Industrial disputes in UK manufacuring in the 1980s: an analysis of final-offer arbitration and action short of a strike.

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Abstract

Just as oranges are not the only fruit, strikes are not the only type of industrial dispute. This thesis examines two other forms of bargaining breakdown: dispute procedure usage; and action short of a strike - particularly overtime bans. It therefore covers two distinctive phenomena but some of the issues examined are relevant to both forms of disputes, whilst others are specific to one particular type. Complementary issues include the evaluation of economists' theories of bargaining impasses and the relevance of both areas to the 'new industrial relations' debate. Both parts also shed light on the important conceptual implications of applying the body of largely North American theory to the UK context. Chapter 1 illuminates the linkages between the two areas at greater length, provides important definitions, explains the data used and summarises the six substantive chapters.

Chapters 2 to 5 examine final-offer arbitration (FOA) in the context of Britain's new style agreements on criteria connected to five issues: the incidence of dispute procedures and their specifications; the core question of effectiveness in terms of deterring disputes; the incidence of industrial action under particular dispute procedures; the impact of procedures on negotiated and arbitrated settlements; and the functioning of dispute procedures in action. These chapters suggest that although the evidence is mixed, there is no convincing support for the superior effectiveness of FOA over conventional arbitration or other impasse procedures.

The almost totally unresearched area of action short of a strike is examined in chapters 6 and 7. The relative incidence of strikes and non-strike action is assessed using data from various UK surveys over the period 1966-1990 and principally with newly available data source - the CBI Pay Databank. Data from this source are also used to test possible explanatory factors behind the tactics of industrial action.

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Introduction and summary

1. Introduction

Strike incidence, measured as the number of stoppages, is currently lower in the UK than at any time since the early 1930s (Milner and Metcalf 1993). The massive decline in strike activity is probably the most well known industrial relations phenomenon of the 1980s. Fittingly there is a huge literature on the subject of strikes (the most recent review of this material is by Edwards 1992). Some writers have, however, been quick to acknowledge that strikes are but one form of industrial action and that industrial action is only one manifestation of industrial disputes. Despite this the industrial disputes literature almost totally ignores other forms of industrial action and other types of bargaining dispute. Typically studies of 'industrial conflict' list all the different types of disputes then proceed to only analyse strike action. This research redresses some of the balance in favour of other types of disputes by examining the use of third party intervention and the incidence of action short of a strike in UK manufacturing in the 1980s.

2. Concepts and definitions

a. Introduction

'Industrial dispute' is the key unit of analysis here. This term is often used to describe a strike in progress but a strike is clearly only one possible type of industrial dispute. For these purposes, an industrial dispute is defined as a breakdown or impasse in collective bargaining or negotiations. An impasse has two main forms in the UK industrial relations system: the involvement of a third party to aid resolution of the dispute; and/or some form of industrial action. Although most of the terminology used in these two areas is quite familiar, some terms such as mediation describe different procedures in North America and the UK - hence the need for definitions.

b. Use of third party dispute procedures

Third party intervention is manifest in a number of different ways. In the British Workplace Industrial Relations Survey (Millward, Stevens, Smart and Hawes

1992: Chapter 6) it is defined broadly to include the involvement of senior management in multi-establishment organisations outside the individual workplace as well as full-time union officials, employers' associations and a range of more genuinely independent organisations such as the Advisory, Conciliation and Arbitration Service (ACAS), established in January 1976 by the Employment Protection Act 1975. In this research it is more narrowly defined to include only intervention by fully external third parties. In the overwhelming majority of cases this involves the statutory body ACAS, which is charged with the general duty of the improvement of industrial relations with particular reference to collective bargaining. The involvement of ACAS usually takes one of three forms: conciliation, mediation or arbitration.

i. *Conciliation*: Conciliation is defined by ACAS as:

> "The practice by which the services of a neutral third party are used in a dispute as a means of helping the disputing parties to reduce the extent of their differences and to arrive at an amicable settlement or agreed solution. It is a process of orderly or ration discussion under the guidance of the conciliator." (ACAS 1991: 103)

The conciliator holds private and confidential discussions with each side either in separate or joint meetings. In either case, the conciliator provides a conduit for communications between the sides. The conciliator will usually seek to clarify the dispute and determine areas of common interest between the two sides. The onus os on the parties to reach their own settlement since the conciliator has no power to force concessions or impose a settlement. Moreover the conciliator cannot express an opinion about the facts of the dispute or about the respective merits of either sides' arguments.

Collective conciliation has been a feature of the British industrial relations system for nearly a century having started officially with the Conciliation Act of 1896 which made provision for the appropriate minister to take steps to bring about the settlement of trade disputes through conciliation or other means. Conciliation provides the bulk of ACAS's work on collective disputes and it is the only form of intervention which actually involves ACAS officials. Note that in North America 'mediation' is used to describe a procedure akin to UK conciliation.

ii. *Mediation*: This is a half-way house between conciliation and arbitration in that an independent person is called upon to make formal recommendations on how a dispute could be resolved. Therefore mediation is more interventionist than conciliation since a judgement about the dispute is made but is less draconian than arbitration because the parties are under no obligation to accept any recommendation. ACAS argues that mediation is appropriate for the resolution of quite complex and interdependent issues, for example a major reorganisation of jobs or grades or work patterns, but that 'it is not generally regarded as the appropriate medium for the resolution of straightforward distributive conflicts, for example an annual pay claim" (ACAS 1991: 111). In spite of the mediator's presence the dispute remains mainly in the hands of the parties and they retain complete control of the outcome as with conciliation. Mediation is far less common than conciliation or arbitration with referrals running at around 10 per cent of the number of arbitration cases. In the US and Canada a 'fact finder' performs a similar role to a UK mediator.

iii. *Arbitration*: Arbitration involves the determination or settlement of an issue by an independent third party who makes an award which the parties agree to abide by. In seeking arbitration the parties have, therefore, given authority to the third party to actually impose a settlement. The arbitrator, or occasionally the Board of Arbitration, usually appointed through ACAS determines the issue. Although awards are, with rare exceptions, not legally enforceable and their acceptance by both sides is voluntary, since its inception ACAS has a 100 per cent success rate in having its awards accepted. Arbitration is very much viewed as an instrument of last resort which should not be viewed lightly by either party. Under the Employment Protection Act, ACAS must ensure that three conditions are fulfilled before arranging for arbitration: the consent of both sides; that conciliation of the dispute has been considered; and that any agreed procedures have been used and have failed to result in a settlement.

The aim of this research is to evaluate the impact and effectiveness of two different types of arbitration: conventional - where an arbitrator is allowed, within certain terms of reference, to make any award they deem fit including compromising between the two final offers; and final-offer arbitration - which stipulates that an arbitrator must find wholly for one or the other side in a dispute. The second, much

less common, type of arbitration has also been labelled pendulum, flip-flop, last offer and straight choice arbitration.

The popularised term in the UK 'pendulum arbitration' is actually a rather misleading description for two reasons: it suggests that the arbitrator alternately swings between one side and the other from dispute to dispute which may or may not be the case; and a pendulum's locus does not consist of just two points A and B but rather an arc from A to B. Therefore actually 'pendulum arbitration' describes arbitration where the only constraint on an arbitrator is that he or she cannot select a point outside the range of the parties' final offers, so in fact it might be a better colloquialism for conventional arbitration. Singh (1986) states that the term flip-flop arbitration comes from electronic engineering. Apparently a 'bi-stable multivibrator' is also known as a 'flip-flop', is a device used in data-processing systems. It has two possible states (0 or 1), must change rapidly from one state to the other and the state value must be clearly evident. This appears to be a more accurate metaphor than the swinging pendulum but as 'final-offer arbitration' is the preferred North American terminology (and work on dispute procedures is concentrated there), FOA is used in this research.

The first theoretical exploration of the relative merits of FOA as an alternative to conventional arbitration was conducted in a seminal article by Stevens (1966). Some commentators have since claimed that Stevens invented FOA (for example, Feigenbaum 1975). However, Treble (1986 and 1990) has shown that the first examples of FOA in labour disputes existed in the UK in Victorian and Edwardian periods, the earliest FOA procedure being the conciliation board set up in the Nottingham hosiery industry in 1860 (Cuthbert 1960). Another example is provided by coal mining industry negotiations between 1894 and 1914. Note also that Wages Councils which set pay rates for 2.5m people in unorganized or weakly organized sectors (and which have been in place for almost the whole of the twentieth century) also resolve impasses via FOA. A Wages Council has three parties - employers, workers and independent members. The process of negotiating terms and conditions involves conciliation, mediation and, at the last resort, a straight choice between the two sides by the independent members (Wood 1985: 421). Flanagan (1990) also points out that FOA actually preceded Stevens by more than two millennia rather than just a century as Treble argues, since it was employed for the trial of Socrates in 399

B.C.. Nevertheless Treble appears to have located the earliest case of an FOA dispute procedure in industrial relations.

c. Industrial action

Industrial conflict is a broad field including unorganised, individual action such as absenteeism and labour turnover, and collective (usually) organised action such as strikes and overtime bans. Various authors have investigated the links between individual and collective action but very few have considered the relationship between strike and non-strike collective action. This thesis assesses the relative incidence of the different forms of action and empirically investigates the relationship between them i.e. the tactics of collective industrial action. Although the main types of action are well known, definitions of them may be worthwhile.

Four main types of organised industrial action are widely acknowledged. These are: the **strike**, a stoppage of work by a group of workers; the **overtime ban**; a restriction on working time through the collective refusal to work overtime; the **work to rule**, adherence by a group of workers to the letter of agreements, regulations and other instruments relating to their employment; and the **go slow**, quite similar to the work to rule, but may not actually involve adherence to work rules, rather aims to reduce productivity through reduction in effort. Other much less common forms of action include the work in or sit in, blacking of work and stop work meetings. See Turkington (1976) for a description of the main forms of organised and unorganised action.

3. Issues

There are two main issues addressed in the research both of which are multi-faceted and have implications for wider industrial relations and labour economics debates. In terms of the two types of arbitration, the key issue is the impact of final-offer and conventional arbitration on collective bargaining processes and outcomes. Note that there is a separate debate on whether on a macro level arbitration systems (of whatever variety) are preferable to right to strike systems (see Bruce and Carby-Hall 1991 for a recent contribution to this debate), but the concern here is to investigate the issue of, given an arbitration system, what is the most effective form that it can take.

There are a range of mainly US theories about the effectiveness of different types of arbitration in terms of dispute deterrence (i.e. their own use), industrial action outcomes and settlements. These are fully discussed and analysed in chapters 3 and 4. Most of the relevant UK writers have preferred to concentrate on the impact of FOA and conventional arbitration on the process of bargaining and the mechanisms of arbitration. This debate is analysed and assessed with evidence from new case studies of FOA in action in chapter 5. However, before these assessments of the impact of different forms of arbitration on bargaining, chapter 2 examines the issue of the incidence of FOA in UK plants in the 1980s. The question of why some bargaining groups adopt particular dispute procedures has never been explicitly addressed before mainly because in North America, where research on dispute procedures is concentrated, the great majority of studies examine the public sector where procedures are imposed by legislatures rather than voluntary agreed to by the parties.

The central question in terms of action short of a strike is two-fold. What has happened to action short of a strike relative to strikes in the 1980s and what can explain the relative incidence of some of the main forms of action? Although some authors have recorded the relative levels of the different types of action - which is not recorded in official Department of Employment figures - no study has ever examined possible explanations for the relative incidence of strike and non-strike action. This was made possible for this research through a new, comprehensive data source - the CBI Pay Databank - which is fully described below.

Taken together these two distinct areas of research shed light on a number of wider themes.

. Dispute causes: Economists have a hard time providing a theoretical and empirical answer to the question of why disputes occur. This thesis examines the issue using different outcome variables, two different data sources and two different instruments. Its conclusion must be rather non-committal: competing economic theories of disputes are all able to explain why some disputes occur but no single theory dominates the others in its explanatory power. However, this rather vague conclusion is offset by the conclusion that research on disputes need not only consider why disputes occur but should also examine the form disputes take and the impact of them.

. New industrial relations: The 'new industrial relations' (NIR) debate is illuminated by evidence on an outcome variable not previously examined (action short of a strike) and by findings on whether one of the phenomena of NIR, the new style deals (Rico 1987) and FOA, has proved as successful as its proponents suggest it would be. Furthermore, the research highlights the need for more empirical assessments of the impact of new style deals on workplace industrial relations.

. Different industrial relations contexts: A significant element of both areas of research is the extent to which US developed theories of bargaining disputes have to be reconsidered and adapted when applied to the UK industrial relations context. Even the most abstract theories often have some grounding in the particular national context of the author. This is certainly the case for most of the strike theories developed by US economists which are based on a very different industrial relations environment to that in the UK and elsewhere. Interest in testing the US strike theories has meant that the variety of other form of industrial action have been largely ignored and hence there has been no empirical consideration of the tactics of industrial action. This contrast of contexts is explained and its implications for empirical testing of the theories is drawn out particularly in chapter 7.

In a different way these contrasting contexts are also important for the assessment of FOA and conventional arbitration in the UK. Three significant differences between the US and UK contexts of FOA stand out. The private sector, **public** sector backdrop is prominent. Second, all the UK examples are part of **voluntarily** signed collective agreements, rather than **imposed** through legislation. Finally, UK collective agreements are not usually **legal contracts**, unlike in the US, such that a no-strike clause in a UK agreement is only morally binding on the parties, therefore industrial action is not legally ruled out even after arbitration. These three factors all have an important bearing on the expected and actual impact of FOA on collective bargaining in the UK compared to the US.

. Strikes: Perhaps the overriding concern of the research is to suggest that the strike-centric basis of the great majority of studies on disputes and even just those on industrial action means that much of the richness in UK industrial relations has been ignored. The lack of any previous empirical investigation of dispute procedures and action short of a strike means that a prominent field of industrial relations has lain

unploughed for too long. This thesis provides insights into a world of industrial relations disputes where strikes are very much a minor player.

4. Aims and methods

a. Final-offer arbitration

Final-offer arbitration in the UK was investigated with three principal research aims in mind: To assess determinants of the incidence of FOA; to empirically evaluate FOA effectiveness; and to assess attitudinal information about its impact, from interviewed practitioners. An overarching aim was to establish evidence on FOA effectiveness in the UK to emulate that in the US, and to properly assess UK-based FOA on the basis of US developed theory.

The ad hoc way in which FOA agreements have sprung up in the UK compared to examples in the US and the relatively small number of plants with FOA, had notable implications for the research methods adopted. North American examples of FOA are almost wholly in the public sector, so studies there have been able to draw on secondary data, showing the outcomes and processes of public sector bargaining rounds, to test the effectiveness of different dispute resolution mechanisms. All of the UK cases of FOA agreements signed in the 1980s, however, are in private sector companies. Therefore most of the data had to be generated through primary research. Furthermore because less than fifty UK workplaces actually have FOA agreements, all possible research sources and methods had to be used to fully illuminate the subject.

Secondary sources were appraised for evidence on all the above issues. Most of this evidence is presented in relevant chapters. However, evidence from company accounts, which was investigated with the intention of ascertaining information on the incidence and effectiveness of FOA in new style deal plants and companies, proved to be highly problematic. Appendix A provides an assessment of the value, or otherwise, of the information collected but the information is not reported in the main text.

The core research design for this study of FOA was always intended to be a statistical analysis of data on outcomes from a number of bargaining rounds in FOA agreement workplaces compared to an appropriate control group of workplaces without FOA and including a number of relevant control variables. However, simply defining the sample to be studied and acquiring the relevant data on it, was much less

straightforward than doing so for the public sector in North America where the field of study is well defined, the impasse procedures are established in statute law and the outcomes are publicly recorded. This is fully explained in section 5.

b. Action short of a strike

The relative incidence of strikes and action short of a strike was investigated using a secondary data source - the CBI Pay Databank. The specifications of this source are detailed in section 5. The richness of the information included in the databank precluded any need to seek supplementary information through a second survey. Furthermore the anonymised nature of the CBI Databank meant that follow up interviews at particularly interesting plants (for example those with relatively high levels of one type of action) were not possible.

5. Sources and data

a. Final-offer arbitration

Information on the extent of FOA agreements in the UK is immersed in more general studies of no-strike deals or single union deals signed in the 1980s. This helped to provide a ready made comparison group for the FOA plants. The non-FOA but no-strike or single union establishments are a convenient and appropriate control group for their counterparts with FOA, since this lessens the potential difficulty of confusing an FOA effect with a general cooperative industrial relations effect. It must be acknowledged though that this sampling frame could create problems of external validity in that both the FOA and control groups are classed as part of the new cooperative industrial relations sector. In other words, it may tell us little about the effect of putting FOA into an old-style non-cooperative bargaining situation.

In terms of actually identifying the new style deal plants as a group, there are quite a number of surveys which provide the names and some details of these companies (Income Data Services [IDS] 1987, Trade Union Congress [TUC] 1988, Industrial Relations Review and Report [IRRR] 1989, Labour Research [LR] 1989). These reports do not all concur on the details of the agreements by any means which is put down to 'a difficulty in outsiders accurately interpreting individual clauses in agreements' in one of the reports (TUC 1988: 11). The number of agreements listed

and discrepancies in the number of FOA deals is indicated in Table 1.1. In sum the reports record 27 different FOA agreements in a total of 84 'new style' deals. In the case of six plants the reports differ in their classification of the impasse procedure.

Trade unions involved in these deals were contacted to both clarify the status of existing agreements and supply details of any new agreements or any agreements not specified in the available reports. The electricians' union, the EETPU claimed to have another five FOA agreements and a further fifteen non-FOA single union deals not cited in the literature. However, the EETPU also revealed that in some of the companies referred to in the above reports, they had never had or no longer had agreements. Meanwhile, the engineering union, the AEU claimed to have another five single-union agreements in the UK not listed in the reports. Other unions contacted did not disclose any new information about FOA or non-FOA single union or no-strike deals.

After trawling all the available sources the final list consisted of 114 different workplaces which had been cited has having either FOA or non-FOA new style deals. The number of workplaces eventually surveyed was 101. The initial total of 114 was cut back for two main reasons:

. Two or more workplaces given different company names in the reports and/or by the trade unions revealed to be the same workplace.

. Workplace addresses not established after thorough search.

Workplace addresses were obtained from a variety of sources including trade unions contacts, the Census of Production, the Dunn and Bradstreet Index, the Kompass Directory and phone directories. Having established separate addresses for all and phone numbers for most of the 101 workplaces they were telephoned in December 1990 to obtain the name of a contact, usually the individual responsible for employee relations matters (the personnel manager in most cases).

Ideally the research instruments had to yield comprehensive information on the process, progress and outcomes of a series of bargaining rounds in the individual plants, as well as a certain amount of background data for control variables. None of the three possible research instruments - postal questionnaire, face to face questionnaire/interview and, telephone interview - seemed adequate on their own to provide the spread of information needed. Consequently the research was structured into two phases:

ii. *Postal survey*: A postal survey to obtain substantive information on plant characteristics, the impasse procedure and three impact measures: incidence of impasse procedure use; incidence of industrial action; and pay settlements, over the preceding five years (1986-1990). A copy of the questionnaire is reproduced in Appendix B.

The survey was sent in February 1991 to the 101 plants. Of the seventy-five plants which responded (a response rate of 74.3%), three did not actually recognise a trade union for bargaining and therefore must have either derecognised a union or were incorrectly identified in the trawl of sources. These three responses were therefore rejected from the sample on the grounds that collective bargaining over pay did not actually take place.

The twenty-six non-respondents are detailed in the contents of and notes to Table 1.2. Unfortunately the sample does not contain all the plants elsewhere listed as having FOA (seven of the non-respondents are recorded elsewhere as FOA plants), the non-respondents do not appear to be particularly biased in a way which discredits the representativeness of the sample.

The basic characteristics of the 72 valid respondents are summarised in Table 1.3. The sample shows a preponderance of plants which employ more than 250 workers, have high union density, are either UK or Japanese owned, operate in the electronics or engineering industries and were established on their present site in the 1980s. The provision of impasse procedures in the sample is detailed in chapters 2 and 3.

Two data sets were constructed from the responses: one comprising the 72 plants which recognise a union for bargaining; and one in which each bargaining round is a separate case. The latter file of 297 bargaining rounds (some respondents did not supply a full five years data) was constructed on the basis of holding all else equal apart from information on the use of disputes procedure, industrial action and pay settlements. This is not an ideal data set in that certain plant characteristics may have varied over the five year period, for instance plant size or union density, but significant results on the impact of an FOA agreement on this data set are more feasible than on the smaller individual plant-based sample.

ii. *Case study interviews*: The survey was followed up by detailed interviews at eight of the FOA plants where an impasse was reached in at least one year over the period examined, to try to obtain more detailed empirical and attitudinal information about FOA effectiveness generally and in particular bargaining rounds in these workplaces.

Selection of the plants at which to interview practitioners was determined by three factors: A collective agreement with a dispute procedure which includes FOA; an impasse in at least one year; and access - a willingness to be approached for further information. Having already acquired a substantial amount of quantitative data about the sample as a whole and bearing in mind the problem of decreasing marginal returns the number of interviews was kept deliberately low.

Of the twenty-seven plants in the sample with an FOA procedure, nine had an impasse in at least one year but one workplace indicated that it was not willing to be approached for further information. Six of the remaining eight had reached arbitration in at least one year's bargaining over the period surveyed, whereas the other two had only reached the conciliation stage of their respective procedures in one year. The latter two were still considered suitable for interview since some but not all the questions would be relevant to them, plus it was hoped that they would provide some information about what prevented them from using the arbitration itself.

FOA is designed to affect the bargaining behaviour of both union and management negotiators but for the purposes of this research we were particularly interested in the impact of FOA on the management of industrial relations in these plants, consequently only management representatives were asked for interviews. The individual responsible for industrial relations (usually the personnel manager) agreed to an interview in all eight of these plants. In one plant the personnel manager also arranged for a short interview with the senior shop steward of the largest union, but this was the exception. Because of our particular interest in the incidence of FOA within these deals we also arranged to interview Roy Sanderson, now National Secretary of the FPA, the white collar section of the EETPU.

The composition of the interview panel is reasonably varied considering the similarities of the sample from which they are drawn. There is some geographical concentration, however, with three plants in the South East, only one in the North-

East, two in North-West England, one in North Wales and one in East Anglia. Three of the plants are located on relatively new industrial estates, but interestingly none are located in the hot-bed of new style deals - South Wales. Only two of the plants were greenfield sites when the deal was signed, so the majority do have some form of bargaining history. Three of the plants are multi-union and the remainder have single-union recognition with the EETPU (or EESA). All the plants are in manufacturing, with four in electronics or electrical engineering, one in the food industry, one paper producer and two vehicle manufacturers.

The interviews were conducted in September 1991. Of the eight interviewees one wished their company to be kept anonymous throughout the report, but the others are content to be named and quoted on most (but not all) issues. All the interviewees were sent a pre-publication copy of a previous paper to check that all confidences were respected.

b. Action short of a strike

The data come from the Confederation of British Industry (CBI) Pay Databank collected on a quarterly basis since 1979. The Databank refers to pay settlements and industrial action at the level of the bargaining group. Note that the data are completely anonymous such that no individual bargaining group, workplace or firm can be identified. Moreover, these data are not in the public domain and can only be obtained with the permission of the CBI.

Each year information is sought from a sample of establishments, structured by the number of employees (in the original sample the establishment was chosen randomly from the 1977 Census of Production). The data made available are restricted to manufacturing. Each establishment is asked to provide information on up to 3 bargaining groups within the workplace (typically the 2 largest manual and largest non-manual bargaining groups).

The CBI data are designed to provide a continuous picture of the level of wage settlements and related details through time. In any given period the live survey consists of approximately 1,200 establishments in manufacturing. The questionnaire responses are, however, based at the level of the individual settlement group. With an average of 1.7 settlement groups reporting in each establishment, the survey covers

around 2000 groups from which a 60-65% response rate is achieved in any given year. Responses to the survey are obtained in respect of groups of both manual and non-manual weekly paid employees in private manufacturing, where at least one item of the pay and conditions package is modified by determination at company or establishment level. The survey therefore excludes 'national level only' bargainers.

The questionnaire is completed by a member of the management negotiating team who has direct involvement in the settlement process. In addition to determining the rate of increase in wages as a result of the settlement, the survey asks respondents further questions covering the implementation data and expected duration of the settlement, the level of wage claim and any non-wage dimensions to the settlement. Details are also sought on an extensive list of potential pressures impacting on the wage settlement process including information relating to the use of any industrial action taken in support of the claim.

The data refer only to industrial action during the course of pay negotiations (or pay awards). Information is collected on the threat of action, whether action was taken and, if so, its form - overtime ban, go-slow, strike or other (or some combination of these) - and duration of the most important form of action.

Industrial action is infrequent in non-union workplaces. Millward and Stevens (1986: Table 10.3) report the incidence as being less than 0.5 per cent in non-union plants using the Workplace Industrial Relations Survey 1984 data. This is probably also the case in the 1990 survey but the union/non union variation in industrial action incidence is not fully reported in the accompanying volume to WIRS 1990 (Millward et al 1992: 282).

In the CBI sample around 1.5 per cent of non collectively bargained pay settlements involved some form of industrial action. This is substantially less than the 6.6 per cent level for collective bargaining groups and the data is restricted to exclude settlements not involving collective bargaining. The proportion of such establishments was 72 per cent of the CBI Pay Databank in 1979 and 70 per cent in 1986. In manufacturing as a whole, Millward and Stevens (1986: Table 9.2) report that 55 per cent of plants employing manual workers used collective bargaining to determine pay. Average workplace size is substantially larger in the CBI sample than the WIRS sample, and, as union recognition is maybe more likely the larger the workplace

(Milner and Richards 1991, Disney, Machin and Gosling 1992), this probably explains the larger overall fraction of workplaces where pay is determined by collective bargaining. In this research both the full sample and the unionised sub-sample are utilised for different elements of the analysis.

For more details of the CBI Pay Databank survey and other analyses of it see Gregory, Lobban and Thomson (1986), Ingram and Cahill (1989), Ingram (1991) and Metcalf, Wadsworth and Ingram (1993).

6. Summary

Chapter 2 thoroughly investigates the incidence of FOA agreements in the UK using evidence from secondary sources, the postal survey and the eight case study interviews. Four main issues are addressed: the characteristics of new style deal plants as a whole; why some new style deals have adopted FOA when others have not; the implications of this for the more general question of dispute procedure incidence; and explanations for the variety of FOA procedures seen in the few UK plants with FOA agreements. The analysis reveals a central role for the EETPU and in particular one of its leaders, Mr Roy Sanderson, in the incidence of FOA agreements in the UK. It also appears that two main types of FOA agreement exist in the UK: FOA as an intentional dispute deterrent; and FOA as a dispute resolution mechanism intended to be used only over minor disputes but to be vetoed by management over higher stakes disputes. There is also some evidence to suggest that a much broader investigation of the development of dispute procedures in the UK is warranted.

The key issue of FOA and dispute deterrence is addressed in chapter 3, a core chapter. This provides an examination of: the theory of FOA and bargaining disputes; the comprehensive body of North American theory, using both real world and experimental data; the dispute deterrent effect of FOA and conventional arbitration using data from the postal survey and mainly attitudinal information from the interviews; and the incidence of industrial action among new style deals compared to incidence figures from other surveys. The principal finding is that FOA does not appear to have been a particularly successful dispute deterrent in the UK except in multi-stage dispute procedures. There is, though, evidence to suggest that the new style deals as a whole have been very successful at deterring industrial action compared to other UK plants.

Increasingly US academics and policy makers have turned to the question of the impact of arbitration statutes on settlements, both those negotiated and those arbitrated. The theoretical debate and resultant empirical evidence based on North American public sector bargaining data are summarised and the implications for analysing the effect of arbitration arrangements on settlements in the UK are illuminated in chapter 4. The UK context of FOA provides an opportunity to test a core element of the theory which has never before been empirically examined. Results from the postal survey data accord with findings from the few analogous US studies that arbitrated and negotiated settlements are not significantly different from one another under both FOA and conventional arbitration. The data also provide tentative support for a ranking of negotiated settlements (highest to lowest) from conventional arbitration to non-arbitration procedures to no dispute procedure to FOA avaliable environments. This is consistent with most US evidence and one strand of the theory concerning arbitration availability and negotiated settlements. Chapter 4 concludes with a brief consideration of Pay Review Bodies and settlements in the context of theory and evidence on arbitration availability.

The bulk of existing UK work on FOA concerns the practicalities of FOA once it is invoked and the problems associated with FOA usage. To a large extent his mirrors the academic debate in the US since the bulk of the early (i.e. 1970s) US literature concentrates on the very same issue. The US work appears to be more analytical and constructive in that commentators have devoted considerable energies to devising dispute procedures which combine FOA's dispute deterrence with conventional arbitration's opportunity for arbitrator discretion. However, studies in the UK have far more grounding in actual cases of FOA use which are surprisingly lacking in the US literature. The issues of FOA usage are analysed in chapter 5 by first reviewing these studies. This review is augmented by an examination of evidence from the interviews at the eight FOA plants described above. The combination of these three sources provides the most comprehensive assessment of the practicalities of FOA in action. The chapter concludes that certain unique feature of FOA in the UK compared to the US have led to particular problems of FOA usage. These include: the less than constructive opinions and actions of arbitrators; the role of full time union officials in disputes; and the flexibility of the non-legal UK industrial relations system.

These factors may also help to explain why FOA appears not to have been a particularly successful dispute deterrent in the UK private sector.

Turning to the area of strikes and action short of a strike, chapter 6 documents the relative incidence of strikes and other forms of industrial action since 1966 and chapter 7 examines the 1980s picture more closely through multivariate analysis of the CBI data. Although the evidence is not overwhelming, it appears that their may have been a reversal in the relative prevalence of overtime bans and strikes (the two most popular forms of industrial action) from the 1970s to the 1980s. Whereas most of the 1970s surveys record strikes as more prevalent than overtime bans, and hence some commentators concluded that action short of strikes was on the relative decline, the CBI databank reveals the opposite picture for manufacturing in the 1980s. Details of the various industrial relations surveys since 1966 and their findings on industrial action are summarised in chapter 6. The chapter provides various caveats to the main conclusion that, in respect of which type of action was preferred, the tactics of industrial action appear to have been very different in the 1980s compared to the 1970s. If true, this is another change in industrial relations outcomes, contributing to the picture of a new industrial relations, which has not been previously substantiated.

Chapter 7 provides the first ever attempt to empirically analyse industrial dispute tactics in the UK (and perhaps even further afield). The stimulus for the analysis is three-fold: the fact that the relative incidence of the two main forms of action has shifted over time - something needs to be explained; the richness of the CBI data - a source which permits the necessary investigation; and a dissatisfaction with the application of economic theories of strikes to the UK industrial relations environment. The combination of these factors means that the chapter addresses two distinct issues within industrial disputes. First, tests of economic explanations for bargaining disputes to complement the analysis of chapter 3. Second, testing for explanations of the relative incidence of different forms of action by means of multinomial logistic regressions. The CBI data reveal that, similarly to the data on disputes in new style deal plants, the various economic theories of disputes all have their merits and demerits and they appear to be unrankable in terms of their explanatory power. On the second issue, the factors which appear to have most influence over whether disputes are pursued by means of the overtime ban or the strike are linked to union organisation

and the macroeconomic environment. Less stringent evidence suggests that industrial relations legislation, the level of overtime working and characteristics of bargaining groups may also play their part.

Table 1.1
Extent of FOA and non-FOA new style deals

Study	Number of FOA agreements	Number of non-FOA agreements	Total
IDS (1987)*	14	24	38
TUC (1988)**	18	8	26
IRRR (1989)*	24	28	52
Labour Research (1989)*	n/a	n/a	76
Number of different agreements cited	27	n/a	84

Notes: * Single union deals
** No strike deals

Analysis of non-respondents

Three characteristics of the 26 non-respondent workplaces are compared to the respondent sample (75 original plants reduced to 72 after ejecting those not recognising unions) in table 1.2 below. Note that there is complete information for the non-respondents on union recognised but only partial information on the impasse procedure and country of ownership.

