossini of API, which represents somewhat larger firms than Confartigianato, suggests that relations between small and large firms are still relatively non-conflictual. Interview with Carlo Rossini, API.

⁷⁹⁹ See Interview with Nomisma.

Trigilia call “networked firms” rather than “networks of firms.”⁸⁰⁰

Clearly, this system still allows some forms of cooperation between subcontractors and buyer firms to take place. Equally clearly, these forms of cooperation are likely to be less egalitarian, and involve greater distributional gains for the buyer firm than the previous dispensation. Indeed, the creation of this more vertically integrated system is conditioned on changes in the options available to, and thus the power relations between, different firms. The lock which big firms have on their final customers allows them to be sure that they are not building up potential competitors by focusing their attentions and resources on sub-suppliers. As the managing director of one of the largest firms in the district puts it;

Who could be possibly scared of a sub-supplier acquiring some competence if I hold the customers? After all, I have the customers. He may learn to make a machine; he does not know how to conceive a machine, he cannot design a machine himself. He may copy my machine; and then to whom shall he sell it?⁸⁰¹

Indeed, relations between large firms and their subcontractors sometimes verge on exploitation. One large firm in the district has sought to develop a few of its subcontractors to a higher technical standard, helping them in the purchase of new machinery.⁸⁰² However, this has had considerable costs for the subcontractors in question. While they are highly dependent on the buyer firm, which accounts for around 80% of their turnover, they have to sign up to terms which are “very favourable” to the buyer firm, and have no guarantee of future work or income. As the buyer firm describes it

We ask for a lot of flexibility from our suppliers! That is the main concern they have normally. They don’t like to be treated in that way, because for us it is difficult to predict what is the workload that we would pass to our suppliers. So normally our projection is always pretty wrong. But on the other side, for them we are very important. So they just complain.⁸⁰³

Here, just as with “goodwill” among Dore’s Japanese weaving firms, subcontractors are expected to show a much greater degree of flexibility than the buyer firm.⁸⁰⁴ Although this is not out-and-out exploitation (the buyer firm does help them purchase new machinery), it seems as though they are

⁸⁰⁰ Crouch and Trigilia (2000).

⁸⁰¹ Firm Interview 15.

⁸⁰² Firm Interview 11.

⁸⁰³ Ibid.

⁸⁰⁴ Dore (1992).

being treated as “reservoirs of flexibility” to use Klaus Semlinger’s term.⁸⁰⁵

Strategic contracting, in this case outsourcing, is to combine the high-powered incentives of markets, the production and communication cost efficiency of asset specificity, and the adaptiveness of loosely coupled systems without bearing additional transaction costs. In other words, outsourcing is the attempt of powerful companies to increase their own opportunities for flexibility while passing pressures of flexibility and associated risks to independent supplier firms.⁸⁰⁶

Thus, in short there is evidence strongly suggesting that there have been important changes in the Bologna packaging machine industrial district. In an earlier historical conjuncture, final firms enjoyed a rough parity in relations among each other, and relationships between these firms and their subcontractors were relatively egalitarian. All firms had a considerable variety of options which they could pursue in their relations with other firms in the locality. Now, this is no longer the case. Large firms are increasingly engaged in exclusive relationships with important final customers, and are able to deny market opportunities to smaller ones. Further, they have been engaged in a policy of buying smaller firms and integrating them into groups. This has had consequences for the relationships between final firms and subcontractors; the latter now have fewer alternative choices should a relationship with a particular firm break down. As Knight suggests, differences in the range of alternatives available in the case of breakdown seem to translate into differences in the power of actors to realise distributional outcomes that favour their particular interests. There is evidence that larger firms have sought to take advantage of their powerful position to restructure relationships both with smaller final firms, and with subcontractors.

All this said, the above is better interpreted as evidence of a likely future trend than grounds for believing that the kinds of cooperation I have described in the previous chapter must face inevitable decline. The continued existence of the sorts of diffuse cooperation which I have discussed already suggest that there are still limits to these developments. However, many observers both inside and outside the Bologna packaging machine industry predict that concentration, and the power of four or five dominant “group firms,” are likely to increase substantially over the next several years. Insofar as

⁸⁰⁵ Semlinger (1993b).

⁸⁰⁶ *Ibid*, pp. 169-70. Note however that in some circumstances subcontracting firms themselves may be able to exploit nominally cooperative forms of outsourcing. See Jean-Philippe Neuville’s fascinating account of the artful behaviour of a supplier firm (pseudonymously entitled ADC - “Abus De la Confiance”) in Neuville (1997, 1998).

these predictions are correct, one may reasonably expect that the more hierarchical and less egalitarian sorts of cooperation inside subcontracting relations that I have described will come to dominate over the more diffuse sorts of cooperation, based on local, informal institutions, that I describe in Chapter Seven. Indeed, these institutions themselves are likely to change in form, as the processes of institution formation come to be dominated more by bargaining among actors of unequal power than by contracting among relatively equal actors.

Here, I would like to note that these arguments do not imply that the previously existing dispensation was more efficient than the one which appears to be emerging, or vice versa. Some observers believe that the emergence of dominant actors, or “leader firms” may possibly lend a new coherence to previously decentralised and diffuse systems of production.⁴⁰⁷ Others suspect that these changes are likely to rob the district of much of its vitality and ability to adapt to circumstances.⁴⁰⁸ My arguments are compatible with both viewpoints; and indeed this compatibility is a key point. What I do is to apply a theory which suggests that global efficiency considerations do not drive institutional evolution; the *particular* interests of actors will be more relevant to institutional change than their collective interests, except under quite specific conditions. Thus, large firms are likely to seek changes that will privilege their particular position, and provide distributional benefits, regardless of whether these changes benefit (or perhaps hurt) the district as a whole. Collective benefits will only be relevant insofar as they can be translated into individual benefits. Likewise, small firms may seek to form coalitions to block change, even if this change is collectively advantageous, as long as this change hurts their particular position. While my arguments may be over-simplistic, and underestimate the importance of norms to human motivation, they arguably provide a more realistic account of change and the forces underlying it than most existing accounts in the literature.⁴⁰⁹

Interestingly, the Bologna packaging machine cluster is not the only Italian industrial district to be experiencing these changes. Brusco and his colleagues suggest that there is a general tendency

⁴⁰⁷ Interview with Alberto Malusardi, ERVET, Interview with Nicola Bellini.

⁴⁰⁸ Interview with Roberto Manaresi, CNA, Firm Interview 14.

⁴⁰⁹ Here, in contrast to some of the rest of the dissertation, I mean norms in a “strong” sense of forces motivating action that cannot be reduced to simple economic self-interest. For accounts within the broad rational choice tradition that take norms seriously, see Elster (1989), Sugden (1998), Taylor (1998).

among districts in Emilia-Romagna towards large group concentration.^{#10} Similarly, there appears to be a general shift in industrial districts in Tuscany towards the creation of “enterprise groups.”^{#11} The Veneto, which is the other Italian region where industrial districts play an important role, has always been dominated by “networked firms.”^{#12} The ultimate causes of this development differ from case to case. For example, increased outsourcing outside the district has arguably enhanced the power of large firms (who are better able to develop long distance subcontracting relations) within many districts, although it has only had a very moderate impact in the case study in Bologna.^{#13} Still, the broad effect in all of these cases appears to have been to increase the power of large “group” firms vis-à-vis smaller ones. As Nicola Bellini describes it,

The Marshallian district is a district where power relations are such that no-one is really the big power - even the *impannatore* in Prato is a strategic organiser in the system which is not so powerful, not hierarchically different from the other companies, part of the community. And this is what is changing in the districts. In some districts it has changed dramatically, very clearly, and I must say Sassuolo and Biella. ... Biella has rapidly emerged and we moved into a concentration of some main companies, which is what is happening in all the successfully evolving districts.^{#14}

Knight’s theoretical work provides a basis for believing that these changes in the relative power of actors will be reflected in institutional changes, and indeed in changes in the forces driving the evolution of institutions. As one moves from a community of equals to a system where some firms play a hierarchical role in organising the district, one is also likely to see a move from a process of institutional evolution favouring efficiency gains to one in which asymmetrical bargaining between actors with unequal power plays a dominant role.

Section 7.5 - Conclusions

In this chapter, I have discussed possible factors affecting the evolution of the institutions affecting trust in the two case studies. I have sought to examine these factors in two ways. First, I have looked at

^{#10} Brusco et al. (1996).

^{#11} Dei Ottati (1996b).

^{#12} Burroni and Trigilia (forthcoming).

^{#13} See the comparison of Emilian industrial districts in Brusco et al. (1996).

^{#14} Interview with Nicola Bellini.

the different political economies in which the two case studies are embedded. As I have suggested, one can tell a persuasive story about how differences between the two cases are linked to differences in the historical relationship between local and national actors in the two national systems, even if one can't prove or disprove this story on the basis of the evidence that I advance. One can be a little more confident in arguing about the forces guiding institutional evolution, at least in the Italian case. Here, the evidence would suggest that increasing asymmetries in power are linked to changes in forms of cooperation, just as Knight's theory would predict.

I would like to finish by arguing more generally for the approach that I have outlined, which borrows from recent advances in the rational choice theory of institutions to understand cooperation in industrial districts. This approach is non-holistic; it will underestimate certain factors which are important to institutional evolution in these districts. However, as I have shown, it can still be tied quite easily to the more general arguments of sociologists who work on industrial districts such as Arnaldo Bagnasco and Carlo Trigilia. Furthermore, it has two linked advantages over prevailing approaches.

First, it provides a useful means of shortcircuiting the arguments about "community" and "society" which have characterised many discussions of the evolution of industrial districts. Franchi and Rieser rightly criticise the existing literature on industrial districts for over-emphasising "community" as a motivating force; they argue, following Weber, that community among economic actors in these districts is relatively weak.⁸¹⁵ Yet their thinking tends to be dominated by traditional sociological dichotomies of *Gemeinschaft* against *Gesellschaft*, which leads them to argue that community based relations of trust and cooperation in industrial districts are being replaced by relations which emphasise calculability. These stark dichotomies don't represent changing realities very well; as I have shown the "new" forms of relations between actors in Bologna may also involve cooperation, albeit of a different variety, while the "old" forms in their turn involve calculability in the final analysis. The viewpoint which I have adopted does not counterpose trust and calculability (nor power relations and cooperation, or community and society) as irreconcilable opposites. Instead, it shows how forms of cooperation, and power relations between actors may be intertwined: industrial

⁸¹⁵ Franchi and Rieser (1991).

districts are not so much moving from *Gemeinschaft* to *Gesellschaft* as from a situation in which cooperation between actors is predicated on rough equality between actors, to one in which differences of power between them are more important. This move involves relative changes rather than absolute ones: in both situations trust may be based on calculation, but the institutional factors which such calculation takes into account differs from the one to the other. While one may still talk about “community” institutions under this definition, one can do so without essentialising or romanticising the idea of community.

Second, as I have already mentioned, my arguments (which are really no more than an empirical application of Knight) draw a clear link between individual interest and institutional evolution. They have relatively clearly specified micro-foundations. The same cannot be said for many prevailing arguments about the evolution of institutions in industrial districts. Typically, such arguments assert that collective interests prevail over individual ones, but either fail to describe the mechanisms through which this happens, or else do not demonstrate satisfactorily that these mechanisms empirically prevail over the “sparser” ones which I identify here. Insofar as such accounts identify mechanisms, they can usually be classified under two headings. First, some authors suggest that the transcendence of individual interest is located in individual psychology. Michael Piore, for example, suggests that in industrial districts, production is not so much an economic activity as an “opportunity for discourse.”⁸¹⁶ Such arguments have a considerable pedigree; they can be traced back at least as far as the early Marx. However, they also seem to rest in a somewhat romanticised view of human nature; while, as I have suggested myself in this dissertation, economic activity is not solely motivated by profit maximisation, it is hard to argue, given the vast array of empirical evidence, that self-interest is not an exceedingly powerful source of motivation for economic behaviour. The second class of mechanisms seems somewhat more credible. Some authors have argued that interests in industrial districts are conditioned by a high degree of mutual dependence between producers.⁸¹⁷ This means that these producers are likely to realise their common interests, and *ergo* to cooperate as they would not under different circumstances. While this argument holds some water, it underestimates the complexities involved; while such circumstances make cooperation *possible* (i.e., they are not constant

⁸¹⁶ Quoted in Franchi and Rieser (1991).

⁸¹⁷ See for example, Herrigel (1996b).

sum games in which interests are antagonistic), they usually do not spell out the *specific* form that cooperation will take. Except under extreme conditions, a wide variety of cooperative outcomes will be possible; these forms will likely have different distributional effects for the actors involved. To repeat my earlier argument, this suggests that actors in industrial districts will struggle for cooperative outcomes that have particular distributional benefits for them whether they are efficient or not; therefore, demonstrating a high degree of mutual dependence between actors does not amount to demonstrating that these actors will converge on "efficient" cooperative outcomes.

None of this is to deny that there are other forces than individual self interest which affect the evolution of institutions. A deeper discussion of these forces, and how they may interact with self interest is outside the somewhat limited purview of a Ph.D. dissertation. What I can assert, however, is that insofar as students of industrial districts wish to discount the importance of self interest in favour of collective benefits in driving institutional evolution, they will have to demonstrate the mechanisms through which this takes place, either demonstrating that actors are genuinely not guided by self interest in their actions, or that social mechanisms exist whereby private vices are transformed into public virtues.

Chapter Eight - Conclusions

Section 8.1 - Introduction

This dissertation, as I suspect is true of most other dissertations, had its beginnings in my dissatisfaction with the existing literature. My particular discontent had its roots in a book, Robert Putnam's *Making Democracy Work*, which advanced ambitious claims about the relationship between trust, cooperation and political and economic success. Like many others, I was initially impressed by the scope and ambition of this work, which seemed to draw causal inferences that allowed it to answer some of the most fundamental questions of the social sciences. However, on closer examination, it became evident that many of the important cause-effect relationships in the book were not as well specified as they might have been, and that the arguments made by Putnam were less convincing than they seemed at first sight. *Making Democracy Work*, although it raised and articulated interesting and important questions, did not always answer them satisfactorily. My desire to find empirical settings in which the relationships between trust and social setting could be explored more rigorously led me to the literature on industrial districts in Italy. Here it was possible to examine trust and cooperation between actors directly, and to explore both the sources of trust and the effects it had on social outcomes. On arriving at the European University Institute in Florence, I was lucky enough to become involved in a broader cross-national project on local economies in Europe, which gave me both a setting in which I could pursue these topics in collaboration with others, and a broader comparative framework into which I could fit my findings.

Since its beginnings, my research project has gone in a number of directions, some of which it has been able to explore more satisfactorily than others. The main structure of my dissertation consists of a set of arguments about trust and cooperation, and how they may best be studied in economic settings. It is in this context that I hope to provide the beginnings of a theory of the "political economy of trust" in industrial districts, by bringing the encapsulated interest approach to trust articulated by Russell Hardin and Margaret Levi together with rational choice theories of institutions; in particular the work of Jack Knight, but also borrowing insights from Avner Greif, Randall Calvert, Gary Miller,

Douglass North and others. After providing some context through a discussion of the previous literature, my dissertation goes on to provide a theoretical framework in which the relationship between institutions, trust, and cooperation may be understood. It then goes on to apply this theory to the two case studies; I hope that I make a good case that wedding institutions to the encapsulated interest theory of trust provides useful and important insights into cooperation between actors in these settings. The main body of my dissertation is about the effects of institutions on trust, so I finish by discussing the sources and evolution of these institutions themselves. While it is impossible to reach fully satisfactory explanations of these forces on the basis of two static comparisons, I have endeavoured at least to provide an account which can “frame” my research findings, and which can itself be used to generate useful future hypotheses.