The most significant figure is the relatively high number of non-respondents reported to have final-offer arbitration (seven of the ten plants for which impasse procedure information was available) compared to 50 per cent of the plants with impasse procedures in the sample. Note that the impasse procedures for the majority of the non-respondent plants are not known, so this result is not conclusive evidence of a higher proportion of FOA plants in the non-respondents than in the sample.

It had been suggested that the non-respondents with FOA may have had more problems with the procedure than the respondents and therefore were less keen to have their experiences publicly reported. If true this would lead to an under reporting of the FOA impasse rate. In fact the opposite may be true because only one of the non-respondent companies has been reported elsewhere as using FOA over the past five years (Lewis 1990). If this is the only case of FOA use amongst the non-respondents, their impasse rate is 2.9% (one impasse in 35 bargaining rounds, in seven plants over five years) compared to 7.9% of the sample FOA rounds. However, this is not conclusive proof of over reporting because it is also possible that there have been other cases of FOA use amongst the non-respondents which have not been reported. This possibility seems likely given the fact that the postal survey revealed four cases of FOA use that had not previously been reported.

Therefore, although the high level of FOA within the non-respondent group is slightly worrying it does not appear that they are disproportionately those that used arbitration compared to the respondents. It seems more likely that the non-respondents have a lower impasse rate but it is not possible to be conclusive either way.

Table 1.2
Analysis of non-respondents

1. Impasse procedure

Procedure	Respondent sample (n=54) Valid %	Non-respondents (n=10) Valid %
FOA	50.0	70.0
Conventional arbitration	31.5	20.0
Non-arbitration	18.5	10.0

2. Unions recognised

Union	Respondent sample (n=75) Valid %	Non-respondents (n=26) Valid %
AEU	24.0	23.1
EETPU	48.0	57.7
GMB	6.7	11.5
TGWU	10.7	7.7

3. Country of ownership

Country	Respondent sample (n=72) Valid %	Non-respondents (n=12) Valid %
UK	34.7	75.0
Japan	33.3	16.7
USA	16.7	8.3

Table 1.3
Characteristics of the sample

Characteristics	N	%
1. EMPLOYMENT BY SIZE BAND		
<25	1	1.4
25-99	8	11.1
100-249	26	36.1
250-499	13	18.1
500+	24	33.3
2. COUNTRY OF COMPANY HQ		
UK	25	34.7
Other EC	7	9.7
Europe non-EC	3	4.2
Japan	24	33.3
USA	12	16.7
Other	1	1.4
3. UNION RECOGNISED		
AEU	18	25.0
EETPU	36	50.0
ISTC	1	1.4
GMB	5	6.9
TGWU	8	11.1
Multi-union	4	5.6
4. UNION DENSITY		
0-24%	8	11.1
25-49%	12	16.7
50-74%	31	43.1
75-100%	18	25.0
Don't know	3	4.2

Characteristics	N	%
5. LOCATION BY REGION		
North	12	16.7
Yorks and Humberside	5	6.9
East Anglia	2	2.8
South East	11	15.3
South West	2	2.8
Wales	28	38.9
Scotland	1	1.4
Northern Ireland	3	4.2
6. INDUSTRIAL SECTOR		
Metals	4	5.6
Mechanical	9	12.5
Electronics	31	43.1
Vehicles	4	5.6
Food and drink	6	8.3
Plastics	8	11.1
Other	10	13.8
7. PLANT VINTAGE		
DATE ESTABLISHED		
Pre 1980	24	33.3
1980-85	15	20.8
1986	8	11.1
1987	6	8.3
1988	9	12.5
1989	7	9.7
1990	3	4.2
TOTAL	72	100.

Source: LSE 'New Style' Industrial Relations Survey (see section 3).
Notes: AEU - Amalgamated Engineering Union, EETPU - Electrical, Engineering, Telecommunication and Plumbing Union (both now merged into AEEU), ISTC - Iron and Steel Trades Confederation, GMB - General, Municipal, Boilermakers and Allied Trades Union, TGWU - Transport and General Workers Union.

Chapter 2

Dispute procedure incidence and final-offer arbitration

1. Introduction

The principal issue addressed in this chapter is the incidence of final-offer arbitration (FOA) in UK private sector agreements in the 1980s. The analysis has two layers: distinctive features of the group of new style deal plants as a whole and particular characteristics of those plants within this group who have FOA. A number of different sources both empirical and qualitative are used: previous surveys, reports from previous case studies and other anecdotal secondary information (analysed in section 2) and information from the primary research instruments - the postal survey and the case study interviews (section 3). Note that this issue is not only of interest because of its implications for assessing the impact of FOA on collective bargaining but also because it opens up a area of industrial relations which has never been systematically researched, *viz* explanations for the incidence of dispute procedures in general.

Most industrial relations commentators in the UK have accepted as an historical given the existence or absence of a dispute procedure in any particular collective agreement. Whilst there have been some attempts to gauge the impact of such procedures, for instance on the probability of strike action (Blanchflower and Cubbin 1986, Booth and Cressy 1990), most studies of dispute procedures have been content to document the extent of different procedures and the machinations involved in their use (*inter alia* Sharp 1950, Marsh and McCarthy 1968, Lockyer 1979, Millward and Stevens 1986: chapter 7, Lowry 1990 and Millward, Stevens, Smart and Hawes 1992: Chapter 6). The whys and wherefores of variations in provision over time and between workplaces and/or industries has been virtually ignored. Note that in addition the many US and Canadian studies of arbitration provide no precedents on this issue because they concentrate on public sector arbitration arrangements which have developed by statute rather than through voluntary agreements as in the UK private sector.

The analysis of general dispute procedure incidence is therefore particularly interesting partly because it has not been investigated before, but moreover because it

could provide important information on the assumptions underlying one economic-based strike theory. Reder and Neumann's (1980) joint cost theory of strikes, simply stated, rests on the notion that protocols (or dispute procedures) are developed in certain situations to avoid expensive strikes. Since protocols are costly to generate, the likelihood of a procedure being developed (and modified or complicated) depends upon the joint costs (to the parties involved) of a potential stoppage. Whilst this theory can be criticised on a number of other levels - unspecific predictions, malleability, cross section British evidence suggesting that protocols far from deterring disputes are positively associated with strikes (Blanchflower and Cubbin 1986) - its assumptions of why protocols are developed has been unchallenged and untested. Although only on a small scale the analysis of FOA incidence below provides some interesting pointers on this question. The little existing UK anecdotal evidence on this is assessed in section 4 as a conclusion to the chapter.

A final introductory point concerns the historical context of FOA. The new style agreements incorporating FOA are not the first examples of this type of arbitration for pay disputes in the UK. Interestingly FOA did not, as most US commentators believed until recently, originate in the US circa 1966 (Feigenbaum 1975). Treble (1986) explains that the first example of a formal FOA procedure for collective bargaining disputes was inaugurated in the conciliation board of the Nottingham hosiery industry in set up in 1860 by A.J. Mundella (for details see Cuthbert 1960). The arbitrator on the board was never actually called upon to cast his deciding, and, presumably consequently, the board was judged to be a success in securing industrial peace. Treble has researched more thoroughly into similar FOA procedures in some coalmining industry conciliation boards in the period 1893-1914 (Treble 1990). These examples of FOA were therefore in operation in Britain long before Stevens's seminal article extolling the theoretical virtues of FOA (Stevens 1966). Therefore it should be made clear that the following analysis is not concerned with the origins of FOA procedures or FOA theories but much more narrowly with the incidence of FOA procedures in UK new style agreements in the 1980s.

A secondary and more qualitative aspect of this chapter is explanations for the type of FOA procedures that have developed in the UK. FOA is a simple concept and procedure. However, in both the US and the UK this simplicity has been muddied by

pre-arbitration dispute procedure stages, non-compulsory reference procedures (in UK only) and by amendments to the fundamental mechanism of a straight choice between final offers (mainly in the US). Very few collective agreements (UK) or bargaining laws (US) provide what might be termed 'pure' FOA - a bare minimum of pre-arbitration stages, compulsory reference and simple straight choice arbitration mechanism. The variety of FOA procedures is outlined and explanations for certain adaptations to this pure form are assessed in section 5.

2. Evidence on FOA incidence from secondary sources

The available secondary information concerning this issue is primarily quantitative, the characteristics of FOA plants, but there is a small amount of qualitative information which provides further clues about the incidence of FOA. The quantitative analysis operates at two levels: The characteristics of the new style deals group as a whole; and the characteristics of the FOA plants compared to their non-FOA counterparts within the group.

The scarcity of secondary source information on many of the workplaces to be surveyed means that most of the conclusions concerning incidence are little more than hints at what might be the determining factors in the incidence of FOA agreements. The number of missing cases in Tables 2.1 and 2.2 for the 101 plants identified, indicate the relative sparsity of information on some characteristics.

a. The type of workplace involved in new style agreements

The fact that much of the work on the extent of FOA agreements is concerned more generally with new style deals creates some problems for discerning particular characteristics of plants or firms with FOA agreements. More general literature indicates a number of important features:

. **Industrial sector**: There is a well-documented concentration of new style deals in the electronics industry. Nearly 30% of all the new style deal plants are in the electrical and electronic engineering class but there has been a spread of the deals to other industries (Bassett 1986: 132-147).

. **Inward investment**: A substantial number of the plants (for which this information is available) are owned by foreign based companies, particularly

Japanese. However, the proportion of UK owned new style deal plants within the group has increased over the 1980s (Labour Research 1989).

. **Greenfield sites**: Almost 30% of all the plants (and 55% of those for which the date of establishment is recorded) were established in the 1980s. This greenfield site characteristic of the plants is particularly emphasised in much of the relevant literature (Bassett 1986, Labour Research 1989, IRRR 1989). Again there are some exceptions where a company has inaugurated new style industrial relations or working arrangements at current establishments, for instance the agreements at Eaton (Axle Division) in Newton Aycliffe (Industrial Relations Review and Report [IRRR] 1986a) and at United Merchant Bar in Scunthorpe (IRRR 1986b).

. **Region**: New style deal workplaces are geographically concentrated in Wales (North, around Wrexham, and along the industrial South coast belt) and in North East England. Workplaces in these three areas alone make up virtually half of the total group. This is probably linked to a number of factors including conditions in the local labour market, local land availability, price and development incentives, and local union officials. On this regional factor, an interesting comment came from the TGWU regional officer in Cardiff: "I can't see any greenfield site ever agreeing again to sign agreements that are not single union. It's not going to go away and if anything it's going to grow." (Labour Research 1989: 10).

. **Union recognised**: The EETPU has a sole recognition agreement with 55 per cent of the plants. There are only four other unions with a significant number of agreements signed, the AEU, GMB and TGWU. In three of the plants more than one union is recognised but the plants are still classed as new style because they have an FOA agreement.

b. Notable features of FOA agreement plants within the group

There are substantial gaps in the information, which make a definitive conclusion on any particular characteristics of the FOA workplaces compared to the non-FOA group difficult to make. The results of various cross tabulations are summarised in Table 4.2. Certain points are worth noting and may prove of relevance to an analysis of the incidence of FOA agreements.

. The UK owned plants are disproportionately less likely to have FOA agreements than their foreign-owned counterparts.

. Proportionately more of the agreements involving the EETPU and the GMB are FOA than the agreements where other unions are involved.

. A greater proportion of the plants established in the 1980s have FOA agreements than those plants established before 1980.

. FOA agreements are particularly prevalent in the office machinery, electrical and electronics engineering sector. This is an even greater proportion than for the new style deal plants as a whole.

It is quite probable that a number of these results would not stand up independently in a more controlled analysis. It may be that FOA, workplace vintage and union recognised are actually all determined by the country of ownership. Foreign owned firms may be more likely to recognise the EETPU and GMB than other firms, have begun operations on the UK site in the 1980s and coincidentally favour FOA. Any one of the other factors could be similarly crucial but because of the high number of missing observations a more controlled analysis is not possible from the available secondary data sources.

c. Attitudinal information on the incidence of FOA

There is a general 'package problem' here in that, because FOA has been introduced in the great majority of cases with other measures, it is difficult to distinguish reasons expressed by parties for the introduction of the FOA clause in isolation, as opposed to reasons for the whole package.

An exception to the package type agreement (it appears to be the only one) is the agreement at Iveco Ford signed in November 1986 seven months after the announcement of a joint venture between Ford and Fiat's truck subsidiary in Britain, Iveco UK. FOA was the only main procedural change in industrial relations brought about as part of the agreement between company and unions (IRRR 1987b). The clause was actually simply attached to the main Ford grievance procedure in place of the final, national stage of appeal.

Having said this, unfortunately the case study reveals very little about why FOA was introduced as opposed to some other form of impasse procedure, apart from

the fact that management was interested in establishing a 'new relationship' with the unions at the plant. At least this indicates which party probably proposed FOA, but it does not adequately explain management thinking behind the proposal.

Reasons given by management for the introduction of new style deals (both FOA and non-FOA) have been recorded in some case studies and surveys. However none of these sources provide specific information on managerial reasoning behind FOA procedures. Briefly stated, management thinking behind the introduction of new style arrangements include: the avoidance of multi-unionism; the avoidance of adversarial industrial relations; the opportunity created by a greenfield site; a business crisis (IRRR 1989).

Apart from individual case studies various commentators have hinted at the answers to some of these questions but nothing equivocal, based on case study evidence has yet been written. For instance, Lowry (1990) states that in general management has been quite anti-FOA, but does not cite individual cases supporting this. On the other hand some case studies indicate that management was actually the progenitor of the FOA clause, for instance at BICC Optical Cables Unit (IRRR 1987c) and Bowman Webber (Income Data Services 1988), so Lowry's argument may not be soundly based. The case of Bowman Webber is particularly interesting because a third party was directly involved in the form of the Industrial Society which helped the company and the EETPU draw up an agreement which they signed in December 1984.

Bassett (1986: 116) and Trevor (1988: 40) provide some anecdotal evidence about the role of Roy Sanderson, then the EETPU's national engineering officer and a strong advocate of FOA, in negotiating many of the union's early new style agreements and particularly in negotiating the Toshiba (Plymouth) agreement, the first new style deal signed in 1981. Sanderson, heavily influenced by his experience of US examples of FOA agreements according to Bassett, used three arguments in favour of FOA, though presumably not all were used to win over employers to FOA:

. Resolving disputes in this way is less costly than through industrial action.

. It is 'recession-proof' in that the decision is based not on 'economic factors' but on the soundness of the argument presented.

. It is fairer than the strike because it settles disputes on the basis of natural justice rather than on a trial of strength.

Other union leaders have been quite anti-FOA (John Edmonds of the GMB in particular, Bassett 1986: 147) so it would seem reasonable to argue that the role of the electricians' union and Sanderson is crucial in any explanation of the incidence of FOA agreements. However, there is undoubtedly also some room for a management prerogative explanation in that not all the EETPU's agreements are FOA and not all the FOA agreements involve the EETPU, indeed the GMB has signed a number of FOA agreements, according to existing reports, despite Edmonds's avowed opposition. Moreover the EETPU model agreement used by local officials when negotiating a new collective agreement provides for a choice of impasse procedure: FOA; conventional arbitration and; withdrawal of labour. The relevant section of the model agreement is reproduced in Appendix C. It could be that the local officials have particularly advocated FOA but nevertheless the decision concerning the choice of impasse procedure is likely to be jointly made, by the company and union representatives.

3. Evidence on FOA incidence from the primary research instruments

Final-offer arbitration procedures exist in 27 (38%) of the 72 workplaces in the sample with 'new style' industrial arrangements which recognise trade unions. These plants comprise 50 per cent of the 54 plants in the sample with some form of formal dispute procedure in their collective agreement. Note that the type of FOA procedures in place differ across agreements in two main ways: whether or not they provide for pre-arbitration stages in the dispute procedure such as conciliation and/or mediation; and whether or not the reference to arbitration mechanism is compulsory, unilateral or joint, voluntary. Variations within the FOA format are explored further in section 5.

Cross tabulations with the sample confirm and reveal that FOA impasse procedures are more likely to exist in workplaces: which are UK or Japanese owned; where the EETPU is the recognised union; which are located in the South East; where the impasse procedure was introduced between 1980 and 1986; in medium sized workplaces; and where union density is above 25%.

The likelihood of a workplace having an FOA procedure was analysed more formally by a logit regression using the sub-sample of plants which have some sort of procedure (Table 2.3). The dependent variable is classified as one if an FOA

agreement and zero otherwise. Therefore the non-FOA category includes both conventional arbitration and non arbitration procedures. Only three variables are significantly associated with the incidence of FOA agreements. These are the date when the impasse procedure was introduced, whether or not the EETPU has sole recognition at the plant and whether or not the workplace is located in the South East region. The probability of the workplace having an FOA agreement is significantly much higher where the collective agreement incorporating FOA was signed in the period 1980 to 1986, has the EETPU as co-signatory or if it is in the South East[1]. Variables which were associated in cross tabulations but were found to be non-significant in the regression are those on ownership (UK and Japan), union density and workplace size.

This statistical result concerning the year the disputes procedure was introduced and the role of the EETPU can be brought to life by discussing a personality involved. Between 1980 and 1986 the electricians union National Officer for Engineering was Roy Sanderson. He was (and remains) a tireless advocate of new style industrial relations in general and FOA in particular. The EETPU model agreement, the basis for many of their new style deals allows a choice of FOA, conventional arbitration or industrial action as the ultimate stage in the collective grievances procedure (see Appendix C). So there is certainly some scope for local EETPU officials and management to independently choose their preferred final stage when negotiating the terms of the collective agreement. Yet a substantial majority chose FOA. The empirical analysis suggests that Roy Sanderson's influence may have been paramount in the signing of FOA agreements in the first six years of the 1980s in both EETPU and non-EETPU plants.

Another potential explanation for this time-based result concerns the attitudes of managers towards FOA. First, as FOA is designed to be a dispute deterrent we might expect the incidence of FOA procedures signed to decline as the threat of costly disputes diminishes. In the early 1980s the memory of extensive industrial action in UK industry during the 1970s was still a pertinent reminder of the potentiality of industrial disputes. A disputes procedure which could, in theory, deter such disputes by encouraging responsible collective bargaining must have seemed very attractive to employers. However, in the later part of the 1980s the threat of costly industrial

action was much less imminent in most plants judging by the aggregate figures (Metcalf and Milner 1993), hence the need for any collective dispute procedure in particular the novelty of FOA was much less attractive. Combining this with the role of Roy Sanderson suggested above, one could argue that whilst Sanderson sowed the seeds of FOA, the fear of costly disputes (which diminished markedly in the second half of the 1980s) provided the fertile ground for this seed. This explanation for the incidence of FOA is compatible with the assumptions regarding dispute procedure development suggested by the joint cost theory of strikes, outlined above.

The interviews were only conducted at plants with FOA procedures which is not the ideal sub-sample from which to distinguish why particular plants signed FOA agreements when others did not - because there is no sense of '*why not FOA?*'. Despite this caveat the results do provide some support for the respective explanations outlined above. There is quite strong support from the bargaining histories of the plants before FOA was introduced for the desire-to-deter-costly-disputes explanation.

Two of the eight deals were on greenfield sites, Shotton Paper at Deeside (signed in 1985) and Sanyo at Newton Aycliffe (1988), and therefore involved no bargaining history. Interestingly, however, the Director of Human Resources at Shotton Paper, Mr John Shield, did explain that both the Managing Director and himself had individual 'bargaining histories' in the paper industry of Merseyside. Their experiences of union militancy, frequent industrial action and firefighting management had been paramount in their determination to have a completely different arrangement at the new site, hence the new style deal and FOA. This highlights that it is worth being aware that even at a greenfield sites it is unlikely that the parties and their bargaining agents are 'green' themselves. The key difference between greenfield and brownfield sites is the lack of an existing agreement in the former which has to be discarded or altered in the latter to implement new elements.

Of the six non-greenfield sites, in two of the plants there had been little previous collective bargaining since the new agreement corresponded with a decentralisation of bargaining from company to workplace level (ABB Capacitors and Anonco). Of the four more conventionally brownfield sites, all the interviewees indicated that industrial relations had been something of a problem before the new agreement incorporating FOA was signed. All had experienced industrial action and

very interestingly three stated that previous industrial relations procedures had exacerbated problems rather than alleviated them. In one the previous agreement had included conventional arbitration as the final stage in a dispute procedure, and problems with this were cited as a reason for adopting FOA. Therefore the bargaining histories of the parties strongly suggest that the need for a dispute deterrent was a important impetus for the signing of FOA agreements.

Unfortunately, because of the composition of the interview group, it is not possible to confirm or challenge the focal role of Roy Sanderson suggested by some other commentators and the results in Table 2.3 by talking to managers in a number of plants where he was involved. Only three of the deals, Sanyo (Lowestoft), ABB Capacitors and Shotton Paper, involve the engineering section of the EETPU and were signed before 1987. In one of the these three plants, the interviewee described Sanderson as the 'missionary for pendulum arbitration' but he was not cited in the other two cases.

In all the plants, except one, management claimed responsibility for the FOA agreement either personally or for one of their managerial predecessors. The exception, Anonco, was unique in many respects. In this case, the agreement was written by corporate level personnel managers and imposed on the plant from above at the time or bargaining decentralisation. Management at the plant had never had to deal with industrial relations matters before as all such issues were handled at corporate level. The interviewee at Anonco could offer no explanation why the corporate personnel managers favoured FOA which had not previously been used in the company.

The fact that in general management claimed responsibility for FOA is not surprising given that they were the interviewees but the 'Sanderson effect' suggested by the postal survey data may not be completely defunct. The common response to a question about where the idea to try FOA came from was that the manager had 'read about it' or 'heard about other cases of it'. In the case of RHM Foods Mr Bill Gormley, then personnel manager, learnt about FOA whilst enroled on a course at Salford University and actually introduced FOA into the plant as part of his work for the course. This does suggest that the description of Roy Sanderson by one manager as a 'missionary for pendulum arbitration' was probably quite apt. The picture of

FOA incidence is of Sanderson being the apostle for FOA amongst managers and academics in the early to mid 1980s and managers becoming the 'evangelisers' after that.

4. The more general incidence of dispute procedures

Given the extent of collective dispute procedures in the UK it seems somewhat odd that there has been no study of the incidence of dispute procedures more generally to which this analysis of FOA incidence might be complementary. Millward, Stevens, Smart and Hawes (1992) record that 65% of British workplaces provide some for third party intervention on pay and conditions disputes (compared with 56% in 1980 and 68% in 1984). There is considerable variation in types of procedure and one might presume across type of workplaces, but this variation has never been properly analysed either empirically or qualitatively. Moreover, potential explanations for the variety in provision have not been put forward except in rather anecdotal comments, with one possible exception - the main assumption underlying Reder and Neumann's (1980) joint cost theory of strikes. Although Reder and Neumann state that they 'do not attempt to determine which bargaining pairs develop protocols', they actually set out a model which assumes that the process of protocol formation has some order and is predictable.

Note that formal dispute procedures are only one type of bargaining protocol as defined by Reder and Neumann. Other aspects of the rules of bargaining could include the time and location of meetings, the authority of bargaining representatives and specification of the circumstances under which an old contract might continue post-expiration if a new contract is still under negotiation. However, it seems safe to argue that formal dispute procedures, especially arbitration arrangements, are one manifestation of a comprehensive bargaining protocol. They key feature of Reder and Neumann's analysis is that they argue that in selecting a protocol, bargainers balance up the cost reduction of reduced strike activity against the increased cost of specifying a more comprehensive protocol. This analysis leads to two main predictions concerning the development of voluntary formal dispute procedures: that more experienced bargainers are more likely to have developed such procedures and; that the likelihood of dispute procedure development is positively related to the potential joint

costs of strikes. This all seems reasonably sensible but it is almost completely untested. We simply do not know if the potential joint cost of strikes and/or the experience of the bargaining parties are the main determinants of the development of dispute procedures.

The analysis of FOA development above provides some support for Reder and Neumann's assumption since a number of the plants which adopted FOA stated that this was explicitly to prevent disputes and was consequent on the plant's or industry's problems with industrial action in the past. The example of the role of Roy Sanderson in the spread of FOA agreements in the 1980s could be used to add a nuance to joint cost theory. Perhaps the threat of costly industrial action is the driving force behind the development of general dispute procedures but the specifications of dispute procedures may depend on personalities and other contingent factors.

Note that not all anecdotal evidence supports Reder and Neumann's analysis of dispute procedure development. Lowry (1990) argues that arbitration provisions are more likely when unions are relatively weak than when they are strong, because only in the under the former scenario would unions agree to arbitration arrangements. One would imagine that the threat of costly industrial action is more real when unions are strong than weak - therefore the assumptions of joint cost theory might predict the opposite relationship.

It is not immediately clear what would be the right 'test' of Reder and Neumann's analysis of dispute procedure development. There seem to be two main possibilities. First, an investigation using qualitative (historical and contemporary) evidence on the development of industrial, company and workplace dispute procedures in the UK attempting to answer the critical question of why some bargaining pairs developed procedures for third party intervention in disputes when others did not. Second, comparing empirical data on the intensity of industrial action by industry and region (to gauge potential joint costs) with information on the provision of formal dispute procedures by workplaces, say using the three Workplace Industrial Relations Surveys. If there is a significant statistical link between the provision of dispute procedures and previously high intensity of industrial action this would support the assumptions of joint cost theory. Note that the general critique that dispute procedures are if anything positively related to the incidence of industrial action would not

invalidate this analysis for two reasons. First, it may be that the intensity of industrial action has declined since the introduction of the dispute procedure but that it is still high compared to other workplaces. Second, the parties' expectations that dispute procedures help to deter industrial action may be unfounded but it may still be that procedures were introduced because of the threat of costly industrial action.

This study of the incidence of FOA in UK new style deals in the 1980s is a very narrow analysis of an unusual dispute procedure introduced into one industrial relations system in a perhaps peculiar decade. Therefore the findings are probably not particularly applicable to other industrial relations systems, time frames or dispute procedures. However, the findings do indicate that the whole issue of dispute procedure incidence deserves further investigation at least in the UK and possibly in comparative work. For instance we know that the legal parameters of industrial relations in Australia and Britain were virtually identical in the 1890s but since the early 1900s Australia has operated under a legalistic, compulsory arbitration system which is anathema to Britain (Macintyre and Mitchell 1989). A thorough investigation of how and why these alternative systems of dispute procedure provision developed could be very illuminating.

5. The variety of FOA procedures: pure versus adapted FOA

a. Introduction

Sections 2 and 3 above examined the question of FOA incidence in the UK - the characteristics of plants, unions and bargaining agents which precipitated the inclusion of FOA into some new collective agreements in the 1980s. The 'dependent variable' in both the quantitative and qualitative analyses is a simple measure of the existence of a dispute procedure which includes FOA. However, a striking feature of this small sample is the great variety of dispute procedure specifications within the 54 plants and even within the 27 FOA plants in terms of pre-arbitration configurations and different means of triggering arbitration. This variety is examined in terms of its effect on one outcome (dispute deterrence) in chapter 3. Regardless of its effect on dispute deterrence, however, the development of this range of different specifications of FOA in the UK is intrinsically interesting in itself. The central theme of this section is to investigate the fact that in general UK examples of FOA are considerably

adapted from the simple, theoretical model. This model would be defined as one with a compulsory reference procedure, a bare minimum of in-house negotiation procedures and no pre-arbitration third party stages such as conciliation and/or mediation.

The issue of pure versus adapted FOA has been addressed by some US commentators and in the UK by Wilkinson (1986). Criteria of what constitutes 'pure FOA' vary greatly across these studies, but Wilkinson's is the most relevant here. He argues that the key distinguishing feature between pure and adapted FOA agreements is whether or not pre-arbitration stages of conciliation and/or mediation exist. This seems to be too narrow a distinction, however. A broader means of judging the purity of an FOA procedure must surely include the type of reference to arbitration mechanism, and might also include the number of in-house stages in the dispute procedure. In the next section this broader means of distinction is employed. To an extent this is only a disagreement over semantics, since the main issue is what factors have influenced the development of the variety of FOA procedures rather than discerning where each agreement sits on a purity scale. However, it does mean that this study, also partly because it comes five years after Wilkinson's, cannot conclude as he did that most UK agreements are 'pure FOA'.

The distinction between pure and adapted FOA is inevitably interlinked with questions of FOA effectiveness and in particular with the consequences of FOA usage which are addressed in following chapters. Here the concern is to distinguish what has influenced the development of FOA into the varied procedures evident in the survey.

b. The variety of procedures

Using responses from the postal survey, Table 2.4 provides a statistical breakdown of the variety of FOA procedures based on the configuration of pre-arbitration procedures, the reference to arbitration mechanism and the means of selecting the arbitrator. This table uses the sub-sample of plants in the postal survey with FOA agreements. The full specifications of all the dispute procedures in the whole sample are provided in chapter 3 (Table 3.4 and Figure 3.1). Table 2.4 reveals that just over half the FOA plants do not provide for pre-arbitration third party stages, around 40 per cent have a joint, voluntary procedure for referring disputes to arbitration, i.e. both sides must agree to refer any dispute to this final and binding

stage, and the majority stipulate that in the event of arbitration ACAS will select an arbitrator. These statistics can be augmented further by reference to Appendix C which provides extracts from the dispute procedure in the collective agreements of eight new style deals which all include FOA. Some of these follow a similar format to that found in the EETPU model agreement (also Appendix C) but others are quite different.

What is striking about these agreements is that each has distinctive features which discern it from the others. Characteristic ingredients include: the number of in-house stages - while some have five or six well defined in-house stages others appear to have none at all; whether or not the procedure covers individual and collective grievances; the description of what constitutes final-offer arbitration; restrictions on the terms of reference; and whether or not the arbitrator is allowed to make recommendations or other observations with his/her award. These are in addition to the well documented differences in pre-arbitration third party procedures and the means of referring an issue to arbitration. It does appear that the more complicated procedures are the ones signed later in the 1980s whereas the Toshiba, Cadbury's and Sanyo (Lowestoft) deals signed in 1981 and 1982 are more straightforward with very few obstacles between an in-house dispute and FOA. The starkest procedure appears to be that at Sanyo (Lowestoft) which provides no in-house dispute procedure and no third party stage other than arbitration. In contrast the agreements at Iveco Ford, RHM Foods and Shotton Paper include up to six in-house dispute procedure stages. Interestingly though, two of these (Iveco Ford and Shotton Paper) do not provide for either conciliation or mediation before FOA.

In addition to what might be termed the procedural hurdles before arbitration are the different means of referring disputes to arbitration once these hurdles are jumped. Although the EETPU Model Agreement advocates the use of unilateral reference to arbitration ("either side can proceed to arbitration"), this has not been replicated in all agreements in practice. The earliest FOA agreement at Toshiba provides for compulsory reference to arbitration if a dispute could not be settled in-house, and this is also the case in the more recently signed agreement at Shotton Paper. Most of the agreements cited in Appendix C provide for joint, voluntary reference to arbitration, however there are some quirks which mean that the labels

'unilateral', 'compulsory' or 'joint voluntary' are not mutually exclusive. For example, the Nissan agreement provides for compulsory reference of disputes to ACAS but stipulates that resolution may be by conciliation or arbitration depending on the issue. Similarly difficult to categorise is the Yuasa Batteries agreement which states that the usual means of reference will be on a joint basis, but that either party can unilaterally refer an issue (after 10 working days) if no joint agreement to progress is reached.

Another distinguishing feature is the fact that some dispute procedures specifically cover both individual and collective disputes (Shotton Paper, Iveco Ford and Nissan), some either specify separate procedures for individual and collective disputes (Yuasa Batteries and Toshiba) or preserve the third party procedures for collective disputes only (RHM Foods) and the remainder do not distinguish this either way (Sanyo and Cadbury's).

Turning to the description of what constitutes FOA and notes about its usage. Some agreements employ the straightforward jargon 'Pendulum Arbitration' (Iveco Ford and Yuasa Batteries) but most spell out exactly what this means. Perhaps the most definitive of these is in the Cadbury's agreement:

> "... the arbitrator will then be required to decide which case has the greater merit. He would decide for one case or the other, cannot split the difference nor make further recommendations or observations."

Some agreements either in the preamble or note to the dispute procedure stipulate the grave consequences of using arbitration. For example, the RHM Foods agreement states that:

> "Many grievances are escalated through disputes procedures because of an initial lack of understanding ... Every attempt should be made to resolve matters in [an] informal way ..."

Furthermore some agreements such as the Shotton Paper one note that the final stage of their procedures (arbitration) are to be avoided at all costs. This particular agreement goes even further by stating that:

> "In particular there is mutual trust that neither side will progress issues [to arbitration] which will be detrimental to the other or both."

Finally one of these agreements provides a permanent term of reference for arbitration, whereas most of the others state that terms of reference will be determined on the basis of the individual dispute. The Cadbury's agreement states that:

> "In making his [the arbitrator] decision his criterion would be to select the case which will improve the long term prosperity of the company and its Chirk employees in cases of 'interest'. ... These terms of reference are subject to confirmation and variation by mutual agreement."

This proviso is akin to Meade's proposals concerning 'Not Quite Compulsory Arbitration' or NQCA, in which he suggests that one element in an FOA package could be that the arbitrator's objective in making a decision would be to maximise the level of employment in the industry (Meade 1982, and see Dolton and Treble 1985 for further discussion of the NQCA principle and its link to the FOA debate).

Overall the variety of FOA procedures in the UK can be seen as on some imaginary scale starting with 'pure FOA' and moving away from this in degrees of adaptation. The purest form of FOA among the eight agreements recorded in Appendix C would seem to be that at Sanyo (Lowestoft) which has no specified in-house procedures and no pre-arbitration stage, although the fact that it has a joint reference clause means that is cannot be classed as pure FOA. All the other agreements have adapted the simple FOA principle further by erecting significantly more hurdles before arbitration is reached. This adaptation of pure FOA in part mirrors developments in the US, where some legislatures have actually gone much further by amending the core of the mechanism itself such that labelling the resulting procedure as 'FOA' is misleading. Some of these amendments are outlined below after a discussion of explanations for the variety of FOA procedures found thus far in the UK.

c. Explanations for the variety of procedures

The case study interviews revealed that as far as the parties were concerned the important distinguishing features of their procedure from others were the existence or non-existence of pre-arbitration stages and the reference procedure. The number of in-house stages before a dispute reached a third party intervention stage was not thought

to be particularly important. Their view therefore falls somewhere between the Wilkinson and Milner interpretations of how to judge the purity of FOA agreements. So there are two phenomena which particularly need to be explained, why some procedures include pre-arbitration stages and why some provide for joint voluntary reference to arbitration. Other features highlighted above such as the terminology used for describing FOA or permanent terms of reference are not examined.

i) *Provision of conciliation and/or mediation before FOA*: Turning first to the issue of pre-arbitration provision for conciliation and/or mediation, it has already been noted that Wilkinson (1986) is the only previous author to examine this issue. He provides a relatively simple explanation based on the role of Roy Sanderson and the importance of learning from experience. It is readily apparent from previous sections that Sanderson played the pivotal role in first introducing FOA to the UK in the 1980s with the Toshiba deal (see Trevor 1988 for more details). Wilkinson argues that when this deal was signed the possibility of providing conciliation and/or mediation was not considered:

> "The union admits that when pendulum arbitration was written into the Toshiba agreement, it was unaware of the modifications and refinements which had been made to the system in the USA." (Wilkinson 1986: 15, quoting personal interview with unnamed EETPU official on 22.7.86)

He then goes on to argue that subsequent modifications to FOA procedures to include these pre-arbitration stages came about as a result of problems with the use of this purer form of FOA. The most important case in this instance was that at Sanyo in 1985 when the EETPU proposed ad hoc use of mediation before arbitration even though the dispute procedure did not provide for mediation, mainly because they wanted to prolong negotiations. (Chapter 5 provides more details on this case of FOA in action and only certain aspects of that are salient here.) Wilkinson argues that the EETPU regretted the simplicity of the Sanyo procedure at the time, and with hindsight, since it prevented any further movement between the sides after impasse and before arbitration. In other words pure FOA was seen as too absolute and needed mollifying with a less stringent procedural stage. Subsequent to the dispute, the EETPU proposed that mediation be formerly introduced into the dispute procedure but this was rejected by the employees in a ballot (with management support).

As a consequence of this dispute and that at Bowman Webber in 1986, the EETPU organised a conference of the signatories to their existing agreements at the end of 1985 with a proposal to modify all their FOA agreements to include pre-arbitration stages. However, this proposal was rejected by employers who believed that the pure system 'held forth the promise of responsible bargaining and regarded tampering with the procedure as having detrimental effects on negotiations' (Wilkinson 1986: 24). However, Wilkinson argues that since the EETPU was the prime mover over the new style deals, that from 1985 new agreements were more likely to 'follow the pattern of the Yuasa agreement which includes conciliation prior to pendulum arbitration' (Wilkinson 1986: 24). In summary, Wilkinson argued that FOA agreements signed later in the 1980s were more likely to have pre-arbitration stages especially after 1985, because of the EETPU's experience with FOA in action.

Wilkinson made his observations when FOA was still in its relative infancy in the UK and other observers would probably have concluded similarly on this issue at the time. The benefits of quantitative data about FOA plants, of more detailed questioning of managers about their agreement and of hindsight reveal that a more credible explanation must also take account of the role of tradition and beliefs about the purpose of FOA as well as problems of previous usage.

Statistical analysis of this issue can only be of a very limited nature since the survey only contains data for 27 FOA plants. However, Table 2.5 provides two-way analysis of the relationship between certain variables and whether or not conciliation and/or mediation are included in the procedure. No distinction is made between the 'conciliation only' and 'conciliation and mediation' categories for the sake of simplicity. Table 2.5 reveals that there is no statistically significant relationship between FOA deals signed in the early 1980s (up to and including 1985) and the provision of conciliation and/or mediation. There is also no suggestion of a link between the EETPU and purer forms of FOA - which might be expected given the change of policy on this around the mid-1980s. However, two factors are significantly related to the provision of pre-arbitration stages: whether or not the new style agreement was signed on a greenfield site and whether or not the plant is UK owned. Greenfield site agreements (defined here as a plant established on its current site in the same year that dispute procedure was introduced) are significantly more likely not to

have pre-arbitration stages, the null hypothesis is rejected at the 5% significance level. In addition UK owned plants are more likely to have pre-arbitration stages in their FOA procedures, although with less significance (P=0.072). Note that other specifications of procedure introduction dates were used but were also found to be insignificant. Possible explanations for these significant associations are discernable from some previous case studies of FOA introduction and from the eight case study interviews.

The statistical results indicate that the role of tradition and convention is an important explanation for variation. Traditionally dispute procedures in the UK which provide for arbitration also provide for conciliation, usually both by ACAS. Millward and Stevens (1986: 180) report that of the workplaces with provision for third-party intervention for disputes over pay and conditions involving ACAS, 71 per cent in 1980 and 64 per cent in 1984 provided for both services. For 1990, Millward et al (1992: 209) report that 'where ACAS was mentioned over half of procedures [for pay and conditions disputes] referred to the possibility of both conciliation and arbitration'. Note that in fact these figures although reasonably high are do not provide quite the right comparison. The true comparison is the extent of provision for conciliation and/or mediation in agreements which provide for arbitration, rather that the provision for both across the sub-sample with provision for any ACAS service. These figures of 87 per cent for 1980 and 82 per cent for 1984[2] (figure for 1990 not calculable from text) show the true extent of the usual practice of providing pre-arbitration stages in UK dispute procedures. This also indicates how comparatively low the extent of provision for pre-arbitration stages is among new style deal plants with FOA (52%).

A priori, it might be expected that the type of plants most likely to diverge from convention would be greenfield sites and foreign owned plants since they are likely to be less aware of and less constrained by convention. This is exactly what the data indicate. The traditional institutions associated with dispute resolution may also have played a role here. In its 1984 annual report the Central Arbitration Committee (CAC 1984) expressed some misgivings about FOA and suggested that at the very least it should be accompanied by a mediation or conciliation stage. The influence of convention, particularly associated with ACAS, is cited by Wickens (1987) as the main reason for the provision for conciliation in the dispute procedure at Nissan, although

this is somewhat anomalous with the general picture since Nissan was a greenfield site and is foreign owned. When discussing the motivation behind the Nissan dispute procedure, Wickens states:

> "... we felt it important that as ACAS would be involved in the procedure then the ACAS views should be taken into account. Clearly ACAS has a strong preference for conciliation before arbitration ... In providing for conciliation it was a major concern of all parties that neither the company nor the union should 'keep something up its sleeve for conciliation'." (Wickens 1987: 150)

There is also evidence that arbitrators who have become involved in FOA cases have indicated to the parties that they would have preferred conventional arbitration and failing that some form of mediation before the arbitration hearing (Kessler 1987, Lewis 1990).

A second explanation based on the different conceptions about the purpose of FOA mainly transpired from the interviews. Asked about why their original agreement provided for pre-arbitration some of the relevant interviewees stated that these stages were vital to prevent the parties reaching an arbitration hearing with bargaining positions still poles apart. These procedures were also seen as a means of clarifying bargaining positions before arbitration to prevent confusion at the final stage. In contrast when other interviewees were asked why their agreements did not provide for conciliation or mediation, the usual response was because this would have defeated the object of FOA by providing a means for compromise outside of in-house bargaining. For the first set of plants, FOA is probably best viewed as a dispute resolution mechanism whereas for the second group it is seen as a dispute deterrence mechanism. Therefore whilst the former are anxious about the consequences if FOA is reached, the latter do not want to muddy its deterrent power with pre-arbitration stages.

ii) *Provision of joint, voluntary reference mechanisms*: Lewis (1990) is the only other UK commentator to discuss the different means of referring disputes to arbitration in the context of FOA. He concentrates on the implications of the different mechanisms for whether or not these deals should properly be termed 'no-strike deals'. Although he highlights that some FOA plants have adopted a compulsory reference mechanism

and some a joint, voluntary he does not suggest any possible reasons for the variation. Presumably, as with the provision of pre-arbitration stages there must be some role for convention here. This is implicitly suggested by Lewis (1990: 42), however, there may be another explanation. Since a joint, voluntary reference procedure means that either party can prevent the use of FOA, it seems sensible to argue that such procedures are more likely to exist in plants where there is (or was) a relatively low level of trust between the parties. Concern for having the ability to block FOA if necessary must be more important than making the deterrent potential of FOA as powerful as possible with the use of a compulsory reference procedure.

The level of trust in each plant is not discernable from the postal survey but the data were examined to establish whether or not they could provide any evidence which might support the proposition outlined. Table 2.6 shows two-way tables on the incidence of joint, voluntary procedures and certain independent characteristics. The only characteristic which is associated with the nature of the reference mechanism is whether or not the EETPU has sole recognition at the plant (P=0.000). Of the 18 FOA plants where the EETPU has sole recognition only 3 (16.7%) have a joint, voluntary reference mechanism compared to 8 (88.9%) of the 9 other FOA plants. Therefore it seems safe to argue that the key role is that of the EETPU. This association may either result from a proactive relationship or a reactive one. In other words, it is either because the EETPU itself favours compulsory reference procedures and is therefore advocating them when deals are struck, whereas other unions are less keen, or it derives from the fact that management is less wary about the EETPU than other unions and therefore is prepared to concede a compulsory, mechanism more readily. Another feature may be that in 1988 the TUC proscribed mandatory, joint reference to arbitration (i.e compulsory) in new recognition agreements (Lewis 1990: 43), at a time when the EETPU was expelled (or about to be expelled) from the TUC.

The interviews revealed some association between low trust industrial relations environments and the existence of joint, voluntary mechanisms. At one plant with this type of procedure, the interviewee stated that the mechanism provided a means for management 'to keep their options open', so that they could not be forced to arbitration on an issue that they did not want a third party to have control over. In this particular case, in a dispute arising from the annual pay negotiations three years

after the use of FOA, management refused the unions access to FOA and preferred to take a strike (seven weeks) over the issue than allow an arbitrator to decide the issue. In total three of the eight interviewees stated that management in their plants would not allow an arbitrator to determine their labour costs. This suggests that two strands of FOA have developed in the UK: one as a dispute avoidance mechanism where the threat of FOA is real; and the other where FOA is just a dispute resolution mechanism which management would block the use of over a high, stakes dispute such as over a pay settlement. Management in the latter cases does not see FOA as an alternative for the 'right to strike' at all, and might be prepared to take a strike over pay than see it go to arbitration. A joint, voluntary reference procedure is very much integral to this. The mechanism allows management to veto arbitration over pay.

Since the EETPU has been at the forefront of the move towards new style deals it might be supposed that higher levels of trust would exist in an EETPU plant than a non-EETPU unionised plant. In summary, it is probably the confluence between non-EETPU unions, convention and relatively low trust industrial relations environments which best explains the incidence of joint, voluntary reference procedures in FOA plants.

Footnotes

1. The South East and EETPU variables are only significant at the 10% level. All other regional variables were included in alternative versions of the logit equation but none were significant. Combining the South East with other regions to produce a South of England variable also failed to provide a significant result.

2. These figures are approximations calculated from the text on page 190 of Millward and Stevens (1986). The simple calculations are shown in the table below. Unfortunately Millward et al (1992) do not provide comparative figures for 1990 in their text.

Survey Year	% of agreements referring to ACAS		
	Conciliation and arbitration (1)	Arbitration only (2)	% with arbitration also including conciliation (1)/(1) + (2)
1980	71	11	87
1984	64	14	82

Table 2.1
Characteristics of 101 new style deal plants from secondary sources

CHARACTERISTICS	N	%	CHARACTERISTICS	N	%
1. INDUSTRIAL CLASSIFICATION			2. COUNTRY OF COMPANY HQ		
Metal Manufacturing	3	3.95	UK	24	41.38
Non-metal mineral products	1	1.32	Japan	22	37.93
Chemicals	1	1.32	US	6	10.34
Metal Goods	5	6.58	EEC	2	3.45
Mechanical Engineering	5	6.58	Europe Non-EEC	4	6.90
Office Machinery	4	5.26			
Electrical and Electronic Eng.	29	38.16	Not known	43	-
Motor Vehicles	4	5.26			
Other Transport Manufacture	1	1.32	3. DATE PLANT ESTABLISHED		
Instrument Engineering	4	5.26	Upto 1969	15	29.4
Food, Drink and Tobacco	7	9.21	1970-1979	8	15.7
Paper and Publishing	3	3.95	1980-1988	28	54.9
Rubber and Plastics	3	3.95			
Other Manufacturing	1	1.32	Not Known	50	-
Repair of Goods	1	1.32			
Railways	1	1.32	4. TRADE UNION RECOGNISED		
Other Transport	1	1.32	EETPU/EESA	55	54.46
Business Services	1	1.32	AEU	20	19.80
Recreational Services	1	1.32	GMB	10	9.90
			TGWU	10	9.90
Not Known	26	-	MSF	2	1.98
			ISTC	1	0.99
			More than 1 union	3	2.97

Sources:
(i) Company reports data: Dunn and Bradstreet (1990), ICC Business Ratio Reports (various issues), ICC Financial Survey and Company Directory (various issues), Infotech Financial Comparison and Market Directory (various issues), Jordans (various issues), World Electronic Company File (1991). See bibliography for details.
(ii) Industrial relations studies: IRS Employment Trends (1990), Industrial Relations Review and Report (1983a, 1983b, 1985, 1986a, 1986b, 1987a, 1987c)

Table 2.2
Characteristics of plants with FOA agreements from secondary sources

CHARACTERISTICS	N	%	CHARACTERISTICS	N	%
1. INDUSTRIAL CLASSIFICATION			3. DATE PLANT ESTABLISHED		
Metal Manufacturing	2	7.70	Upto 1969	4	20.00
Mechanical Engineering	2	7.70	1970-1979	1	5.00
Electrical and Electronic Eng.	19	73.10	1980-1988	15	75.00
Food, Drink and Tobacco	3	11.50			
			No. of FOA plants	20	100.00
No. of FOA plants recorded	26	100.00			
			4. TRADE UNION RECOGNISED		
2. COUNTRY OF COMPANY HQ			EETPU/EESA	20	62.50
UK	8	32.00	AEU	3	9.40
Japan	11	44.00	GMB	5	15.60
US	3	12.00	TGWU	1	3.10
EEC	1	4.00	MSF	1	3.10
Europe Non-EEC	2	8.00	ISTC	-	-
			More than 1 union	2	6.30
No. of FOA plants recorded	25	100.00			
			No. of FOA plants	32	100.00

Sources:
(i) As Table 2.1 plus - IDS (1987), IRRR (1989), TUC (1988)

Notes:
(i) Proportions given are percentage of FOA agreement plants for which such characteristics are recorded.
(ii) Trade union recognised: Some agreements are recorded in different reports to involve different unions. For this table such cases are recorded twice, hence 32 FOA agreements recorded.

Table 2.3
The incidence of FOA in new style deals

Independent variables	Logit Coefficient	Standard Error
Ownership		
UK	1.156	1.177
Japan	0.130	1.287
Union recognized		
EETPU	2.349 *	1.276
Time procedure introduced		
1980-86	5.022 ***	1.681
Interaction: EETPU, 1980-86	-2.880	2.064
Region		
South East	2.008 *	1.097
Workplace size		
Less than 100	-0.893	1.582
100-499	-0.819	1.120
Union density %		
0-24	0.379	1.928
25-74	0.416	1.234
Constant	-3.067 **	1.475
Sample size	54	
Chi-squared (df)	30.21 (10)	
Pseudo R^2	0.404	

Significant at *** 1%, ** 5%, * 10%.
Notes: (i) Sample = 54 plants with some form of dispute procedure.
(ii) Dependent variable: FOA procedure available in workplace agreement, Yes (1) No (0), Mean = 0.5.
(iii) The defaults (excluded components) are: Non-UK or Japanese owned; EETPU not recognized; procedure introduced before 1980 or after 1986; rest of UK; plant size of 500 or more employees; and 75-100% union density.

Table 2.4
The variety of FOA procedures

Specifications of procedures	n	%
1. Pre-arbitration stages		
None	13	48.1
Conciliation only	11	40.7
Both conciliation and mediation	3	11.1
2. Reference to arbitration mechanism		
Unilateral	6	22.2
Compulsory	10	37.0
Joint, voluntary	11	40.7
3. Method of choosing the arbitrator		
ACAS decides	20	74.1
Standing arbitrator	1	3.7
No fixed method	6	22.2
Total number of FOA plants	**27**	**100.0**

Source: LSE New Style Industrial Relations Survey, see chapter one.

Table 2.5
The incidence of conciliation and/or mediation in FOA procedures

Characteristics		Provision of conciliation and/or mediation		
		No	Yes	Total
FOA procedure introduced 1980-85	No	7 41.18 53.85	10 58.82 71.43	17 100.00 62.96
	Yes	6 60.00 46.15	4 40.00 28.57	10 100.00 37.04
	Total	13 48.15 100.00	14 51.85 100.00	27 100.00 100.00
		Pearson chi^2 (1) = 0.8936 Pr = 0.345		
EETPU has sole recognition	No	3 33.33 23.08	6 66.67 42.86	9 100.00 33.33
	Yes	10 55.56 76.92	8 44.44 57.14	18 100.00 66.67
	Total	13 48.15 100.00	14 51.85 100.00	27 100.00 100.00
		Pearson chi^2 (1) = 1.1868 Pr = 0.276		
Greenfield site when FOA procedure signed	No	4 28.57 30.77	10 71.43 71.43	14 100.00 51.85
	Yes	9 69.23 69.23	4 30.77 28.57	13 100.00 48.15
	Total	13 48.15 100.00	14 51.85 100.00	27 100.00 100.00
		Pearson chi^2 (1) = 4.4636 Pr = 0.035		

Table 2.5 continued

Characteristics		Provision of conciliation and/or mediation		
		No	Yes	Total
UK company	No	10	6	16
		62.50	37.50	100.00
		76.92	42.86	59.26
	Yes	3	8	11
		27.27	72.73	100.00
		23.08	57.14	40.74
	Total	13	14	27
		48.15	51.85	100.00
		100.00	100.00	100.00
		Pearson chi^2 (1) = 3.2401 Pr = 0.072		

Table 2.6
The incidence of joint, voluntary reference mechanisms in FOA procedures

Characteristics		Provision of a joint, voluntary reference mechanism		
		No	Yes	Total
FOA procedure introduced 1980-85	No	10 58.82 62.50	7 41.18 63.64	17 100.00 62.96
	Yes	6 60.00 37.50	4 40.00 36.36	10 100.00 37.04
	Total	16 59.26 100.00	11 40.74 100.00	27 100.00 100.00
		Pearson chi^2 (1) = 0.0036 Pr = 0.952		
EETPU has sole recognition	No	1 11.11 6.25	8 88.89 72.73	9 100.00 33.33
	Yes	15 83.33 93.75	3 16.67 27.27	18 100.00 66.67
	Total	16 59.26 100.00	11 40.74 100.00	27 100.00 100.00
		Pearson chi^2 (1) = 12.9631 Pr = 0.000		
Greenfield site when FOA procedure signed	No	8 57.14 50.00	6 42.86 54.55	14 100.00 51.85
	Yes	8 61.54 50.00	5 38.46 45.45	13 100.00 48.15
	Total	16 59.26 100.00	11 40.74 100.00	27 100.00 100.00
		Pearson chi^2 (1) = 0.0539 Pr = 0.816		

Table 2.6 continued

Characteristics		Provision of a joint, voluntary reference mechanism		
		No	Yes	Total
UK company	No	11	5	16
		68.75	31.25	100.00
		68.75	45.45	59.26
	Yes	5	6	11
		45.45	54.55	100.00
		31.25	54.55	40.74
	Total	16	11	27
		59.26	40.74	100.00
		100.00	100.00	100.00
		Pearson chi^2 (1) = 1.4652 Pr = 0.226		

Chapter 3

Final-offer arbitration and dispute deterrence

1. Introduction

Final-offer arbitration (FOA) is a disputes procedure which compels an arbitrator to decide wholly for one side or the other in a dispute. By definition there is no compromise option, in direct contrast to conventional arbitration where the decision criteria of the arbitrator are not so constrained. FOA is specifically designed to counter the so-called 'chilling effect' of conventional arbitration, a propensity to encourage its own use. Stevens (1966) first set out the theory associated with FOA, arguing that as conventional arbitration encouraged disputes, FOA would promote more genuine bargaining and would specifically deter disputes. The theory behind Stevens argument and critiques of it are discussed in section 2 of this chapter.

The theoretical and practical debate about the relative merits of FOA compared to conventional arbitration has been conducted primarily in the US where, in the public sector, there is considerable experience with such procedures. The North American evidence on the effectiveness of different types of arbitration is summarised and assessed in section 3. Although there have been many empirical studies using 'real world' data, as a whole they are rather disappointing and inconclusive because variation in procedure provision is primarily at State or Province level rather than within individual States or Provinces. The extent of inter-State heterogeneity in politics, bargaining structures, bargaining history and the like mean that adequate controls for inter-State comparisons are hard to determine and quantify. As a result of this fairly intransigent problem, researchers have increasingly turned to the laboratory to compare different arbitration systems. Evidence from these studies is also examined in section 3. Doubts about the external validity of such studies, however, mean that despite the sophisticated techniques involved there is little evidence to suggest that the results would be supported in the real world of collective bargaining.

During the 1980s a number of UK private sector plants signed new collective agreements which included FOA. Data from over 200 bargaining rounds in these, and comparison plants with conventional procedures, drawn from the postal survey of new style deals detailed in chapter one provide the first UK evidence on the issue of FOA

and dispute deterrence. The results of logit regressions on a number of different measures of bargaining breakdown suggest that overall there is no support for the argument that FOA deters disputes any more effectively than conventional arbitration. The only exception concerns bargaining in workplaces with multi-stage impasse procedures. In such rounds FOA appears to deter disputes more effectively than conventional arbitration. However, the more general picture is of FOA failing to produce the significant reduction in disputes which some theories and its proponents might predict.

The critical question of why FOA has not lived up to its billing as a dispute deterrent was addressed partly with the postal survey data but primarily with anecdotal evidence from the eight interviews in section 5. The case studies revealed that the main reasons for FOA usage were principal-agent problems and over optimistic bargainers.

Industrial action data from the postal survey are analysed in section 6. The relative paucity of action, intrinsically interesting in itself, means that the analysis of dispute procedures and industrial action does not deserve a separate chapter. However, the small amount of UK and North American evidence on industrial action and dispute procedures is contrasted with the incidence of action found in the sample. Moreover, some possible implications for the role of ACAS with respect to industrial action are also drawn out.

Concluding remarks are provided in section 7. The possible ramifications of these results for the UK public sector were FOA to be provided for essential services negotiations, as a *quid pro quo* for the legal prohibition of industrial action are also assessed.

2. Theory

a. Introduction

The theory behind FOA has evolved primarily in North America, mainly stemming from arguments in favour of FOA in a seminal article by Stevens (1966). At its most basic the theory runs that because the parties are uncertain about the arbitrator's behaviour under FOA if the dispute goes to arbitration, a contract zone of more favourable (and negotiatable) solutions to the dispute is created. This incentive

effect was directly contrasted by Stevens to the 'chilling effect' of conventional arbitration: Because the parties believe that the arbitrator will compromise between the two final offers, they always have an incentive to maintain an extreme position in the face of arbitration, actually increasing the probability of arbitration taking place.

A negotiated outcome is said to be Pareto-superior to an arbitrated settlement for three reasons: because it is assumed that the parties are bargaining over the distribution of a fixed pie and that the costs of arbitration reduce the size of the divided pie (Farber and Katz 1979); because agents are more likely to know about their own and each other's preferences than the arbitrator does (Crawford 1979); and it is more likely that agents will accept a negotiated settlement and make it work (Crawford 1979). A repeated reliance on arbitrated decisions (known as the 'narcotic effect', or recurring chilling) is also said to undermine stable bargaining relationships (Anderson and Kochan 1977). Geare (1978), in his critique of FOA, is somewhat of a lone, dissenting voice in suggesting that conventionally arbitrated settlements may be superior to setttlements determined through collective bargaining. Clearly any case for FOA requires adherence to the more widely accepted principle that negotiated settlements are superior to arbitrated ones.

b. Costs of disagreement and uncertainty

The debate regarding the relative merits of FOA and conventional arbitration has moved on considerably since 1966. Essentially it now revolves around two central questions: what factors determine the **probability of disagreement in bargaining**?; and what impact, if any, do alternative forms of arbitration have on these factors?

Starting from first principles, the probability of disagreement is said to depend upon the potential **costs of disagreement** which has two elements - direct costs and potential costs of losing. Direct costs include arbitrator's and lawyers' fees (in the US) and costs incurred because of a delayed settlement. Bloom (1981) particularly emphasises the role of these costs, to argue that there may be substantial negotiation costs which actually encourage arbitrated settlements. Direct costs do not have a significant bearing on the FOA versus conventional arbitration debate, however, since there is no reason to expect these costs to differ across type of procedure.

More central to the FOA versus conventional arbitration debate is the role of potential costs of losing which is determined by the **uncertainty** surrounding the award which would result if the parties go to arbitration. This is the key element in Stevens's argument. Farber and Katz (1979) assert that uncertainty is the crucial element for the deterrence of disputes. What FOA does is make the potential cost of uncertainty greater because of the either-or mechanism.

Their argument has been criticised, however, on a number of levels. First, there are circumstances in which conventional arbitration can induce the same level of uncertainty and potential cost as FOA - if the variance of past arbitrator decisions is makes the prospect of losing as potentially costly as final-offer arbitrator (Ashenfelter et al 1992). Restated this suggests that if conventional arbitrators have produced awards in the past sufficiently far removed from the split-the-difference notion, and parties are aware of this, then conventional arbitration can produce the same potential costs of losing incentive as FOA.

Crawford (1979) has a more fundamental objection to the Farber-Katz model, by arguing that in fact uncertainty is minimal for most arbitration regimes because parties learn about arbitrator preferences over time. One of the key assumptions of his model is that parties are certain about what the arbitrator's decision will be before arbitration takes place.

Crawford's objection seems unrealistic unless parties have had considerable experience of arbitration and arbitrators are interchangeable. Certainly in the UK where there is relatively little experience with arbitration compared to North America, it would be difficult to support his objection. The Ashenfelter et al (1992) caveat seems plausible - challenging the split-the-difference assumption of Stevens's theory. However, their argument also rests on some unrealistic assumptions - that conventional arbitrators behave as if they were final-offer arbitrators and that parties are fully informed about past arbitrator behaviour. Although there is some evidence from the UK of conventional arbitrators on occasion acting as final-offer arbitrators (Brown 1986), this concerns only a minority of awards. In the UK, it would be surprising to find that parties had full or even partial knowledge of past arbitrator behaviour because ACAS arbitration awards are unpublished and unavailable except with the consent of both parties. When an arbitrator is suggested to disputants by ACAS, the parties are

not provided with a list of past decisions by that arbitrator, so it would be very difficult for the parties to acquire such information. Therefore on potential costs of disagreement, FOA does score better than conventional arbitration and consequently it should be associated with a lower probability of disagreement.

c. Countervailing factors

Another strand of the debate focuses on the issue of whether uncertainty and high potential costs of disagreement are sufficient to prevent disputes. Five possible explanations have been offered for why disputes might occur even if the costs of disagreement are high.

If the parties have **unrealistic and optimistic expectations** or **differing beliefs** regarding arbitrator behaviour then disputes could arise (Stevens 1966, Farber 1980, Farber and Bazerman 1989). This argument rests on the idea that even though in theory FOA produces more uncertainty, parties estimation of the level of uncertainty may be flawed, they have a 'false certainty'. Another way of describing this is to state that the parties may be over optimistic about their chances of winning the award and therefore do not compromise beyond a certain point, preventing the establishment of a contract zone.

Second, Crawford (1979) has argued that a contract zone may not exist because negotiators **commit** themselves to irreversible positions in order to appear tough in bargaining. If the positions are close enough then a negotiated solution may be possible, but if they are irreconcilable then a dispute will occur. Even if a dispute is imminent, parties may not want to undermine the credibility of their toughness in bargaining because the exercise will be repeated in succeeding rounds. Bloom and Cavanagh (1987) support Crawford's argument and suggest that commitment to irreconcilable bargaining positions may occur because of the principal-agent relationship.

The latter explanation has been considered more fully by McCall (1990), who argues that especially on the union side, **principal-agent** problems may nullify the incentives FOA creates to avoid disputes. McCall provides a similar explanation, though with a slight twist, for the use of arbitration as Ashenfelter and Johnson (1969) proposed for the occurrence of strikes. Assuming that the union negotiator is more

informed about the ability to pay of the employer than the members, and the members believe that their agent has been shirking in negotiations, then the members may audit the negotiator by forcing the latter to take a pay claim to arbitration. Although McCall does not consider this, principal-agent problems could in theory also occur on the side of management, especially in multi-establishment firms. A plant manager may be under pressure to commit themselves to a low offer, which will probably entail the need for arbitration, in order to appear tough to higher level management and to prove that they are not selling themselves short in negotiations.

Overall it is important to be aware of the signals which bargaining positions create, both to a negotiator's 'opponent' and to their constituency. Signalling credibility or toughness may be more important than achieving a solution without an impasse even in the uncertain environment of FOA.

Farber and Katz (1979) argue that even when the potential costs of disagreement are prohibitive, if the parties are **risk neutral or risk loving** then disagreements will occur. This possible explanation for FOA failure has also been suggested by Minford and Peel (1983). Even if the parties do not believe that their offer has a greater chance of selection than the other side's, they may prefer the uncertainty of winning a potentially higher arbitration award to the relative certainty of a negotiated settlement despite the potential costs of losing.

Finally, DeNisi and Dworkin (1981) drawing on some comments by Grodin (1972) suggest that if the parties are relatively **naive negotiators** then they may not fully comprehend the uncertainty and potential costs of losing under FOA. Minford and Peel (1983) express a related argument, that under the first few years of an FOA procedure parties may be more likely to experience the problem of over optimistic expectations.

Stevens's original theory in favour of FOA has therefore, been criticised on a number of levels. Firstly on the central question of whether or not FOA does entail more uncertainty than conventional arbitration. However, a more significant line of argument has been that even if the potential costs of disagreement are high there are a range of reasons why FOA may still get invoked. The crucial issue then becomes whether or not the 'potential cost of losing' effect (if it exists) can and does outweigh the countervailing effects. Is FOA a strong enough incentive mechanism to counteract

the other causes of disputes more effectively than conventional arbitration? Despite the fact that there is a substantial body of empirical work in the US on dispute procedure effectiveness, so far no study using non-experimental data has tackled this fundamental question.