Yet my dissertation also goes down some side tracks. As I say, my research project had its beginnings in my dissatisfaction with the burgeoning literature on social capital. Much of what I have to say is relevant to this literature; all the more so as one of my case studies, the packaging machine industry of Bologna, is located at the “heart” of Emilia-Romagna, Putnam’s main example of social capital in action. Many of the arguments which I make about the relationship between institutions and trust are relevant to more particular debates in the literature on industrial districts. Finally, much of what I have to say is informed by a deeper interest (which I can only deal with here in a cursory and unsatisfactory fashion) in the relationship between rational choice and political culture models of political action, and how the two might ultimately be brought together, or at the very least inform each other.

In short, it is difficult to present a unified and coherent set of findings. Flann O’Brien, in his comic novel “At Swim-Two-Birds” speaks disparagingly of the stubborn attachment of modern writers to narratives with a beginning, a middle, and an end.⁸¹⁸ A novel, in his opinion, may have as many as three separate beginnings, united only in the prescience of the author. While I do not have three beginnings, I will conclude my dissertation with four endings. First, I discuss how my dissertation relates to the debate on social capital; since it had its beginnings here, it is only appropriate that it begin its ending here too. Second, I examine how my findings relate to the literature on industrial

⁸¹⁸ O’Brien (1939).

districts. Third, I discuss the relationship between political culture and rational choice in the context of the trust relations which I describe. Finally, and most generally, I argue that a rational choice approach to institutions and trust may be usefully applied to a wide variety of social settings in addition to those studied here.

Section 8.2 - Conclusions: Social Capital.

As I have stated, this dissertation project began as a result of my dissatisfaction with claims that had been made about the importance of social capital to the explanation of political outcomes. In particular, I refer to Robert Putnam's *Making Democracy Work*, which is a serious exercise in social scientific analysis, and Francis Fukuyama's *Trust: The Social Virtues and the Creation of Prosperity*, which is not.⁸¹⁹ I have already discussed some of the shortcomings of Fukuyama's argument in Chapter Four; more generally, the book is frequently hazy and impressionistic, and rests on an imperfect synthesis of other authors' work rather than original research. Putnam's book is by far the more substantial of the two; it is to this book and its arguments, then, that I will devote the next several pages.

Most comments and criticisms of *Making Democracy Work* have focussed on the themes expressed in its title; Putnam claims to have indeed uncovered the foundations of successful democracies. Less attention has been paid to a claim which is perhaps just as important; that social capital provides the basis for economic as well as political success. As Putnam puts it

In summary, economics does not predict civics, but civics does predict economics, better indeed than economics itself.⁸²⁰

Clearly, this claim has direct relevance for the debate on the relationship between democracy and economic development, which perhaps "has generated the largest body of research on any topic in comparative politics."⁸²¹ But it also has considerable implications for political economy - if civic associationalism is indeed the root-cause of economic success, this is a highly important research

⁸¹⁹ Putnam (1993), Fukuyama (1995).

⁸²⁰ p. 157, Putnam (1993)

⁸²¹ p.156, Przeworski and Limongi (1997).

finding in and of itself.

Putnam develops and elaborates this claim in his discussion of Italian industrial districts.⁸²² These districts are the example in his argument of how the “macro” link between civics and economics [is] manifested at the micro level.”⁸²³ Indeed, they are among the very few concrete empirical examples he offers of social capital at work. He attributes these districts’ success to

norms of reciprocity and networks of civic engagement ... What is crucial about these small-firm industrial districts, conclude most observers, is mutual trust, social cooperation, and a well-developed sense of civic duty - in short, the hallmarks of the civic community. It is no surprise to learn that these highly productive, small-scale industrial districts are concentrated in those very regions of north-central Italy that we have highlighted as centers of civic traditions, of the contemporary civic community, and of high-performance regional government.⁸²⁴

While he accepts that the civic community is not the only factor necessary to economic success, and that finer grained sub-regional studies are needed to flesh out his arguments, it is clear that he views the “civic community” as a necessary, though not a sufficient condition, for genuine, and long-lasting economic success.

My research findings, as well as those of others, would suggest that this set of arguments, although it does identify some important causal links, is nonetheless misleading in some important respects. First, take the problems which I have discussed in Chapter Seven. As Bagnasco, Trigilia, Tarrow and Locke argue, apparent differences in “civic associationalism” in different parts of Italy, almost certainly reflect variation in the state-building process. One cannot easily separate associationalism as a causal factor from the political and state structures it is embedded in. This has wider implications; as Levi says

I remain unconvinced that the social capital, and, more particularly, trust, that emerges from [intermediate associations] is sufficient for producing generalized trust. There is considerable evidence that state institutions can, under certain circumstances, lay the basis for generalized trust.⁸²⁵

Furthermore, Putnam employs social capital as a catch-all category for a variety of different factors -

⁸²² p.159-162, Putnam (1993).

⁸²³ p.159, Ibid.

⁸²⁴ p.161, Ibid.

⁸²⁵ p.50, Levi (1996). See also Levi (1998).

institutions, norms of reciprocity, networks and so on - in a manner which makes it very difficult to specify causal relationships clearly. Political culture seems to be the residual explanation for variations in associationalism; as Arnaldo Bagnasco suggests,

In both these authors [Fukuyama and Putnam], attention moves from politics to culture, and the theme of social capital becomes a theme for them of the function of culture in social integration.²⁶

This leads to Putnam treating path-dependence in cultural terms; there is little scope for agency in his social arguments.²⁷ The resulting theoretical weaknesses are the root cause of the disjuncture between the arguments of the main text of his book (which seems to suggest that social and cultural structures determine political and economic outcomes more or less inexorably) and his conclusions (which suggest that institutional reform can result in real changes). Without a proper theory of how structure relates to action, it is impossible to arrive at a coherent treatment of the relationships that Putnam sets out to explore. Finally, Putnam very often resorts to a rather vague functionalism; "Norms such as those that undergird social trust evolve *because* they lower transaction costs and facilitate cooperation."²⁸

Very many of these problems can be surmounted if, instead of social capital, one treats institutions as the important independent variable affecting social outcomes. Putnam already includes institutions, and norms of reciprocity, as part of social capital, but it is unclear exactly how they relate to other elements of social capital; much of his argument is circular. Institutions are clearly not the only factor which may affect cooperation, but one can argue that insofar as such cooperation is generalised beyond individuals whom one knows personally, they will be of considerable importance.²⁹ By concentrating on institutions, it is possible to avoid the functionalism, determinism, and lack of clear causal relationships which sometimes characterise Putnam's arguments. Institutions may be seen as resulting from political struggles rather than functional requirements; such a perspective further has the merit of being easily reconcilable with the political, social and economic history of Italy. By the same token, the sorts of institutional theory that I employ here draw strong links between institutions and

²⁶ p.361, Bagnasco (1999), my translation.

²⁷ Ibid., Levi (1996).

²⁸ p.171, (Putnam 1993), my italics.

²⁹ Knight (1998).

agency; institutions are the results of, and can be affected by, individual action. Finally, one may still include many of the features of social capital which Putnam identifies, by examining how they affect the power of actors to effect institution formation and change. This has the merit of specifying clear causal relationships between different factors, rather than throwing them together into a grab-bag, as most arguments about social capital (including, indeed, those of James Coleman) do.⁸³⁰ As Knight suggests

the concern with such issues as social capital, trust and civility basically involves an analysis of the types of informal institutions that exist in a society. ... What I want to suggest ... is that to understand the emergence and maintenance of social capital, trust and community in a society, we must understand the evolution of these informal rules.⁸³¹

Finally, by paying attention to institutions we may better understand the *bounds* of trust and cooperation than by only talking about social capital as such. As I discuss in Chapter Seven, the evidence which I have gathered for my dissertation, as well as a more general body of sociological research on Italy, suggest that relationships of trust and cooperation in Italy, even in regions of “high civicness” are quite limited and discrete. *Contra* Putnam, the existence of informal institutions underpinning reciprocity does not give rise to generalised, impersonal trust. Instead, trust appears to be bounded and limited by the localised and family based institutions which it is based on. Here, there appears to be substantial differences with Germany, where more impersonal varieties of trust appear to be much more easily achieved. What this suggests is that the key causal factor is institutional differences rather than levels of associationalism as such. Contexts where local and family institutions underpin trust are by the same token likely to be characterised by highly bounded sorts of trust and cooperation between actors (even if trust and cooperation may be relatively “rich” within these limited boundaries). In contrast, contexts where there exist general, impersonalised institutions to underpin transactions are likely to be associated with more impersonal - and extensive - varieties of trust. The rubric of social capital may contain within itself a variety of different forms of trust; the crucial variable explaining which sort of trust is likely to apply in large group situations would appear to be the institutional setting. Social capital is perhaps better seen as a research agenda, which focusses

⁸³⁰ Coleman (1990).

⁸³¹ p.754, Knight (1998).

attention on informal varieties of cooperation and coordination than as an explanatory concept as such. Institutional theory, with its more precise set of concepts, is perhaps better suited to the investigation of social capital than social capital theory itself.

Section 8.3 - Conclusions: Industrial Districts

Students of industrial districts have very often been suspicious of rational choice approaches to social behaviour. Much of their animus is rooted in wider disagreements between neo-classical economics and more sociological and cultural approaches to the economic realm. Prominent academics such as Jonathan Zeitlin have argued that it is precisely the sorts of cooperation to be found in industrial districts that best illustrate the shortcomings of the concept of economic rationality.

I beg to differ. As I have made clear, “narrow” economic rationality by no means offers a complete explanation of trust and cooperation within industrial districts. But it does do a much better job of explaining such trust and cooperation than critics would allow. While Zeitlin and others are undoubtedly correct in their assertion that the existence and success of industrial districts pose serious problems for neo-classical economic theory, other applications of the economic rationality concept, most prominently game theory and recent developments in the rational choice understanding of institutions and reciprocity, can be applied very fruitfully to the sorts of cooperation that are found in industrial districts. The case studies examined in this dissertation topic were chosen because of their prominence in the literature on industrial districts as well as their comparability. The Bologna packaging machine industry is in the heart of Emilia-Romagna, which, along with Prato, has been the primary focus of the literature on industrial districts in Italy. The machine tool industry of Baden-Württemberg has also been depicted as one of the “strong cases” of industrial district type cooperation between firms. One may reasonably take these two cases as proxies for the broader industrial district phenomenon, at least in the sense that “non-rational” forms of trust, if they play an important role in industrial districts, were likely to be found in these supposedly paradigmatic examples of the phenomenon. In fact, it would appear that a narrow version of the encapsulated interest theory of trust, together with institutional theory, provides a good account of relationships of cooperation between

producers in the two case studies. What is more, it offers some important theoretical advantages over many existing approaches to the study of trust and cooperation in these settings. The international literature on industrial districts has been criticised for its weak social-scientific foundations: it often seeks to extrapolate general trends from isolated cases, and is poor on controlled comparisons. Staber's summation of the literature is pertinent;

In light of these flaws in the empirical literature, it seems that current thinking about industrial districts is best considered a conceptual framework for understanding economic and spatial developments than a substantive theory. We are given several concepts (such as knowledge sharing, trust and social embeddedness) and some loose propositions (such as cooperation enhances continuous innovation), but few testable hypotheses. Without precise definitions of concepts and operational variables, and without clear specifications of the relationships between them, the 'theory' of industrial districts as it stands now is not falsifiable.⁴³²

Many of those engaged in debate on industrial districts acknowledge this, but do not necessarily see it as a shortcoming: they have different conceptions of what makes social science valid. Hirst and Zeitlin, for example, argue that the theory of flexible specialisation is best seen as a heuristic, the basic concepts of which are ideal types rather than testable propositions.⁴³³ While it may generate empirical hypotheses, it does not itself consist of them. This is a legitimate position to take; however, many researchers do cleave to a different model of social science, I among them. For these social scientists, questions of testability and falsifiability are of considerable importance in weighing the merit of concepts and theories. Here, I can safely say that the approach which I have advocated in this dissertation is both (a) falsifiable itself, and (b) will generate interesting falsifiable propositions. There will be observable differences between a world where trust and cooperation are rational responses to institutions, and a world where they are not.

By the same token, the mechanisms which I have identified in my account are not the only mechanisms affecting trust and cooperation in the two industrial districts studied, let alone in other cases. Even still, it presents a framework on which a broader approach might be constructed.

My goals have been quite limited: I have deliberately not sought to engage in debates on industrial districts which do not touch directly on trust and cooperation between actors. My arguments could, however, be fitted into such broader debates. I have already referred to the congruence between

⁴³² p.313, Staber (1996).

⁴³³ Hirst and Zeitlin (1992).

my findings, and the arguments of sociologists and political economists (Arnaldo Bagnasco, Carlo Trigilia, Richard Locke, Marino Regini, Ulrich Glassmann, Helmut Voelzkow) on political and social development in the national systems of the two case studies. Arnaldo Bagnasco, in an important assessment of recent research directions in economic sociology, refers to Boudon's distinction between paradigms of action, and deterministic, causal paradigms, classifying his own work, as well as that of James Coleman, Carlo Trigilia and others, under the former heading.⁴³⁴ Clearly, my theory too can be seen as a theory of action: while I discuss the effects of institutions on relationships between individuals, I make it clear that these institutions are themselves the product of human agency, and amenable to change. As Bagnasco also makes clear, there is considerable scope for cooperation between "traditional" economic sociologists, and those who employ more formal models of human action, provided that the latter recognise some of the limits of their approach.⁴³⁵ My research project can be interpreted as just such an exercise.

There are also similarities between what I have to say and recent trends in economic geography. Ash Amin and Nigel Thrift, for example, speak of the importance of the "shared rules, conventions, and knowledge which serve to constitute the 'social atmosphere' of a particular region."⁴³⁶ Michael Storper likewise speaks of the importance of "conventions" which resolve uncertainties and result in considerable untraded interdependencies at the regional level.⁴³⁷ The approach which I have articulated in this dissertation seeks to examine just such informal rules, the bases on which they rest, and the likely effects that they will have on trust and cooperation between actors. My findings may be of interest to those engaged in these debates. Hirst and Zeitlin speak about the need for local institutions in regions of flexible specialisation that will moderate conflicts between actors.⁴³⁸ Again, although my approach to the understanding of these institutions is probably not one that they would immediately share,⁴³⁹ it may provide insights into the issues that interest them.

⁴³⁴ Bagnasco (1999).

⁴³⁵ See also DiMaggio (1998). "Now, we have entered a ... stage, I believe, in which polemical energies [between rational actor theorists, constructivists and institution-oriented economic sociologists] have dissipated and scholars are finding common interests around shared explanatory dilemmas." p. 699, *Ibid.*

⁴³⁶ p. 14, Amin and Thrift (1994).

⁴³⁷ Storper (1995). See also Scott and Storper (1992).

⁴³⁸ Hirst and Zeitlin (1992).

⁴³⁹ They seem more influenced by the ideas of Charles Sabel which I discuss in Chapters One, Two, and Four.

More generally, as I stated at the beginning of this section, rational choice political economists have typically shown little interest in industrial districts, and scholars of industrial districts have shown little interest in rational choice. The arguments and evidence which I present suggest that this mutual lack of interest has forestalled some interesting lines of research. There is a large body of work on economic institutions - I refer here to the arguments of Avner Greif, Douglass North, Randall Calvert, Jean Ensminger and Gary Miller among others - which can fruitfully be brought to bear on many of the research puzzles presented by industrial districts. Many of the insights elaborated by these authors in other settings seem highly relevant. Furthermore, the use of these concepts can stimulate useful theoretical debate, even if (as I suspect is the case) they cannot explain all forms of cooperation and interaction in these districts. As I have suggested in Chapter Seven, most accounts of trust and cooperation in industrial districts have poor micro-foundations. I have presented a rational choice theory of institutions and trust as a positive heuristic, which does indeed enjoy relatively sound microfoundations. But it can serve as a negative heuristic too; if constructivist or culturalist scholars of industrial districts are sufficiently familiar with what rational choice models of human action can and cannot explain, they can lay down more robust micro-foundations of their own, which explicitly address the mechanisms through which trust and cooperation arise.