3. North American evidence

a. Introduction

Although both FOA and conventional arbitration are fairly widespread in the US public sector, no US or Canadian study has so far been able to properly compare the impact of these alternative procedures using evidence from the real world. This is partly because there are no examples of legislated procedures which provide for conventional arbitration for one section of public employees and FOA for another within the same state[1]. But there have also been very few interstate comparison studies, and none which attempt to control for other state level effects. On the whole the non-experimental studies of dispute deterrence and arbitration mechanisms are therefore disappointing. In general they only examine the experience of one jurisdiction, have little or no comparative element, cover too few bargaining rounds and make inadequate attempts to control for other possible influences on the impasse rate. However, what they do at least provide is some basic evidence on the outcomes from bargaining under FOA and conventional arbitration and perhaps more importantly examples of different means of measuring the chilling effect.

As an alternative to interstate comparisons researchers have increasingly turned to the social science laboratory, using students as negotiators, to test impasse procedure effectiveness. This is partly because even if rigorous interstate comparisons were possible, i.e. controlling for tangible factors such as structural and economic factors, it would be very difficult to control for factors such as risk aversity or over optimistic bargainers, singled out as important in the theoretical literature. Results from these studies are analysed later in this section.

b. Empirical studies using field data

Twenty-one separate studies on the dispute deterrence effectiveness of different arbitration and dispute procedures are summarised in Table 3.2. Details recorded

cover the sample (time frame, number of observations and jurisdiction), the type of arbitration and the comparison made (where applicable), the dependent variable(s), the control variables used and the main findings. Anderson (1981a) provides a less up to date summary of North American studies on arbitration, however, his survey does include some studies which were not accessible in the UK. More recent summaries of the public sector labour markets literature which therefore cover the dispute deterrence debate include Ehrenberg and Schwarz (1983), Kearney (1984) and Freeman (1986).

Researchers have considered two themes on the issue of dispute deterrence - the impasse or usage rate and the degree of chilling. The most common test of the chilling effect is the basic usage rate - the proportion of negotiations reaching impasse and/or being settled by an arbitration award. Less commonly used tests attempt to discern degrees of chilling on the basis of three measures: the number of issues left unsettled at each stage of a procedure; the stage reached in a multi-stage procedure; and compromising behaviour before arbitration. The latter measures are concerned with differentiating the intensity of disputes once they reach impasse. FOA is classed as more effective than conventional arbitration if: Fewer issues remain unsettled when it is invoked; or if a greater proportion of disputes are settled during pre-arbitration stages; or if the parties have moved more in negotiations; or their final offers are closer together.

i. *The impasse rate*: The great majority of the empirical studies which have measured the impasse rate provide no comparison with an alternative procedure. Of these, five concern FOA, five conventional arbitration and one a choice of arbitration (Lester 1989). The results are summarised in Table 3.1. The proportion of negotiations reaching impasse is not noticeably different between the arbitration types (note that where a range of percentages is indicated, these are the range over a number of bargaining rounds). However, there does appear to be a somewhat lower rate of arbitration awards under FOA than conventional arbitration (other than the Long and Feuille (1974) study, which was only based on six negotiations).

Of seven studies which provide some sort of comparison of impasse rates, only one (Somers 1977) looks at FOA (compared to the previous factfinding[2] procedure). Two compare conventional arbitration with factfinding (Wheeler 1975, Kochan and

Baderschneider 1978) and four compare conventional arbitration with a right to strike (Anderson and Kochan 1977, Anderson 1981b, Currie and McConnell 1991, Ponak and Wheeler 1980). Somers found that the impasse rate doubled from 26% to 53% when the final stage in Massachusetts law for police and firefighter negotiations was changed from factfinding to FOA in 1975/6. Studies of the change from factfinding to conventional arbitration also found an increase in the impasse rate, ranging from a 16% (Kochan and Baderschneider 1978) to a 73.5% rise (Wheeler 1975). In both cases these figures are **percentage rise** rather than **percentage point rise** in the impasse rate. Note that the Kochan and Baderschneider result is probably the most reliable result of these three, because they control for a range of other factors including economic, political and structural factors.

The conventional arbitration versus right to strike studies, using Canadian federal service data, indicate a higher settlement rate under the right to strike procedure than the arbitration route (the system allows union negotiators to choose a procedural route ending in either a right to strike or compulsory arbitration before negotiations begin).

ii. *Other tests of arbitration effectiveness*: Although there have only been three studies which assess the number of issues left unsettled at impasse as a measure of procedural effectiveness, all three concern FOA and have consistent results. Stern's (1974) study is the weakest in that he only has data from two bargaining rounds, one under factfinding and one under FOA. He provides no statistical results about the number of issues but rather states that there is 'some evidence' of a reduction in the number of issues unsettled under FOA compared to factfinding.

Somers (1977) finds that the mean number of issues unsettled under factfinding, as the final stage in the procedure, was 14.7 compared to only 4.8 under FOA, from Massachusetts data. Delaney and Feuille (1984) compare FOA and conventional arbitration using evidence from 343 police arbitration awards in 16 states over a seven year period (1975-82), finding that the number of unsettled issues at arbitration is lower under FOA by package compared to both FOA by issue and conventional arbitration. Note that they do not control for any other potentially influential factors.

Evidence on the stage reached in particular procedures has actually been used more to test the effectiveness of pre-arbitration procedures than arbitration itself. However, the results also provide a further measure of the degree of chilling different types of arbitration encourage.

The effectiveness of mediation in different arbitration environments is striking. Four studies measure the 'mediation settlement rate', the proportion of disputes which reach impasse but are then settled in mediation (the first stage in the impasse procedure in all four cases). Of the two concerned with conventional arbitration, one compares mediation under conventional arbitration and factfinding over the period including a change in the law governing New York state police and firefighter negotiations (Kochan and Jick 1978) and one looks at arbitration alone in fifty-one Hawaiian public employee negotiations (Klauser 1977). They find comparable mediation settlement rates of 31% and 26% for conventional arbitration respectively. Kochan and Jick also calculate a 13-18% greater probability of mediation settlement, all else equal, under arbitration compared to factfinding.

Two studies on mediation settlement under FOA, though note that both are from the same jurisdiction, show much higher settlement rates. Gallagher and Pegnetter (1979), using two rounds of Iowan public sector negotiations (tri-offer issue arbitration[3] as the last stage), found a settlement rate of about 73% in both rounds. Using an extended series from these negotiations (seven rounds), Hoh (1984) reports a mediation settlement rate increasing from 72% in the early rounds to 89% in the later years. Hoh reports these data as evidence of the success of mediation in the Iowan case, but it could equally well used as an indication of the success of FOA, especially when compared to the much lower mediation settlement rates for conventional arbitration. However, this hypothesis must be qualified by the caveat that there are no doubt considerable differences in the political, economic and structural factors between public sector negotiations in Iowa, New York State and Hawaii. It is possible that the mediation settlement rate in Iowa would have been just as high under a conventional arbitration regime.

Only three empirical studies have looked at compromising behaviour as a test of arbitration procedure effectiveness. Two tests have been used: the movement from initial to final negotiating position; and the gap between the parties' final positions at

arbitration. The two measures in fact complement each other and on their own are more difficult to interpret. If the parties had not moved much during negotiations this could be because either they had very reasonable starting positions and therefore there was not much scope for movement or negotiations had chilled in the face of arbitration. Information on the gap between final positions is necessary to determine which of these explanations is appropriate.

Wheeler's (1978) study is in fact the only one to report movement and gap between final positions, and the only study to provide a comparison - between factfinding and conventional arbitration - using data from a range of US cities. He finds that management moves more under a factfinding procedure than under conventional arbitration and that the gap between final positions is smaller under factfinding relative to arbitration. This result, therefore, provides prima facie support for the conventional arbitration chilling effect.

The two other studies are concerned with FOA but again provide no yardstick to compare results. Gallagher and Pegnetter (1979) found that the parties' positions converged considerably between the mediation and factfinding stage of the Iowan procedure but not between factfinding and the arbitration stage. This is not actually that surprising given the peculiar tri-offer Iowan system where the arbitrator can choose either one of the parties' final offers or the factfinder's recommendation. This provides little incentive for either party to compromise since the compromise option is available anyway for the arbitrator (assuming the factfinder's recommendation is between the final offers) and arbitration is also on an issue by issue basis.

Data from salary negotiations in professional baseball, analysed by Dworkin (1986), show a reduction in compromising behaviour over time. In the 1984-5 round the mean difference between final offers was 40% of average salaries, compared to just 20% in the 1974-5 round.

iii. *Theories of disagreement*: Finally, one study which is not ostensibly concerned with measuring the chilling effect is of particular interest because it is probably the only one which attempts to test alternative theories of disagreement using the one dataset (even the experimental studies are usually confined to testing only one theory). Currie (1989) using data from teacher negotiations in British Columbia which are

covered by a compulsory conventional arbitration statute, sets out to assess the relative merits of the following theories:

. '**Attitudes towards risk**' - Currie interprets the Farber and Katz (1979) theory as that over time parties will become less risk averse about using a disputes procedure because the uncertainty surrounding it will decline with experience. This theory is therefore tested on the prediction that parties which have more experience with a procedure would be more likely to have an impasse.

. '**Differing beliefs**' - This hypothesis of why disputes occur despite the uncertainty of arbitration, is tested in two ways by Currie. She argues that beliefs are more likely to differ in times of economic uncertainty, and therefore includes the volatility of macroeconomic variables in the model. Further, she argues that parties may be less likely to make mistakes when such mistakes are costly. If the direct costs of arbitration are relatively fixed, the per capita cost of arbitration decreases with the size of the bargaining unit (assuming similar union density across units). So arbitration should be more common in larger units.

. '**Principal-agent models**' - Currie tests the McCall (1990) hypothesis concerning agents being forced to go to arbitration by the principal to check that the agent is not 'shirking' in negotiations. She argues that an agent is more likely to be 'audited' in this way if there has been a string of relatively low settlements (union side) or high settlements (management side) in the past. Therefore relative wages in the two previous bargaining periods are included in the Currie model to test the McCall theory.

The results of Currie's work are somewhat less interesting, because there is no comparison of conventional arbitration to FOA, than the variables she uses to test these alternative theories. For the record she finds that none of the theories provide a particularly satisfactory explanation for the incidence of arbitration, rather it appears that state dependence, or the narcotic effect, is the crucial factor. A bargaining unit that had used arbitration in one period was at least 10 per cent more likely to use arbitration in the following round than one that had not. Currie's study can not tell us anything about whether or not FOA would have produced similar results but at the very least it provides examples of how to test for the various factors which might affect the impasse rate other than the dispute procedure itself.

iv. *Conclusions*: In summary, the empirical studies which report results concerning the chilling effect provide tentative support for a number of hypotheses:

. Conventional arbitration chills negotiations to a greater extent than FOA on a arbitration award rate measure;

. FOA (except if issue by issue) encourages fewer issues to be taken to arbitration than conventional arbitration;

. If a dispute reaches impasse it is more likely to be settled in mediation if the final stage is FOA than if it is conventional arbitration;

. In cases which actually reach arbitration FOA may not have encouraged greater convergence of positions before arbitration, nor will the gap between final claims necessarily be smaller, than under conventional arbitration.

However, all four of these conclusions are neither particularly reliable nor robust because of the general absence of comparisons and/or controls in the studies and the considerable problem of comparing results across different studies. There has not yet been an authoritative empirical study of the relative effectiveness of FOA and conventional arbitration in the US using evidence from actual bargaining rounds. Olson (1993) similarly concludes that:

> '... in my opinion existing research using field data has not been very useful in evaluating the relative efficacy of different arbitration systems.'

Therefore the UK sample provides the first opportunity to correctly test FOA against conventional arbitration, i.e. within the same 'jurisdiction' or legal framework, in similar workplaces and with the inclusion of control variables, using real world data.

c. Experimental studies

i. *Introduction*: Researchers in North America have turned increasingly to the laboratory and bargaining experiments to determine the effectiveness of impasse procedures. The laboratory situation permits the exclusion of possibly confounding variables and allows for the manipulation of factors that are considered to be theoretically important for the effectiveness of arbitration. Eight studies are summarised in Table 3.3 with details of the experiment used, the comparisons made, the dependent variables and the results of the experiments.

However there are problems of external validity and therefore applicability over experimental results. It is by no means clear that we would expect students of industrial relations and especially those studying dispute resolution (or even students in general) to be good substitutes for real world negotiators. Experimenters do attempt to replicate the threats and incentives of the real world through performance related cash or grade point bonuses, but these are probably insufficient to replicate the social and non-pecuniary incentives which exist in the real world.

Furthermore the students usually only bargain over one issue and are usually quite heavily time constrained. While ease of play is no doubt important for the 'success' of these experiments, in terms of getting a sufficient number of results to analyse with given resources, as the conditions become further removed from reality the results must increasingly lose relevance.

ii. *Conventional versus final-offer arbitration*: The classic test of effectiveness between conventional and final-offer arbitration has been conducted in five such studies. They have somewhat contradictory findings, two support FOA over conventional arbitration quite strongly, one is equivocal, and two find results against greater FOA effectiveness.

Of the two finding significant differences in favour of FOA, one uses a range of tests (Neale and Bazerman 1983) and finds that units negotiating under the threat of FOA have a significantly lower impasse rate, resolve more issues before impasse if it's reached and move more in negotiations than units under conventional arbitration. Notz and Starke (1978) measured the average difference between final bids and found that units under FOA were much closer at arbitration (the difference averaging 5.73 percentage points) than those under conventional arbitration (averaging 13.40). Note though that the Notz and Starke study is somewhat peculiar in that only three out of ninety bargaining pairs actually negotiated a settlement, which represents a much higher impasse rate than any other study.

The equivocal study by Magenau (1983) is actually more concerned about the impact of different types of FOA but he also provides results on FOA versus conventional arbitration. On the impasse rate test he finds no significant difference between the procedures but on the gap between final bids measure FOA performs

better than conventional arbitration. So although the level of disputes is not significantly lower the parties had made more concessions in bargaining under FOA. Furthermore Magenau finds a negative narcotic effect for FOA from results on two rounds of bargaining. Pairs which used conventional arbitration in round one were no more or less likely to use it than previous non-users in round two, but those who used FOA in round one were significantly more likely to negotiate a settlement in round two than their counterpart non-users.

Of the two studies which find that FOA is not more effective than conventional arbitration, Subbarao's (1978) is the least interesting. The author only looked at the experience of eleven bargaining pairs under each arbitration treatment (four different forms of arbitration were used, including two varieties of FOA). On two tests, proximity of final bids and concessions made in negotiations, there were no significant differences recorded across the four treatments.

Ashenfelter et al's (1992) study is much more interesting in that it is the only study to consider FOA against a variety of conventional arbitration treatments, it has the largest number of bargaining units of all the studies (141) and the parties bargained over twenty rounds for five-and-a-half minutes each round, though such brief negotiation periods can hardly be said to replicate the real world. For the first ten rounds all the units negotiated without the threat of arbitration, they lost everything if an agreement was not reached. For the second ten rounds one group of ten units carried on bargaining without any arbitration, 79 had conventional arbitration (three varieties), 26 had FOA and 26 had tri-offer arbitration.

The three varieties of conventional arbitration were generated on the basis of different levels of variance in expected arbitrator behaviour. The units were given one of three lists of previous arbitrator decisions in the field, which were compiled by random draws from fixed distributions each with the same mean but with low, medium or high variance. The authors argued that in previous experiments subjects had been unable to generate expectations about arbitrator behaviour that were consistent with arbitrator behaviour in the field.

In terms of disputes rates across the different mechanisms, every treatment group had a lower dispute rate in the first ten rounds when disagreement meant the whole pie was lost, then in the second ten rounds where the pie was divided by an

arbitrator. The dispute rates for the five arbitration treatments for the first ten rounds were not significantly different from each other, therefore results from the second ten rounds should provide meaningful information about how different arbitration mechanisms affect dispute rates.

Whilst FOA did not perform significantly better or worse than low or medium variance conventional arbitration in the second ten rounds, it had a significantly higher dispute rate than the high variance group, 38.1% compared to 28.4%. The FOA group also had a higher dispute rate than the tri-offer group, but this was not statistically significant. A major drawback of this otherwise very thorough experiment is that the information about previous arbitrator behaviour is hypothetical and computer generated. The authors do analyse the variance in actual arbitrators behaviour under conventional arbitration to determine which of the low, medium or high variance treatments best describes the real world of arbitrators.

Two studies have compared the effectiveness of different types of FOA. Subbaroa (1978) contrasted FOA by issue and FOA by package in his small scale study. Evidence from the experiment showed that the final bids of the parties were closer to each other under the FOA by package treatment than under FOA by issue, but the result was not statistical significant. However, the study showed no difference in concessions made during negotiations between the two FOA types. But the size of the groups under each treatment in this study deter drawing too many conclusions from it.

Varying the criteria of what constitutes a final offer is examined by Magenau (1983), in an experiment using 120 student negotiators. In one FOA treatment the parties were allowed to change their final bids after impasse was reached (FOA1) but in the other the final negotiating positions were put to the arbitrator (FOA2). Magenau predicted that parties negotiating under the FOA2 condition would have a lower impasse rate and would have closer final positions than those under FOA1. He argues that a problem with FOA is that it can lose its deterrent potential if the parties anticipate that they can conduct post-impasse bargaining, therefore if this is prevented the parties should have a greater incentive to reach agreement. In fact the data show no significant difference either in dispute rates or the gap between last offers in negotiations between FOA2 and FOA1, directly contrary to the predicted result.

Furthermore, the mean gap between final submissions to the arbitrator was significantly lower in FOA1 than FOA2, so the post impasse final offer treatment seemed to be more, rather than less, effective at promoting compromise.

iii. *Countervailing factors*: Aside from testing conventional arbitration versus FOA and comparing varieties of FOA, the experimenters have examined the influence of various countervailing factors, cited in the theoretical literature (section 2), on impasse procedure effectiveness.

DeNisi and Dworkin (1981) find that the naive negotiator hypothesis has validity in a test using 90 students where some were fully informed about the FOA mechanism and its implications and others were given scant information. The initial negotiating positions of the naive negotiators were further apart than those of the FOA plus experience group. The parties' final positions were closer and the parties had made more concessions during negotiations, under the first treatment. The only non significant result was that on the number of issues unresolved at impasse but as there were only three issues under negotiation, there was a restriction of range problem for attaining significant results. These results are fine as far as they go, but the lack of a second bargaining round in the experiment means that it is not possible to determine how quickly negotiators learn about FOA. It is not clear how long one might expect a naivety problem to last.

Other studies of this ilk include Neale and Bazerman's (1983) study of the importance of 'Perspective Taking Ability' (PTA) on bargaining outcomes under FOA and conventional arbitration. PTA is defined as the ability to take an opponent's perspective in negotiations, i.e. to correctly predict their reservation price. The results of the study suggest, not unsurprisingly, that where parties have high PTA disputes are less likely irrespective of arbitration procedure.

Farber, Neale and Bazerman (1990) examine the influence of different levels of negotiator risk preferences but only in a conventional arbitration environment. The pay-off schedules for the student negotiators to outcomes were constructed in such a way as to create a risk neutral situation, and two increasing categories of risk aversion. The authors predicted that higher degrees of risk aversion especially for both parties should increase the likelihood of settlement. Results from the experiment on dispute rates were in the correct direction but were not strongly significant.

Finally, the Babcock et al (1991) study examines the role of differing beliefs in the probability of disputes using data from a non-collective bargaining game environment. Their experiment involved student subjects acting the role of plaintiff or defendant in a personal injury claim after a traffic accident. The authors sought to measure the extent of bias in negotiators' expectations of a fair outcome to the case, then to assess the influence of any self-serving bias on the outcomes of pre-trial negotiations. In the first experiment, involving 160 students, both sides were assigned their role and given identical material describing the accident, the extent of injuries and precendents on damages in similar cases. Before negotiations began they were instructed to record their estimation of a fair settlement and what judge would award if the dispute went to court.

Even with exactly the same information the parties had significantly different interpretations of what a fair and a judge settlement would be from each other. The mean plaintiff assessment was 62% higher than the mean defendant settlement on the fair settlement, and 52% higher on the judge settlement. The study also showed that the pairs with the largest combined differences were significantly less likely to settle the dispute in pre-trial negotiations compared to those pairs with smaller biases. Of the pairs who negotiated a settlement, the outcome was more likely to be skewed towards the most biased party if that party was the defendant than if the plaintiff.

In the second experiment, involving a different group of 76 students, twenty subject pairs were instructed to record their assessments of fair and judge settlements before being told their roles in the game and eighteen pairs after being told their roles. Those pairs who did not know their roles before assessing the case did not have significantly different assessments from one another, but those with prior knowledge of their roles showed similar biases to pairs from the first experiment. Impasse rates were also disproportionately higher for pairs with prior knowledge and biased assessments. A further test in the second experiment involved dividing the 30 minute bargaining period into five six minute sessions with extra costs incurred for each successive round without agreement. On average pairs who did not know their roles before assessing the case settled in 2.1 rounds, whereas those who knew their roles settled in 3.5 rounds.

Although there may be some worries about the general applicability of this experiment to the real world, the results seem to be intuitively valuable. Even if there is symmetrical information (which is probably rare), negotiators may have optimistic assessments of what a judge or arbitrator will award should the dispute reach court or arbitration. This explanation for arbitration usage seems just as plausible for FOA as conventional arbitration. FOA may not deter its own use if one or both parties are over optimistic about their chance of winning. Unfortunately, the question of how long over optimism might persist is not addressed by Babcock and her colleagues since the experiments only involved one round of bargaining. Therefore we cannot say what the effect of using arbitration (or going to trial) has on the future level of optimism. It seems sensible to suggest that the level of self-serving bias may decline over time as parties develop greater awareness of what is a reasonable settlement.

iv. *Conclusions*: The most disappointing aspect of the experimental work is that the authors of each separate study have sought to test only a single theory of disagreement in bargaining - usually their own theory. Therefore as well as worrying over the external validity of the results, further caution must be attached to the findings. For example, the DeNisi and Dworkin (1981) study may have elicited very different findings concerning naive negotiators had they also found some way of introducing a principal-agent situation for some bargainers. The results of the studies can say very little about the relative importance or significance of the factors they test for in a real world bargaining situation.

4. UK evidence from the postal survey

a. Dispute procedures

The postal survey provides information on 72 workplaces with new style procedures. Of these 54 have some form of impasse procedure. These are set out in Table 3.4 and Figure 3.1. It is readily apparent that the voluntary nature of the British new style agreements have thrown up a rich array of configurations of pre-arbitration conciliation and mediation stages and types of arbitration. There is further heterogeneity in the reference to arbitration mechanism, but the arrangements for selecting the arbitrator are more standardised.

Of the 54 workplaces with impasse procedures half have FOA, and of these 27 plants, just over half also have provision for either conciliation alone (11) or both mediation and conciliation (3) before a dispute is referred to arbitration, but 13 of the agreements provide for a move straight from failure to agree to arbitration. These two types of FOA agreement reflect the debate about whether it is better to have FOA unaccompanied by pre-arbitration procedures, to deter disputes (Feuille 1975), or to have pre-arbitration procedures, to prevent a large gap between final offers and therefore an unworkable award if FOA is reached (Gallagher and Pegnetter 1979). Interestingly the very first no-strike deal (at Toshiba) was pure FOA with no pre-arbitration procedures. Subsequently this purity has decayed as detailed and analysed in chapter 2.

A greater proportion of the conventional arbitration agreements have provision for pre-arbitration stages (77%). Finally, there are ten agreements which, whilst not having any arbitration stage, instead have mediation only (2), conciliation only (5) or both conciliation and mediation (3).

A substantial majority of all workplaces with arbitration and especially the FOA plants allow ACAS to chose the arbitrator. The fact that UK FOA agreements do not in general provide for any more elaborate means of choosing the arbitrator, unlike in North America (Lester 1984), is probably because ACAS is the generally accepted body for resolving industrial disputes. It is no doubt also a function of the fact that FOA is still quite novel in the UK. The topic of arbitrator behaviour and therefore alternative means of choosing the arbitrator has simply not arisen.

b. Impasse rate models

The taxonomy of procedures (represented in Figure 3.1) is repeated in flow chart form for impasse rates in Figure 3.2. Figure 3.2 shows that of the 212 wage rounds where a dispute procedure was available[4], 27 went to impasse, an overall impasse rate of 12.7%. This compares with national private sector impasse rates of 12%, 17%, for 1980 and 1984 respectively, for pay and conditions disputes (Millward and Stevens 1986: Table 7.5)[5]. Unfortunately, the usage rates of dispute procedures provided for pay and conditions disputes is not reported in the accompanying volume to 1990 WIRS (Millward et al 1992: chapter 6).

Figure 3.2 also illustrates the complexity within the impasse rate measure. Of the 27 impasses, 10 involved rounds where there was no provision for arbitration (box h), 6 where there was no provision for mediation/conciliation (box g), and 11 where there was provision for both (box f). Of these 11, only four involved the use of arbitration (box j) as the other 7 were settled either during or after pre-arbitration meetings (box i). This complexity provides five different impasse rate models on which to test the impact of FOA:

A. Overall impasse rate: Using all 212 rounds and not distinguishing the degree of impasse (Table 3.5).

B. Overall impasse rate within arbitration available rounds: A sub-sample of 170 rounds (b), looking at all 17 impasses in these rounds (f+g) (Table 3.6).

C. The use of arbitration within arbitration available rounds: The same sub-sample as (Model B), but looking at the 10 impasses involving the use of arbitration (g+j) (Table 3.7).

D. Overall impasse rate in the mediation/conciliation available rounds: Sub-sample of 144 rounds (c+d), looking at all 21 impasses (f+h) (Table 3.8).

E. Use of mediation/conciliation only: Sub-sample of 140 rounds, i.e. same as (Model D) but excluding the 4 rounds where arbitration is also used, and looking at remaining 17 impasses (h+i) (Table 3.9).

The hypothesis tested for each model is that bargaining rounds where FOA is available should be associated with a lower impasse rate, all else equal.

c. The controls

Following the example of Currie's (1989) study (see section 3) a number of control variables were included in the regression to test for other factors which have been suggested as causes of disagreement in bargaining.

To recap, one theory holds that the parties must be **risk averse** about using their dispute procedure. The risk aversity level of the parties was included through two 'experience' measures; whether or not the plant was established before 1980 and; how long (in years) the parties had had their current dispute procedure[6]. The

hypothesis concerning these variables suggests that as parties become more familiar with each other and their dispute procedure, their risk aversity concerning disputes will decline. Therefore both variables should be positively associated with the impasse rate.

The risk-aversity factor was also tested through the multi-unionism variable with the hypothesis that groups may be more likely to take risks, because they can defer blame for losses to other members of the group. The multi-unionism variable was also included in light of recent UK evidence showing a positive association between multi-unionism and strike incidence, when those unions bargain separately (Metcalf et al 1993, Machin et al 1993). Further, a UK owned variable was included on the basis that UK firms may have more experience with ACAS intervention in disputes and therefore may be less risk averse about the use of ACAS.

Two alternative theories suggest that in fact experience will induce fewer rather than more disputes. The **naive negotiators** hypothesis of DeNisi and Dworkin (1981) suggests that more experienced bargainers will be less likely to reach impasse than the less experienced because they are more fully aware of the consequences of their actions. The **over optimistic** or **differing beliefs** hypothesis might also predict a similar result to the naive negotiator hypothesis. As parties become more familiar with each other and the dispute procedure, they may be less likely to make mistakes concerning the expected outcome of a dispute. Therefore it is not clear in which, if any, direction the experience variables might be expected to function.

The differing beliefs hypothesis was further tested by Currie using the volatility of macroeconomic variables (the coefficient of variation of the Consumer Price Index in her study). For the UK sample only the year of the settlement (not the month) is known, therefore year dummies were included in some equations as a crude approximation of macroeconomic factors.

Bargaining unit size was included to test the hypothesis that the costs per union member of impasses might be a factor. There is somewhat of a worry here though because impasses are not generally that expensive in the UK as ACAS services are free and lawyers' fees do not feature to anything like the same extent as in North America. So even if a size effect is apparent it is not clear that this would support the direct cost of impasse hypothesis.

The **principal-agent** hypothesis is tested using two variables, the previous real pay settlement (following the Currie example) and whether or not the workplace is part of a larger enterprise. These two variables should provide evidence of principal-agent problems on either side. If lower previous settlements are associated with an increase in the incidence of impasse the following round this might suggest a principal-agent problem on the union side. On the other hand if non-independent plants are associated with a higher incidence of disputes, this might suggest that plant management feels forced to go to impasse to indicate that they are not shirking in negotiations to enterprise level management.

d. Results on final-offer arbitration and dispute deterrence

Different specifications of models A to E are shown in Tables 3.5 to 3.9. For each model the coefficient and t statistic of the FOA variable is shown at the top of every column. For all other variables the significance, or non-significance, and the sign on the coefficient are indicated. The tables provide six specifications of each model: (I) including FOA and variables designed to control for risk aversity: (II) involves the substitution of the alternative experience variable (number of years with procedure) for the establishment date dummy; (III) adds year dummies to test for macroeconomic factors which might influence the probability of differing beliefs; (IV) removes year dummies and includes the two variables designed to test for principal-agent problems; (V) removes the latter and includes plant size dummies to test for any impact of the costs of disputes; and (VI) including virtually all variables covering differing beliefs, principal-agent problems and the costs of disputes.

The impact of FOA on 'the overall impasse rate' (Model A) is shown in Table 3.5. The sample consists of all 212 rounds with some form of dispute procedure and the dependent variable records any failure to agree (the use of any form of third party intervention) as an impasse. Therefore the model does not differentiate the degree of dispute. FOA has a negative coefficient in half of the equations and is positive in the others, but in none is it significant. Therefore using the crudest measure of impasse rate, FOA does not out perform conventional procedures in deterring disputes, holding all else equal.

The sample is narrowed down in Table 3.6 (Model B) to exclude the 42 rounds where there is no provision for arbitration. Therefore if rounds are not covered by FOA then conventional arbitration is the final stage in the procedure. The dependent variable remains any failure to agree. Again FOA rounds are not associated with a significantly different probability of impasse compared to conventional arbitration rounds.

In Table 3.7 the sample used is the same as for Table 3.6, but the dependent variable is the use of arbitration (Model C) - which is probably the most important test of FOA theory - rather than any failure to agree. FOA is specifically advocated to deter the use of and reliance on arbitration, which is where conventional arbitration is held to be at fault. The results do not support the hypothesis that FOA is more effective at deterring its own use than conventional arbitration. In fact in all equations the FOA coefficient is positive, although in none is the coefficient significant.

When the sample is recast to concentrate on rounds with mediation and/or conciliation (i.e. boxes c and d in Figure 3.2), there seems to be some evidence in support of the deterrent power of FOA. Tables 3.8 and 3.9 show that the availability of FOA is associated with a significantly lower impasse rate in rounds where mediation and/or conciliation is provided (models D and E). The only difference between the two tables is that the sample in Table 3.9 excludes the four rounds where arbitration as well as pre-arbitration procedure was used. So whereas the equations in Table 3.8 measure any failure to agree as an impasse, those in Table 3.9 just count the use of non-arbitration procedures.

It is not surprising that FOA deters disputes more effectively compared to where no arbitration provision exists (in 42 of the comparative rounds, i.e. comparing box d to box c of Figure 3.2). But it must be emphasised that it is FOA which is the key element here, because it performs better than other measures of arbitration.

Table 3.10 shows results when models D and E are re-estimated using all arbitration and conventional arbitration instead of FOA (the FOA estimations are reproduced for ease of comparison). Of the three arbitration variables, only FOA is significant in both models.

The results suggest that it is the interaction of FOA with mediation and/or conciliation that deters disputes. This does not mean that an FOA procedure not accompanied by pre-arbitration stages will be made more effective by the inclusion of

pre-arbitration stages, but rather that an unaccompanied mediation/conciliation procedure will be made more effective through the addition of FOA than of conventional arbitration. This can be concluded because using only the 114 rounds where FOA was available (not reported in Tables) did not indicate that either mediation and/or conciliation had any impact on the impasse rate. It seems safe to conclude therefore that in this sample the existence of FOA in a multi-stage procedure deters impasses more effectively than conventional arbitration.

Of the other dispute procedure variables, mediation was significantly associated with a higher incidence of disputes and conciliation with a lower incidence in some models, which is somewhat against expectations. One possible explanation may be that under mediation at least the parties know that a possible solution to the dispute will be suggested by the third party and may prefer this to the continuance of negotiations under a conciliator. So it may not be that conciliation deters disputes but rather that it is more likely to be available in plants with low dispute rates anyway. Perhaps mediation and arbitration feature in the procedures of plants which are potentially more likely to have disputes because the parties prefer procedures which have more bite.

e. Results of other theories

Acknowledging the caveat that small sample sizes make it unlikely that all influential variables will prove statistically significant, the results concerning the alternative theories of disputes deserve some comment. Most striking is the fact that the variables estimating levels of risk aversity perform better than all three other theories tested. Plants established before 1980, those UK owned and those with more than one union, are more likely to have reached impasse than their respective counterparts (though not significantly so in every model). The number of years with a dispute procedure is not significant, however, which implies that the Farber and Katz (1979) explanation of why risk aversity may be lower in some bargaining units is not correct for this sample.

The plant vintage result suggests that it is the parties' experience of bargaining with each other, rather than under a particular disputes procedure which reduces risk aversity. An alternative explanation of this particular result could, be that it is related

to the life cycle of the product, older plants may have more disputes because their profit rate is declining compared to newer plants.

The multi-union finding is the most consistently significant result in the various models and supports previous findings about the importance of multi-unionism in estimations of strike incidence.

Of the other theories tested only the per capita **costs of disputes** shows any indication of being significant, smaller plants are significantly less likely to reach impasse than larger ones. However, it is not clear that this variable is necessarily supporting that particular theory - it could also be interpreted as providing support for the risk aversity hypothesis, if larger groups are more likely to take risks because they can spread the consequences of losing over a larger constituency.

The **naive negotiator, differing beliefs** and **principal-agent** theories are not supported by the results, although again the variables employed may not provide the best means of estimating these effects. For instance the year dummies, used as an approximation of the volatility of macroeconomic factors and the differing beliefs theory, are probably too imprecise to capture the essence of the theory. Furthermore analysis of the **principal-agent** theory was hampered by the absence of data on the pay settlement at t-1 for a large proportion of rounds which cut the sample sizes considerably. Therefore the results concerning these models must be treated with some caution. The impact of the plant being part of a larger enterprise was tested separately from the previous pay settlement variable on the full sample, but was found to be non-significant.

f. Summary

The postal survey data therefore provide a fairly extensive body of information about the impact of FOA and other dispute procedures on impasse rates, as well as results concerning other theories of impasse. Overall it does appear that even after controlling for other potential causes of impasses, FOA does not in general deter disputes more effectively than conventional arbitration - except in the case of multi-stage dispute procedures. However, the survey cannot answer the crucial question of why FOA has not deterred disputes particularly effectively in the UK. This lower than expected impasse deterrence effect of FOA was investigated in the interview stage of the research and is reported in the following section.

5. Evidence from the interviews

a. Introduction

The interview panel consisted of eight plants whose details are provided in chapter one. To recap, they are workplaces with FOA based dispute procedures, which experienced at least one impasse over the five years covered by the survey and agreed to become a case study in order to provide supplementary informations to the postal survey. Chapter 5 examines a range of other issues based on these interviews particularly concerned with the practicalities of FOA in action. This section contains evidence from them relevant to dispute deterrence. The information analysed is both substantive and attitudinal, and provides some extra depth of analysis to that provided by the survey.

b. Was FOA adopted to deter disputes?

One possible explanation for the relative 'failure' of FOA is that parties signing agreements incorporating FOA have not done so with the intention of deterring disputes, but instead just view FOA as a novel way of resolving disputes. In theory even if parties did sign FOA agreements with the latter intent, there is no reason to suspect that this would necessarily undermine the deterrent power of FOA. However, in the early years of bargaining under FOA one might expect that this attitude towards FOA would encourage its use, perhaps for the novelty value.

In fact when asked what attracted them to FOA, the majority of interviewees produced answers which are very much in line with FOA theory. Responses included the following:

'it [FOA] really makes you consider your position',

'it makes you try harder in negotiations',

'it makes people more reasonable and it means that you are more in control',

'the fact of potentially going to pendulum arbitration will often lead to the resolution of disputes'.

In a couple of cases the interviewees specifically contrasted the merits of FOA with conventional arbitration by saying that the latter allowed the parties to 'get off the hook' at the end of negotiations and that 'splitting the difference is too easy for the

arbitrators'. This second point illustrates an important adjunct to the argument that because arbitrators usually do not split the difference, then conventional arbitration has been unfairly characterised in the arguments in favour of FOA (Kessler 1987, Lewis 1990). In fact the crucial issue is not what the arbitrators actually do but rather what the parties expect the arbitrator to do. If they anticipate the arbitrator will split the difference then negotiations are likely to chill.

Some of the interviewees' justifications for the FOA procedure, however, do not have a similar academic rationale. These include the 'finality' of the process, its 'straightforwardness and formality', and its role as a 'final court of appeal' for a dispute. All three of these arguments could equally be used concerning a conventional arbitration procedure. In general the parties' explanations of the anticipated merits of FOA at the time the deal fall into two camps: those which accord reasonably closely with the academic arguments; and those who regard FOA as a novel dispute resolution procedure. The implications of these different beliefs about the purpose of FOA is explored more fully in chapters 2 and 5.

b. Other substantive evidence

Section 3 detailed North American studies of the chilling effect and one component of these is the range of different substantive measures of dispute deterrence employed. The postal survey recorded the most important outcomes, the impasse rate and the arbitration award rate, and the interviews were partly used to examine some of the less typical measures of chilling. A scientific analysis of the other two measures examined in the interviews, convergence of positions and the gap between final positions, is unfortunately not feasible because of the lack of comparative data and the considerable heterogeneity of the disputes, but some points are worth noting.

i. *Convergence of positions*: Most of the disputes were described as being well defined from the beginning such that there was no scope for movement by either side. For example in the RHM 1987 case the parties, having not moved positions in negotiations, skipped the conciliation stage of their procedure to go straight to arbitration, because there was 'no scope for compromise', in a dispute over payment for lunch breaks for one group of workers.

However, there were some notable cases of compromise activity, particularly by unions in the face of arbitration. The Iveco Ford case where the union amended its claim from two years' cushioning pay for loss of shift premia to one year before arbitration, is well documented (IDS 1988, Lewis 1990). In another case, ABB Capacitors, the union claimed 'substantially more' than management's offer of 7.25% in negotiations then pitched its claim at 7.7% just before arbitration. In both cases this could be cited as evidence of the effectiveness of FOA to promote compromising activity, but the fact that compromise did not occur earlier in negotiations suggests that the change in positions was an attempt to 'win' in arbitration rather than achieve a settlement.

This evidence does not mean that FOA is ineffective at promoting compromise in general, but rather that in cases where it is used there is evidence of 'chilling'. The parties become aware early on that the dispute will go to arbitration and therefore may change their position in order to 'win' but not with the intention of settling.

ii. *The gap between final positions*: The majority of the interviewees indicated that the financial value of the gap between each side's final positions was not significant. Most of the disputes covered only a small proportion of the workforce, seven employees in the case of the 1991 IBC grading case for instance. The only case were there was a substantial difference between the two sides, Anonco, was settled in conciliation perhaps because both sides realised the implications of losing at arbitration. This evidence is, prima facie, supportive of the effectiveness of FOA, suggesting that potentially very costly disputes are settled without recourse to arbitration. However, as there is no information available about the 'gaps' in similar conventional arbitration cases, this can only be a tentative conclusion.

c. Examining explanations for FOA failure

For each dispute the interviewees were asked why the dispute was allowed by both sides to get to arbitration rather than settled in-house. Virtually all the responses fit into one or more of four alternative explanations of why disagreements in bargaining may occur despite the uncertainty of FOA.

i. *Naive negotiators*: Naivety did figure in the explanation for some of the disputes but not naivety about the process of FOA itself, as hypothesised by DeNisi and Dworkin (1981). In one instance naivety about each other and simply how to bargain caused the failure to settle in-house (although the dispute was resolved in conciliation). In another naivety, or perhaps confusion, caused the dispute to be referred to a third party - the 1985 mediated settlement at Sanyo (see chapter 5 for details). However, the confusion in this case actually arose over a preliminary stage in the procedure rather, than the final-offer mechanism itself. Other than these two disputes it seems quite clear that the parties knew what they were doing and what FOA entailed.

In one interview the personnel manager stated that there were some 'problems' at first with FOA because the employees considered adopting a policy of always going to arbitration on the basis that at the very least they would get management's final offer and might possibly get their claim. The employees recognised the incentive FOA creates to 'cheat' in the sense of allowing the other side to bargain with the intention of settling the dispute whilst yourself holding on for arbitration. Management persuaded the employees that this would be a myopic tactic in that the following year management would also have an incentive to chill, therefore undermining the whole procedure. The employees were in some sense naive regarding the notion of bargaining under FOA as a repeated rather than a one-off game. Having said this there was no evidence in this plant of FOA being invoked because of such naivety.

ii. *Differing beliefs*: To recap, this explanation rests on how realistic the parties' different expectations of winning the arbitration hearing are. If they have sufficiently divergent expectations then they will prefer to take the dispute to arbitration, because both sides are sure that they will win, than negotiate a settlement.

The interviews revealed two cases of FOA being invoked when management was sure it would win in arbitration and yet it lost. In one case the interviewees (the Managing Director and personnel manager were both interviewed) stated that they had three reasons for believing their case was cast-iron safe: their rates were competitive in the local labour market; and compared to their previous parent company's rates for the same jobs; and that the low employee turnover indicated satisfaction with the rate. They were 'very, very confident' that their final offer would be selected and that the arbitration award would reinforce management's prerogative on pay.

In the another dispute management similarly felt that it was bound to win the hearing such that even if the dispute had involved more employees, and therefore had been for higher stakes, they would still have allowed the dispute to go to arbitration because they were so sure of winning.

These two cases seem to provide strong support for the differing beliefs explanation of 'FOA failure'. However, there is something of a problem here because we do not know how 'reasonable' the arbitrator's choice of final offer was. In other words, there needs to be some evidence that the arbitrator's choice would have been made by the 'average' arbitrator. Bearing in mind this caveat, the fact that in other cases the interviewees did not suggest that they were completely sure of winning at arbitration provides some justification for the differing beliefs explanation for these two cases.

iii. *Risk loving parties*: In some senses, whenever parties allow a dispute to get to arbitration under FOA, they are committing the act of a risk loving party. They are preferring the risk of a possibly better arbitrated outcome to the certainty of a negotiated settlement. However, in only one case did management indicate that they thought this was the explanation for the dispute reaching arbitration.

The interviewee argued that management knew that it would win the award and that the union side probably knew that it would lose but that they [the union] 'took a long shot'. The union took the slim chance of possibly winning in arbitration rather than reduce their claim in negotiations, and achieve a possibly better outcome.

iv. *Principal-agent problems*: A negotiator may take a dispute as far as arbitration, knowing they will lose, because of pressure from their constituents - other managers in the case of management negotiators and union members in the case of union negotiators. There were two cases of FOA use and one of near-use which could be explained in terms of principal-agent problems.

In one case the 'problem' was on management side. A new Managing Director was determined to be tough in negotiations because his predecessor had been and he wanted to impress senior management at the company's headquarters. Therefore he refused to compromise on a low offer to the employees even though he and the rest of

the plant's management knew that they would lose at arbitration with such a low offer. The personnel manager at this plant stated that management did not even want to win at arbitration because they would have lost in the long run due to subsequent staff turnover problems. This is a clear case of a party going to arbitration with a high expectation of losing the hearing despite the reality of FOA because of pressure from their constituents.

In two cases the principal-agent difficulty was on the union side, although in one the dispute was settled before arbitration. In one case, the union regional official gave up pursuing the workers' claim early on in negotiations, because it went directly against the official national union policy. However, because the members at the plant threatened the union's position by inviting a rival union to recruit outside the factory gates, a national official of the incumbent union was compelled to take up the case once more. Having done this the official was virtually bound to take the dispute 'all the way' to arbitration in order to show the union's commitment to its members in the plant. So considerations of the likelihood of winning were of secondary importance to being seen to be pursuing the claim to the hilt. The union lost the resultant award.

In the second case, the union negotiator was very inexperienced and having promised too much to the members was not able to back down in negotiations for fear of 'losing face', according to the personnel manager. This dispute was actually settled in conciliation mainly through the role of the national union official who 'imposed some reality' on the union position.

The most apposite of the four explanations for 'FOA failure' in these cases are therefore differing beliefs and principal-agent problems. Negotiators did not seem to be naive about FOA itself, although they may have been naive about each other, nor did they seem to be particularly risk loving gamblers.

These findings are therefore somewhat at odds with the explanations suggested by the data - that low risk aversity is the main explanation for the incidence of impasses despite the presence of FOA. However the results may be consistent because essentially the interviews measure very different factors from the survey. The interviews provide qualitative, attitudinal data which is subject to the interviewer's interpretation, and therefore it would be surprising to see these data mirroring the quantitative information from the postal survey. For instance, concerning principal-

agent theory, the variables used to measure it in the empirical analysis (previous pay settlement and part of larger enterprise) may not have registered the three cases for which it seems to be relevant from the interviews. Even in the case where a plant manager pursued a dispute to arbitration because of perceived pressure from higher level management, an important factor, other than the multi-establishment enterprise, was the previous manager's reputation which could not have been captured using the survey data.

Furthermore, analysis of the survey concentrates on differences between plants which are associated with different levels of disputes, whereas the case studies highlight contingent factors which caused (or failed to prevent disputes) within a particular plant or bargaining round.

6. Industrial action and dispute procedures

a. Introduction

Disputes, strikes and industrial action are synonymous and often confused in public parlance. One of the raisons d'etre behind this research is to investigate, delineate and differentiate some of the distinctions and concepts between these different phenomena. The issue of dispute procedures and industrial action is covered as the final part of this chapter on bargaining impasses, however, for two main reasons: because it provides a counterweight to the rather damning indictment of FOA's (in)ability to prevent bargaining impasses found in the UK survey; and because there is so little investigation of this issue in North America and the incidence of industrial action in the UK sample is so small, that the analysis does not warrant a separate chapter.

This section covers the following issues: the small amount of theory and empirical evidence from North America; existing UK evidence, both micro and macro, on the impact of dispute procedure availability on strikes; evidence from the postal survey and interviews; and some consideration of potential for future research on this issue in the UK.

b. North American theory and evidence

Public sector strikes are, with very few exceptions, legally prohibited in North America. However, illegal strikes do occur. Compulsory arbitration, whether conventional or FOA, has been introduced in some jurisdictions, not only as a *quid pro quo* for the absence of a right to strike, but also in order to help prevent illegal strikes. Strike theories (see chapter 7) concentrate almost wholly on contract strikes in the US private sector. By contrast, most of the few studies on public sector strikes are empirical and deductive, with scant theoretical foundation. An exception is Olson (1986), who provides some intuitive reasoning for an hypothesis that compulsory arbitration laws should be associated with a lower incidence of strikes in those states compared to states with no such laws. His argument has two stages.

First, assuming that under arbitration statutes, unions chose whether to pursue a dispute through illegal strike action or by arbitration and that their selection is made on the basis of selecting the procedure with the highest expected outcome. Following the use of either procedure the union can invoke the procedure which was not initially chosen in an attempt to obtain a better outcome. In contrast, unions operating under laws prohibiting strikes and with no compulsory arbitration statute only make the choice between illegal strike or negotiated (or imposed) settlement. Under these conditions, arbitration should result in fewer strikes if unions select the arbitration route most frequently and seldom strike because of an unfavourable award. The first condition would be met if expected arbitration awards were comparable to expected strike settlements and the direct costs of arbitration are less that strike costs.

Second, strikes as a result of unfavourable awards can also be expected to be few and far between for two reasons. First, because only a small proportion of settlements are arbitrated, and of these one would imagine that some will be favourable, therefore in only a small minority of bargaining rounds is there an opportunity to strike. Second, the politics of public sector dispute procedure provision are such that frequent strikes in the presence of dispute procedures would probably increase the likelihood of the relevant legislation being repealed. Unions, especially the leaders, may be more anxious to retain the arbitration procedure than risk its repeal because of illegal strikes. These political considerations may be even more immediate in jurisdictions which require periodic renewal of arbitration statutes.

Olson does not consider any potential influence of FOA compared to conventional arbitration on industrial action. Developing his analysis it seems that there could be theoretical support for both forms of arbitration being more effective at preventing industrial action. One way of thinking about this is a reconsideration of the asymmetric information theory of strikes. These predict that strikes are more likely when there are asymmetries of information between the parties about bargaining positions and strengths (Kennan 1986). One consequence of the chilling effect of conventional arbitration may be that information is withheld, in contrast to FOA's promotion of genuine negotiations, which should engender an open information approach. If asymmetries of information are greater under conventional arbitration than FOA, then industrial action may also be more likely under the latter than the former.

The converse conclusion might be drawn by those critics who argue that FOA's single greatest drawback is that when invoked it produces unworkable awards (see chapter 5). Given Olson's assessment that most strikes under arbitration statutes occur after an unfavourable award it may be more likely that an unfavourable award under FOA generates strike action than one under conventional arbitration. It seems conceivable that when framing an award under conventional arbitration an arbitrator when favouring the employer may also seek to satisfice the union side sufficiently to prevent industrial action. This option may not be available to the FOA arbitrator. Unfortunately, having said this none of the North American studies discussed below investigate any differential impact between conventional and final-offer arbitration.

There are three North American studies of particular note on the impact of collective bargaining laws, particularly arbitration, on the incidence of public sector strikes. Whilst there have been other studies of public sector strikes, the most well known and comprehensive being Burton and Krider's (1975) analysis, more recent studies by Ichniowski (1982), Olson (1986) and Currie and McConnell (1991) consider more carefully and specifically the role of arbitration. The details of their studies are summarised in Table 3.11 for ease of comparison.

All three studies using very different samples, time frames and comparators find that compulsory arbitration statutes reduce (significantly in most cases) the probability of strike action in a given jurisdiction, holding other factors constant. Note

that whilst the main test used by Ichniowski and Olson is no right to strike/no arbitration compared to no right to strike/compulsory arbitration. However, because of the wider provision of the right to strike in the Canadian public sector, Currie and McConnell also compare the impact of right to strike laws with no right to strike/compulsory arbitration laws as well. Olson's intuitive reasoning might predict that we would expect much greater disparity of strike probabilities under the latter comparison than the former. In fact Currie and McConnell's results are smaller and less well determined than the other two studies. One potential explanation for this, not explored by the authors, is that the threat of strike action under a right to strike law may be sufficient to extract higher outcomes compared to similar threats of illegal action under compulsory arbitration laws.

c. Existing UK evidence

There have only been two empirical studies of strike incidence in the UK which have included the provision of a formal dispute procedure in their estimations. Based respectively on successive Workplace Industrial Relations Surveys 1980 (WIRS1) and 1984 (WIRS2), Blanchflower and Cubbin (1986) and Booth and Cressy (1990) find that the provision of procedures is positively associated with the incidence of strikes. Only the earlier study based on WIRS1 finds a significant association, but the non-significant result in the Booth and Cressy study may be a result of the smaller sample they employ. Note that in neither of these UK studies is the dispute procedure result broken down by type of procedure, therefore they are not strictly results on arbitration and strikes. These results seem *prima facie* directly contradictory to the North American evidence where arbitration availability is negatively associated with strike incidence.

The endogeneity problem is a crucial factor here. The cross-section basis of the WIRS data do not allow a before and after test. It seems probable that dispute procedures are more likely to be developed in workplaces or industries with histories of industrial action problems - this is certainly the case for some of the new style deal plants (see chapter 2) - although, as noted in that chapter, this has never been investigated more widely in the UK. Therefore although the incidence of strikes may still be higher in plants with dispute procedures, all else equal, the level may be lower than it would otherwise be without the procedure.

An interesting adjunct to this are aggregate data on the number of stoppages and the number of conciliation requests received by ACAS over the last two decades. Figure 3.3, taken from ACAS (1991), provides a picture of the movements in these series from 1970 to 1987. Particularly notable is the leap in conciliation requests in the three year period around the establishment of ACAS in September 1974 from around 800 a year to over 3000, and simultaneously a drop in stoppages from around 2,800 to nearer 2,000. Moreover, once these series crossed in 1975 the number of collective conciliation requests has remained above the number of stoppages in every year since. ACAS themselves claim that this is evidence that they help to prevent strikes since

> '... in about 90 per cent of cases the request for conciliation comes before industrial action.' (ACAS 1991: 104).

This seems to be a plausible deduction, but the impact of ACAS on disputes and industrial action outcomes deserves further investigation before such conclusions can be verified.

d. Evidence from the new style deals data

The incidence of any form of industrial action across the sample is very low at 1.68%, (5 out of 297 bargaining rounds). Such a low incidence of industrial action, whilst very interesting in terms of comparisons with national figures, unfortunately provides little scope for any empirical analysis of the role of different impasse procedures in the determination of the level of industrial action or even a gauge to how satisfied parties are with particular impasse procedures.

The workplaces experiencing the action, two strikes and three overtime bans, comprise two without any impasse procedure, two with FOA alone and one with provision for conciliation, mediation and conventional arbitration. Other notable characteristics of these plants is that only one is multi-union, all five have a workforce greater than 100 employees (three have over 500), three were established before 1980 and four have union density levels of 75 to 100%.

A perhaps surprising finding is that three of the plants report having a collective agreement which includes a 'no-strike' clause, which is actually a higher proportion of the plants which experienced industrial action (60%) than of the total sample (50%)!

The national annual average of 4.6% (1985-1989) for industrial action at bargaining group level over annual pay negotiations from the CBI data (see chapter 6), is more than double the industrial conflict rate of the new style deals sample. The questions on industrial action in the postal survey were framed to cover only industrial action over pay settlements (see Appendix B) to match the CBI data, so this should be a comparison of like with like. This suggests that the new style deals and their impasse procedures have been successfully associated with a low level of industrial action. It may, however, be that characteristics of the sample, other than the provision of particular impasse procedures, explain the low rate of incidence. However, apart from the level of multi-unionism, characteristics associated with a low level of strikes do not predominate in the sample:

i. *Workplace size*: Strike incidence is generally found to be higher in larger plants than smaller ones (Prais 1978, Blanchflower and Cubbin 1986). Consequently if our low strike incidence result were attributable to workplace size, the sample might be expected to have a relatively high proportion of small plants. In fact the sample is not skewed towards small plants, rather the opposite. Over 87% of the plants in our sample have more than 99 employees compared to only 65% of establishments in the WIRS (1984) sample (Millward and Stevens 1986), the sample used in the Blanchflower and Cubbin study.

Furthermore, considering the evidence Ingram, Metcalf and Wadsworth (1993) present regarding the link between larger bargaining groups and strike incidence, it could be that relatively small bargaining group size is an explanation for the low strike incidence in our sample. Given the low level of multi-unionism in the sample, discussed below, suggesting that most of the workplaces have a single bargaining unit, it does seem suitable to compare bargaining group size from the CBI data with workplace size in the sample. Only 55% of bargaining groups in the CBI sample have more than 100 employees, compared to the 87% of workplaces in the new style deals sample having more than 99 employees. So small bargaining groups or workplaces does not appear to be an explanation for the low level of industrial action among the new style deal plants

ii. *Multi-unionism*: Results from the CBI data indicate a significant, positive effect of multi-unionism on strike incidence and this effect was also found by Blanchflower and Cubbin (1986) and Machin et al (1993), when those unions bargain separately, using WIRS data. The new style deals sample has a much lower rate of multi-unionism (5.6%) than the national level of 35% in 1984 (Millward and Stevens 1986: Table 3.7). This is probably the most significant contrast between the sample and the national picture in explaining the relatively low rate of industrial action.

iii. *Particular unions*: It could be that individual unions disproportionately represented in the sample are less likely to be involved in industrial action than other less well represented unions. The most obvious example of this is the EETPU which has openly espoused a cooperative rather than conflictual attitude to management in its new agreements, although it is not as cooperative in all the industries in which it operates. Distinguishing between any independent union-attitude effect and particular impasse procedures is not feasible, however, because the union-attitude may also be a determinant of the implementation of an impasse procedure. In fact it could be argued that the impasse procedure is a proxy measure of a union's attitude towards industrial conflict.

iii. *Multi-plant firms*: Two of the empirical studies of strikes in the UK (Blanchflower and Cubbin 1986, Ingram et al 1993) find an association between workplaces or bargaining groups in multi-plant firms and higher striker incidence. In fact the new style deals sample has a slightly higher proportion of subsidiaries (86.1%) compared to both the samples used in these studies (78.8% and 79% respectively) so there would appear to be no possible negative effect from this aspect of the plants involved in these deals.

iv. *Industry*: Industry level data for the whole of the 1980s indicates that the industries in which the sample is primarily located experienced higher than the mean annual average industrial action rates (Table 7.1). For example, in the electronics sector, an average of 7.5% of pay settlements on an annual basis (1985-1989) involved some industrial action. So the sample is not made up of plants which are in low industrial conflict industries.

v. *Region*: It must be acknowledged that the Wales region, where nearly 40% of the surveyed plants are sited, had the second lowest annual average industrial action rate compared to other regions over the whole 1980s (Ingram, Metcalf and Wadsworth 1991: Table 2). However, the three next most populated regions (in the sample) included two of the more conflict prone areas, the South East and the North West.

vi. *Workplace vintage*: Two-thirds of the workplaces in the sample were established in the 1980s and are therefore quite 'young' workplaces. Unfortunately none of the UK studies of strike incidence have been able to analyse the potential impact of workplace vintage on strike probability, so it is impossible to state whether or not the age composition of the sample may explain part of the low level of strike action. In theory it could work either way: A higher level of strikes in younger plants because asymmetries of information about worker militancy and employer profits may be greater; or a lower strike probability because a 'them and us' adversarial culture may not be ingrained (Guest and Rosenthal 1993).

Because of these related factors it does seem reasonable to argue that new style deals have been very successful at preventing industrial action. Given the fact that the deals have not resulted in a significantly low impasse rate, it seems safe to assume that some of the disputes that might otherwise have resulted in industrial action instead were resolved by the impasse procedure. The obvious adjunct to this conclusion is the question of what the strike level would have been in these plants without the procedure. This question was explored in the interview stage, by asking about workplace strike activity before FOA was introduced.

Some of the plants where interviews took place were brownfield sites when the FOA agreement was signed. In all these the managers stated that there had been problems with industrial action at the plant before the agreement was signed. However, not all interviewees stated that the FOA procedure was the crucial element in the decline or lack of industrial action. Only two managers categorically claimed that had FOA not been available and used, there would have been a strike over the issue in dispute. Other managers said that either the dispute which involved FOA was not sufficiently important to have resulted in industrial action or that other aspects of their industrial relations arrangements were more important explanations, than the FOA

procedure, for the lack of industrial action. Most often cited explanation was management's consensual style of operations, but other factors included the no-strike clause and the impact of the law on industrial action.

7. Concluding remarks

Final-offer arbitration does not therefore appear to have achieved its prime design objective of deterring disputes in the peculiar UK environment of private sector, new style cooperative agreements. Although the deals as a whole appear to have performed very well in deterring or suppressing industrial action, FOA does not appear to have been especially influential towards this end. An important and difficult supplementary question concerns the applicability of this evidence to other industrial relations environments, in particular the UK public sector. What can this evidence on a small number of relatively unusual private sector plants reveal about the potential impact of FOA on bargaining disputes in the public sector?

The experience of the new style deals suggest that even in a supposedly cooperative environment disputes arise and persist despite FOA, often because of what Olson (1993) calls 'political factors' - the parties want someone else to blame for an unpalatable outcome. Public sector negotiations are far more politically conditioned and motivated than those in the private sector so one would imagine that FOA would have an even harder time deterring its own use there. However, if arbitration is intended to deter industrial action then evidence from the US public sector and the new style deals is more encouraging. A more pressing concern for the Treasury and public sector managers may, however, be the impact of FOA on arbitrated and negotiated pay settlements as well as the influence on disputes and industrial action. It is to this important issue which we now turn.

Footnotes

1. Note that in some states, Minnesota and New Jersey (Freeman 1986), there are laws which allow the parties to choose, at the time of impasse, to use either conventional or final-offer arbitration. However, the parties do not know which procedure will be used prior to or during negotiations, therefore these statutes do not permit a proper test of the relative deterrent power of FOA.

2. *Factfinding* involves a third party (other than the arbitrator) investigating the dispute and suggesting a solution, and is therefore analogous to *mediation* in the UK. To confuse matters further, *mediation* in the US is very similar to *conciliation* in the UK - a third party provides a means of communication between both sides in an effort to resolve the dispute.

3. Arbitration follows fact-finding and the arbitrator has a choice of either one of the parties' final offers or the fact-finder's recommendation, hence 'tri-offer arbitration'. In the Iowan case the arbitrator also chooses separately on each indiviudal issue between the three positions.

4. In other words 85 bargaining rounds are in plants with no dispute procedure in their collective agreement. Note that this does not necessarily mean that they did not reach impasse. There may have been ad hoc referral of disputes to third parties. Data from a survey of ACAS arbitrations for the period 1988-89 reveal that about 20% of cases occurred in plants with no provision for ACAS intervention in their collective agreement (Brown 1989).

5. However, the two measures are not quite compatible since the national figures include interventions which would not figure in our sample, for example by senior management. Also our sample covers just manufacturing plants whereas the WIRS figures include the private service sector.

6. For those plants indicating that their current dispute procedure had been introduced '**Before 1980**' or '**1980-1985**' (see questionnaire, Appendix B, question D.2) the experience with dispute procedure in each year of bargaining surveyed was calculated on the basis of **1976** and **1982** respectively. These are arbitrary points. As the variable never reached significance in any model, other specifications were not tested.

Table 3.1
Summary of usage rate results from eleven North American studies

Author(s)	Type of arbitration	Impasse rate %	Award rate %
Loewenberg (1970)	Conventional	-	35
Thompson and Cairnie (1973)	Conventional	-	27.2
Klauser (1977)	Conventional	45.1	11.8
Anderson and Kochan (1977)	Conventional	-	23.1 to 82.9
Currie and McConnell (1991)	Conventional	52	27
Stern (1974)	Final-offer	34	9
Long and Feuille (1974)	Final-offer	83.3	50.0
Holden (1976)[1]	Final-offer	143	14
Gallagher and Pegnetter (1979)	Final-offer	44.7 to 61.4	3.6 to 3.9
Dworkin (1986)	Final-offer	29 to 49	8
Lester (1989)[2]	Choice	-	10.7 to 14.7

Notes:

1. No indication of sample size.

2. Does not provide usage rate by different arbitration types because the procedure allows the parties to chose the type of arbitration only once impasse is reached and hence there can be no measure of the potential number of cases under each type.

3. '-' means impasse rate not stated.

Table 3.2
Summary of studies on dispute deterrence

Author(s)	Sample	Type of arbitration and comparison	Dependent variable(s)	Controls	Findings
Loewenberg (1970)	143 Penn. police & firef'r negns. 1968	Conventional No comparison	% arb'd settlements	None	35% arb'd
Thompson and Cairnie (1973)	B.C. teacher negns. 1938-73	Conventional No comparison	% arb'd settlements	None	Incr'ing use of arbn. in later decades 1938-46: 5.6% 1947-59: 11.1% 1960-73: 27.2%
Stern (1974)	173 Wisc. police & firef'r negns. 1973	FOA No comparison	% impasse & % arb'd No. of issues to arbn	None	34% impasse (high) 9% arb'd (low) Some evidence of redn. in no of issues
Long and Feuille (1974)	6 Eugene (Oreg.) public negns. 1971-3	FOA No comparison	% arb'd settlements	None	5 to impasse 3 arb'd
Wheeler (1975)	Cities in 24 US States with barg. law for firef'rs, no dates	Compul'ry arbn. (CA) cf f'finding (FF) cf voluntary arbn. (VA)	% impasse, % awards	None	Initiated: Awards: CA 37.3% 26.8% FF 21.5% 12.9% VA 2.1% 2.1%
Holden (1976)	143 impasses, Mass. police & firef'r negns. 1974-5	FOA No comparison	% referred to arbn. & % arb'd settlements	None	25/143 impasses ref'd to arbn., 14 awards.