Section 8.4 - Conclusions: Political Culture and Rational Choice

A constant underlying theme of this dissertation has been the relationship between political culture and rational choice as explanations of human behaviour. This is accentuated all the more by my focus on institutions. One can conceive of institutions, and their effect on individual human action, in a number of ways. On the one hand, institutions may be seen as routinising human behaviour in such a way that "action is often based more on identifying the normatively appropriate behavior than on calculating the return expected from alternative choices."⁴⁰ Routines are followed even when it is not in the self-interest of the individual to do so. But one may also view institutions, as I have done in this dissertation, as affecting individuals through the information that they provide about the likely

⁴⁰ p.29, March and Olsen (1989).

responses of others in a context of strategic interaction, and thus shaping their objective interests. Finally, one may adopt a perspective intermediate between the two, in which one sees institutions as playing a heuristic role, disclosing possibilities to actors about how they may pursue their interests as well as helping determine the interests themselves.

Each of these three positions on institutions may be seen as a point on the continuum between traditional political culture, and traditional rational choice approaches. The belief that institutions work through the routinisation of individual behaviour closely resembles the traditional, "socialisation" view of political culture. Here, political culture consists of routinised, and largely unconsidered and automatic orientations to social objects. This viewpoint may be found in Almond and Verba; most recently it has been vigorously defended by the late Harry Eckstein.⁴⁴¹ The view that institutions are primarily important insofar as they affect actors' interests (or more precisely, the information which they possess on how other actors are likely to respond to their own strategies) is clearly congruent with traditional rational choice theory. The intermediary position, however, is perhaps the most interesting. It is here that rational choice and political culture accounts are beginning to converge. On the one hand, one may point to scholars of political culture, such as Elkins and Simeon, who, inspired by Geertz, suggest that political culture is *not* reducible to political socialisation. For them,

Assumptions about the political world focus attention on certain features of events, institutions, and behavior, define the realm of the possible, identify the problems deemed pertinent, and set the range of alternatives among which members of the population make decisions.⁴⁴²

One may "share" a political culture without internalising its values.⁴⁴³ On the other hand, scholars such as Jim Johnson, Douglass North, and (in a somewhat different fashion) Avner Greif, have begun to examine how rational choice understandings of institutions and action may need to deal explicitly with such effects. Johnson here is exemplary; for him,

culture works theoretically to delineate the focal categories of social and political interaction, and thereby, to define the realm of social and political possibility for relevant actors.⁴⁴⁴

⁴⁴¹ Almond and Verba (1963), Eckstein (1996), Eckstein (1997).

⁴⁴² p.128, Elkins and Simeon (1979).

⁴⁴³ See also Barnes (1988).

⁴⁴⁴ p.12, Johnson (1994).

The similarities to Elkin and Simeon's formulation are both clear and intended. Douglass North's body of work on institutions has been evolving to a similar position over the last several years.⁴⁴⁵ For North,

institutions exist to reduce uncertainty in human interaction precisely because of the limited information we possess to evaluate the consequences of the actions of others and the limits of the models we possess to explain the world around us.⁴⁴⁶

But institutions do not only reduce uncertainty through the information that they provide to rational actors; they also play a heuristic role, implying that cognitive science has much to offer for institutional scholars.⁴⁴⁷

On the one hand, this theoretical convergence avoids many of the problems of "oversocialisation" which are associated with a view of institutions as routinised orientations.⁴⁴⁸ But on the other it also captures aspects of institutions that the standard rational choice approach does not (or at least, not explicitly). Under these accounts, institutions may not only affect actors' objective interests, but also their subjective perception of what choices and possibilities are available. Institutions may thus be seen as playing a "cultural" role without at the same time completely determining the individuals subjected to them. Actors are more than passive bearers of cultural routines.

Clearly, these different conceptions of how institutions affect individual actors are also associated with different theories of trust. The socialisation/routinisation perspective is closely associated with that cultural theory of trust which I discuss at greater length in Chapter Three. The particular version of the encapsulated interest theory of trust which I employ rests more or less on a rational choice perspective, in which institutions are rules which inform us about how others are likely to behave in a context of strategic interdependence. But it is to the third, intermediate position that I want to turn. As I outlined in Chapter Three, there are good practical reasons why I did not employ such a theory in this dissertation. Heuristic frameworks are difficult to study comparatively.⁴⁴⁹ But I

⁴⁴⁵ His thought has evolved substantially over time; compare North (1981) with North (1990a, 1990b), and the latter with North (1995, 1997a, 1997b, 1998).

⁴⁴⁶ p.24, North (1995).

⁴⁴⁷ North (1993).

⁴⁴⁸ Granovetter (1985).

⁴⁴⁹ Le Galès and Voelzkow (forthcoming). Some comparative work on trust does do just this; see Hayashi, Ostrom and Walker (1999). However, this fascinating study relies on laboratory experiments: comparing the heuristic effects of real world institutions is likely to be more difficult by

suspect that a theory which incorporated political cultural variables precisely insofar as they disclose possibilities to actors may indeed provide an account of trust which is superior in principle to mine. Under my account, trust is primarily a matter of expectations, which themselves must turn on beliefs about the consequences of actions in a situation of interdependence. Yet beliefs need not reflect external reality, and indeed are almost certain to be tinted by the heuristic spectacles through which we view the world. This implies that the encapsulated interest account of trust may be combined with a more liberal account of institutions than the one that I employ here. One may seek to take into account how institutions' heuristic aspects shape actors' beliefs, and thus their expectations and consequent behaviour. Greif provides an interesting account of how differences in beliefs may lead to fundamental differences in social outcomes.⁸⁵⁰ While the heuristic aspects of institutions remain to be fully explored, I suggest that they hold out considerable promise for the study of trust relations in different settings.

Section 8.5 - Conclusions: The Comparative Study of Trust

The primary aim of this dissertation has been to develop and test a theory of how trust may work in economic settings. In order to do this, I have combined two bodies of work in the broad rational choice tradition; one on what trust may mean for actors (the so-called encapsulated interest theory of trust), and the other on how institutions affect actors' expectations, and how they themselves change. The two fit together quite well; while they do not provide a complete theory of trust in economic settings, they do cover a broad range.

I have found that empirical evidence lends good support to the encapsulated interest account of trust; indeed, this theory seems to do better than many "fuzzier" alternatives when explaining trust and cooperation between economic actors. This result, while not entirely surprising, is still extremely useful. It suggests that the encapsulated interest account of trust is not only of interest to political theorists, if that were ever in doubt. This theory of trust can be usefully applied in empirical situations, including, I suspect, a much wider variety of such situations than the cases which I examine here.

orders of magnitude.

⁸⁵⁰ Greif (1994).

Furthermore, the encapsulated interest account of trust fits well with recent rational choice work on the theory of institutions. Again, this is not entirely surprising: the two sorts of theory are, after all, cousins of a sort. What might less easily have been predicted is that the two theories, when combined, seem capable of generating hypotheses that are falsifiable, interesting, and seem to be supported by empirical evidence. In particular, as I suggest above, institutions plus encapsulated interests provide a more coherent, and apparently more accurate account of trust relations in an empirical setting which has helped give birth to a rival theory of trust, the “social capital” hypothesis that a relatively diffuse, impersonal trust arises from associationalism. By incorporating institutions into the account, one can see how different institutional settings are likely to be associated with different sorts of trust; the latter may vary both according to the people who are considered trustworthy, and the matters which they are considered trustworthy over. Again unlike the social capital theory, institutions plus encapsulated interest shows how trust relations are likely to be limited, in a manner which corresponds with the empirical observations of sociologists whose work on Italy gave much of the initial impetus to the social capital literature. An institutional perspective can incorporate much of what the social capital argument has to offer, by examining how cooperation may arise as a result of informal institutions. But, unlike the social capital perspective, it also may examine the sorts of trust that are associated with formal institutions. Finally, it may provide crucial insights as to how informal and formal institutions, and the kinds of trust and cooperation associated with both, relate to each other.⁸⁵¹

Finally, this dissertation shows how the relationship between institutions and trust can be examined *comparatively*. Different institutional settings would appear to be associated with different patterns of trust and cooperation. The stark differences between subcontracting practices, and industrial organisation more generally, in the two case studies, illustrate how a context where informal, local institutions prevail in certain areas of economy and society may exhibit quite different sorts of cooperation from one where formal institutions are more important. While my two case studies are industrial districts, I suggest that the arguments I make, and the broader theories that they have been derived from, can be applied in many other settings. The relationship between institutions and levels

⁸⁵¹ Knight (1998).

and sorts of trust and cooperation is a complex one, deserving of further exploration. But it is amenable to the comparative method. The most prominent contemporary body of comparative research on trust treats it in terms of political culture and values, and seeks to explore how it is causally related to variables such as political and economic development.⁸⁵² But there is another approach, the one which I adopt here, which is to examine trust (or more precisely cooperation, which is manifested on the basis of trust) as an endogenous variable. As Jackman and Miller suggest, it may be fruitful to pursue empirical analyses that examine how procedures and rules structure the choices of actors, and how political conflict generates these rules.⁸⁵³

Of course, this is not the only possible line of research. On the one hand, one may seek to compare how other structures than institutions affect trust relations. I have already mentioned the work of Richard Locke; his fascinating study of the Italian political economy examines how the shape of networks between actors may affect the potential for cooperative or conflictual relations between them.⁸⁵⁴ His analysis captures effects that are difficult to understand by focussing on institutional rules alone. However, the two approaches may be seen as complementary rather than contradictory; Locke argues that

economic actors are not simply shackled by local historical legacies. Instead, they actively pursue an array of different strategies and struggle with each other over competing strategic choices.⁸⁵⁵

In this view, networks, like institutions, both shape the strategic choices of actors and are shaped by them.

On the other hand, one could perhaps use different sorts of empirical data to study these relationships. I have employed the “soak and poke” method of the comparable cases strategy here; given both constraints of resources, and the particular variables of interest to me, this seemed the most appropriate research methodology. One might also expect that relationships of the sort I have described might be manifested in macro-level variables too, although obviously these will be a somewhat cruder

⁸⁵² See Inglehart (1990).

⁸⁵³ Jackman and Miller (1996b). See also Przeworski (1987) on the potential of formal models for cross-national research.

⁸⁵⁴ Locke (1995).

⁸⁵⁵ p.27, *Ibid.*

measure of the relationships between institutions (or other structural variables) and trust.

In summation, this dissertation has sought to develop a theory of how institutions may affect trust and cooperation between actors, and to apply it to relationships between firms in industrial districts. The results of this project would appear to have been worthwhile. Trust between actors in contexts where economic calculation is supposed not to occur can in fact be quite considered and rational. Institutions may have important effects on trust and cooperation that can better be understood from a rational choice perspective than other, competing viewpoints in the social sciences. While the arguments which I have advanced do not explain all facets of trust and cooperation in the two case studies I have chosen, they do give good reason to be optimistic that a rational approach to trust has as much to add, if not more, than the more constructivist, sociological approaches that have prevailed in the field to date. Finally, there are also grounds for confidence that the concerted study of institutions, and the forces that condition them, may play a much larger role in the comparative study of trust than it has up to now.

Appendix

The work done for this dissertation has been carried out in the context of a wider project, coordinated by Colin Crouch, Patrick Le Galès, Carlo Trigilia, and Helmut Voelzkow on the governance of local economies in Europe. This project has sought to apply the “governance” approach, developed most prominently by Wolfgang Streeck, Philippe Schmitter and Rogers Hollingworth, to the understanding of the functioning of local economies. It has developed the argument that certain “collective competition goods” are needed for local economic success, and that whether these goods are delivered through state, hierarchy, association, market or community, will have important and tangible consequences. The first part of the project culminated in an edited volume, now under preparation, examining the development of local economies in four European countries - Britain, France, Germany, Italy. While I have carried out work for this volume, co-writing a chapter on Britain with Colin Crouch, this work has not been related to my dissertation project. As an examination of my cities will show, I have drawn on the country chapters on Germany (by Glassmann and Voelzkow) and Italy (by Burroni and Trigilia) extensively in the text of my dissertation, especially in Chapter Seven. I have also made use of the Introduction and Conclusions to the volume.

The second part of the project, which is now under way, will use a body of data gathered in particular local economies in Europe, to reach general conclusions. Most importantly, it will compare four regions with a mechanical engineering presence, and four former steel producing regions. Data gathered for this stage has included the data for Emilia-Romagna and Baden-Württemberg which I have used in this dissertation. These data will also be employed to compare Emilia-Romagna and Baden-Württemberg in the next volume produced by the project, where I, together with Ulrich Glassmann and Ann-Louise Lauridsen, will write reports on the two cases. These reports will have only limited overlap with this dissertation; their main focus will be the evolution of the industries, and the provision of collective goods through state, association, community, market etc. In addition to this collective endeavour, Ulrich Glassmann, a German colleague at the Max-Planck Institute for the Study of Society in Köln is drawing on the data for Baden-Württemberg and Emilia-Romagna for his Ph.D.

dissertation. This dissertation will again have limited overlap with mine; his subject is the provision of collective goods (in particular technology transfer and training) in the two case studies, and the overall effects of governance regimes on collective goods in the two cases.

Bibliography

- Akerlof, George. "Labor Contracts As Partial Gift Exchange." *The Quarterly Journal of Economics* 97, no. 4 (1982): 543-69.
- Almond, Gabriel. "Chapter 1 - Separate Tables: Schools and Sects in Political Science." in *A Discipline Divided: Schools and Sects in Political Science*. Gabriel Almond. London: Sage Publications, 1990.
- Almond, Gabriel A., and Sidney Verba. *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Princeton: Princeton University Press, 1963.
- . *The Civic Culture Revisited*. Boston: Little, Brown, 1980.
- Alston, Lee J. "Empirical Work in Institutional Economics: An Overview." in *Empirical Studies In Institutional Change*. eds. Lee J. Alston, Thráinn Eggertsson, and Douglass C. North, 25-30. Cambridge: Cambridge University Press, 1995.
- Amin, Ash. "The Difficult Transition From Informal Economy to Marshallian Industrial District." *Area* 26, no. 1 (1994): 13-24.
- . "The Globalization of the Economy: An Erosion of Regional Networks?" in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993.
- . *Il Modello Emiliano: Sfide Istituzionali*. Bologna: Istituto per il Lavoro, 1998.
- Amin, Ash (ed.), *Post-Fordism: A Reader*, Oxford: Blackwell, 1994.
- Amin, Ash, and Nigel Thrift. "Living in the Global." in *Globalization, Institutions and Regional Development in Europe*. eds. Ash Amin, and Nigel Thrift Oxford: Oxford University Press, 1994.
- . "Neo-Marshallian Nodes in Global Networks." *International Journal of Urban and Regional Research* 16, no. 4 (1992): 571-87.
- Anderson, Perry. *The Invention of the Region 1945-90*. EUI Working Paper, EUF No.94/2. Florence: European Forum, 1996.
- Arrighetti, Alessandro, Reinhard Bachmann, and Simon Deakin. "Contract Law, Social Norms and Inter-Firm Cooperation." *Cambridge Journal of Economics* 21 (1997): 171-95.
- Arrow, Kenneth. "Kenneth Arrow." in *Economics and Sociology - Redefining Their Boundaries: Conversations With Economists and Sociologists*. ed. Richard Swedberg Princeton: Princeton University Press, 1990.
- Arzeni, Sergio. "Introduction." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 13-20. Paris: OECD, 1996.
- Assessorato alle Attività Produttive: Industria, Artigianato Commercio Turismo e Sport. *Piano Provinciale Dell'Artigianato e Atti Della Conferenza Di Presentazione Del Piano*. Bologna:

- Provincia di Bologna, 1992.
- ASTER. *Il Sistema Regionale Per La Ricerca Di Interesse Industriale, Il Trasferimento Di Tecnologie e L'Innovazione*. Bologna: ASTER, 1998.
- . *Posizionamento Strategico*. www.aster.it: ASTER, 1999.
- Axelrod, Robert. *The Evolution of Cooperation*. New York: Basic Books, 1984.
- Bacharach, Michael. *Showing What You Are by Showing Who You Are*. New York: Russell Sage Foundation Working Paper #125, 1998.
- Bacharach, Michael, and Diego Gambetta. *Trust in Signs*. New York: Russell Sage Foundation Working Paper #126, 1998.
- Bagnasco, Arnaldo. "La Costruzione Sociale Del Mercato: Strategie Di Impresa e Esperimenti Di Scala in Italia." *Stato e Mercato*, no. 13 (1985): 9-45.
- . "Introduction: An Unexpected and Controversial Return." in *Small and Medium-Size Enterprises*. eds. Arnaldo Bagnasco, and Charles F. Sabel, 1-15. London: Pinter, 1995.
- . "Problematiche Dello Sviluppo e Articolazione Dell'Analisi: Un Paradigma Per L'Analisi Territoriale." in *Le Problematiche Dello Sviluppo Italiano*. Arnaldo Bagnasco, Marcello Messori, and Carlo Trigilia, 205-51. Milan: Feltrinelli, 1978.
- . "Teoria Del Capitale Sociale e Political Economy Comparata." *Stato e Mercato*, no. 3 (1999): 351-72.
- Tre Italie: La Problematica Territoriale Dello Sviluppo Italiano* Arnaldo Bagnasco. Bologna: Il Mulino, 1977.
- Bagnasco, Arnaldo, and Marcello Messori. "Problematiche Dello Sviluppo e Questione Della Piccola Impresa." in *Le Problematiche Dello Sviluppo Italiano*. Arnaldo Bagnasco, Marcello Messori, and Carlo Trigilia, 7-63. Milan: Feltrinelli, 1978.
- Bagnasco, Arnaldo, and Carlo Trigilia. *La Construction Sociale Du Marché: Le Défi De La Troisième Italie*. Cachan: Editions de l'ENS-cachan, 1993.
- Bagnasco, Arnaldo. "Regioni, Tradizione Civica, Modernizzazione Italiana: Un Commento Alla Ricerca Di Putnam." *Stato e Mercato* 40 (1994): pp. 93-103.
- Balestri, Andrea. "Italy:C - The Italian Club of Industrial Districts." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 121-23. Paris: OECD, 1996.
- Banfield, Edward. *The Moral Basis of a Backward Society*. Chicago: Free Press, 1958.
- Barnes, Samuel H. *Politics and Culture*. Ann Arbor: Center for Political Studies, Institute for Social Research, University of Michigan, 1988.
- Barry, Brian. *Sociologists, Economists and Democracy*. Chicago: The University of Chicago Press, 1978.

- Bates, Robert H. "Contra Contractarianism: Some Reflections on the New Institutionalism." *Politics and Society* 16, no. 2-3 (1988): 387-401.
- . "Macropolitical Economy in the Field of Development." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle. Cambridge: Cambridge University Press, 1990.
- Bates, Robert H., Rue J. P. De Figueiredo, and Barry R. Weingast. "The Politics of Interpretation: Rationality, Culture and Transition." *Politics and Society* 26, no. 2 (1998): 221-56.
- Bates, Robert H., Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R. Weingast. "Conclusion." in *Analytic Narratives*. Robert H. Bates, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R. Weingast, 231-38. Princeton, New Jersey: Princeton University Press, 1998b.
- . "Introduction." in *Analytic Narratives*. Robert H. Bates, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal, and Barry R. Weingast, 3-22. Princeton, New Jersey: Princeton University Press, 1998a.
- Batz, Ulrike, Ralf Grammel, Frank Iwer, Vogl, Gerline, and Jürgen Volkert. *Strukturbericht 1997/98: Zur Wirtschaftlichen Und Beschäftigungspolitischen Lage in Der Region Stuttgart*. Stuttgart: Institut für Angewandte Wirtschaftsforschung/IMU-Institut/IG Metall Region Stuttgart/Industrie-und Handelskammer Region Stuttgart/Verband Region Stuttgart, 1998.
- Becattini, Giacomo. "The Development of Light Industry in Tuscany: an Interpretation." in *Regional Development in a Modern European Economy: The Case of Tuscany*. eds. Robert Leonardi, and Raffaella Y. Nanetti. London: Pinter, 1994.
- Becker, Laurence C. "Trust As Noncognitive Security About Motives." *Ethics* 107 (1996): 43-61.
- Beckert, Jens. "What Is Sociological About Economic Sociology? Uncertainty and the Embeddedness of Economic Action." *Theory and Society* 25 (1996): 803-40.
- Bellandi, Marco. "The Incentives to Decentralized Industrial Creativity in Local Systems of Small Firms." *Revue D'Économie Industrielle*, no. 59 (1992): 99-110.
- . "On Entrepreneurship, Region, and the Constitution of Scale and Scope Economies." *European Planning Studies* 4, 421-437 (1996b).
- . "Research Briefing: Innovation and Change in the Marshallian Industrial District." *European Planning Studies* 4, no. 3 (1996a): 357-68.
- Bellandi, Marco, and Marco Romagnoli. "Case Study II: Prato and the Textile Industry." in *Regional Development in a Modern European Economy: The Case of Tuscany*. eds. Robert Leonardi, and Raffaella Y. Nanetti. London: Pinter, 1994.
- Bellini, Nicola. "The Management of the Economy in Emilia-Romagna: The PCI and the Regional Experience." in *The Regions and European Integration: The Case of Emilia-Romagna*. eds. Robert Leonardi, and Raffaella Nanetti, 109-23. London: Pinter, 1990.
- . *Planning the Learning Region*. Paper Presented at the Seminar on "The Learning Region", Tillburg University, 27 March 1998: 1998.
- Bellini, Nicola, Maria Grazia Giordani, and Francesca Pasquini. "The Industrial Policy of Emilia-

- Romagna: The Business Service Centers." in *The Regions and European Integration: The Case of Emilia-Romagna*. eds. Robert Leonardi, and Raffaella Nanetti, 171-86. London: Pinter, 1990.
- Bertini, Silvano, Study commissioned for CNA. *Artigiani e Piccole Imprese Bolognesi: Casi Di Un Sistema Imprenditoriale Di Successo*. Bologna: NOMISMA, 1998.
- Bianchi, Patrizio. "Un Contesto Produttivo Non Nasce Dal Nulla: È Fatto Di Conoscenze, Regole Sociali, Culture, Innovazioni, Finanziamenti ..." *Scuolaofficina* 93, no. 2 (1993).
- Bianchi, Patrizio, and Giuseppina Gualteri. "Emilia-Romagna and Its Industrial Districts: The Evolution of a Model." in *The Regions and European Integration: The Case of Emilia-Romagna*. eds. Robert Leonardi, and Raffaella Nanetti, 83-108. London: Pinter, 1990.
- Blackbourne, David, and Geoff Eley. *The Peculiarities of German History*. Oxford: Oxford University Press, 1984.
- Bobbio, Norberto. "Gramsci and the Concept of Civil Society." in *Civil Society and the State: New European Perspectives*. ed. John Keane. London: Verso, 1988.
- Borras-Alomar, Susana, Thomas Christiansen, and Andres Rodriguez-Pose. "Towards a 'Europe of the Regions'? Visions and Reality From a Critical Perspective." *Regional Politics and Policy* 4, no. 2 (1994): 1-27.
- Bowman, John R. "Achieving Capitalist Solidarity: Collective Action Among Norwegian Employers." *Politics and Society* 26, no. 3 (1998): 303-35.
- . "When Workers Organize Capitalists: The Case of the Bituminous Coal Industry." *Politics and Society* 14, no. 3 (1985): 289-327.
- Boyer, Robert, and Yves Saillard. *Theorie De La Regulation: L'Etat Des Savoirs*. Paris: La Decouverte, 1995.
- Braczyk, Hans-Joachim. "Erneuerung Einer Industrieregion?" in *Kurswechsel in Der Industrie: Lean Production in Baden-Württemberg*. eds. Hans Joachim Braczyk, and Gerd Schienstock, 11-23. Stuttgart: W. Kohlhammer, 1996.
- Braczyk, Hans Joachim, and Gerd Schienstock, eds. *Kurswechsel in Der Industrie: Lean Production in Baden-Württemberg*. Stuttgart: W. Kohlhammer, 1996.
- Braczyk, Hans-Joachim, Gerd Schienstock, and Bernd Steffensen. "Die Regionalökonomie Baden-Württembergs - Ursachen Und Grenzen Des Erfolgs." in *Kurswechsel in Der Industrie: Lean Production in Baden-Württemberg*. eds. Hans Joachim Braczyk, and Gerd Schienstock, 24-51. Stuttgart: W. Kohlhammer, 1996.
- Brusco, Sebastiano. "The Emilian Model: Productive Decentralisation and Social Integration." *Cambridge Journal of Economics* 6, no. 2 (1982): 167-84.
- . "La Genesi Dell'idea Di Distretto Industriale." in *Distretti Industriali e Cooperazione Fra Imprese in Italia*. eds. Frank Pyke, Giacomo Becattini, and Werner Sengenberger, 25-34. Florence: Studi e Informazioni, 1990.
- . "Italy: B - Trust, Social Capital and Local Development: Some Lessons From the Experience of the Italian Districts." in *Networks of Enterprises and Local Development: Competing and Co-*

- Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 115-19. Paris: OECD, 1996.
- . "Small Firms and the Provision of Real Services." in *Industrial Districts and Local Economic Regeneration*. eds. Frank Pyke, and Walter Sengenberger. Geneva: International Institute for Labour Studies, 1992.
- Brusco, Sebastiano, Giulio Cainelli, Fabrizia Forni, Mauro Franchi, Alberto Malusardi, and Roberto Righetti. "The Evolution of Industrial Districts in Emilia-Romagna." in *Local and Regional Response to Global Pressure: The Case of Italy and Its Industrial Districts*. eds. Francesco Cossentino, Frank Pyke, and Werner Sengenberger, 17-36. Geneva: International Institute for Labour Studies, 1996.
- Brusco, Sebastiano, and Ezio Righi. "Local Government, Industrial Policy and Social Consensus: The Case of Modena (Italy)." *Economy and Society* 18, no. 4 (1989): 405-24.
- Bull, Anna. "Regionalism in Italy." *Europa* 1, no. 2/3 (1994): 69-83.
- Bull, Martin, and Martin Rhodes. "Between Crisis and Transition: Italian Politics in the 1990's." *West European Politics* 20, no. 1 (1997): 1-14.
- Burchell, Brendan, and Frank Wilkinson. "Trust, Business Relationships and the Contractual Environment." *Cambridge Journal of Economics* 21 (1997): 217-37.
- Burroni, Luigi, and Carlo Trigilia. "Italy: Economic Development Through Local Economies." in *Local Economies in Europe: Rise or Demise?* ed. Colin Crouch. Oxford: Oxford University Press, forthcoming.
- Calvert, Randall L. *Explaining Social Order: Internalization, External Enforcement, or Equilibrium?* Rochester NY: Working Paper No. 4, W.Allen Wallis Institute of Political Economy, University of Rochester, 1995c.
- . "Rational Actors, Equilibrium, and Social Institutions." in *Explaining Social Institutions*. eds. Jack Knight, and Itai Sened. Ann Arbor: University of Michigan Press, 1995b.
- . "The Rational Choice Theory of Social Institutions: Cooperation, Coordination and Communication." in *Modern Political Economy: Old Topics, New Directions*. eds. Jeffrey S. Banks, and Eric A. Hanushek, 216-69. Cambridge: Cambridge University Press, 1995a.
- Calvert, Randall L., and James Johnson. *Interpretation and Coordination in Constitutional Politics*. Rochester, NY: W. Allen Wallis Institute of Political Economy: Working Paper No. 15, 1998.
- Camelli, Marco. "Regioni e Rappresentanza Degli Interessi: Il Caso Italiano." *Stato e Mercato*, no. 29 (1990): 151-98.
- Camera di Commercio, Industria Artigianato e Agricoltura Bologna. *Camera Di Conciliazione: Legge 192/98 Subfornitura*. Bologna: Camera di Commercio, Industria, Artigianato, e Agricoltura, Bologna, 1998.
- . *Guida Ai Servizi: Edizione 1998/1999*. Bologna: Camera di Commercio, Industria, Artigianato, e Agricoltura, Bologna, 1998-1999.
- Camera di Commercio, Industria Artigianato e Agricoltura. *Camera Arbitrale*. Bologna: Camera di Commercio, Industria, Artigianato e Agricoltura, n.d.

- Capecchi, Vittorio. "In Search of Flexibility: The Bologna Metalworking Industry, 1900-1992." in *World of Possibilities: Flexibility and Mass Production in Western Industrialization*. eds. Charles F. Sabel, and Jonathan Zeitlin. Cambridge: Cambridge University Press, 1997.
- Caporaso, James A. "The European Union and Forms of State: Westphalian, Regulatory or Post-Modern?" *Journal of Common Market Studies* 34, no. 1 (1996): 29-52.
- . "Research Design, Falsification, and the Qualitative-Quantitative Divide." *American Political Science Review* 89, no. 1 (1995): 4-7.
- Cella, Gian Primo. "Criteria of Regulation in Italian Industrial Relations: A Case of Weak Institutions." in *State, Market and Social Regulation: New Perspectives on Italy*. eds. Peter Lange, and Marino Regini, 167-85. Cambridge: Cambridge University Press, 1989.
- Chiesi, Antonio. "Fattori Di Persistenza Del Capitalismo Familiare." *Stato e Mercato*, no. 18 (1986): 433-53.
- Chiesi, Antonio, and Alberto Martinelli. "The Representation of Business Interests As a Mechanism of Social Regulation." in *State, Market and Social Regulation: New Perspectives on Italy*. eds. Peter Lange, and Marino Regini, 187-216. Cambridge: Cambridge University Press, 1989.
- Coase, Ronald. "The Nature of the Firm (1937)." in *The Nature of the Firm: Origins, Evolution and Development*. eds. Oliver E. Williamson, and Sidney G. Winter. Oxford: Oxford University Press, 1991.
- Cohen, Jean L. "Trust, Voluntary Association and Workable Democracy: The Contemporary American Discourse of Civil Society." in *Democracy and Trust*, ed. Mark Warren. Cambridge: Cambridge University Press, 1999.
- Coleman, James S. *Foundations of Social Theory*. Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1990.
- . "Organizational Structure and the Emergence of Informal Norms." in *Economic Approaches to Organizations and Institutions: An Introduction*. ed. Pål Foss. Aldershot: Dartmouth, 1995.
- Collard, David. *Altruism and Economy: A Study in Non-Selfish Economics*. Oxford: Oxford University Press, 1978.
- Collier, David. "The Comparative Method: Two Decades of Change." in *Comparative Political Dynamics: Global Research Perspectives*. eds. Dankwart A. Rustow, and Kenneth Paul Erickson. New York: HarperCollins, 1991.
- . "Translating Quantitative Methods for Qualitative Researchers: The Case of Selection Bias." *American Political Science Review* 89, no. 1 (1995): 1-6.
- Collier, David, and James E. Mahon Jr. "Conceptual "Stretching" Revisited: Adapting Categories in Comparative Analysis." *American Political Science Review* 87, no. 4 (1993): 845-55.
- Collier, David, and James Mahoney. "Insights and Pitfalls: Selection Bias in Qualitative Research." *World Politics* 49 (1996): 56-91.
- " *The Limits of Rationality*, eds. Karen Schweers Cook, and Margaret Levi. Chicago: The University of Chicago Press, 1990.