Table 3.2 continued

Author(s)	Sample	Type of arbitration and comparison	Dependent variable(s)	Controls	Findings
Somers (1977)	33 Mass. police & firef'r negns. 1975-6	FOA cf previous FF law	% impasse No. of issues	None	Impasses up: from 26 to 53% Issues - mean no.: 14.7 FF, 4.8 FOA
Klauser (1977)	51 Haw. public negns. 1971-6	Conventional or right to strike after exhausting procedures & 60 day cooling off	Stages reached	None	23 imp's, 6 med'd, 1 FF, 6 refs to arbn, 6 sett'd in cool'g off period, 1 strike
Anderson and Kochan (1977)	50 Canadian fed. service barg. units, 1968-75	Conventional cf right to strike (choice of proc. pre-negns.)	% impasse & arb'd Narcotic effect 1/2 life effect	Inflation Demand for labour Unit size Occupation dummies	Trend away from neg'd settmnts, 82.9% t, 23.1% t+3. Strg. evidence of chill. & narc. effects
Wheeler (1978)	140 US cities, firef'r negns. 1972	Conventional cf FF	Movement in negns. Gap at impasse	None	Mgt. moves more under FF than arb. Gap: less FF cf arb.
Kochan and Jick (1978)	130 NY State med'n cases, 1972-6 (Interviews)	Mediation under FF cf under arbn.	Effectiveness of mediation	Med'r experience, quality, strategy. Dispute intensity Ability to pay	Mediation less effective under arbn than FF
Kochan and Baderschneider (1978)	NY State, 121 police & 130 firef'r negns. 1972-76 (Interviews)	Conventional cf previous FF law	% impasses Repeated use	City population Cost of living Negotiator charac's	Arbn. sig. +ve assoc with impasses Evid. of narc. effect

Table 3.2 continued

Author(s)	Sample	Type of arbitration and comparison	Dependent variable(s)	Controls	Findings
Gallagher and Pegnetter (1979)	338 Iowa public negns. 1975-77 2 rounds, R1 & R2	Tri-offer, issue by issue FOA No comparison	% impasse & % arb'd Movement in negns. Narcotic	None	Impasse: R1=61.4%, R2=44.7% Arb'd: R1=3.6%, R2=3.9% Movement: FF aids convergence, little mvmnt FF to FOA Narcotic: no re-use of FOA
Ponak and Wheeler (1980)	c. 3000 negns. from Can. fed. serv., B.C., Minn. & Wisc. 1967-79	Choice of procedure before negns., arbn. or right to strike	% impasse	None	Higher impasse rate under arbn. route than right to strike route
Anderson (1981b) update of Anderson and Kochan (1977)	8 rounds of barg'g in Can. fed. serv.	Choice of procedure	% impasse Narcotic effect	None	Continued decline in neg'd settmnts, strg evid. of narc. effect
Delaney and Feuille (1984)	343 police arbn awards in 16 US States 1975-82	FOA by package cf FOA by issue cf conventional	No. of issues arb'd	None	Fewer issues under FOA by package cf both the others
Hoh (1984)	421-826 Iowa barg. units 1976-83	Tri-offer arbn., interested in role of mediation	Stage of settlement	None	% impasses sett'd at med'n: 72-89%, higher than Wisc, Mich. & NY

Table 3.2 continued

Author(s)	Sample	Type of arbitration and comparison	Dependent variable(s)	Controls	Findings
Dworkin (1986)	US baseball player negns. 1974-85	FOA No comparison	% impasse & % arb'd Compromising activity	None	Inr'g impasse rate: 29% 1974-85, 49% 1980-5, c 8% arb'd Comp. act. down
Lester (1989)	40 NJ practitioners interviewed re. experience 1978-87	Compulsory arbn., parties chose type at impasse	% impasse Type of arbn chosen	None	Impasse rate: declining over period Choices: FOA by package most popular
Currie (1989)	35 B.C. barg. units 1947-81	Conventional No comparison	% impasse Testing theories of impasse	Previous impasses Relative wages Year dummies Employment Inflation	Strongest effect is narcotic (state dependence), no other theory fits evidence
Currie and McConnell (1991)	3985 Can. public negns. 1964-87, 427 barg. units, avg. 9 contracts each	Range of procs., incl.: compulsory arbn, right to strike, duty to bargain, no bargaining rights	Dispute rates (% arb'd + % strike)	Region dummies Occupation dummies City dummies Previous disputes Year dummies	Overall: dispute rates lowest under right to strike, higher under arbn. than no barg. rights

Table 3.3
Summary of experimental studies on dispute deterrence

Author(s)	Experiment sample	Comparisons	Depdendent variable(s)	Findings
Subbarao (1978)	88 students, collective bargaining (CB) game, 2 issues, 30 minutes	FOA by package cf FOA by issue cf conventionala arbitration	Proximity of final bids Concessions made	Final bids: closer FOA by package cf FOA by issue & conventional Concessions: no sig result
Notz and Starke (1978)	180 students, CB game, 1 issue, 15 minutes	FOA cf conventional cf no arbitration	Expectations of outcome Gap between final bids	Exps: lower FOA cf conv Avg. gap final bids: FOA=5.73, Conv=13.4
DeNisi and Dworkin (1981)	90 students, CB game, 3 issues, 45 minutes	FOA with naive (FOA1) & 'experienced' negotiators (FOA2)	Initial & final positions Concessions made No. of issues unsettled	Initial & final posns. closer FOA2 cf FOA1 Concessions: Sig. more FOA2 cf FOA1 Unresolved issues: no sig. result
Magenau (1983)	120 students, CB game, 1 issues, 2x10 minutes	Conventional cf FOA1 (can change bid post impasse) cf FOA2 (last barg. bid) cf strike threat	% impasse Gap between final bids Narcotic effect	Impasse: no sig. result except all arb > strike Gap: closer FOA1 cf conventional but not cf FOA2 Narcotic: sig. drop in % impasses t1-t2 under FOA1
Neale and Bazerman (1983)	240 students, CB game, 5 issues, 20 minutes	FOA cf conventional under high or low PTA (Perspective Taking Ability)	% impasse Movement in negotiations No. of unresolved issues	FOA leads to more % settlments, more issues resolved & movement than conventional, PTA levels affect outcomes

Table 3.3 continued

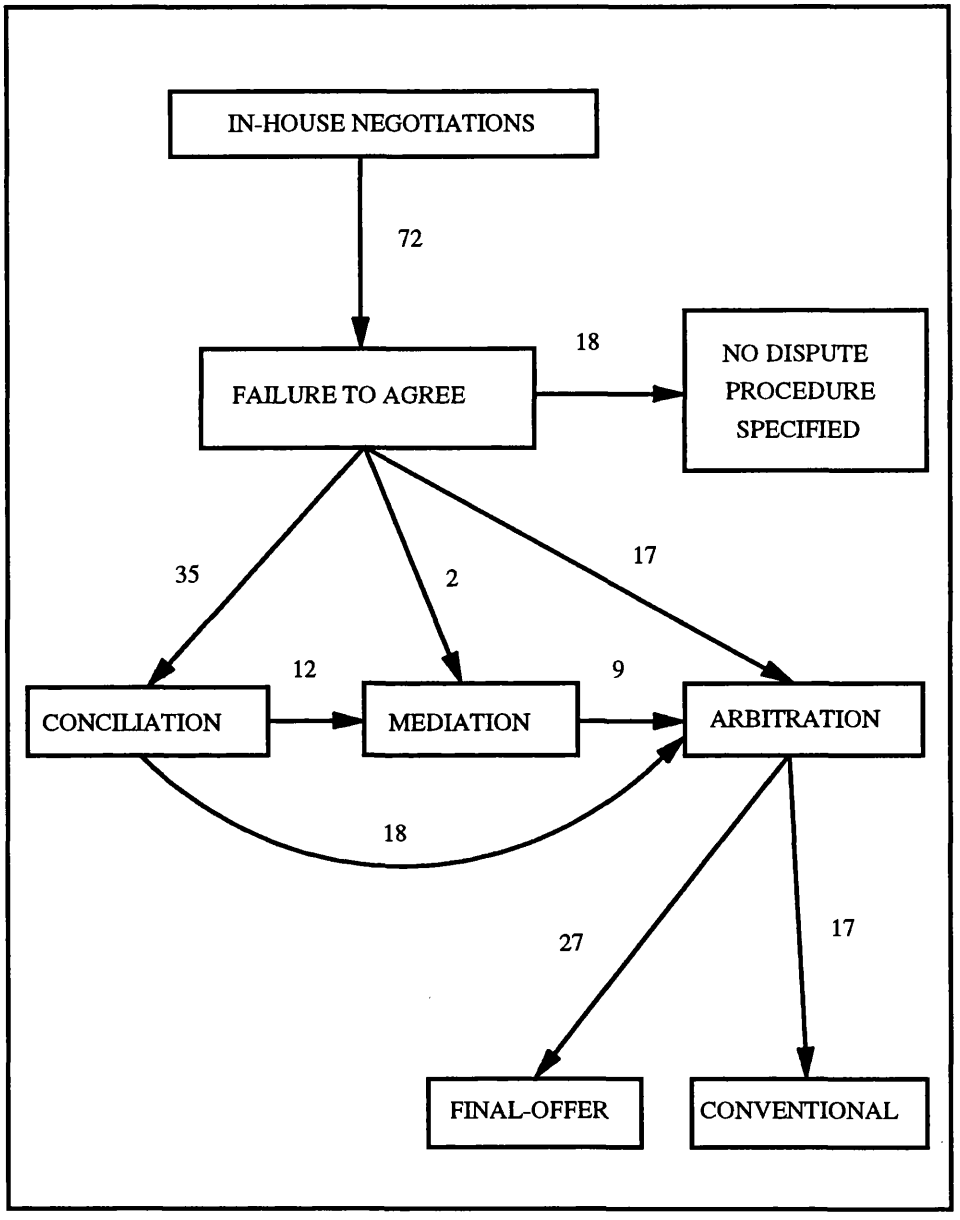
Author(s)	Experiment sample	Comparisons	Depdendent variable(s)	Findings
Farber, Neal and Bazerman (1990)	114 students, CB game, 1 issue, 3x15 minutes	Conventional, 3 levels of arb costs, 3 levels of risk aversion	% impasse	Higher arb costs sig assoc with settlement rates Risk aversion only weakly related to sett't rates
Babcock et al (1991)	Exp 1: 160 students, legal case game, 1 issue, 30 min Exp 2: 76 students, legal case game, 1 issue, 6x5 minutes	Exp 1: different levels of bias Exp 2: roles known cf not known	% settlement	Exp 1: Strong evid. of bias even with identical info. Pairs with largest combined bias less likely to settle. Exp 2: If pairs know roles & had bias less likely to settle than if did not know roles when assessing fair settlement pre negns.
Ashenfelter et al (1992)	141 student barg. pairs, CB game, 1 issue, 20x5.5 mins, no treatment R1-10, treatment R11-20.	No arb cf FOA cf tri-offer FOA cf conventional with 3 levels of variance in prev. arb'r behaviour; High (HV), medium (MV), low (LV)	% dispute rate (DR)	All prs sig. lower DR R1-10 cf R11-20. LV conv. sig. higher DR cf HV. DR under FOA significantly higher than HV conventional. N.B. Pair heterogneity significant (bargaining history)

Table 3.4
Configurations of impasse procedures

	BASE MECHANISM				
	Final-offer arbitration	Conventional arbitration	Mediation	Conciliation	TOTAL
Alone	13	4	2	5	24
With conciliation only	11	7	3	-	21
With both mediation and conciliation	3	6	-	-	9
TOTAL	27	17	5	5	54

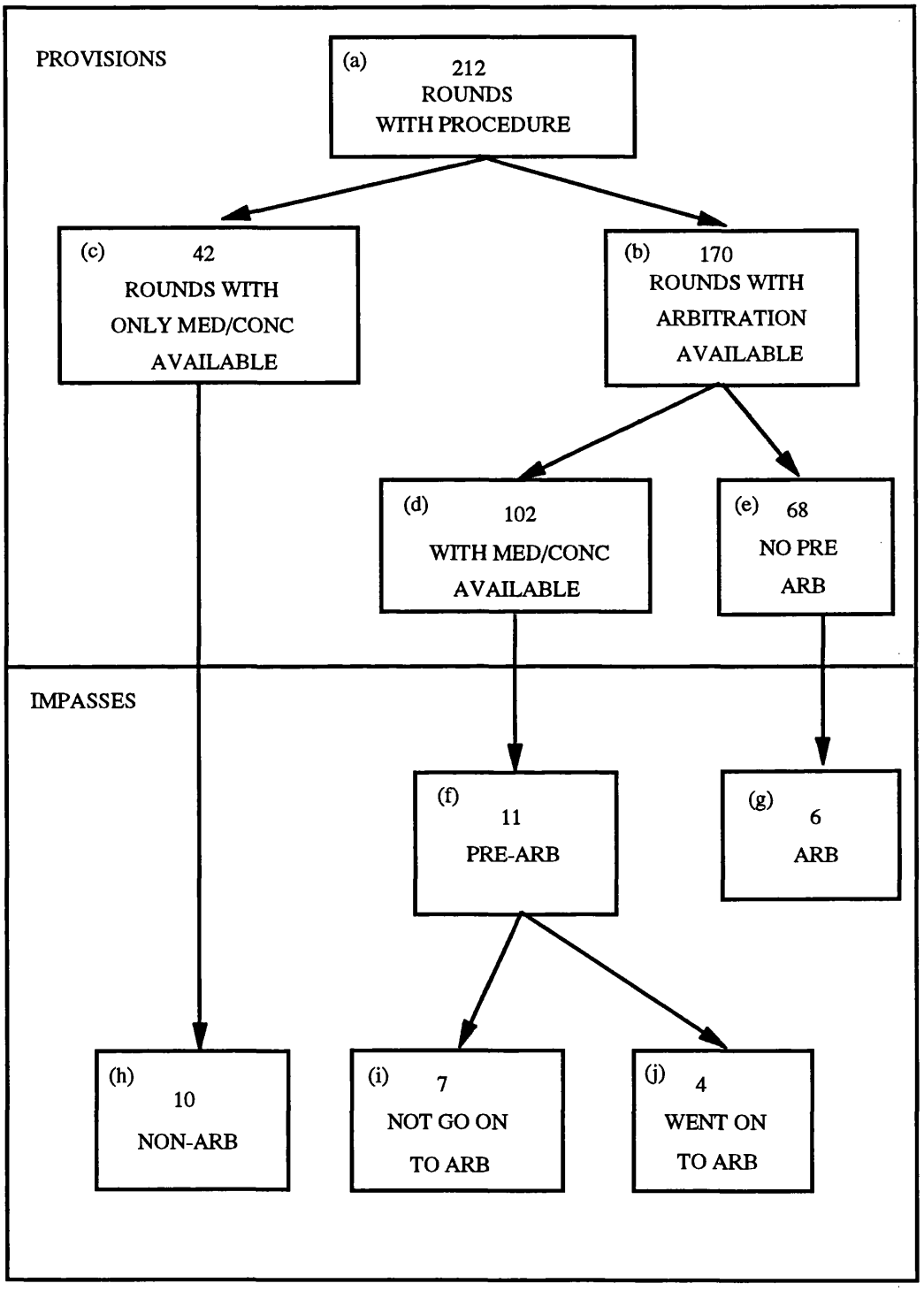
Source: LSE New Style Industrial Relations Survey (see chapter 1).

Figure 3.1
Dispute procedures in 72 new style agreements



Source: LSE New Style Deals Survey 1991

Figure 3.2
Impasses per bargaining round



Source: LSE New Style Deals Survey 1991

Table 3.5
Model A: The overall impasse rate

	EQUATIONS					
	(I)	(II)	(III)	(IV)	(V)	(VI)
1. DISPUTE PROCEDURE						
FOA available	-0.211	-0.004	-0.179	0.156	0.083	0.125
t	(0.396)	(0.006)	(0.330)	(0.216)	(0.014)	(0.197)
Conciliation available	-ve *	0	-ve *	0	0	0
Mediation available	+ve *	+ve **	+ve *	0	+ve **	+ve **
2. RISK AVERSION						
Plant established pre 1980	+ve*	-	+ve **	+ve **	0	0
Number of years with	-	0	-	-	-	-
UK owned plant	0	0	0	0	+ve *	+ve *
Multi-unionism	+ve **	+ve **	+ve **	0	+ve *	+ve *
3. DIFFERING BELIEFS						
Year dummies 1987	-	-	0	-	-	0
1988	-	-	0	-	-	0
1989	-	-	0	-	-	0
1990	-	-	0	-	-	0
4. PRINCIPAL-AGENT						
Part of larger enterprise	-	-	-	0	-	0
Real pay settlement at t-1	-	-	-	0	-	-
5. COSTS OF DISPUTES						
Plant size dummies						
100-249 employees	-	-	-	-	-ve **	-ve **
250-499 employees	-	-	-	-	0	0
500+ employees	-	-	-	-	0	0
CONSTANT	-ve ***	-ve ***	-ve ***	0	-ve **	0
Impasse rate	0.127	0.127	0.127	0.134	0.127	0.127
Sample size	212	212	212	127	212	212
Pseudo R^2	0.167	0.155	0.187	0.139	0.199	0.222
Chi-squared	27.0	25.1	30.3	13.9	32.2	35.9
Degrees of freedom	6	6	10	8	9	14

Significant at *** 1%, ** 5%, * 10%.

Notes to Table 3.5:

i. Dependent variable: Any failure to agree, Yes (1) No (0).
ii. Sample: All 212 rounds with impasse procedure.
iii. Default variables:
Year dummies = 1986
Size dummies = 25-99 employees
iv. Equation IV has only 127 cases because for 85 observations the previous round's settlement is not recorded.
v. '0' indicates that variable was included in equation but was not significant.
vi. '-' indicates that variable was not included in equation.

Table 3.6
Model B: The overall impasse rate in the arbitration available rounds

	EQUATIONS					
	(I)	(II)	(III)	(IV)	(V)	(VI)
1. DISPUTE PROCEDURE						
FOA available	-0.004	0.056	0.063	1.099	-1.101	0.460
t	(0.005)	(0.078)	(0.086)	(0.766)	(0.127)	(0.493)
Conciliation available	0	0	0	0	0	0
Mediation available	0	0	0	0	0	+ve *
2. RISK AVERSION						
Plant established pre 1980	0	-	0	0	0	0
Number of years with	-	0	-	-	-	-
UK owned plant	0	0	0	0	0	0
Multi-unionism	+ve **	+ve **	+ve **	-	+ve **	+ve **
3. DIFFERING BELIEFS						
Year dummies 1987	-	-	0	-	-	0
1988	-	-	0	-	-	0
1989	-	-	0	-	-	0
1990	-	-	0	-	-	0
4. PRINCIPAL-AGENT						
Part of larger enterprise	-	-	-	0	-	0
Real pay settlement at t-1	-	-	-	0	-	-
5. COSTS OF DISPUTES						
Plant size dummies						
100-249 employees	-	-	-	-	0	0
250-499 employees	-	-	-	-	0	0
500+ employees	-	-	-	-	0	0
CONSTANT	-ve ***	-ve ***	-ve ***	0	0	0
Impasse rate	0.100	0.100	0.100	0.105	0.100	0.100
Sample size	170	170	170	95	170	170
Pseudo R^2	0.149	0.132	0.173	0.131	0.193	0.242
Chi-squared	16.5	15.0	19.1	8.4	21.3	26.8
Degrees of freedom	6	6	10	7	9	14

Significant at *** 1%, ** 5%, * 10%.

Notes to Table 3.6:

i. Dependent variable: Any failure to agree, Yes (1) No (0).
ii. Sample: All 170 rounds with arbitration available.
iii. Default variables:
Year dummies = 1986
Size dummies = 25-99 employees
iv. Equation IV has only 95 cases because for 75 observations the previous round's settlement is not recorded.
v. '0' indicates that variable was included in equation but was not significant.
vi. '-' indicates that variable was not included in equation.

Table 3.7
Model C: The arbitration rate in the arbitration available rounds

	EQUATIONS				
	(I)	(II)	(III)	(IV)	(V)
1. DISPUTE PROCEDURE					
FOA available	0.999	1.487	1.070	0.869	0.919
t	(0.005)	(0.078)	(0.858)	(0.629)	(1.395)
Conciliation available	0	0	-ve **	-ve **	-ve **
Mediation available	0	0	0	0	0
2. RISK AVERSION					
Plant established pre 1980	0	-	0	0	0
Number of years with	-	0	-	-	-
UK owned plant	0	0	0	0	0
Multi-unionism	+ve **	+ve **	+ve **	+ve **	-ve **
3. DIFFERING BELIEFS					
Year dummies 1987	-	-	0	-	-
1988	-	-	0	-	0
1990	-	-	0	-	0
5. COSTS OF DISPUTES					
Plant size dummies					
250-499 employees	-	-	-	0	0
500+ employees	-	-	-	0	0
CONSTANT	-ve ***	-ve ***	-ve ***	-ve ***	-ve ***
Impasse rate	0.059	0.059	0.059	0.059	0.059
Sample size	170	170	170	170	170
Pseudo R^2	0.260	0.271	0.299	0.275	0.303
Chi-squared (d.f.)	19.8	20.4	22.7	20.9	23.1
Degrees of freedom	6	6	9	8	10
Significant at *** 1%, ** 5%, * 10%.					

Notes to Table 3.7:

i. Dependent variable: Use of arbitration, Yes (1) No (0).
ii. Sample: All 170 rounds with arbitration available.
iii. Default variables:
Year dummies = 1986 and 1989
Size dummies = 25-249 employees
iv. '0' indicates that variable was included in equation but was not significant.
v. '-' indicates that variable was not included in equation.

Table 3.8
Model D: The overall impasse rate in the rounds with conciliation and/or mediation available

	EQUATIONS					
	(I)	(II)	(III)	(IV)	(V)	(VI)
1. DISPUTE PROCEDURE						
FOA available	-1.750	-1.170	-1.871	-2.364	-1.844	-1.919
t	(1.875)*	(1.281)	(1.936)*	(1.658)*	(1.710)*	(1.704)*
Mediation available	0	+ve **	0	0	+ve **	+ve *
2. RISK AVERSION						
Plant established pre 1980	+ve **	-	+ve **	+ve *	0	0
Number of years with	-	0	-	-	-	-
UK owned plant	+ve **	+ve *	+ve **	0	+ve ***	+ve ***
Multi-unionism	+ve **	+ve **	+ve **	+ve **	+ve **	+ve **
3. DIFFERING BELIEFS						
Year dummies 1987	-	-	0	-	-	0
1988	-	-	0	-	-	0
1989	-	-	0	-	-	0
1990	-	-	0	-	-	0
4. PRINCIPAL-AGENT						
Part of larger enterprise	-	-	-	0	-	0
Real pay settlement at t-1	-	-	-	0	-	-
5. COSTS OF DISPUTES						
Plant size dummies						
100-249 employees	-	-	-	-	-ve **	-ve **
250-499 employees	-	-	-	-	0	0
500+ employees	-	-	-	-	0	0
CONSTANT	-ve ***	-ve ***	-ve ***	-ve **	0	0
Impasse rate	0.149	0.149	0.149	0.160	0.149	0.149
Sample size	144	144	144	83	144	144
Pseudo R^2	0.222	0.195	0.248	0.226	0.323	0.349
Chi-squared	26.6	23.4	29.7	16.3	38.7	41.7
Degrees of freedom	5	5	9	7	8	13

Significant at *** 1%, ** 5%, * 10%.

Notes to Table 3.8:

i. Dependent variable: Any failure to agree, Yes (1) No (0).
ii. Sample: All 144 rounds with conciliation and/or mediation available.
iii. Default variables:
Year dummies = 1986
Size dummies = 25-99 employees
iv. Equation IV has only 83 cases because for 61 observations the previous round's settlement is not recorded.
v. '0' indicates that variable was included in equation but was not significant.
vi. '-' indicates that variable was not included in equation.

Table 3.9
Model E: The non-arbitration impasse rate in the rounds with conciliation and/or mediation available

	EQUATIONS					
	(I)	(II)	(III)	(IV)	(V)	(VI)
1. DISPUTE PROCEDURE						
FOA available	-1.768	-1.195	-1.916	-2.395	-2.194	-2.252
t	(1.917)*	(1.322)	(1.988)*	(1.802)*	(1.883)*	(1.855)*
Mediation available	0	+ve *	0	0	0	0
2. RISK AVERSION						
Plant established pre 1980	+ve **	-	+ve **	+ve *	0	0
Number of years with	-	0	-	-	-	-
UK owned plant	+ve **	+ve *	+ve **	0	+ve ***	+ve ***
Multi-unionism	0	0	0	0	0	0
3. DIFFERING BELIEFS						
Year dummies 1987	-	-	0	-	-	0
1988	-	-	0	-	-	0
1989	-	-	0	-	-	0
1990	-	-	0	-	-	0
4. PRINCIPAL-AGENT						
Part of larger enterprise	-	-	-	0	-	0
Real pay settlement at t-1	-	-	-	0	-	-
5. COSTS OF DISPUTES						
Plant size dummies						
100-249 employees	-	-	-	-	-ve ***	-ve **
250-499 employees	-	-	-	-	0	0
500+ employees	-	-	-	-	0	0
CONSTANT	-ve ***	-ve ***	-ve ***	-ve **	0	0
Impasse rate	0.121	0.121	0.121	0.140	0.121	0.121
Sample size	140	140	140	91	140	140
Pseudo R^2	0.157	0.129	0.188	0.169	0.311	0.346
Chi-squared	16.2	13.3	19.5	10.9	32.2	35.8
Degrees of freedom	5	5	9	7	8	13

Significant at *** 1%, ** 5%, * 10%.

Notes to Table 3.9:

i. Dependent variable: Use of conciliation and/or mediation, Yes (1) No (0).
ii. Sample: All 140 rounds with conciliation and/or mediation available where arbitration was not used.
iii. Default variables:
Year dummies = 1986
Size dummies = 25-99 employees
iv. Equation IV has only 81 cases because for 59 observations the previous round's settlement is not recorded.
v. '0' indicates that variable was included in equation but was not significant.
vi. '-' indicates that variable was not included in equation.

Table 3.10
Impasse rate in the rounds with conciliation and/or mediation available using different arbitration variables

	EQUATIONS					
	All arbitration		Conventional		Final-offer	
	(I)	(II)	(III)	(IV)	(V)	(VI)
1. DISPUTE PROCEDURE						
Arbitration coefficient	-1.249	-1.292	0.008	0.298	-1.844	-2.194
t	(1.543)	(1.504)	(0.009)	(0.323)	(1.710)*	(1.883)*
Mediation available	+ve **	+ve *	+ve **	+ve *	+ve **	0
2. RISK AVERSION						
Plant established pre 1980	0	0	0	0	0	0
UK owned plant	+ve **	+ve **	+ve **	+ve **	+ve ***	+ve ***
Multi-unionism	+ve **	0	+ve *	0	0	0
5. COSTS OF DISPUTES						
Plant size dummies						
100-249 employees	-ve **	-ve **	-ve **	-ve **	-ve **	-ve ***
250-499 employees	0	0	0	0	0	0
500+ employees	0	0	0	0	0	0
CONSTANT	0	0	-ve **	-ve **	0	0
Impasse rate	0.149	0.121	0.149	0.121	0.149	0.121
Sample size	144	140	144	140	144	140
Pseudo R^2	0.315	0.291	0.295	0.269	0.323	0.311
Chi-squared	37.7	30.1	35.3	27.9	38.7	32.2
Degrees of freedom	8	8	8	8	8	13
Significant at *** 1%, ** 5%, * 10%.						

Notes to Table 3.10:

i. Dependent variables:
   Columns I, III and V - Any failure to agree, Yes (1) No (0).
   Columns II, IV and VI - Use of conciliation and/or mediation, Yes (1) No (0).

ii. Samples:
   Columns I, III and V - All 144 rounds with conciliation and/or mediation available.
   Columns II, IV and VI - All 140 rounds with conciliation and/or mediation available where arbitration was not used.

iii. Default variables:
   Year dummies = 1986
   Size dummies = 25-99 employees

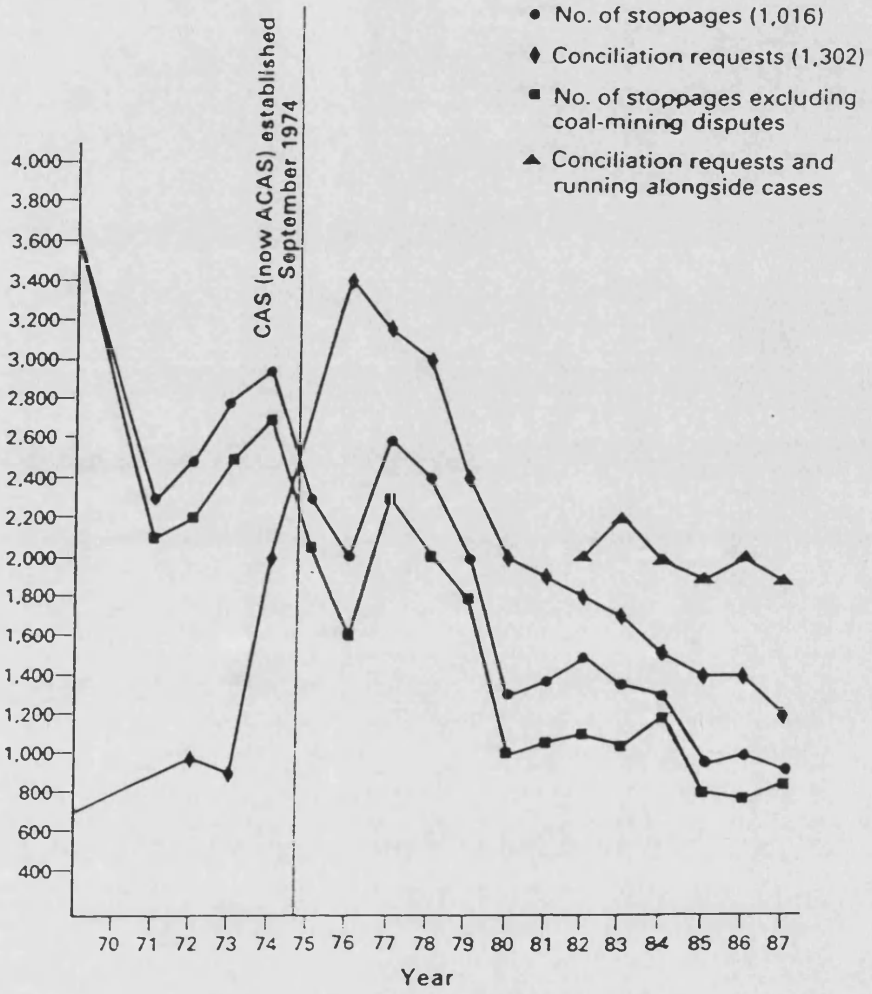
iv. '0' indicates that variable was included in equation but was not significant.

v. '-' indicates that variable was not included in equation.