- Courault, Bruno A., and Claudine Romani. "A Reexamination of the Italian Model of Flexible Production From a Comparative Point of View." in *Pathways to Industrialization and Regional Development*. eds. Michael Storper, and Allen J. Scott. London: Routledge, 1992.
- Cox, Gary W. "The Empirical Content of Rational Choice Theory: A Reply to Green and Shapiro." *Journal of Theoretical Politics* 11, no. 2 (1999): 147-69.
- Crouch, Colin, and Anand Menon. "Organised Interests and the State." in *Developments in West European Politics*. eds. Martin Rhodes, Paul Heywood, and Vincent Wright. New York: St. Martin's Press, 1997.
- Crouch, Colin, and Wolfgang Streeck. "Introduction: The Future of Capitalist Diversity." in *Political Economy of Modern Capitalism*. eds. Colin Crouch, and Wolfgang Streeck, 1-18. London: Sage, 1997.
- Crouch, Colin, and Carlo Trigilia. "Conclusion." in *Local Economies in Europe: Rise or Demise*, ed. Colin Crouch. Oxford: Oxford University Press, forthcoming.
- Curti, Roberto. "L'Aldini-Valeriani Compie 150 Anni/ Luigi Valeriani e Giovanni Aldini: Brevi Cenni Biografici." *Scuolaofficina*, no. 2 (1994): 3-10.
- Curti, Roberto, and Mauro Grandi, eds. *Per Niente Fragile: Bologna Capitale Del Packaging (Not at All Fragile: Bologna, Capital of Packaging)*. Bologna: Museo del Patrimonio Industriale, 1997.
- Dahrendorf, Ralf. *Society and Democracy in Germany*. New York: Norton, 1967.
- Dasgupta, Partha. "Trust As a Commodity." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.
- Davidoff, Leonore, and Catherine Hall. *Family Fortunes: Men and Women of the English Middle Class, 1780-1850*. Chicago: Chicago University Press, 1987.
- Dei Ottati, Gabi. "Case Study I: Prato and Its Evolution in a European Context." in *Regional Development in a Modern European Economy: The Case of Tuscany*. eds. Robert Leonardi, and Raffaella Y. Nanetti. London: Pinter, 1994a.
- . "The Economic Bases of Diffuse Industrialization." *International Studies of Management and Organization* 21, no. 1 (1991): 53-74.
- . "Economic Changes in the District of Prato in the 1980s: Towards a More Conscious and Organized Industrial District." *European Planning Studies* 4, no. 1 (1996a): 35-52.
- . "The Remarkable Resilience of the Industrial Districts of Tuscany." in *Local and Regional Response to Global Pressure: The Case of Italy and Its Industrial Districts*. eds. Francesco Cossentino, Frank Pyke, and Werner Sengenberger, 37-66. Geneva: International Institute for Labour Studies, 1996b.
- . "Trust, Interlinking Transactions and Credit in the Industrial District." *Cambridge Journal of Economics* 18, no. ? (1994b): 529-46.
- della Sala, Vincent. "Hollowing Out and Hardening the State: European Integration and the Italian Economy." *West European Politics* 20, no. 1 (1997): 14-33.

- Dematteis, Giuseppe. "Regioni Geografiche, Articolazione Territoriale Degli Interessi e Regioni Istituzionali." *Stato e Mercato*, no. 27 (1989): 445-67.
- Dente, Bruno. "Sub-National Governments in the Long Italian Transition." in *Crisis and Transition in Italian Politics*. eds. Martin Bull, and Martin Rhodes, 176-94. London: Frank Cass, 1997.
- Dickson, Bruce J. "What Explains Chinese Political Behavior? The Debate Over Structure and Culture." *Comparative Politics* 25, no. 1 (1992): 103-18.
- DiGiovanna, Sean. "Industrial Districts and Regional Economic Development: A Regulation Approach." *Regional Studies* 30, no. 4 (1996): 373-86.
- DiMaggio, Paul. "The New Institutionalisms: Avenues of Collaboration." *Journal of Institutional and Theoretical Economics* 154, no. 4 (1998): 697-705.
- Dogan, Mattei, and Dominique Pelassy. *How to Compare Nations: Strategies in Comparative Politics*. Chatham, NJ: Chatham House Publishers, 1984.
- Dore, Ronald. "Goodwill and the Spirit of Market Capitalism." in *The Sociology of Economic Life*. eds. Richard Swedberg, and Mark Granovetter. Boulder, Colorado: Westview Press, 1992.
- Downs, Anthony. *An Economic Theory of Democracy*. New York: Harper, 1957.
- Dyson, Kenneth. "The Economic Order - Still *Modell Deutschland*?" in *Developments in German Politics 2*. eds. Gordon Smith, William E. Paterson, and Stephen Padgett. London: Macmillan, 1996.
- Eckstein, Harry. "Case Study and Theory in Political Science." in *Handbook of Political Science Volume 7: Strategies of Enquiry* F. I. Greenstein, and N. W. Polsby. New York: Addison-Wesley, 1975.
- . "A Culturalist Theory of Political Change." *American Political Science Review* 82 (1988): 789-804.
- . "Culture As a Foundation Concept for the Social Sciences." *Journal of Theoretical Politics* 8, no. 4 (1996): 471-97.
- . "Social Science As Cultural Science: Rational Choice As Metaphysics." in *Culture Matters: Essays in Honor of Aaron Wildavsky*. eds. Richard J. Ellis, and Michael Thompson. Boulder, Colorado: Westview, 1997.
- Eggertsson, Thráinn. *Economic Behavior and Institutions*. Cambridge: Cambridge University Press, 1990.
- . "Economic Perspectives on Property Rights and the Economics of Institutions." in *Economic Approaches to Organizations and Institutions: An Introduction*. ed. Pål Foss. Aldershot: Dartmouth, 1995.
- . "A Note On The Economics Of Institutions." in *Empirical Studies In Institutional Change*. eds. Lee J. Alston, Thráinn Eggertsson, and Douglass C. North, 6-24. Cambridge: Cambridge University Press, 1995.
- Elkins, David J., and Richard E. B Simeon. "A Cause in Search of Its Effect, or What Does Political

- Culture Explain?" *Comparative Politics* 11, no. 2 (1979): 127-46.
- Elster, Jon. *The Cement of Society: A Study of Social Order*. Cambridge: Cambridge University Press, 1989.
- . "The Nature and Scope of Rational Choice Explanation." in *Actions and Events*. eds. E. Lepore, and B. McLaughlin. London: Basil Blackwell, 1986.
- , ed. *Rational Choice*. New York: New York University Press, 1986.
- . *Ulysses and the Sirens: Studies in Rationality and Irrationality*. Cambridge: Cambridge University Press, 1979.
- . "When Rationality Fails." in *The Limits of Rationality*. eds. Karen Schweers Cook, and Margaret Levi, 19-59. Chicago: University of Chicago Press, 1990.
- Ensminger, Jean. "Trusting Fictive Kin: A Creative Solution to the Agency Problem Among East African Herders." in *Social Structure and Trust*. ed. Karen Cook. New York: Russell Sage, Forthcoming.
- Lee Epstein, and Jack Knight. *The Choices Justices Make*. Washington D.C.: Congressional Quarterly Books, 1998.
- Espina, Alvaro. "Local Productive Systems and Structural Change." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 81-89. Paris: OECD, 1996.
- Fligstein, Neil. "Markets As Politics: A Political-Cultural Approach to Market Institutions." *American Sociological Review* 61, no. ? (1996): 656-73.
- Foley, Michael W., and Bob Edwards. "The Paradox of Civil Society." *Journal of Democracy* (1996).
- Franchi, Maura, and Vittorio Rieser. "Le Categorie Sociologiche Nell'Analisi Del Distretto Industriale: Tra Comunità e Razionalizzazione." *Stato e Mercato*, no. 33 (1991): 451-76.
- Fukuyama, Francis. *Trust: The Social Virtues and the Creation of Prosperity*. London: Hamish Hamilton, 1995.
- Gabriel, Jürgen. "Innovation-Oriented Policy in Regions With High Growth Dynamics: Three Winners in the Process of Structural Change - A Comparison of Baden-Württemberg, Massachusetts and Emilia Romagna." in *Innovation and Regional Development: Strategies, Instruments and Policy Coordination. Proceedings of the Fifth International Conference on Innovation and Regional Development Held in Berlin, December 1-2, 1988*. eds Hans-Jürgen Ewers, and Jürgen Allesch, 291-304. Berlin: Walter de Gruyter, 1990.
- Galeotti, Anna Elisabeta, and Antonio Muti. "Anna Elisabeta and Antonio Muti Discutono Su "Le Strategie Della Fiducia" a Cura Di Diego Gambetta." *Stato e Mercato*, no. 28 (1990): 117-33.
- Gambetta, Diego. "Can We Trust Trust?" in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.
- . "Mafia: The Price of Distrust." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.

- Gamm, Gerald, and Kenneth Shepsle. "Emergence of Legislative Institutions: Standing Committees in the House and Senate." *Legislative Studies Quarterly* 14, no. 1 (1989): 39-66.
- Ganne, Bernard. "Industrial Development and Local Industrial Systems in Postwar France: Political Economy of a Transformation." in *Pathways to Industrialization and Regional Development*. eds. Michael Storper, and Allen J Scott. London: Routledge, 1992.
- Garibaldi, Francesco. "Contributo." in *Il Mare Del Lavoro: Fare e Disfare Nella Rete Globale*. ed. Roberto Bennati. Milan: Costa e Nolan, 1998.
- Garmise, Shari. "Convergence in the European Community: The Case of Tuscany." in *Regional Development in a Modern European Economy: The Case of Tuscany*. eds. Robert Leonardi, and Rafaela Y. Nanetti. London: Pinter, 1994.
- Garmise, Shari Orris, and Rolf Jurgen Gröte. "Economic Performance and Social Embeddedness: Emilia-Romagna in an Interregional Perspective." in *The Regions and European Integration: The Case of Emilia-Romagna*. eds. Robert Leonardi, and Raffaella Nanetti, 59-82. London: Pinter, 1990.
- Giraud, Pierre-Noël. "Local Systems of Small Firms in the OECD Area, Facing Economic Globalisation." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 91-96. Paris: OECD, 1996.
- Giunta Regionale. *La Regione Globale: L'Emilia-Romagna Nell'Europa Del Duemila*. Bologna: Regione Emilia-Romagna, 1998.
- Glaeßner, Gert-Joachim. "Government and Political Order." in *Developments in German Politics 2*. eds. Gordon Smith, William E. Paterson, and Stephen Padgett. London: MacMillan, 1996.
- Glasmeier, Amy. "Flexible Districts, Flexible Regions? The Institutional and Cultural Limits to Districts in an Era of Globalization and Technological Paradigm Shifts." in *Globalization, Institutions and Regional Development in Europe*. eds. Ash Amin, and Nigel Thrift. Oxford: Oxford University Press, 1994.
- Glassmann, Ulrich, and Helmut Voelzkow. "The Governance of Local Economies in Germany." in *Local Economies in Europe: Rise or Demise?*, ed. Colin Crouch. Oxford: Oxford University Press, forthcoming.
- Gobetti, Daniela. "La Lega: Regularities and Innovation in Italian Politics." *Politics & Society* 24, no. 1 (1996): 57-82.
- Goldberg, Ellis. "Thinking About How Democracy Works." *Politics & Society* 24, no. 1 (1996).
- Good, David. "Individuals, Interpersonal Relations, and Trust." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.
- Grabher, Gernot. "The Disembedded Regional Economy: The Transformation of East German Industrial Complexes into Western Enclaves." in *Globalization, Institutions and Regional Development in Europe*. eds. Ash Amin, and Nigel Thrift. Oxford: Oxford University Press, 1994.
- . "Rediscovering the Social in the Economics of Interfirm Relations." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge,

1993a.

- . "The Weakness of Strong Ties: The Lock-in of Regional Development in the Ruhr Area." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993b.
- Gramsci, Antonio. *Selections From the Prison Notebooks*. eds. Hoare and Nowell. London: Lawrence & Wishart, 1971.
- Granato, Jim, Ronald Inglehart, and David Leblang. "Cultural Values, Stable Democracy, and Economic Development: A Reply." *American Journal of Political Science* 40, no. 3 (1996): 680-96.
- . "The Effect of Cultural Values on Economic Development: Theory, Hypotheses, and Some Empirical Tests." *American Journal of Political Science* 40, no. 3 (1996): 607-31.
- Granovetter, Mark. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91 (1985): 481-510.
- . "The Nature of Economic Relationships." in *Explorations in Economic Sociology*. ed. Richard Swedberg. New York: Russell Sage Foundation, 1993.
- . "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-80.
- Graziani, Augusto. *Lo Sviluppo Dell'Economia Italiana: Dalla Ricostruzione Alla Moneta Europea*. Turin: Bollati Boringhieri, 1998.
- Graziano, Luigi. "Center-Periphery Relations and the Italian Crisis: The Problem of Clientelism." in *Territorial Politics in Industrial Nations*. eds. Sidney Tarrow, Peter Katzenstein, and Luigi Graziano. New York: Praeger, 1978.
- Green, Donald P., and Ian Shapiro. *Pathologies of Rational Choice Theory: A Critique of Application in Political Science*. New Haven: Yale University Press, 1994.
- Greif, Avner. "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies." *Journal of Political Economy* 102, no. 5 (1994): 912-50.
- . "Impersonal Exchange and the Origins of Markets. From the Community Responsibility System to Individual Legal Responsibility in Pre-Modern Europe." in *Communities and Markets*, eds. M. Aoki, and Y. Hayami. Oxford: Oxford University Press, 1999.
- . *Self-Enforcing Political Systems and Economic Growth: Late Medieval Genoa*. Stanford, CA: Department of Economics Working Paper, 1997.
- Greif, Avner, Paul Milgrom, and Barry R. Weingast. "Coordination, Commitment and Enforcement: The Case of the Merchant Guild." in *Explaining Social Institutions*. eds. Jack Knight, and Itai Sened. Ann Arbor: University of Michigan Press, 1995.
- Grote, Jürgen. "The Political Ecology of Regionalism: State-Society Relations in Nine European Regions." European University Institute, 1997.
- Grotz, Reinhold, and Boris Braun. "Territorial or Trans-Territorial Networking: Spatial Aspects of

- Technology-Oriented Co-Operation Within the German Mechanical Engineering System." *Regional Studies* 31, no. 6 (1997): 545-57.
- Gunlicks, Arthur B. "The 'Old' and the 'New' Federalism in Germany." in *The Federal Republic of Germany at Forty-Five: Union Without Unity*. ed. Peter H. Merkl. London: Macmillan, 1995.
- Håkansson, Håkan, and Jan Johanson. "The Network As a Governance Structure: Interfirm Cooperation Beyond Markets and Hierarchies." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993.
- Hall, Peter A. *Governing the Economy: The Politics of State Intervention in Britain and France*. Oxford: Oxford University Press, 1986.
- . "The Role of Interests, Institutions, and Ideas in the Comparative Political Economy of the Industrialized Nations." in *Comparative Politics: Rationality, Culture and Structure*. eds. Mark I. Lichbach, and Alan S. Zuckerman. Cambridge: Cambridge University Press, 1997.
- Hall, Peter A., and Rosemary C. R. Taylor. "Political Science and the Three New Institutionalisms." *Political Studies* 44 (1996): 936-57.
- Hardin, Russell. *Collective Action*. Baltimore: Johns Hopkins, 1982.
- . *Conceptions and Explanations of Trust*. New York: Russell Sage Foundation Working Paper #129, 1998a.
- . "Difficulties in the Notion of Economic Rationality." in, 453-67. 1984.
- . *Distrust*. New York: Russell Sage Foundation Working Paper #130, 1998b.
- . "Do We Want Trust in Government?" 1996. Paper Presented at Conference on Trust and Democracy, Georgetown University, November 7-9, 1996.
- . "The Social Evolution of Cooperation." in *The Limits of Rationality*. eds. Karen Schweers Cook, and Margaret Levi, 358-82. Chicago: University of Chicago Press, 1990.
- . "The Street-Level Epistemology of Trust." *Politics and Society* 21, no. 4 (1993): 505-29.
- . "Trust in Government." in *Trust and Governance*. eds. Valerie Braithwaite, and Margaret Levi, 9-27. Vol. Volume I in the Russell Sage Foundation Series on Trust. New York: Russell Sage Foundation, 1998c.
- . "Trustworthiness." *Ethics* 107 (1996): 26-42.
- Harrison, Bennett. "Industrial Districts: Old Wine in New Bottles?" *Regional Studies* 26, no. 5 (1992): 469-83.
- . *Lean and Mean: The Changing Landscape of Corporate Power in the Age of Flexibility*. New York: Basic Books, 1994.
- Harsanyi, John C. "Advances in Understanding Rational Behavior." in *Rational Choice*. ed. Jon Elster. New York: New York University Press, 1986.
- Hassink, R. "Regional Policies Compared." *Urban Studies* 30, no. 6 (1993): 1009-24.