Table 3.11
Summary of North American studies on strikes and arbitration

Author(s)	Sample	Arbitration measure and comparisons	Dependent variable	Controls	Findings
Icnhiowski (1982)	Police negns. in 206 US cities 1972-73 862 US cities 1972-78	Compulsory arbn. cf duty to bargain cf bargaining permitted cf no barg. law	Strike	City charac'tics Police salaries Government, region & year dummies	Arbn. laws sig. -ve assoc. Strike probs: Arb=.0025, Duty to barg=.027, barg. perm=.0089, no law=0.37.
Olson (1986)	1. 575 city police & firef'r negns in 6 states, 1973-76 2. Aggregate state level police & firef'r strikes in 6 states 1958-80	Compulsory arbn. cf no arbn.	Strike	1. City charac'tics Union membership 2. State dummies No. of public strikes in other 44 states Macroeconomic vars.	1. Police: -ve assoc. but just n.s. Firef'rs: sig -ve assoc. Strike prob: arbn=.0012 cf no arbn=.0506 2. Passage of arbn statute leads to c.1.5 less strikes (no mean of dep var provided)
Currie and McConnell (1991)	3985 Can. public negns. 1964-86, 427 barg. units, avg 9 contracts each	Compulsory arbn cf right to strike, duty to bargain, no bargaining rights	Strike	Region, occupation, city and year dummies. Previous disputes	Strike prob. c.5% lower under arbn cf right to strike & c.1% lower cf no bargaining rights

Figure 3.3
Work stoppages and conciliation requests 1970-87



Source: ACAS (1991: Table 8.1, p105)

Chapter 4

Dispute procedures and pay outcomes

1. Introduction

The impact of compulsory interest arbitration on pay has emerged as to be of primary interest in the 1980s, almost to surpass the issue of dispute deterrence. This interest has been partly stoked by the failure to be able to properly test the dispute deterrence effect of FOA compared to conventional procedures in the US as detailed in chapter 3. However, it is also one example of the increased interest in industrial relations in measuring the impact of certain labour market institutions on substantive outcomes. Measuring the union mark-up on pay and the effect of national bargaining structure on the unemployment/inflation trade-off are other prime examples. Whether or not FOA deters its own use more effectively than conventional arbitration is important if the direct and/or indirect costs of disputes are significant but policy makers may be more interested in the impact that alternative procedures have on pay settlements, both those arbitrated and those negotiated under the threat of arbitration.

Until a seminal article by Farber and Katz (1979), there were two 'popular theories' about arbitration and settlements (not distinguishing the type of arbitration):

> ". The *use* of arbitration results in excessive wage increases.
>
> . The *availability* or threat of arbitration has an upward influence on negotiated pay settlements." (Somers 1977: 200, author's emphasis)

Gunderson (1983) cites four reasons why many people claimed that arbitrated settlements exhibit an upward bias: arbitrators are not ultimately responsible to the voting public, who must pay the bill; competitive pressures and the need to recruit, ensure a floor for the settlement and may lead employers to pay above it; arbitrators tend to ignore market forces that might otherwise contain wage increases and; the comparability techniques and surveys that arbitrators use often have an upward bias. The effect of availability on negotiated settlements was a suggested spillover from the upward bias of arbitrated settlements over negotiated ones. It was argued that an employer would settle for a higher negotiated settlement under arbitration availability than non-availability in order to avoid an arbitrator imposing an even higher award.

There were a few empirical studies in the 1970s which attempted to test these popular theories. All three examined the difference between arbitrated and negotiated settlements (Loewenberg 1970, Thompson and Cairnie 1973 and Somers 1977) and one also addressed the issue of settlements and arbitration availability (Somers 1977). However, all these studies were non-rigorous, in that they did not control for other influences on pay settlements. Therefore any conclusions which they drew on the impact of arbitration on settlements should be treated with a great deal of caution. Consequently, at the end of the 1970s although these rather under developed popular theories may still have held some credence, there was no reliable evidence to support or reject them.

The popular theories were subject to more formalised (i.e. econometric) analysis by Farber and Katz (1979) on conventional arbitration and Farber (1980) on FOA. The resultant theory of bargaining under the threat of arbitration has been the benchmark for most subsequent North American theoretical and empirical work in the 1980s and 1990s. This theory and some of the criticisms levelled at it are explained in section 2 alongside the relevant empirical evidence from the US and Canada. The debate's main concepts and features are outlined in a non-mathematical format.

Section 3 includes an assessment of the relevance of some of the issues in the North American debates to the UK private sector and an analysis of data from the UK postal survey of new style deal plants to examine the pertinent issues. Note that some of the nuances in the North American debate are either irrelevant to the UK because of contextual differences or require very detailed data on bargaining and arbitration awards from a long time period to be properly tested, data which are simply not available for the UK. Finally, some consideration of the possible implications of the debate and findings for the UK public sector, with particular reference to Pay Review Bodies, is set out in section 4.

2. North American theory and evidence

a. Introduction

There are a range of potential comparisons that can be made between pay outcomes under different dispute procedure conditions. Possible permutations include comparisons between negotiated and arbitrated settlements under each separate dispute

procedure, comparisons of negotiated or arbitrated settlements under different procedures and of negotiated settlements between the availability of each different procedure and a no procedure environment. So for instance negotiated settlements under FOA could be compared to arbitrated settlements under FOA, negotiated settlements under conventional procedures and negotiated settlements under no dispute procedure. However, no bargaining model could predict comparative expected outcomes under each possible scenario and it is not clear that every possible comparison is particularly relevant or interesting.

To date theoreticians have concentrated on two main areas. First, comparing negotiated and arbitrated settlements under FOA and under conventional arbitration respectively. The second area of interest, and possibly of more concern to policy makers, is the comparison of negotiated settlements under arbitration availability compared to non-availability, again usually assessing the two main types of arbitration independently. These two areas are inevitably linked but are probably best treated separately since most of the empirical work has concentrated on one of the two issues.

Note that as for the bulk of the North American work on dispute deterrence, the context of theoretical and empirical work is quite different from that in the UK. These differences mean that whilst the main issue at the heart of each debate is usually just as relevant to the UK as North America, the peripheral issues (some of which have been afforded more attention in empirical studies than the core questions) are of little significance to the UK. Important contextual differences include the publication of arbitration decisions in North America such that arbitrator behaviour is recorded and known by other parties contemplating arbitration (and therefore selection of an arbitrator) whereas in the UK arbitration decisions are private. There is a burgeoning debate in the US and Canada about how arbitrators should behave in order to encourage future selection[1] as a consequence of the public nature of arbitration hearings and awards, which has little bearing on debates about arbitration in the UK. Therefore whilst acknowledging and commentating on some of the wider debates around the core issues, the emphasis within this section is to determine which of the main tests concerning arbitration and settlements are of interest to a study of the UK experience with FOA.

b. Negotiated and arbitrated settlements under conventional and final-offer arbitration

Without doubt the most influential work on the first of these areas is that of Farber (1980) on FOA and on conventional arbitration with Katz (1979). Providing the first mathematical consideration of the impact of arbitration on pay settlements they radically changed the whole tenor of this debate. Consequently their analysis deserves detailed consideration, even though it has been criticised subsequently and there are also some doubts about its applicability to the UK.

Farber and Katz make certain assumptions in building their model which have been criticised for either being untested or unrealistic. The assumptions include: the arbitrator has a predetermined view of a fair award (their preferred award) in each case determined by the 'facts' of the case; the parties do not know this preferred award and neither their actions during negotiations nor their final positions affect the arbitrator's preferences; the parties have some belief about the arbitrator's preferred award but are also uncertain about it and; the parties have a normal distribution of beliefs regarding this preferred award. In other words the parties are trying to second guess the arbitrator. Union and management beliefs about what an arbitrator considers an appropriate award are described by normal distributions centred on W^u and W^m for union and management respectively. The variances of these distributions describe each side's uncertainty about the arbitrator's preferred award. Settlement outcomes then depend on the level of uncertainty and the relative risk preferences of the parties.

Farber and Katz argue that a risk-averse party will concede to a wage beyond the expected arbitration award (W^{uc} and W^{mc}) to avoid the possibility of an unfavourable award from the arbitrator (see Figure 4.1a). The utility of these outcomes equals the expected utility of the uncertain arbitration award. If the parties' expectations about what an arbitrator will award converges to a common distribution [f(W*)], a positive contract zone defined by W^{uc} and W^{mc} is created, providing risk-aversion dominates (see Figure 4.1b).

This contract zone widens as the risk aversion of each side grows, if the parties are uncertain about what an arbitrator will do. More risk-averse parties will be willing to avoid arbitration more as the variance in f(W*) increases. Thus, uncertainty about the arbitrator's decision and risk aversion provide an incentive for the parties to reach their own agreement with the most risk-averse party conceding more to avoid arbitration.

This theory generates a number of predictions: if parties are equally risk-averse the mean of their final offers if they fail to settle should equal the expected award E(W^*) (Farber 1981); arbitrated and negotiated settlements will be closely correlated because negotiated settlements will shadow arbitrated settlements rather than vice versa; as uncertainty increases, negotiated settlements will be biased against the more risk-averse party.

This analysis is extended by Farber (1980) to bargaining under FOA where he shows that the contract zone and the offers the parties make under FOA continue to be guided by risk aversion and uncertainty about what an arbitrator will do. He develops three key results. First, the more risk-averse party will submit a more reasonable final offer. Therefore disparities in win-loss rates under FOA may just reflect that one side is submitting more reasonable final offers than the other. This has been confirmed by empirical study (Ashenfelter and Bloom 1983). Second, the final offers which the parties present to an arbitrator will be outside the contract zone, or more extreme than the parties would be willing to accept to avoid arbitration. Third, the advantage of FOA over conventional arbitration is clouded. Although under FOA, the parties can influence the final award and therefore reduce the risk of an unfavourable one by presenting reasonable offers, an option not available under conventional arbitration, the incentive to bargain in both models still depends on uncertainty and risk-aversity. Therefore under Farber and Katz's analysis it is not clear that FOA should be any better at deterring disputes than conventional arbitration.

One element of the Farber and Katz model which is rarely highlighted is the comparison of expected negotiated settlements under FOA and conventional arbitration. A principal conclusion of these analyses is that both conventional arbitration and FOA generate negotiated settlements that favour the less risk-averse bargainer, but that in FOA this bias is likely to be more severe than in conventional arbitration (Crawford 1981). This prediction of the theory has received no empirical attention in the US or Canada since proper comparisons would be extremely difficult because there are no within jurisdiction variations in arbitration provision (Olson 1993). However, this particular comparison is of interest in the UK where such variation does exist and most settlements are negotiated rather than arbitrated (see chapter 3).

Most of the criticisms of Farber and Katz are concerned with the assumptions of their model rather than any failure to predict real world outcomes. Whilst this in part because an economic model must not be judged solely on its predictive capabilities, it is also a consequence of the considerable difficulty of properly testing their theory's predictions on the correct sort of data. Problems include the fact that the levels of uncertainty and risk-aversity cannot be measured and that arbitrator's preferences are only revealed if an unrestricted conventional arbitration award is made so the positioning behaviour of the parties cannot be properly assessed (see Olson 1988). Hence there has been considerably more interest in criticising and testing the assumptions of Farber and Katz's model. Primary among these critiques concerns the assumption that an arbitrator has a predetermined preferred award such that parties' final offers have no influence on his or her award. There has been an increasing amount of both theoretical and empirical work on testing the credibility of this assumption.

Bloom and Cavanagh (1987) neatly summarise the key issue as whether arbitrators are viewed as individuals who either impose on negotiators their exogenously determined preferences or seek to learn about disputants' preferences from the relationship between the 'facts' and their final positions in search of an award which maximises the disputants' welfare. Bloom and Cavanagh argue that Farber and Katz's assumption of the former is too restrictive and that in fact it is more likely that some mixture of exogenous factors and final positions determine an arbitrator's award.

This issue has taken up a disproportionate amount of the debate on dispute procedures and settlement outcomes. Olson (1993) provides a thorough, up to date review of the debate and discusses some of the relevant studies in the area (Ashenfelter 1987, Bazerman and Farber 1985, Farber 1981, Gibbons 1988, Olson and Jarley 1991, Schwochau and Feuille 1988, Subbarao 1988). However, in an earlier review of the literature Olson states that:

> "The empirical work that has been done tests an *assumption* of the [Farber and Katz] models ... While it is important that this assumption is tested, other predictions about labour and management behaviour implied by the models have been largely ignored." (Olson 1988: 176).

It seems that this issue has achieved a level of false importance since it has little or no implication for assessing the impact of arbitration on pay settlements. Debate has concentrated on the process of internal decision making by disputants and arbitrators, rather than on the outcomes of their negotiations or decisions. The issue is even less significant in the UK where the relatively low use of dispute procedures means that examining the decision criteria of arbitrators could only be a side show to the main issue of the impact of dispute procedures on pay outcomes.

Crawford (1981, 1982) has suggested a number of other criticisms of the Farber and Katz model, however again it is not clear that all are directly relevant to the question of dispute procedures and pay in the UK. He stresses that there is no theoretical justification for the assumption that the size of the contract zone is positively related to the probability of reaching a negotiated settlement. Without the assumption of positive correlation, Crawford (1981) argues that many of the model's results concerning dependence on impasse procedures vanish. Crawford also contests that Farber and Katz's assumption that the parties are uncertain about the arbitrator's preferences may not be realistic, especially if the negotiating parties are relatively experienced. When the uncertainty assumption is dropped then negotiated and arbitrated settlements should be identical. However, Crawford has no real world justification for his certainty assumption. In an industrial relations setting it seems more reasonable to imagine that just as an arbitrator will consider both the facts of a case and the parties final positions, the parties will have different degrees of uncertainty about the arbitrator's decision should they fail to achieve a settlement through collective bargaining.

The US debate on negotiated and arbitrated settlements under different forms of arbitration has rather stifled on this issue of which econometric model has the most realistic assumptions. Empiricists have increasingly turned to the laboratory to try to test some of these assumptions. There seems to be a consensus that arbitrators do consider both the facts of a case and the parties' final offers when making an award. There is also general agreement that arbitrated and negotiated settlements under both FOA and conventional arbitration are not significantly different (see Table 4.1 for a summary of the few North American studies which have examined this issue) but there is an ongoing debate about why this is so (Gibbons 1988, Olson and Rau 1991).

However, there has been no proper testing of the more central issue of whether negotiated settlements under FOA are more biased against the most risk-averse bargainer than those under conventional arbitration.

b. Negotiated settlements and arbitration availability

Whether or not the provision of arbitration as the final stage of settlement for pay disputes affects negotiated settlements is of paramount importance to policy makers in both North America, the UK and elsewhere. Research on this question has been overwhelmingly empirical since the theory is quite straightforward. Most of the empirical studies summarised in Table 4.2 do not even bother to discuss the theoretical justification for an arbitration availability mark-up which they are testing for. An exception is Olson (1980) who provides a succinct summary of the reasoning behind that employees covered by an arbitration statute will enjoy an arbitration mark-up over similar but non covered employees.

Essentially impasse procedures are viewed as institutional arrangements which affect the relative bargaining power of the parties. A party's bargaining power is defined as the cost of agreeing to an opponent's desired contract terms relative to the cost of disagreeing with those terms. In the US public sector, the expected costs of disagreeing depend on the cost and probability of an illegal (in most jurisdictions) strike and the extent to which by threatening to use the dispute procedure one party can either impose its demands and/or force the other side to modify their position. The prospect of legal sanctions in the event of an illegal strike shifts the union resistance curve to the left and therefore reduces wages relative to what they would be if strikes were legal. However, where strike penalties are supplemented with impasse procedures to resolve disputes, wages will increase if the threat of using the procedure causes employers to make additional concessions.

The effect of a given impasse procedure on the relative bargaining power of the parties depends on the extent to which that procedure increases the costs of disagreeing for each party. Since arbitration is binding rather than merely advisory, an employer will make greater concessions in order to avoid arbitration than he/she would to avoid a non-binding form of third-party intervention. Note that an essential component of this theory is that strikes are illegal. Therefore the arbitration availability pay mark-up

involves comparisons with a range of collective bargaining environments from no bargaining rights, to bargaining permitted, to duty to bargain, to non-binding impasse procedure provisions, all under the umbrella of no legal right to strike. This condition does not quite hold true for all US jurisdictions or for Canada where some public sector workers do have the legal right to strike. However, the main assumption of the theory is no such right and this condition represents a crucially important difference between the US and UK which needs to be considered before applying the theory to UK private sector bargaining. These are drawn out at the beginning of section 3, after a discussion of the relevant North American studies in this area.

There are two important empirical issues concerning the availability mark-up. First, to control for the fact that stronger unions, those with relatively more bargaining power anyway and therefore more likely to be able to extract higher pay, are also more able to lobby legislatures to enact impasse procedure and arbitration statutes. Second, to determine the size of the mark-up across a range of jurisdictions. There has been no direct comparison of the differential impact of FOA and conventional arbitration availability. Some studies are based on data from both FOA and conventional arbitration jurisdictions but these are lumped together as a single 'arbitration' condition. There are also some studies just on FOA and some just on conventional arbitration.

Nine studies of varying quality are summarised in Table 4.2. Most of the studies use pay levels as the dependent variable. The actual measures used include minimum, average and/or maximum points for one or more of annual, monthly, weekly or hourly pay. Somers (1977) uses the median percentage increase on pay for different groups of workers for his rather superficial study of the impact of FOA. Unfortunately his is the only study to examine the impact of FOA specifically. Kochan and Wheeler (1975) construct a bargaining outcomes index of which average salary is but one element. Therefore although the sign of their result (strongly positive association with arbitration availability) is consistent with findings from other studies, the scale of the effect (at around 35%) cannot be directly compared.

Most of the studies are mindful of the problem of simultaneity, that arbitration usually goes hand in hand with a strong union/workforce therefore the latter needs to be controlled for before the affect of arbitration availability can be isolated. Typically

models include controls for some or all of the following: characteristics of the city such as political make-up, population size and density, per capita income, the local unemployment rate and average private sector wages; regional dummies; time dummies; bargaining maturity and human capital dummies.

The overall picture provided by the range of studies is remarkably consistent across jurisdictions. Pay outcomes appear to range from highest to lowest by bargaining laws in the following ranking: compulsory arbitration or right to strike; duty to bargain; bargaining permitted; and no right to bargain. This is exactly what bargaining power theories predict. There is only one exception to this general pattern. Freeman and Valletta (1988) using average monthly salary data from over 11,000 US local government departments with at least duty to bargain laws found that arbitration availability was associated with significantly lower salaries than both the duty to bargain only and especially the right to strike. Currie and McConnell (1991) suggest that this seemingly aberrant result could be related to the fact that so few public sector workers have the right to strike in the US. Evidence from the Canadian public sector (Currie and McConnell 1991) where a greater proportion of contracts allow a right to strike (or an option to give up the right to arbitration in exchange for the right to strike) suggests that if anything arbitration availability provides a higher mark-up than the right to strike.

As might be expected the size of the arbitration/right to strike mark-up on pay outcomes varies across studies dependent on different specifications (dependent variable used, control variables, nuances in the legal technicalities). For the US studies (apart from Freeman and Valletta) the arbitration mark-up over a no right to bargain situation appears to be in the range 8-10%, and compared to bargaining rights only laws of about 1-5%. Currie and McConnell's study finds much lower mark-ups from Canadian data of 2.4-4.1% for arbitration compared to duty to bargain or no bargaining rights and 1-2% for arbitration compared to provision of a right to strike.

3. Theory and UK evidence

Some of the North American theory and evidence on arbitration and pay outcomes is either unapplicable to the UK because of the different legal and institutional contexts or is inappropriate because of the considerably lower incidence of

arbitration provisions in the UK. The relevant theory needs to be pared down to some basic predictions which can be tested using pay settlements data from the new style deals postal survey.

a. Two predictions

Two relatively simple predictions were tested on the UK data. First that in plants with dispute procedures, the use of procedures does not result in significantly different outturns than negotiated settlements. This is to test for any possible bias in the use of different dispute procedures. Essentially the use of dispute procedures should not result in particularly different settlements because the threat effect of arbitration (and to a lesser extent conciliation and/or mediation) will also influence negotiated settlements.

The second prediction is generated by an adaptation of US theory and evidence on pay outcomes under arbitration availability and the differential effects of FOA and conventional arbitration. Farber and Katz predict that FOA particular skews negotiated settlements against the more risk-averse party compared to settlements under conventional arbitration. Further, US and Canadian evidence suggests that provision of the right to strike results in roughly similar (or slightly lower) negotiated settlements for public sector workers compared to compulsory conventional arbitration. Although none of the agreements in our new style deals sample legally prohibit industrial action (Lewis 1990), there is some logic in arguing that for those with dispute procedures, and especially arbitration, the threat of industrial action is more remote. Assuming unions are more risk-averse than employers[2], this might suggest a ranking of negotiated settlements from highest to lowest of conventional arbitration availability, non-arbitration procedures availability, no procedures and final-offer arbitration. Note though that there are some qualifications to this rather simplistic analysis which are discussed alongside the results.

b. The data

The data on pay outcomes is in the form of pay settlements in order to make direct comparisons with results from the CBI Pay Databank. The data were collected by means of 4 banded responses to the question 'What was the approximate % pay settlement for the largest bargaining group in the following years?' for each of the five

years (1986-1990) covered (see Appendix B, question E.1). As not all plants supplied (or were able to supply) the full five years data, pay settlements were recorded for 258 bargaining rounds for the whole sample. Banding of questions was an expediency designed to maximise the potential response rate but this does mean that the pay variable is less precise than if it had been collected as the actual percentage increase.

In terms of the overall distribution of settlements over the period, there is movement from lower to higher band settlements from 1987 to 1990 (Figure 4.2). For 1986 to 1988 the second pay band (5.0-7.9%) is the modal group, but for 1989 and 1990 it is the third band (8.0-9.9%). The modal group is consistent with the mean national settlement in manufacturing, reported by Ingram (1991: Table 3) using CBI Pay Databank data, in the respective year for 1986-1988 and above it for 1989 and 1990. Ingram presents the distribution of manufacturing settlements for 1988-9 and this is contrasted with the distribution of the sample settlements for the same period in Table 4.3.

The distribution of settlements in the new style deals sample is skewed away from the lowest band and towards the upper bands compared to the national distribution. This suggests that the new style deals have either enabled higher pay settlements than the average or have occurred in plants or industries with a propensity to pay higher than average settlements.

The nominal settlements recorded were converted into estimated real pay settlements by taking reasonable points within the response bands and deflating by the Retail Price Index. The estimation procedure is detailed in the notes to the figures and tables[3]. The distribution of estimated real pay settlements in all 258 bargaining rounds (with range -4.7% to 8.2%) is shown in Figure 4.3.

c. The results

The predictions outlined above are tested by means of regression analysis and the results are provided in Tables 4.4 to 4.6. Table 4.4 examines the impact of dispute procedure usage on settlements, Table 4.5 analyses settlements negotiated in plants with no pay disputes procedure against those negotiated under the different procedural alternatives and Table 4.6 examines negotiated settlements within plants with dispute procedures available.

Control variables are workforce characteristics (separate dummies for majority male, majority manual and workplaces with over 249 employees), workplace characteristics (dummies for Japanese ownership, plant vintage, subsidiary or independent status and whether or not the EETPU has sole recognition at the plant) and regional, industry and year dummies.

Three individual examples of dispute procedure usage are examined in Table 4.4 to test the proposition that arbitrated (or quasi arbitrated) settlements should not be significantly different from negotiated ones. First, concerning all 176 settlements under any form of dispute procedure there is no evidence that the 25 settlements which involved the use of procedures are significantly different from negotiated settlements. This general picture holds for each of the individual procedural alternatives. Arbitrated settlements under FOA are not significantly different from those negotiated under FOA, although interestingly the result on FOA usage provides the only positive usage coefficient. In regressions restricted to conventional (i.e. non-FOA) procedures as a whole and conventional arbitration alone (not reported) the coefficients on usage are negative but not significant.

Therefore these data on pay settlements in new style deal plants are consistent with Farber and Katz's contention that negotiated and arbitrated settlements even under FOA should look very similar. However, the cell sizes are probably too small to argue that the data provide strong support for Farber and Katz. Unfortunately it is not possible to discern what if any mechanism is at work, or rather to determine whether arbitrated are following negotiated settlements or vice versa.

Turning to the issue of dispute procedure availability and negotiated settlements, it does appear that the ranking of settlement outcomes broadly fits the prediction outlined above. Table 4.5 provides comparisons of different procedures against a no procedure environment. When considered independently of one another all procedures have a positive but insignificant coefficient (the first three columns), though the FOA coefficient is closest to zero. When included in the same model, however, although the coefficients remain non-significant, the signs on the coefficients fit the predicted ranking. Settlements negotiated under conventional arbitration or non-arbitration procedures are higher and settlements under FOA are lower than the default category of no procedure. The null hypothesis cannot be rejected for any of the

procedures on this test, but there at least is a suggestion that the prediction may be valid.

Table 4.6 tests what might be termed the opposite ends of this ranking. It compares negotiated settlements under FOA with those under other procedures, conventional arbitration only and non-arbitration provisions respectively. On the larger sample of 149 settlements (of which 77 are from FOA rounds), the coefficient is negative and significant. The following two tables confirm that this result is driven by the contrast between negotiated settlements under FOA and under conventional arbitration, since the coefficient on FOA remains significant when compared just to conventional arbitration. On average real wage settlements under FOA are 0.7 percentage points lower than under conventional arbitration. This result is consistent with one prediction of Farber and Katz, that negotiated settlements under FOA are skewed more against the most risk-averse party than under conventional arbitration.

Various caveats must be entered as qualifications of this rather straightforward conclusion. First, there is some question mark over the risk preferences explanation for this result. Crawford (1981) argues that a considerable problem with Farber and Katz's theory is that they treat risk aversity as a factor independent of bargaining power, whereas he argues that in fact risk preferences are one component of bargaining power. Therefore negotiated settlements are always skewed against the most risk averse bargainer irrespective of the procedural environment. This critique is especially pertinent when applied to the UK because of the problem of endogeneity of dispute procedure incidence. It may well be that in some workplaces weaker unions agree to FOA and also negotiate lower pay settlements, whereas unions able to extract higher pay settlements are also more likely to be associated with conventional arbitration agreements. Therefore the results on FOA compared to conventional arbitration may be a union bargaining power effect which is not controlled for by the other independent variables.

A second caveat concerns implications for a longer run analysis of dispute procedures and pay outcomes. If settlements under FOA continued to be between 0.5-1 percentage points below those under conventional arbitration over a number of bargaining rounds then the disparities between workplaces would become unsustainable. FOA might even sow the seeds of its own destruction, especially in our

voluntary system, since union leaders would want to abandon, or at least not sign new FOA agreements. One possible way to rationalise this result pertains to the fact that most North American studies concern pay levels whereas this analysis uses pay changes as the dependent variable. Perhaps, the results indicate an ongoing widening in differentials between FOA and conventional arbitration plants which may eventually stabilize. Unfortunately this proposition cannot be tested with the available data since it contains no information on pay levels. Evidence consistent with this analysis would indicate that the impact of FOA on pay settlements relative to conventional arbitration becomes progressively non-significant over time.

Possibly the most important caveat arises from the fact that, without exception, all the managers of FOA plants interviewed in the case studies argued that having FOA had no impact on the level of pay settlements. There were two different explanations for this view: both sides know that management will block the use of arbitration for pay disputes (in cases of joint reference to arbitration) and therefore the threat of FOA is nullified[4]; and other factors within the plant or firm are more important determinants of pay settlements. Even though some interviewees stated that the threat of arbitration was always in the back of their minds when negotiating, they also argued that this did not affect compromising activity and therefore the final settlement. The issue was developed further in the interviews by explaining the empirical findings from the survey and the rationale based on risk aversity to gauge managers' opinions.

In one case the interviewee did concede after a leading question that FOA may make parties more 'reasonable and rational' in negotiations which was the nearest statement consistent with the economic hypothesis. The more common response was that other factors were still more important than FOA, including the general style of management promoting partnership rather than conflict and single status provisions for manual and non-manual employees in the collective agreement[5].

Two of the interviewees offered more practical explanations: FOA plants may be paying the equivalent of higher pay settlements through remuneration outside the remit of the (usually annual) pay review, such as performance bonuses; or alternatively the result may be a consequence of the poor level of pay in the consumer electronics industry relative to the rest of manufacturing. The latter explanation seems unlikely to

hold, however, because industry dummies were included as was a dummy for the male/female ratio in the workplace (one explanation for, or consequence of, the low pay levels and settlements in consumer electronics is the high proportion of women workers). Moreover FOA plants are not disproportionately associated with consumer electronics within the sample anyway. Forty per cent of FOA plants manufacture consumer electronics compared to 44 per cent of the non-FOA plants. The former explanation on payments above annual settlements cannot be substantiated with the survey data but there is no obvious reason why FOA plants in particular should be paying more in such bonuses. Nevertheless the fact that most managers did not concord with the evidence on pay settlements suggests that is should be treated with caution.

Finally on pay settlements note that in Tables 4.4 to 4.6 that only the sign and significance of the control variable coefficients are reported rather than the actual coefficients and standard errors themselves. This is partly to emphasise the results on dispute procedures but also to make clear that this is not intended to be a generally applicable real wage equation. For the record, pay settlements were significantly lower (in at least one regression) in plants established before 1980, in plants not owned by a Japanese parent company, where the workplace is part of a larger organisation, in 1986, 1989 and 1990, in Yorkshire and Humberside, the south east and south west.

4. Concluding remarks

Real wage results from the UK data seem to be consistent with one strand of Farber and Katz's now somewhat maligned theory about arbitration and pay settlements - the association between different procedural environments and negotiated settlements. The results are also consistent with the proposition that negotiated and arbitrated settlements will not be significantly different from one another. However, the size of the sample and therefore cell sizes in some of the regressions mean that the results should be treated with a degree of scepticism. Further data on pay levels rather than just changes in different procedural environments, possibly using the Workplace Industrial Relations Survey, would be particularly interesting to illuminate this evidence.

Of special interest is the impact of different bargaining institutions on outcomes in the public sector because the problem of the endogeneity of dispute procedure incidence is somewhat lessened compared to the private sector, since dispute procedures are more likely to be legislated by the government than voluntarily agreed to by the parties. One disadvantage of examining the public sector, however, is that as in the US and Canada there is likely to be little or no variation in dispute procedure provision within jurisdictions or departments.

An interesting postscript concerns public sector Pay Review Bodies (PRBs) set up in the 1980s (see Beaumont 1991 for details). PRBs recommend changes in pay as a result of a process which involves submissions from employees, management and the government. Whilst there are some important definitional problems one stylised way of thinking about PRBs is that they represent the provision of compulsory arbitration in place of collective bargaining with little or no ability to strike. This analysis certainly seems to be true for nurses and could be stretched to include teachers even though they have actually taken industrial action on some occasions in the last two decades. The theory of and evidence on arbitration availability suggests that employees covered by right to arbitration statutes enjoy a pay mark-up over those in right to bargain and no right (or ability) to strike environments. Although the evidence has not been fully analysed there is some suggestion that workers covered by PRBs have done better in pay settlements than their non-covered public sector colleagues in the 1980s (Bailey 1989). If this suggestion was confirmed in a more thorough and up to date investigation, it would be consistent with what arbitration theory predicts and with the body of North American evidence on the issue.

Footnotes

1. On issues of arbitration selection and interchangeability see Ashenfelter and Bloom (1984) Ashenfelter, Dow and Gallagher (1986), Bloom and Cavanagh (1986, 1987), Currie (1991), Farber and Bazerman (1986), Olson and Jarley (1991), Treble (1985).

2. There is some evidence from the US that unions are in general more risk-averse than public sector managers (Ashenfelter and Bloom 1983). In the period of study (1986-1990) it seems reasonably safe to argue that following defeat of the Miners' Strike in 1985, continuing anti-collective labour laws, the re-election of a Conservative government in 1987 and continuing high level of unemployment, inter alia, we would expect unions to be more risk-averse than employers.

3. Note that alternative within range points were also used to estimate real settlements which were used as dependent variables in repeated versions of the pay equations. Different specifications of the estimated real settlements did not significantly affect the main regression results.

4. This was a rather unexpected explanation which effectively means that a great deal of the theory of arbitration and outcomes is rendered meaningless since any element of threat through compulsion is removed.

5. A dummy variable scoring single status arrangements was found to be highly non-significant in wage equations, so this suggestion is not supported statistically. Unfortunately it is not possible to test for the effect of managerial style on pay outcomes.

Tables and Figures

Notes

I. Estimation of mean national settlements in Fig 4.2

1. 1986-1988: For 1986, the mean annual settlement was calculated by adding one quarter of the 1985-86 figure, to three-quarters of the 1986-87 figure from Column 1, Table 3 in Ingram (1991). The same process was used to calculate the 1987 and 1988 figures.