- Hausman, Daniel. "Rational Choice and Social Theory: A Comment." *Journal of Philosophy* 92 (1995): 96-102.
- Hawthorn, Geoffrey. "Three Ironies in Trust." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.
- Hayashi, Nahoko, Elinor Ostrom, James Walker, and Toshio Yamagishi. "Reciprocity, Trust and the Sense of Control: A Cross-Societal Study." *Rationality and Society* 11, no. 1 (1999): 27-46.
- Heidenreich, Martin. "Beyond Flexible Specialization: The Rearrangement of Regional Production Orders in Emilia-Romagna and Baden-Württemberg." *European Planning Studies* 4, no. 4 (1996): 401-19.
- Heidenreich, Martin, and Gerhard Krauss. "The Baden-Württemberg Production and Innovation Regime: Past Successes and New Challenges." in *Regional Innovation Systems: The Role of Governances in a Globalized World*. eds. Hans-Joachim Braczyk, Philip Cooke, and Martin Heidenreich, 214-44. London: University College London Press, 1998.
- Heinze, Rolf G., and Josef Schmid. "Mesokorporatistische Strategien Im Vergleich: Industrieller Strukturwandel Und Die Kontingenz Politischer Steuerung in Drei Bundesländern." *Politische Vierteljahresschrift*, no. 25 (1994): 65-99.
- Helliwell, John F., and Robert D. Putnam. *Economic Growth and Social Capital in Italy*. Fondazione Eni Enrico Mattei, Nota Di Lavoro 88.95, 1995.
- Helper, Susan. "An Exit-Voice Analysis of Supplier Relations: The Case of the US Automobile Industry." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993.
- Hernes, Gudmund, and Arne Selvik. "Local Corporatism." in *Organizing Interests in Western Europe: Pluralism, Corporatism and the Transformation of Politics*. ed. Suzanne Berger. Cambridge: Cambridge University Press, 1981.
- Herrigel, Gary. *De-Regionalization, Re-Regionalization and the Transformation of Manufacturing Flexibility: Large Firms and Industrial Districts in Europe*. Unpublished Paper: 1999.
- Herrigel, Gary B. "Crisis in German Decentralized Production: Unexpected Rigidity and the Challenge of an Alternative Form of Flexible Organization in Baden Württemberg." *European Urban and Regional Studies* 3, no. 1 (1996a): 33-52.
- . *Industrial Constructions: The Sources of German Industrial Power*. Cambridge: Cambridge University Press, 1996b.
- . "Industrial Organization and the Politics of Industry: Centralized and Decentralized Production in Germany." Massachusetts Institute of Technology, 1990.
- . "Power and the Redefinition of Industrial Districts: The Case of Baden-Württemberg." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993.
- Hirsch, Fred. *Social Limits to Growth*. Cambridge, Mass.: Harvard University Press, 1976.
- Hirschman, Albert. *Exit, Voice and Loyalty: Responses to Decline in Firms, Organisations and States*. Cambridge, Mass.: Harvard University Press, 1970.

- . *The Passions and the Interests: Political Arguments for Capitalism Before Its Triumph*. Princeton: Princeton University Press, 1977.
- . "Rival Views of Market Society." in *Rival Views of Market Society and Other Essays*. Albert Hirschman. New York: Viking, 1986.
- Hirst, Paul, and Jonathan Zeitlin. "Flexible Specialization Versus Post-Fordism: Theory, Evidence, and Policy Implications." in *Pathways to Industrialization and Regional Development*. eds. Michael Storper, and Allen J. Scott. London: Routledge, 1992.
- Hodgson, Geoffrey M. "Institutional Economics: Surveying the 'Old' and the 'New'." *Metroeconomica* 44, no. 1 (1993): 1-28.
- Hollingsworth, J. Rogers, and Robert Boyer. "Coordination of Economic Actors and Social Systems of Production." in *Contemporary Capitalism: The Embeddedness of Institutions*. eds. J. Rogers Hollingsworth, and Robert Boyer, 1-48. Cambridge: Cambridge University Press, 1997.
- Hollingsworth, J. Rogers, Philippe C. Schmitter, and Wolfgang Streeck. "Capitalism, Sectors, Institutions and Performance." in *Governing Capitalist Economies: Performance and Control of Economic Sectors*. eds. J. Rogers Hollingsworth, Philippe C. Schmitter, and Wolfgang Streeck, 3-17. Oxford: Oxford University Press, 1994.
- Hollis, Martin. *Trust Within Reason*. Cambridge: Cambridge University Press, 1998.
- Holmström, Bengt, and John Roberts. "The Boundaries of the Firm Revisited." *Journal of Economic Perspectives* 12, no. 3 (1998): 73-94.
- Humphries, Chris. "Conclusion: The Territorialisation of Public Policies: The Role of Public Governance and Funding." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 239-54. Paris: OECD, 1996.
- IHK in Baden-Württemberg. *Informationen Für Die Praxis: Innovationshilfen Für Kleine Und Mittlere Unternehmen*. Stuttgart: IHK, 1997.
- IHK Stuttgart. *Die Wirtschaftsregion Stuttgart: Strukturen Und Potentiale*. Stuttgart: IHK, 1997b.
- . *Statistik 97 Die Wirtschaft Baden-Württembergs Und Der Region Stuttgart*. Stuttgart: IHK, 1997a.
- Inglehart, Ronald. "Aggregate Stability and Individual Level Flux in Mass Belief Systems." *American Political Science Review* 82 (1988): 97-116.
- . *Culture Shift in Advanced Industrial Societies*. Princeton, New Jersey: Princeton, 1990.
- . "Post-Materialism in an Environment of Insecurity." *American Political Science Review* 75, no. 4 (1981): 880-901.
- . "The Renaissance of Political Culture." *American Political Science Review* 82 (1988): 1203-30.
- . "Trust, Well-Being and Democracy." 1996. Paper presented at conference on Trust and Democracy, Georgetown University, November 7-9, 1996.

- Inglehart, Ronald, and Paul R. Abramson. "Economic Security and Value Change." *American Political Science Review* 88, no. 2 (1994): 336-54.
- Istituto per il Lavoro. *Program of the Institute for Labour Foundation May 1998-May 2001*. Bologna: Istituto per il Lavoro, 1998.
- Jackman, Robert W., and Ross A Miller. "The Poverty of Political Culture." *American Journal of Political Science* 40, no. 3 (1996b): 697-716.
- . "A Renaissance of Political Culture?" *American Journal of Political Science* Vol.40, no. 3 (1996a): 632-59.
- Johnson, James. *False Starts in the Analysis of Culture and Politics*. Department of Political Science, University of Rochester: Unpublished Paper, 1994.
- . "How Not to Criticize Rational Choice Theory: The Pathologies of Commonsense." *Philosophy of the Social Sciences* 26 (1996): 77-91.
- . "Is Talk Really Cheap? Prompting Conversation Between Critical Theory and Rational Choice." *American Political Science Review* 87, no. 1 (1993): 74-86.
- . "Symbol and Strategy in Comparative Political Analysis." *APSA-CP: Newsletter of the APSA Organized Section in Comparative Politics* (1997).
- Kandori, Michihiro. "Social Norms and Community Enforcement." *Review of Economic Studies* 59 (1992): 63-80.
- Kato, Junko. "Review Article: Institutions and Rationality in Politics - Three Varieties of Neo-Institutionalists." *British Journal of Political Science* 26 (1996): 553-82.
- Katzenstein, Peter J. "Stability and Change in the Emerging Third Republic." in *Industry and Politics in West Germany: Toward the Third Republic*. ed. Peter J. Katzenstein. Ithaca NY: Cornell University Press, 1989.
- Keating, Michael. "The Political Economy of Regionalism." in *The Political Economy of Regionalism*. eds. Michael Keating, and John Loughlin, 17-40. London: Frank Cass, 1997.
- King, Gary, Robert O. Keohane, and Sidney Verba. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton: Princeton University Press, 1994.
- . "The Importance of Research Design in Political Science." *American Political Science Review* 89, no. 1 (1995): 5-11.
- Knauss, Jody. "Modular Mass Production: High Performance on the Low Road." *Politics and Society* 26, no. 2 (1998): 273-96.
- Knight, Jack. "The Bases of Cooperation: Social Norms and the Rule of Law." *Journal of Institutional and Theoretical Economics* 154, no. 4 (1998): 754-63.
- . *Institutions and Social Conflict*. Cambridge: Cambridge University Press, 1992.
- . "Models, Interpretations and Theories: Constructing Explanations of Institutional Emergence and Change." in *Explaining Social Institutions*. eds. Jack Knight, and Itai Sened. Ann Arbor:

University of Michigan Press, 1995.

- Knight, Jack, and Itai Sened. "Introduction." in *Explaining Social Institutions*. eds. Jack Knight, and Itai Sened. Ann Arbor: University of Michigan Press, 1995.
- Kogut, Bruce, Weijian Shan, and Gordon Walker. "Knowledge in the Network and the Network As Knowledge: The Structuring of New Industries." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher London: Routledge, 1993.
- Krauss, Gerhard. "Les Problèmes D'Adaptation D'Une Économie Régionale Forte: Changement Et Inerties En Bade-Wurtemberg." *Revue D'Economie Régionale Et Urbaine* (1999 forthcoming).
- Kreps, David M. "Corporate Culture and Economic Theory." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle Cambridge: Cambridge University Press, 1990a.
- . *Game Theory and Economic Modelling*. Oxford: Clarendon Press, 1990b.
- Krugman, Paul. *Geography and Trade*. Leuven: Leuven University Press, 1991.
- . "Space: The Final Frontier." *Journal of Economic Perspectives* 23, no. 2 (1998): 161-74.
- Laitin, David D. "Disciplining Political Science." *American Political Science Review* 89, no. 1 (1995): 1-7.
- LaPalombara, Joseph. *Democracy Italian Style*. New Haven: Yale University Press, 1987.
- . "Italy: Fragmentation, Isolation, and Alienation." in *Political Culture and Political Development*. eds. Lucian W. Pye, and Sidney Verba. Princeton NJ: Princeton University Press, 1965.
- Lazerson, Mark. "Factory or Putting-Out? Knitting Networks in Modena." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993.
- Le Galès, Patrick. "Regulation, Governance and Territory: A "New Political Economy" Approach of Cities and Regions in Europe." Centre De Recherches Administratives Et Politiques, Université De Rennes I, 1996.
- Le Galès, Patrick, and Helmut Voelzkow. "Introduction." in *Local Economies in Europe: Rise or Demise*, ed. Colin Crouch. Oxford: Oxford University Press, forthcoming.
- Leibenstein, Harvey. "Allocative Efficiency Vs "X-Efficiency"." *American Economic Review* 56 (1966): 392-415.
- Leonardi, Robert. "Introduction: The Role of Tuscany in the European Community." in *Regional Development in a Modern European Economy: The Case of Tuscany*. eds. Robert Leonardi, and Rafaela Y. Nanetti. London: Pinter, 1994.
- . "Political Developments and Institutional Change in Emilia-Romagna, 1970-1990." in *The Regions and European Integration: The Case of Emilia-Romagna*. eds. Robert Leonardi, and Raffaella Nanetti, 13-38. London: Pinter, 1990.

- Levi, Margaret. "A Model, a Method and a Map: Rational Choice in Comparative and Historical Analysis." in *Comparative Politics: Rationality, Culture and Structure*. eds. Mark I. Lichbach, and Alan S. Zuckerman. Cambridge: Cambridge University Press, 1997.
- . *Of Rule and Revenue* Berkeley: University of California Press, 1988.
- . "Social and Unsocial Capital: A Review Essay of Robert Putnam's *Making Democracy Work*." *Politics & Society* 24, no. 1 (1996): 45-55.
- . "A State of Trust." in *Trust and Governance*. eds. Valerie Braithwaite, and Margaret Levi, 77-101. New York: Russell Sage Foundation, 1998.
- Lewis, David. *Convention: A Philosophical Study*. Cambridge, Massachusetts: Harvard University Press, 1969.
- Lijphart, Arend. "The Comparable-Cases Strategy in Comparative Research." *Comparative Political Studies* 8, no. 2 (1975): 158-77.
- Lipparini, Andrea, and Alessandro Lomi. "Relational Structures and Strategies in Industrial Districts: An Empirical Study of Interorganizational Relations in the Modena Biomedical Industry." Prepared for the EMOT Workshop, Interfirm Networks: Outcomes and Policy Implications, Modena September 5-8, 1996, 1996.
- Locke, Richard M. *Remaking the Italian Economy*. Ithaca: Cornell University Press, 1995.
- Lorenz, Edward H. "Flexible Production Systems and the Social Construction of Trust." *Politics and Society* 21, no. 3 (1993): 307-24.
- . "Neither Friends nor Strangers: Informal Networks of Subcontracting in French Industry." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta Oxford: Basil Blackwell, 1988.
- . "Trust and the Flexible Firm: International Comparisons." *Industrial Relations* 31, no. 3 (1992): 455-72.
- . "Trust, Community and Cooperation: Toward a Theory of Industrial Districts." in *Pathways to Industrialization and Regional Development*. eds. Michael Storper, and Allen J. Scott London: Routledge, 1992a.
- . "Trust, Contract and Economic Cooperation." *Cambridge Journal of Economics* 23 (1999): 301-15.
- Lüdtke, Alf. "The Role of State Violence in the Period of Transition to Industrial Capitalism: The Example of Prussia From 1815 to 1848." *Social History* 4, (1979)
- Luhmann, Niklas. "Familiarity, Confidence, Trust: Problems and Alternatives." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta Oxford: Basil Blackwell, 1988.
- . *Trust and Power: Two Works*. Chichester, New York: J. Wiley, 1979.
- Lundvall, Bengt-Åke. "Explaining Interfirm Cooperation and Innovation: Limits of the Transaction-Cost Approach." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher London: Routledge, 1993.

- Lyons, Bruce, and Judith Mehta. "Contracts, Opportunism and Trust: Self-Interest and Social Orientation." *Cambridge Journal of Economics* 21 (1997): 239-57.
- Macauley, Stuart. "Non-Contractual Relations in Business." *American Sociological Review* 28, no. n: 55-67.
- Maher, Maria. "Transaction Cost Economics and Contractual Relations." *Cambridge Journal of Economics* 21 (1997): 147-70.
- Maillat, Denis. "Regional Production Systems and Innovative Milieux." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 67-80. Paris: OECD, 1996.
- Majone, Giandomenico. *Mutual Trust, Credible Commitments and the Evolution of Rules for a Single European Market*. Florence: European University Institute, EUI Working Paper RSC No.95/1, 1995.
- Malusardi, Alberto. "Contributo." in *Il Mare Del Lavoro: Fare e Disfare Nella Rete Globale*. ed. Roberto Bennati. Milano: Costa e Nolan, 1998.
- March, James G., and Johan P. Olsen. *Rediscovering Institutions: The Organizational Basis of Politics*. New York: The Free Press, 1989.
- Markovsky, Barry. "Network Games." *Rationality and Society* 9, no. 1 (1997): 67-90.
- Marks, Gary, François Nielsen, Leonard Ray, and Jane E. Salk. "Competencies, Cracks and Conflicts: Regional Mobilization in the European Union." *Comparative Political Studies* 29, no. 2 (1996): 164-92.
- Martin, Ron. "The New 'Geographical Turn' in Economics: Some Critical Reflections." *Cambridge Journal of Economics* 23 (1999): 65-91.
- Masten, Scott E. "The Organization of Production: Evidence From the Aerospace Industry." *Journal of Law and Economics* 27, no. ? (1984): 402-17.
- Mayntz, Renate. "Regioni e Rappresentanza Degli Interessi: Il Caso Tedesco." *Stato e Mercato*, no. 29 (1990): 201-23.
- Mazzonis, Daniele. "The Changing Role of ERVET in Emilia-Romagna." in *Local and Regional Response to Global Pressure: The Case of Italy and Its Industrial Districts*. eds. Francesco Cossentino, Frank Pyke, and Werner Sengenberger. Geneva: International Labour Organization, 1996.
- Medick, Hans. "Missionaries in the Rowboat: Ethnological Ways of Knowing As a Challenge to Social History." *Comparative Studies in History and Society* 27, (1987)
- Milgrom, Paul R., Douglass C. North, and Barry R. Weingast. "The Role of Institutions in the Revival of Trade: The Medieval Law Merchant, Private Judges, and the Champagne Fairs." *Economics and Politics* 2, no. 1 (1990): 1-23.
- Milgrom, Paul R., and John Roberts. "Adaptive and Sophisticated Learning in Normal Form Games." *Games and Economic Behavior* 3 (1991): 82-100.

- . "Bargaining Costs, Influence Costs and the Organisation of Economic Activity." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle. Cambridge: Cambridge University Press, 1990.
- Miller, Gary J. *Managerial Dilemmas: The Political Economy of Hierarchy*. Cambridge: Cambridge University Press, 1992.
- Miller, Gary J., and Thomas Hammond. "Why Politics Is More Fundamental Than Economics: Incentive-Compatible Mechanisms Are Not Credible." *Journal of Theoretical Politics* 6, no. 1 (1994): 5-26.
- Misztal, Barbara A. *Trust in Modern Societies*. Oxford: Polity Press, 1996.
- Mitchell, W. C. "Virginia, Rochester and Bloomington: Twenty-Five Years of Public Choice and Political Science." *Public Choice* 56 (1988): 101-20.
- Moliere. *La Malade Imaginaire*. London: Oxford University Press, 1962.
- Morgan, Kevin. "Learning-by-Interacting: Interfirm Networks and Enterprise Support." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 53-66. Paris: OECD, 1996.
- . "The Learning Region: Institutions, Innovation and Regional Renewal." *Regional Studies* 31, no. 5 (1997): 491-503.
- . "United Kingdom: B - A Consideration of Enterprise Support Policies in Wales." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 153-58. Paris: OECD, 1996.
- Morrow, James D. *Game Theory for Political Scientists*. Princeton, New Jersey: Princeton University Press, 1994.
- Müller-Jentsch, Walther, Norbert Malanowski, Beate Seitz, and Ina Drescher. *Betriebsräte-Befragung Und Analyse Der Industriepolitik Im Maschinen- Und Anlagenbau, "Modernisierung Von Arbeitssystemen Und Industriellen Beziehungen Im Maschinenbau" : Abschlussbericht Zum DFG-Forschungsprojekt (Mu572/5-1)*. Bochum: Ruhr-Universität, 1998.
- Nanetti, Raffaella Y. *Growth and Territorial Politics: The Italian Model of Social Capitalism*. London: Pinter, 1988.
- Nardin, Giuseppe. *Picole Imprese e Internazionalizzazione: Il Caso Dell'Industria Meccanica Agricola Dell'Emilia-Romagna*. Milan: FrancoAngeli, 1993.
- Negrelli, Serafino. "Flessibilità Economica e Solidarietà Sociale." *Stato e Mercato*, no. 30 (1990): 373-406.
- Neuville, Jean-Philippe. "La Stratégie De La Confiance: Le Partenariat Industriel Observé Depuis Le Fournisseur." *Sociologie Du Travail*, no. 3 (1997): 297-319.
- . "La Tentation Opportuniste: Figures Et Dynamique De La Coopération Interindividuelle Dans Le Partenariat Industriel." *Revue Française De Sociologie* 39, no. 1 (1998): 71-103.

- Nomisma. *L'Economia Locale Del Packaging Di Bologna: Scenari Evoluti e Figure Professionali*. Bologna: Nomisma, n.d.
- North, Douglass C. "Five Propositions About Institutional Change." in *Explaining Social Institutions*. eds. Jack Knight, and Itai Sened. Ann Arbor: University of Michigan Press, 1995.
- . "Institutions and a Transaction-Cost Theory of Exchange." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle. Cambridge: Cambridge University Press, 1990a.
- . *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press, 1990b.
- . *Some Fundamental Puzzles in Economic History/Development*. Unpublished Paper: 1997b.
- . *Structure and Change in Economic History*. New York?: Norton, 1981.
- . *Towards a Theory of Economic Change*. Unpublished Paper: 1997a.
- . "A Transaction Cost Theory of Politics." *Journal of Theoretical Politics* 2, no. 4 (1990c): 355-67.
- . "What Do We Mean by Rationality?" *Public Choice* 77, no. ? (1993): 159-62.
- . "Where Have We Been, and Where Are We Going?" in *Economics, Values and Organization*. eds. Avner Ben-Ner, and Louis Putterman, 491-508. Cambridge: Cambridge University Press, 1998.
- North, Douglass C., and Barry R. Weingast. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." in *Empirical Studies in Institutional Change*. eds. Lee J. Alston, Thráinn Eggertsson, and Douglass C. North, 134-65. Cambridge: Cambridge University Press, 1995.
- O'Brien, Flann. *At Swim Two Birds*. London: Flamingo, 1939.
- Offe, Claus. "The Attribution of Public Status to Interest Groups: Observations on the West German Case." in *Organizing Interests in Western Europe: Pluralism, Corporatism and the Transformation of Politics*. ed. Suzanne Berger. Cambridge: Cambridge University Press, 1981.
- . "How Can We Trust Our Fellow Citizens?" in *Democracy and Trust*, ed. Mark Warren. Cambridge: Cambridge University Press, 1999.
- Olson, Mancur. *The Logic of Collective Action*. New York?: Schocken, 1968.
- . *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidity*. New Haven: Yale University Press, 1982.
- . "Toward a Unified View of Economics and the Other Social Sciences." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle. Cambridge: Cambridge University Press, 1990.
- Ordeshook, Peter C. "The Emerging Discipline of Political Economy." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle. Cambridge: Cambridge

- University Press, 1990.
- Osborne, Martin J., and Ariel Rubinstein. *A Course in Game Theory*. Cambridge, Massachusetts: The MIT Press, 1994.
- Ostrom, Elinor. *Coping With Tragedies of the Commons*. Paper prepared for delivery at the 1998 Annual Meeting of the Association for Politics and Life Sciences in conjunction with the Annual Meeting of APSA, September 1998: 1998.
- . *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press, 1990.
- Padgett, John, and Christopher K. Ansell. "Robust Action and the Rise of the Medici." *American Journal of Sociology* 98, no. 6 (1993): 1259-319.
- Pagden, Anthony. "The Destruction of Trust and Its Economic Consequences in the Case of Eighteenth Century Naples." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.
- Pasquino, Gianfranco. "No Longer a 'Party State'?: Institutions, Power and the Problem of Italian Reform." *West European Politics* 20, no. 1 (1997): 34-53.
- . "Rappresentanza Degli Interessi, Attività Di Lobby e Processi Decisionali: Il Caso Italiano Di Istituzioni Permeabili." *Stato e Mercato*, no. 21 (1987): 403-29.
- Perulli, Paolo. "Il Distretto Industriale Di Modena." in *Strategie Di Riaggiustamento Industriale*. eds. Marino Regini, and Charles F. Sabel, 249-82. Bologna: Il Mulino, 1989.
- Perulli, Paolo, and Maurizio Catino. "Le Organizzazioni Di Rappresentanza Imprenditoriale: Verso Uno Sperimentalismo Istituzionale." *Stato e Mercato*, no. 50 (1997): 217-47.
- Petersen, Trond. "Transaction Cost Economics." in *Economic Approaches to Organizations and Institutions: An Introduction*. ed. Pål Foss. Aldershot: Dartmouth, 1995.
- Pierson, Paul. "Path Dependence and the Study of Politics." Jean Monnet Chair Lecture, 1997. Robert Schuman Center, European University Institute.
- . "The Path to European Integration: A Historical Institutional Analysis." *Comparative Political Studies* 29, no. 2 (1996): 123-63.
- Piore, Michael. "Technological Trajectories and the Classical Revival in Economics." in *Pathways to Industrialization and Regional Development*. eds. Michael Storper, and Allen J. Scott. London: Routledge, 1992.
- Piore, Michael J., and Charles F. Sabel. *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic Books, 1984.
- Pizzorno, Alessandro. "Political Exchange and Collective Identity." in *The Resurgence of Class Conflict in Western Europe Since 1968*. eds. Colin Crouch, and Alessandro Pizzorno. London: MacMillan, 1978.
- Polanyi, Karl. "The Economy As Instituted Process." in *The Sociology of Economic Life*. eds. Richard Swedberg, and Mark Granovetter. Boulder, Colorado: Westview Press, 1992.

- . *The Great Transformation*. New York: Rinehart, 1944.
- Popkin, Samuel. *The Rational Peasant*. Berkeley and Los Angeles: The University of California Press, 1978.
- Porter, Michael. *The Competitive Advantage of Nations*. New York: Free Press, 1990.
- Posner, Richard A. "A Theory of Primitive Society, With Special Reference to Law." in, 1-53. 1980.
- Pratt, Andy. "The Emerging Shape and Form of Innovation Networks and Institutions." in *Innovation, Networks and Learning Regions?* ed. James Simmie, 124-36. London: Regional Studies Association/Jessica Kingsley Publishers, 1997.
- Przeworski, Adam. "Methods of Cross-National Research, 1970-1983: An Overview." in *Comparative Policy Research: Learning From Experience*. eds. Meinolf Dierkes, Hans N. Weiler, and Ariane Berthoin Antal Berlin: WZB-Publications: Wissenschaftszentrum Berlin, 1987.
- . *The State and the Economy Under Capitalism*. London: Harwood, 1990.
- Przeworski, Adam, and Fernando Limongi. "Modernization: Theories and Facts." *World Politics* 49 (1997): 155-83.
- Putnam, Robert D. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, New Jersey: Princeton University Press, 1993.
- Putnam, Robert D., Robert Leonardi, Raffaella Y. Nanetti, and Franco Pavoncello. "Explaining Institutional Success: The Case of Italian Regional Government." *American Political Science Review* 7(1984): 55-74.
- Pye, Lucian W. "Introduction: Political Culture and Political Development." in *Political Culture and Political Development*. eds. Lucian W. Pye, and Sidney Verba Princeton, New Jersey: Princeton University Press, 1965.
- Pyke, Frank. "Co-Operation Among Small and Medium-Sized Establishments." *Work, Employment and Society* 2, no. 3 (1988): 352-65.
- Pyke, Frank, and Werner Sengenberger. "Industrial Districts and Local Economic Regeneration: Research and Policy Issues." in *Industrial Districts and Local Economic Regeneration*. eds. Frank Pyke, and Walter Sengenberger. Geneva: International Institute for Labour Studies, 1992.
- . "Introduction." in *Local and Regional Response to Global Pressure: The Case of Italy and Its Industrial Districts*. eds. Francesco Cossentino, Frank Pyke, and Werner Sengenberger, 1-14. Geneva: International Institute for Labour Studies, 1996.
- Recchi, Ettore. "Reciprocita: Un Nome Per Tre Concetti." *Stato e Mercato*, no. 39 (1993).
- Regini, Marino. "Le Condizioni Dello Scambio Politico: Nascita e Declino Della Concertazione in Italia e Grand Bretagna." *Stato e Mercato*, no. 9 (1983): 353-84.
- . "Social Institutions and Production Structure: The Italian Variety of Capitalism in the 1980s." in *Political Economy of Modern Capitalism*. eds. Colin Crouch, and Wolfgang Streeck, 102-16. London: Sage, 1997.

- . "La Varietà Italiana Di Capitalismo: Istituzioni Sociali e Struttura Produttiva Negli Anni Ottanta." *Stato e Mercato*, no. 43 (1995).
- Regini, Marino, and Ida Regalia. "Employers, Unions and the State: The Resurgence of Concertation in Italy?" in *Crisis and Transition in Italian Politics*. eds. Martin Bull, and Martin Rhodes, 210-230. London: Frank Cass, 1997.
- Rhodes, Martin. "Conclusion: The Viability of Regional Strategies." in *The Regions and the New Europe: Patterns in Core and Periphery Development*. ed. M. Rhodes. Manchester: Manchester University Press, 1995.
- . "Globalization, the State and the Restructuring of Regional Economies." in *Globalization and Public Policy*. ed. P. Gummert. London: Edward Elgar, 1996.
- Riker, William H. *The Art of Political Manipulation*. New Haven: Yale University Press, 1986.
- . "Political Science and Rational Choice." in *Perspectives on Positive Political Economy*. eds. James E. Alt, and Kenneth A. Shepsle. Cambridge, UK: Cambridge University Press, 1990.
- Rodríguez-Pose, Andrés. "Local Production Systems and Economic Performance in France, Germany, Italy and the United Kingdom." in *Local Economies in Europe: Rise or Demise*, ed. Colin Crouch. Oxford: Oxford University Press, forthcoming.
- Rogowski, Ronald. "The Role of Theory and Anomaly in Social-Scientific Inference." *American Political Science Review* 89, no. 1 (1995): 7-10.
- Ross, Mark Howard. "Culture and Identity in Comparative Political Analysis." in *Comparative Politics: Rationality, Culture and Structure*. eds. Mark I. Lichbach, and Alan S. Zuckerman. Cambridge: Cambridge University Press, 1997.
- Rowley, Charles. "Introduction." in *Public Choice Theory*. ed. Charles Rowley. London: Edward Elgar, 1993.
- Rubinstein, Ariel. "Comments on the Interpretation of Game Theory." *Econometrica* 59, no. 4 (1991): 909-24.
- Sabeau, David. *Power in the Blood: Popular Culture and Village Discourse in Early Modern Germany*. Cambridge: Cambridge University Press, 1984.
- Sabel, Charles F. "Constitutional Orders: Trust Building and Response to Change." in *Contemporary Capitalism: The Embeddedness of Institutions*. eds. J. Rogers Hollingsworth, and Robert Boyer, 154-88. Cambridge: Cambridge University Press, 1997.
- . "Learning-by-Monitoring: The Dilemmas of Regional Economic Policy in Europe." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 23-49. Paris: OECD, 1996.
- . "Studied Trust: Building New Forms of Cooperation in a Volatile Economy." in *Explorations in Economic Sociology*. ed. Richard Swedberg. New York: Russell Sage Foundation, 1993.
- . *Work and Politics: The Division of Labor in Industry*. Cambridge: Cambridge University Press, 1982.

- Sabel, Charles F., Gary B. Herrigel, Richard Deeg, and Richard Kazis. "Regional Prosperities Compared: Massachusetts and Baden-Württemberg in the 1980s." *Economy and Society* 18, no. 4 (1989): 374-404.
- Sabetti, Filippo. "Path Dependency and Civic Culture: Some Lessons From Italy About Interpreting Social Experiments." *Politics and Society* 24, no. 1 (1996): 19-44.
- Sahlins, Marshall. *Culture and Practical Reason*. Chicago: University of Chicago, 1976.
- . *Stone Age Economics*. New York: De Gruyter, 1972.
- Sako, Mari. "The Role of "Trust" in Japanese Buyer-Supplier Relationships." *Recherche Economique* 45, no. 2-3 (1991): 449-74.
- Sako, Mari, and Susan Helper. "Determinants of Trust in Supplier Relations: Evidence From the Automotive Industry in Japan and the United States." 1995. Unpublished Paper.
- Sartori, Giovanni. "Guidelines for Concept Analysis." in *Social Science Concepts: A Systematic Analysis*. Giovanni Sartori. Beverly Hills: Sage Publications, 1984.
- Satz, Debra, and John Ferejohn. "Rational Choice and Social Theory." *Journal of Philosophy* 91 (1994): 71-87.
- Scharpf, Fritz W. "The Joint-Decision Trap: Lessons From German Federalism and European Integration ." *Public Administration* 66 (1988): 239-78.
- Schelling, Thomas C. *The Strategy of Conflict*. Cambridge, Massachusetts: Harvard University Press, 1960.
- Schiemann, John W. "Meeting Halfway Between Rochester and Frankfurt: Generative Salience, Focal Points and Strategic Interaction." *American Journal of Political Science* 44, no. 1 (2000): 1-16.
- Schmitter, Philippe C. "Interest Intermediation and Regime Governability in Contemporary Western Europe and North America." in *Organizing Interests in Western Europe: Pluralism, Corporatism and the Transformation of Politics*. ed. Suzanne Berger. Cambridge: Cambridge University Press, 1981.
- Schoenbaum, David, *Hitler's Social Revolution: Class and Status in Nazi Germany, 1933-1939* New York: Norton, 1980.
- Schotter, Andrew. *The Economic Theory of Social Institutions*. Cambridge: Cambridge University Press, 1981.
- Schroeder, Wolfgang, and Rainer Weinert. "The "German Model": Stability, Transformation or Collapse? Decentralisation, Disorganisation, Deregulation and Delegitimation." in *The Role of the State in Industrial Relations. Volume 3 of the Official Proceedings of the Fifth IIRA European Regional Industrial Relations Congress - "The Employment Relationship on the Eve of the Twenty-First Century" - Held in Dublin, Ireland, 26-29 August 1997*. eds. Daryl D'Art, and Thomas Turner. Dublin: Oak Tree Press, 1998.
- Schumpeter, Joseph Alois. *Capitalism, Socialism and Democracy*. New York: Harper and Row, 1962.

- . *History of Economic Analysis*. Oxford: Oxford University Press, 1954.
- Scott, Allen J., and Michael Storper. "Industrialization and Regional Development." in *Pathways to Industrialization and Regional Development*. eds Allen J. Scott, and Michael Storper. London: Routledge, 1992.
- Scott, James C. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven: Yale University Press, 1976.
- Semlinger, Klaus. "Economic Development and Industrial Policy in Baden-Württemberg: Small Firms in a Benevolent Environment." *European Planning Studies* 1, no. 4 (1993a): 435-63.
- . "Industrial Policy and Small-Firm Cooperation in Baden-Württemberg." in *Small and Medium-Size Enterprises*. eds. Arnaldo Bagnasco, and Charles F. Sabel, 15-30. London: Pinter, 1995.
- . "Small Firms and Outsourcing As Flexibility Reservoirs of Large Firms." in *The Embedded Firm: On the Socioeconomics of Industrial Networks*. ed. Gernot Grabher. London: Routledge, 1993b.
- Sforzi, Fabio. "Italy: A - Local Systems of Small and Medium Sized Firms and Industrial Changes." in *Networks of Enterprises and Local Development: Competing and Co-Operating in Local Productive Systems*. ed. Organisation for Economic Co-operation and Development, 99-113. Paris: OECD, 1996.
- . "The Tuscan Model: An Interpretation in Light of Recent Experience." in *Regional Development in a Modern European Economy: The Case of Tuscany*. eds. Robert Leonardi, and Raffaella Y. Nanetti. London: Pinter, 1994.
- Shapiro, Martin J. *Courts: A Comparative and Political Analysis* Chicago: University of Chicago Press, 1980.
- Sheldon, Peter, Louise Thornthwaite, and Tiziana Ferrero-Regis. "The Federmeccanica: Its Changing Commitment to Collectivism and the Remaking of Industrial Relations in Italy 1980-1995." in *Collectivism and Individualism: Trends and Prospects. Volume 7 of the Official Proceedings of the Fifth IIRA European Regional Industrial Relations Congress - "The Employment Relationship on the Eve of the Twenty-First Century" - Held in Dublin, Ireland, 26-29 August 1997*. eds. Daryl D'Art, and Thomas Turner. Dublin: Oak Tree Press, 1998.
- Shepsle, Kenneth A. "Studying Institutions: Some Lessons From the Rational Choice Approach." *Journal of Theoretical Politics* 1, no. 2 (1989): 131-47.
- Shmitz, Hubert. "Industrial Districts: Model and Reality in Baden Württemberg, Germany." in *Industrial Districts and Local Economic Regeneration*. eds. Frank Pyke, and Walter Sengenberger. Geneva: International Institute for Labour Studies, 1992.
- Simon, Herbert. *Reason in Human Affairs*. Stanford: Stanford University Press, 1983.
- Skocpol, Theda, and Margaret Somers. "The Use of Comparative History in Macrosocial Enquiry." *Comparative Studies in Society and History* 2 (1980): 174-97.
- Smith, Adam. *An Inquiry into the Nature and Origins of the Wealth of Nations*. Chicago: University of Chicago, 1976.
- Staber, Udo. "Accounting for Variations in the Performance of Industrial Districts: The Case of Baden-

- Württemberg." *International Journal of Urban and Regional Research* 20 (1996): 299-316.
- Stigler, George. *The Organization of Industry*. Chicago: University of Chicago, 1983.
- Stöhr, Walter B. "On the Theory and Practice of Local Development in Europe." in *Global Challenge and Local Response: Initiatives for Economic Regeneration in Contemporary Europe*. ed. Walter B. Stöhr. London: Mansell/The United Nations University, 1990.
- Stone Sweet, Alec. "Judicialization and the Construction of Governance." in, 147-84. 1999.
- Storper, Michael. "The Resurgence of Regional Economies, Ten Years Later: The Region As a Nexus of Untraded Interdependencies." *European Urban and Regional Studies* 2, no. 3 (1995): 191-221.
- Streeck, Wolfgang. "Beneficial Constraints: On the Economic Limits of Rational Voluntarism." in *Contemporary Capitalism: The Embeddness of Institutions*. eds. J. Rogers Hollingsworth, and Robert Boyer, 197-219. Cambridge: Cambridge University Press, 1997a.
- . "German Capitalism: Does It Exist? Can It Survive?" in *Political Economy of Modern Capitalism: Mapping Convergence and Diversity*. eds. Colin Crouch, and Wolfgang Streeck, 33-54. London: Sage, 1997b.
- . "Neo-Voluntarism: A New European Social Policy Regime?" in *Governance in the European Union*. eds. Gary Marks, Fritz W. Scharpf, Philippe C. Schmitter, and Wolfgang Streeck. London: Sage Publications, 1996.
- . "Production Constraints: On the Institutional Conditions of Diversified Quality Production." in *Social Institutions and Economic Performance: Studies of Industrial Relations in Advanced Capitalist Economies*. Wolfgang Streeck, 1-41. London: SAGE, 1992.
- . "Skills and the Limits of Neo-Liberalism: The Enterprise of the Future As a Place of Learning." *Work, Employment and Society* 3, no. 1 (1989): 89-104.
- Streeck, Wolfgang, and Philippe C. Schmitter. "Community, Market, State - and Associations?: The Prospective Contribution of Interest Governance to Social Order." *European Sociological Review* 1, no. 2 (1985): 119-38.
- . "From National Corporatism to Transnational Pluralism: Organized Interests in the Single European Market." *Politics and Society* 19, no. 2 (1991): 133-64.
- Sugden, Robert. "Normative Expectations: The Simultaneous Evolution of Institutions and Norms." in *Economics, Values and Organization*. eds. Avner Ben-Ner, and Louis Putterman, 73-100. Cambridge: Cambridge University Press, 1998.
- . "A Theory of Focal Points." in, 533-50. 1995.
- Swedberg, Richard, ed. *Economics and Sociology - Redefining Their Boundaries: Conversations With Economists and Sociologists*. Princeton: Princeton University Press, 1990.
- Swedberg, Richard, and Mark Granovetter. "Introduction." in *The Sociology of Economic Life*. eds. Richard Swedberg, and Mark Granovetter. Boulder, Colorado: Westview Press, 1992.
- Tarrow, Sidney. "Bridging the Quantitative-Qualitative Divide in Political Science." *American Political*

- Science Review* 89, no. 1 (1995): 1-4.
- . "Making Social Science Work Across Space and Time: A Critical Reflection on Robert Putnam's *Making Democracy Work*." *American Political Science Review* 90, no. 2 (1996): 389-97.
- Tawney, R. H. *Religion and the Rise of Capitalism*. London: Murray, 1936.
- Taylor, Michael. *Anarchy and Cooperation*. London: John Wiley, 1976.
- . *Community, Anarchy and Liberty*. Cambridge: Cambridge University Press, 1982.
- . "Good Government: On Hierarchy, Social Capital and the Limitations of Rational Choice Theory." *The Journal of Political Philosophy* 4, no. 1 (1996): 1-28.
- . *The Possibility of Cooperation*. Cambridge: Cambridge University Press, 1987.
- . "Structure, Culture and Action in the Explanation of Social Change." *Politics and Society* 17, no. 2 (1989): 115-62.
- Taylor, Michael, and Sara Singleton. "The Communal Resource: Transaction Costs and the Solution of Collective Action Problems." *Politics and Society* 21, no. 2 (1993).
- Thelen, Kathleen, and Ikuo Kume. "The Effects of Globalization on Labor Revisited: Lessons From Germany and Japan." *Politics and Society* 27, no. 4 (1999): 477-505.
- Thelen, Kathleen, and Sten Steinmo. "Historical Institutionalism in Comparative Politics." in *Structuring Politics: Historical Institutionalism in Comparative Analysis*. eds. Sven Steinmo, and Kathleen Thelen. Cambridge: Cambridge University Press, 1992.
- Thompson, E.P. *Whigs and Hunters: The Origin of the Black Act*. Harmondsworth: Penguin, 1990.
- Tilly, Charles. "War Making and State Making As Organized Crime." in *Bringing the State Back In*. eds. Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol. Cambridge: Cambridge University Press, 1985.
- Triglia, Carlo. "Capitale Sociale e Sviluppo Locale." *Stato e Mercato*, no. 3 (1999): 419-40.
- . "Dynamisme Privé Et Désordre Public: Note Sur Le Paradoxe Du Développement Italien." *Sociologie Du Travail* (1996): 6-13.
- . *Grande Partiti e Piccole Imprese: Comunisti e Democristiani Nelle Regioni a Economia Diffusa*. Bologna: Il Mulino, 1986.
- . "Il Distretto Industriale Di Prato." in *Strategie Di Riaggiustamento Industriale*. eds. Marino Regini, and Charles F. Sabel, 283-333. Bologna: Il Mulino, 1989.
- . "Il Lavoro e La Politica Nei Distretti Industriali Della Terza Italia." in *Distretti Industriali e Cooperazione Fra Imprese in Italia*. eds. Frank Pyke, Giacomo Becattini, and Werner Sengenberger, 173-96. Florence: Studi e Informazioni, 1990.
- . "Italian Industrial Districts: Neither Myth Nor Interlude." in *Industrial Districts and Local Economic Regeneration*. eds. Frank Pyke, and Werner Sengenberger. Geneva: International

- Institute for Labour Studies, 1992.
- . "The Paradox of the Region: Economic Regulation and the Representation of Interests." *Economy and Society* 20, no. 3 (1991): 306-27.
- . "Small-Firm Development and Political Subcultures in Italy." *European Sociological Review* 2, no. 3 (1986): 161-75.
- . *Sociologia Economica: Stato, Mercato e Società Nel Capitalismo Moderno*. Bologna: Il Mulino, 1998.
- Triglia, Carlo. *Sviluppo Senza Autonomia: Effetti Perversi Delle Politiche Nel Mezzogiorno*. Bologna: Il Mulino, 1990.
- Tsebelis, George. *Nested Games*. Berkeley: University of California, 1990.
- Tversky, Amos, and Daniel Kahneman. "The Framing of Decisions and the Psychology of Choice." in *Rational Choice*. ed. Jon Elster. New York: New York University Press, 1986.
- UCIMA. *Rapporto 1997: Industria Italiana Della Macchine Automatiche Per Il Confezionamento e L'Imballaggio*. Milan: UCIMA, 1998.
- . *Rapporto 1998: Industria Italiana Della Macchine Automatiche Per Il Confezionamento e L'Imballaggio*. Milan: UCIMA, 1999.
- L'Economia Regionale Nel 1998: Tendenze in Atto*, Unioncamere Emilia-Romagna. Bologna, 1998.
- Unioncamere Emilia-Romagna. *Rapporto Sull'Economia Regionale Nel 1995 e Previsioni Per Il 1996*. Bologna: 1995.
- . *Rapporto Sull'Economia Regionale Nel 1996 e Previsioni Per Il 1997*. Bologna: 1996.
- Rapporto Sull'Economia Regionale Nel 1997 e Previsioni Per Il 1998*, Unioncamere Emilia-Romagna. Bologna, 1997.
- . *Rapporto Sull'Economia Regionale Nel 1998 e Previsioni Per Il 1999*. Bologna: 1998.
- Veblen, Thorstein. *The Place of Science in Civilization*. New York: Viking, 1919.
- Volcansek, Mary L. "The Judicial Role in Italy: Independence, Impartiality and Legitimacy." *Judicature* 73, no. 6 (1990): 322-34.
- Weber, Max. *Economy and Society*. Berkeley: University of California Press, 1978.
- . *The Protestant Ethic and the Spirit of Capitalism*. New York: Scribner, 1958.
- Weiss, Linda, and John Mathews. *Structure, Strategy and Public Policy: Lessons From the Italian Textile Industry for Australia*. Kensington, New South Wales: University of New South Wales Industrial Relations Research Centre, 1991.
- Wellman, Barry, and S. D. Berkowitz. "Introduction: Studying Social Structure." in *Social Structure: A Network Approach*. Barry Wellman, and S. D. Berkowitz. Cambridge: Cambridge University Press, 1988.

- White, Harrison C. "Markets in Production Networks." in *Explorations in Economic Sociology*. ed. Richard Swedberg. New York: Russell Sage Foundation, 1993.
- . "Varieties of Markets." in *Social Structure: A Network Approach*. Barry Wellman, and S. D. Berkowitz. Cambridge: Cambridge University Press, 1988.
- White, Hayden. *Metahistory: The Historical Imagination in Nineteenth Century Europe*. Baltimore: John Hopkins University Press, 1973.
- Williams, Bernard. "Formal Structures and Social Reality." in *Trust: Making and Breaking Cooperative Relations*. ed. Diego Gambetta. Oxford: Basil Blackwell, 1988.
- Williamson, Oliver E. "Calculativeness, Trust, and Economic Organization." *Journal of Law and Economics* 36 (1993): 453-86.
- . *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York: The Free Press, 1985.
- . "The Economics and Sociology of Organization: Promoting a Dialogue." in *Industries, Firms and Jobs*. eds. George Farkas, and Paula England. New York: Plenum, 1988.
- . "The Logic of Economic Organization." in *The Nature of the Firm: Origins, Evolution and Development*. eds. Oliver E. Williamson, and Sidney G. Winter. Oxford: Oxford University Press, 1991.
- . *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press, 1975.
- . "Presidential Address." 1999 Meeting of the International Association for the New Institutional Economics, Washington DC. 1999.
- Yee, Albert S. "Thick Rationality and the Missing "Brute Fact": The Limits of Rationalist Interpretations of Ideas and Norms." *The Journal of Politics* 59, no. 4 (1997): 1001-39.
- Zeitlin, Jonathan. "Industrial Districts and Local Economic Regeneration: Overview and Comment." in *Industrial Districts and Local Economic Regeneration*. Frank Pyke, and Walter Sengenberger. Geneva: International Institute for Labour Studies, 1992.