2. 1989 and 1990: The mean difference (2.04 percentage points) between the earnings index and the settlement index for 1986-1988, was subtracted from the respective earnings index for 1989 and 1990 to arrive at the estimated settlement index in those years. This gap between earnings and settlements may not in fact have remained constant over the cycle, but rather could have declined in 1989 and 1990 because overtime and bonus payments are cut back as the economy slows down. So the actual mean national settlements may have been higher than the estimated figures given.

II. Estimation procedure for real pay settlements reported in Figure 4.3 and used as dependent variable in Tables 4.4 - 4.6

1. The real pay settlement figures were calculated on the basis of a crude distribution of nominal pay settlement points within the pay bands:

Estimation of real pay settlements

Example of calculation for 1986

Pay Band %	Point used %	RPI %	Deflated Pay Settlement %
0-4.9	3	5.5	-2.5
5-7.9	6.5	5.5	1
8-9.9	9	5.5	3.5
10+	11.5	5.5	6

This is far from an ideal calculation of real pay settlements because the pay settlements within each pay band are not necessarily distributed evenly around the selected points, and moreover the distribution is likely to vary between the years.

Figure 4.1
Arbitration availability and settlement outcomes

Figure 4.1 (a)
Farber and Katz's model where the parties have differing beliefs about the award

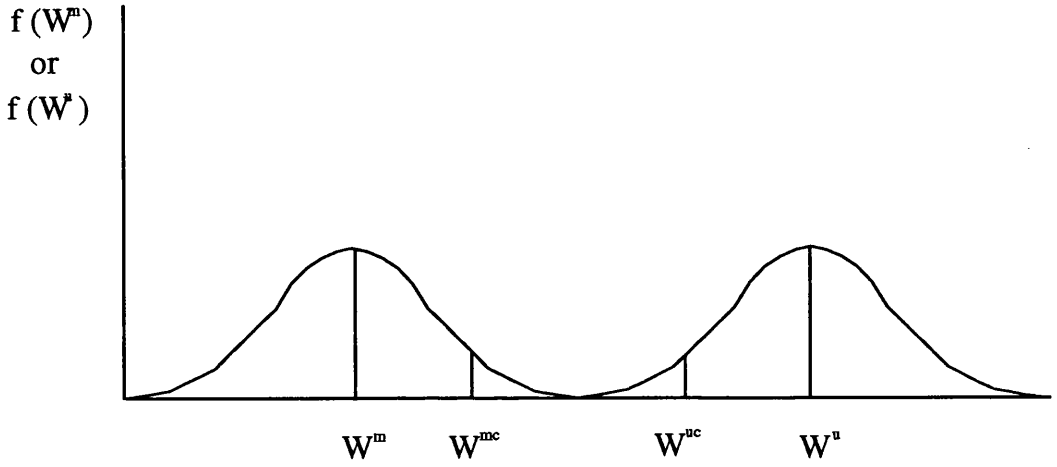
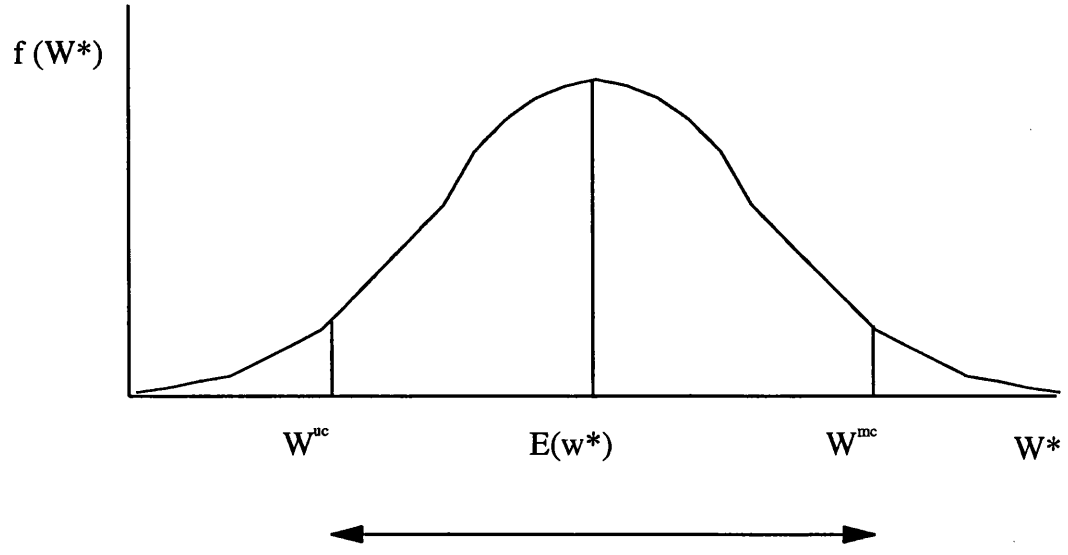


Figure 4.1 (b)
Farber and Katz's model where the parties have identical beliefs about the award



Positive Contract Zone

Source: Olson (1988).

Table 4.1
Studies of pay outcomes and arbitration usage

Author(s)	Sample	Arbitration type	Dependent variable(s)	Controls	Findings
Loewenberg (1970)	143 Penn. police & firef'r negs, 1968	Conventional	Salary levels & changes	None	Levels: lowest for arb'd awards. Settlements: higher arb'd cf. neg'd
Thompson and Cairnie (1973)	74-84 B.C. school boards 1969-1973	Conventional	% settlement	None	No sig. difference arb'd cf. neg'd
Somers (1977)	33 Mass. police and firef'r negns. 1975-76	FOA	% settlement	None	Arb'd awards on avg. 2% higher than neg'd.
Anderson (1979)	49 Can. federal service barg. units 1968-75	Conventional	Salary levels & changes	Macroeconomic factors Barg. unit charac'ics	Levels: sig. -ve arb'd cf. neg'd Changes: no sig. diff.
Delaney (1983)	All Iowa's school boards' negns. 1978-81	Tri-offer FOA	Salary levels & changes	Workforce charac'ics School board charac'ics	No sig. difference arb'd cf. neg'd
Dworkin (1986)	Baseball negns. 1974-85, sample not specified	FOA	% settlement	None	Higher settmts. arb'd cf. neg'd
Feuille and Delaney (1986)	900 cities' police negns. 1971-81	Conventional & FOA **but no differentiation**	Min. & max. salary	City characteristics Region dummies	No sig. difference arb'd cf. non arb'd
Neelin (1987)	75 school boards in British Columbia 1961-1981.	Conventional	Maximum real wage of teachers in any of 6 grades	School characteristics Macroeconomic factors	Arbitration dummy not significant in real wage equation.

Table 4.2

Studies of pay outcomes and arbitration availability

Author(s)	Sample	Arbitration type & comparison	Dependent variable(s)	Controls	Findings
Kochan and Wheeler (1975)	121 US cities' firef'r negns. 1972	Compulsory arbn. cf. factfinding cf. no impasse proc. law	Bargaining outcomes index including wages. Scale: 0-119	City political charac'ics Bargaining maturity	Barg. outcomes c.35% higher under arbn. & factfinding than no law
Somers (1977)	33 Mass. police and firef'r negns. 1975-76	FOA cf. bargaining rights but no right to strike	% median settlement	None	Neg'd settmnts under FOA avg. 1% point higher than other gps
Olson (1980)	72 US cities, firef'r negns. 1972-77	Any arbn. cf. no duty to bargain cf. mediation cf. factfinding	Salary and hourly pay levels	City charac'ics Region dummies Time dummies	Sig. +ve assoc. between arbn. & pay. Avg. c. 4% higher
Delaney (1983)	700 US public school teachers, national sample, 1979	Any arbn. cf. no arbn.	Weekly salary and hourly pay levels	Human capital dummies Occupation dummies Union membership	Weekly pay 9% higher Hourly pay 10% higher
Feuille and Delaney (1986)	900 US cities' police depts 1971-81	Conventional & FOA **but no differentiation**, cf. no right to bargain	Min. & max. salary	City charac'ics Region dummies	On avg. salaries c. 8% higher when arbn. is available
Neelin (1987)	3 provinces' teacher avg. hourly earnings 1972-82. BC (arbn.) cf. Ont. & Alb. (no arbn.)	Conventional cf. no arbitration	Mean hourly wage Ratio of top teacher salaries to pvte sector wages	None	Ratio of teachers' wages to pvte sector generally lower in BC than in Ont. or Alb.

Table 4.2 continued

Author(s)	Sample	Arbitration type & comparison	Dependent variable(s)	Controls	Findings
Freeman and Valletta (1988)	11,396 US local govt. dpts'. with duty to bargain laws 1977-1980	Any arbn. cf. right to strike cf. only right to bargain	Average monthly salary	City charac'ics Region dummies Department dummies Year dummies	Arbn. avail. coeff. sig. -ve especially cf. right to strike
Ichniowski, Freeman and Lauer (1989)	200 police depts. 1965 800 police depts. 1978	Any arbn. cf. duty to bargain cf. bargaining permitted cf. no bargaining law	Min., max. & avg. salaries	City charac'ics State charac'ics	Arbn. avail. increases salaries by c. 5% cf. duty to bargain, c. 10% cf. no bargaining law
Currie and McConnell (1991)	3985 Canadian govt. contracts, 1964-1987	Arbn. cf. right to strike cf. duty to bargain cf. choice of procedure cf. no bargaining rights	Average real wage over life of contract	Lagged real wage Barg'ing unit size Provincial unempl. Year, occupation & city dummies	Arbn. law increases wages by c. 1-2% over right to strike, & 2.4-4.1% over duty to bargain & no law

Table 4.3
Comparison of national manufacturing and sample pay settlements, 1988-9

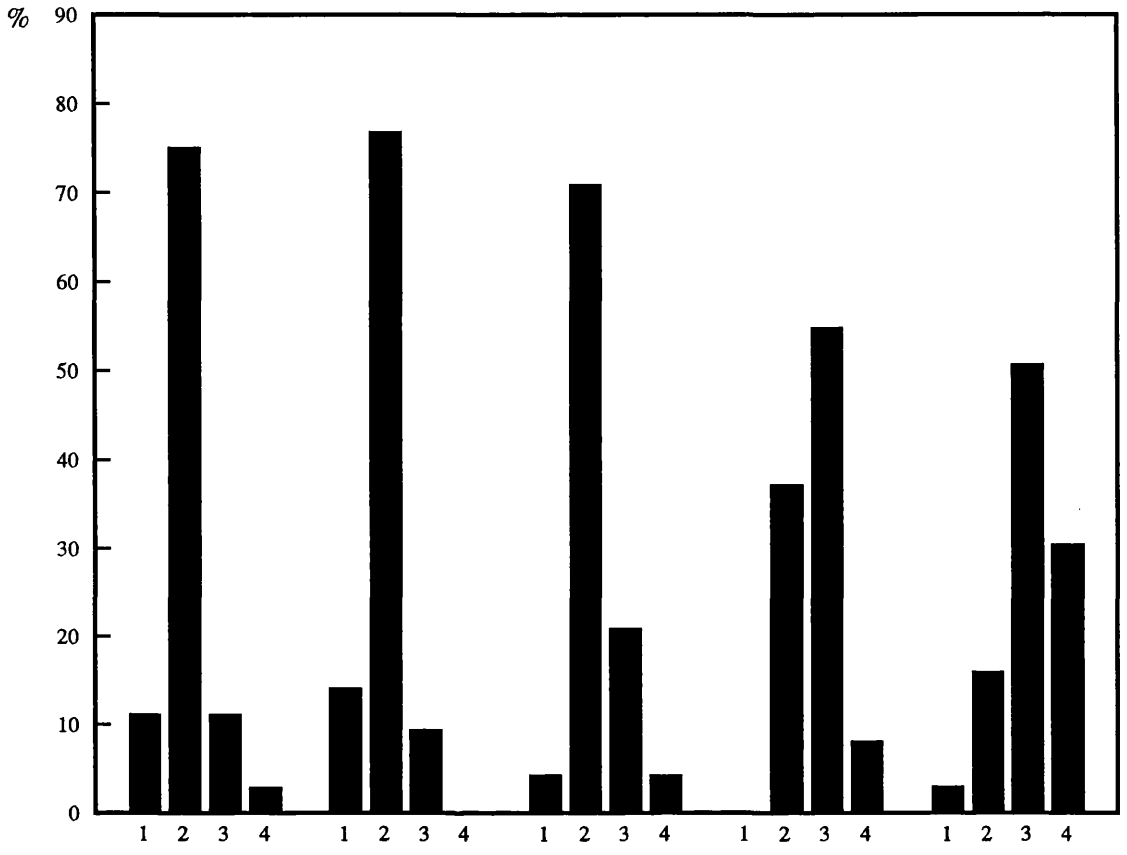
Settlement range %	National settlements[1] %	Sample settlements[2] %
0-4.9	13.5	3.2
5-7.9	63.4	62.4
8-9.9	17.9	29.3
10+	5.3	5.2

Notes:

1. Estimated from Ingram (1991), Figure 2.

2. Estimated as 75% of 1988 figure plus 25% of 1989 figure.

Figure 4.2
Annual pay settlements in the sample



Notes and sources:

Pay bands: 1 = 0.0-4.9%
2 = 5.0-7.9%
3 = 8.0-9.9%
4 = 10.0+%

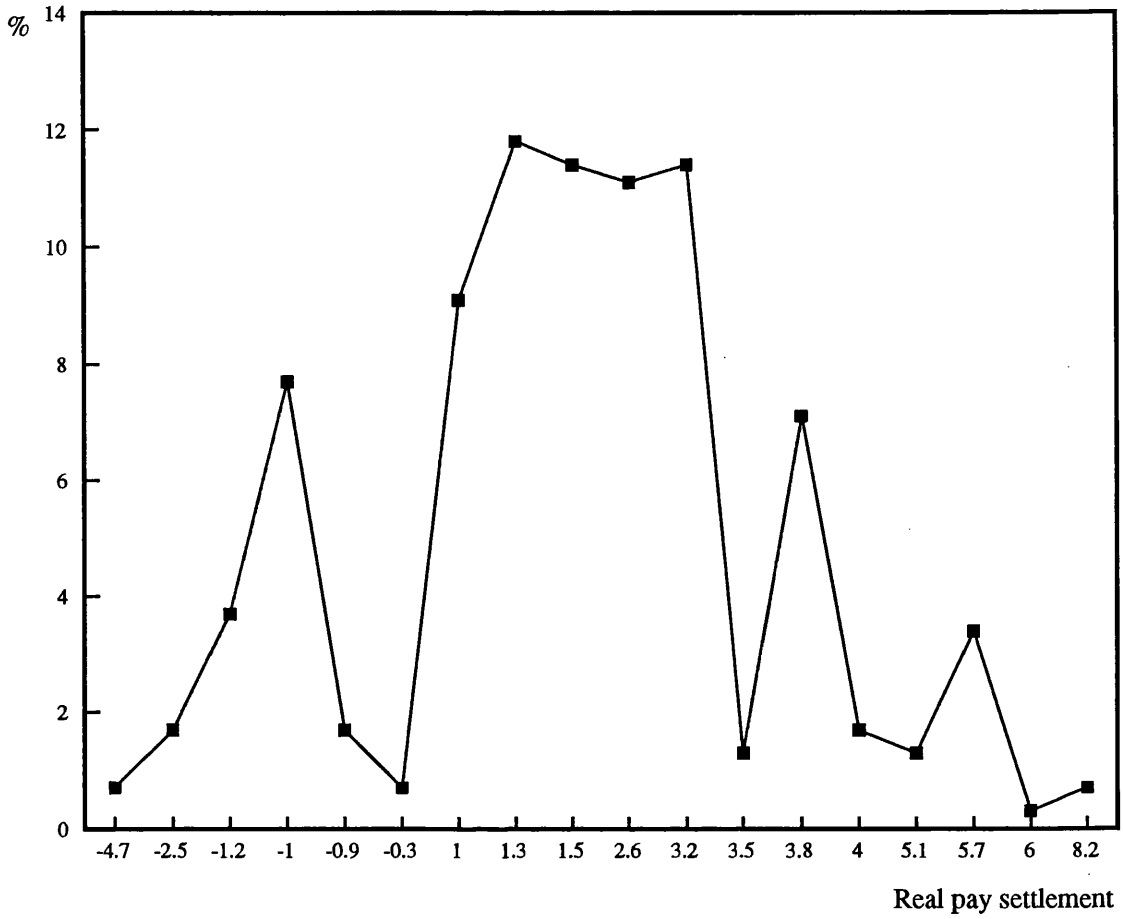
Comparatives

Year	RPI	Mean national settlements:
1986	5.5%	5.34%
1987	3.9%	5.8%
1988	3.3%	7.05%
1989	7.5%	7.06%*
1990	7.7%	7.66%*

* Estimated: see Note I.

Sources: LSE New Style Deals Survey 1991
Economic Trends, Annual Supplement 1991.
Ingram (1991): Table 3.

Figure 4.3
Distribution of estimated real pay settlements



Note: See note II for specification of estimation procedure

Table 4.4
Disputes procedure usage and pay settlements

	All procedures	Final-offer arbitration only	Conventional procedures only
Number of bargaining rounds (observations)	176	92	86
Mean real wage increase (% p.a.)	1.76	1.56	1.98
S.D.	2.08	2.12	2.11
Use of dispute procedure			
Fraction using procedure	0.14	0.13	0.15
Coefficient	-0.264	0.089	-0.886
S.E.	(0.412)	(0.565)	(0.583)
Control variables			
Manual: 50%+	0	0	-ve *
Male: 50%+	0	0	0
Plant established pre 1980	-ve *	-ve **	0
Japanese owned	+ve ***	0	+ve ***
Size: 250+ employees	0	0	0
Subsidiary of larger organisation	-ve **	-ve ***	-
EETPU recognized	-ve **	0	0
Year dummies: 1987	+ve ***	+ve **	+ve ***
1988	+ve ***	+ve ***	+ve ***
Region dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Constant	+ve ***	+ve ***	+ve **
Adjusted R^2	0.357	0.428	0.390
D.F.	18	18	16
F	6.41	4.79	4.40
Sig F	0.000	0.000	0.000

Significant at *** 1%, ** 5%, *10%.

Notes to Table 4.4

(i) Dependent variable is mean real wage settlement, see appendix for details of calculation.

(ii) OLS regressions used.

(iii) Samples used are settlements in dispute procedure rounds only (excluding all settlements from no procedure available rounds and involving industrial action). Respective samples by column are: All rounds with procedure available (176); FOA available rounds (92); and conventional procedures available rounds (86).

(iv) '-' means variable not included in model.

(v) '0' means variable included but not significant.

Table 4.5
Disputes procedure availability and negotiated pay settlements

	FOA cf no procedure	Conventional arbitration cf no procedure	Non-arbitration cf no procedure	All procedures cf no procedure
Number of bargaining rounds (observations)	161	118	108	229
Mean real wage increase (% p.a.)	1.71	2.00	1.96	1.73
S.D.	1.87	1.85	1.85	1.93
Dispute procedure				
Fraction with procedure	0.49	0.36	0.30	0.65
Final-offer arbitration	0.054	-	-	-0.222
	(0.314)			(0.324)
Conventional arbitration	-	0.315	-	0.305
		(0.428)		(0.376)
Non-arbitration only	-	-	0.504	0.227
			(0.471)	(0.391)
Control variables				
Manual: 50%+	0	0	0	+ve *
Male: 50%+	0	0	0	0
Plant established pre 1980	-ve ***	0	0	0
Japanese owned	0	0	0	+ve **
Size: 250+ employees	0	0	0	0
Subsidiary of larger organisation	-ve ***	0	-ve **	-ve ***
EETPU recognized	0	0	0	0
Year dummies: 1987	+ve ***	+ve **	+ve ***	+ve ***
1988	+ve ***	+ve ***	+ve ***	+ve ***
Region dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Constant	+ve ***	+ve **	0	+ve ***
Adjusted R^2	0.391	0.357	0.324	0.326
D.F.	18	17	18	20
F	6.710	4.820	3.850	6.520
Sig F	0.000	0.000	0.000	0.000

Significant at *** 1%, ** 5%, *10%.

Notes to Table 4.5

(i) Dependent variable is mean real wage settlement, see appendix for details of calculation.

(ii) OLS regressions used.

(iii) Samples used are negotiated settlements only (excluding all settlements involving industrial action and/or third party intervention). Respective samples by column are: FOA and no procedure rounds (161); Conventional arbitration and no procedure rounds (118); non-arbitration procedures and no procedure rounds (108); and all negotiated settlements (229).

(iv) '-' means not included in model.

(v) '0' means variable included but not significant.

Table 4.6
Disputes procedure availability and negotiated pay settlements:
Comparisons between the different procedures

	FOA cf all other procedures	FOA cf conventional arbitration	FOA cf non-arbitration
Number of bargaining rounds (observations)	149	121	109
Mean real wage increase (% p.a.)	1.82	1.79	1.73
S.D.	1.98	2.00	2.02
Final-offer arbitration			
Fraction with FOA	0.52	0.64	0.71
Coefficient	-0.750	-0.724	-0.645
S.E.	(0.318) **	(0.339) **	(0.512)
Control variables			
Manual: 50%+	-ve *	0	-ve *
Male: 50%+	0	0	0
Plant established pre 1980	-ve **	-ve ***	-ve *
Japanese owned	+ve **	0	0
Size: 250+ employees	0	0	0
Subsidiary of larger organisation	0	-ve **	0
EETPU recognized	0	0	0
Year dummies: 1987	+ve ***	+ve **	+ve ***
1988	+ve ***	+ve ***	+ve ***
Region dummies	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes
Constant	+ve ***	+ve **	+ve **
Adjusted R^2	0.350	0.408	0.356
D.F.	18	18	18
F	5.42	5.60	4.32
Sig F	0.000	0.000	0.000

Significant at *** 1%, ** 5%, *10%.

Notes to Table 4.6

(i) Dependent variable is mean real wage settlement, see appendix for details of calculation.

(ii) OLS regressions used.

(iii) Samples used are negotiated settlements under dispute procedure availability (excluding all settlements under no procedure and those involving industrial action or third party intervention). Respective samples by column are: All dispute procedure rounds (149); arbitration only rounds (121); FOA and non-arbitration procedure rounds (109).

(iv) '0' means variable included but not significant.

Chapter 5
Final-offer arbitration in action

1. Introduction

In North America debate about the merits of FOA has been largely conducted in the realms of labour economics and game theory. The criteria for discerning good or bad effects in these disciplines are based on utility maximising game players and economically efficient substantive outcomes such as dispute rates, the incidence of industrial action and pay settlements. However, in the early days of FOA usage in the US public sector (i.e. the 1970s) there were some dissenters from this approach who emphasised, for lack of a better term, the 'practicalities of FOA'. They had one central critique of FOA (from which other criticisms also grew); that FOA had a fine theoretical basis as a deterrent but was likely to produce unworkable awards if ever invoked. Debate then blossomed around which was most desirable, a procedure which encouraged negotiated settlements or one which produced workable awards if invoked.

Their concerns were rather superseded in the 1980s and 1990s by theoretical, empirical and experimental emphasis on substantive outcomes under different collective bargaining laws (see chapters 3 and 4). Interestingly though the UK studies of FOA in the 1980s fit much more easily with some of these early US writings on FOA than with the contemporary North American literature. With a few exceptions - theoretical papers (Meade 1982, Minford and Peel 1983) and Treble's work on FOA at the turn of the century (Treble 1986, 1990) - all the UK literature on FOA concentrates on a few cases of FOA usage in the mid 1980s. Another similarity with some of the early US work is that most of these UK studies are written by current or one time arbitrators.

Reasons for the concentration on practical issues in the UK include: the lack of sufficient empirical evidence until the late 1980s/early 1990s to test for FOA effectiveness; the comparative advantage of some previous commentators in knowledge of procedural and legal issues associated with arbitration (labour lawyers and/or arbitrators); and an awareness of the context of FOA in the new style deals. This chapter dissects the issue of FOA in action examining the elements of the US debate (section 2), previous studies of FOA usage in the UK (section 3), and using more

evidence from the interviews at the eight FOA plants described in chapter one (section 4). Section 5 provides some conclusions on issues of FOA in action.

Note that this concern for practicalities is only in part a product of the established distinction in industrial relations between procedure and substance. Although procedural issues, such as how arbitration hearings are initiated and conducted, are one element, there are also substantive considerations with for instance the impact of FOA usage on the level of trust in the continuing bargaining relationship and the occurrence of 'zingers' in final bargaining positions. Hence the catch-all description of emphasis on the practicalities of FOA. This is quite a diverse chapter and is not *prima facie* as coherent as previous chapters, but this reflects the disparate issues emphasised by commentators on both sides of the Atlantic. Overall it provides insights into the impact of FOA on the more qualitative aspects of industrial relations.

Information from the eight interviews provides a new perspective on this debate in four ways: cases of FOA usage in the UK not previously analysed are documented; the use of questions covering areas not previously considered; attitudinal information from negotiators is assessed rather than just arbitrator attitudes as in previous UK studies; and the benefits of hindsight are apparent, which might be particularly useful for assessing the workability of awards.

2. The US debate

a. Introduction

North American commentators emphasising problems over the practicalities of FOA usage tackled the issue from a number of different angles. First, some tried to establish a full set of criteria on which to judge an impasse procedure - with particular reference to public sector negotiations. Some highlighted the pros and cons of FOA and made a judgement about which outweighed the other. Finally, the remainder both pointed out the problems of FOA and proposed alternative impasse procedures which were designed to out perform basic FOA. A number of these proposals involve modifications to basic FOA to reduce the likelihood of an unworkable award, and some consist of modified versions of conventional arbitration to prevent chilling without the spin-off of unworkable awards.

What is perhaps surprising about much of the US debate is that it was conducted in mainly abstract terms, i.e. without reference to evidence on either

whether or not FOA actually increased the probability of negotiated settlements or whether or not arbitration awards under FOA were particularly unworkable in the eyes of the parties involved. Although some of the writers (given their positions as arbitrators) had experience of arbitration hearings, they rarely cited concrete examples of FOA usage to back up their arguments. At least the UK literature on this subject is based on case studies of FOA usage (albeit limited numbers) rather than the mere ruminations of arbitrators and industrial relations academics about the consequences of FOA usage.

b. Criteria for assessing impasse procedures

A basic starting point for some US writers in the 1970s was to establish wider criteria on which to judge impasse procedure effectiveness. So although all admitted that a key criterion was whether or not the procedure actually promoted collective bargaining and therefore negotiated settlements. Some also prefigured the work of Farber and colleagues by arguing that an impasse procedure should not bias negotiated settlements away from what they would have been without the procedure. The main extra criterion which some of these writers debated was the importance of workable awards should an impasse procedure be used. There are two dimensions to the workability criterion: arbitration award acceptance; and the consequences of inequitable awards which are implemented but subsequently cause procedural or substantive problems.

Donn (1977) and Feuille (1977b) emphasised these two dimensions. Donn argued that any arbitration system should produce acceptable awards in order to maintain credibility with the negotiating parties. All forms of arbitration face the same fundamental problem that:

> "since the parties have the award imposed upon them rather than having agreed to it 'voluntarily', they will feel less responsibility for making such an award work than they would a collective bargaining agreement." (Donn 1977: 307).

Feuille described a "compliance effectiveness" criterion and hence extended the concept to encompass the extent to which the parties comply with both an arbitration **process** and its **outcomes** especially in negotiations subsequent to an arbitration award. He also described more fully how such a criterion could be measured:

> "... by the proportion of negotiations which involve refusals to participate in the process, refusals to implement awards, court appeals of awards, and post-award stoppages, with the smaller the proportion of these kinds of behaviour the more effective the process." (Feuille 1977b: 205).

Most of the other relevant writers based their arguments on the two main criteria - incentive to negotiate and compliance effectiveness - but did not always spell out from the start what their criteria for judging arbitration procedures were. Donn (1981) neatly encapsulated the paradigm that policy makers were interested in both increasing the risk of impasse procedure usage to encourage bargaining and simultaneously decreasing the risks to avoid unworkable awards.

Another criterion for assessing arbitration systems is more concerned with the particular context of public sector arbitration and therefore is less relevant to consideration of FOA versus conventional arbitration in the UK private sector. Horton (1975) and Sulzner (1977) emphasised the political nature of arbitration and argued that arbitrators must be charged with considering **the public interest** when making awards. The former of these argues that since arbitration places the final decision making authority in the hands of 'persons not accountable to the public, interest arbitration weakens political democracy,' (Horton 1975: 499). The problem of arbitrator public accountability is probably the main reason why the UK government has generally opposed extending the availability of traditional forms of arbitration for public sector employees, but instead has preferred non-binding arbitration in the form of Pay Review Bodies.

None of the US authors who either explicitly or implicitly assessed FOA and conventional arbitration in the 1970s suggested what weighting should be attached to each of the criteria. Although in most circumstances the implied weighting becomes apparent in the emphasis and conclusions of the particular writer. Feuille (1975) stated, correctly, that decisions of policy makers concerning the form of arbitration used will depend mainly on the priorities they attach to various outcomes. Those concerned to encourage negotiations will probably make a different choice to those fearful about award compliance or political effectiveness. The normative conclusions reached about FOA by the various authors were informed by their preconceived

notions of which is the most important criterion - best dispute deterrent or best dispute resolution mecahnism.

c. Problems with FOA

Most of the authors assumed that on the first criterion mentioned above, providing an incentive to negotiate, FOA would out perform conventional arbitration as Stevens (1966) suggested. Some did note that this was as yet unproven in practice (Feigenbaum 1975, Wheeler 1977) but most were content with the assumption of greater deterrence. The main problem of FOA was cited by all the relevant 1970s authors as one of unworkable awards. Feigenbaum was the most sceptical of these writers in arguing that the 'basic flaw' in the final offer system was the:

> "... one-sided arbitration award that can be expected to be less equitable and less responsive to the needs of the parties than could have been fashioned by the arbitrator." (Feigenbaum 1975: 312).

A central part of Feigenbaum's and other's argument concerns the role of arbitrator discretion which is paramount in conventional arbitration and by design heavily circumscribed in FOA. They believed that under conventional arbitration an arbitrator crafts a settlement which is Pareto-optimal in satisficing both parties as much as possible, whereas under FOA this satisficing option is unavailable.

The views of arbitrators is most apparent in a paper by Witney (1973), an arbitration panel member in Indianapolis, in which he described the arbitration process (FOA) on a dispute over a new contract for public works employees. Although the arbitration board selected the employer's offer as the most reasonable of the two, it also argued that the final offer selection mechanism produced an award which did not meet the tests of equity or desirability. As the Board stated in its judgement:

> "It is apparent that a broader grant of authority within which the Board could function and exercise its judgement would present a more workable procedure and provide a more practical resolution of an impasse of this character." (quoted in Witney 1973: 23)

Witney reinforces this conclusion:

> "Irrespective of the possible effect that final-offer selection may have in promoting agreement, proponents of this system of arbitration fail to

> take into account properly the cost that may have to be paid in the loss of flexibility and the increasing likelihood that the quality of the decision may be inferior." (Witney 1973: 25)

This arbitrator's view on FOA was backed up by other arbitrators who complained that FOA meant that they could no longer fashion satisfactory awards, according to Wheeler (1977) and Long and Feuille (1974).

The suggestion that FOA produces unworkable awards rests on the notion that final offers, should impasse be reached, are likely to be inequitable. Grodin (1972) and Nelson (1975) argued that inequitable final offers are more likely in multi-issue disputes since the parties can fashion a very reasonable package which includes one more outlandish point (also known as a 'zinger') which would never be awarded in conventional arbitration but would have to be included if the arbitrator found in favour of that side's package. This problem is apparent in a rare citation of a negotiator's perspective on FOA:

> "... final offer by package would allow us to make inroads upon management rights. By making our economic package 'irresistible' we could slip in a clause reducing management's rights which we could never attain in negotiations or conventional arbitration." (quoted in Donn 1977).

Grodin (1972) suggested that the above possibility was particularly likely in public sector disputes where FOA might 'fall victim to ideologically motivated proposals'.

As a counterweight to this suggestion, Feuille (1977a) argued that the although the supposed benefit of FOA in promoting agreements had not been empirically proven, Feigenbaum's basic flaw of unworkable awards stood similarly without empirical support. He contested that it was not sufficient to simply provide comments from arbitrators concerning problems with FOA in order to conclude that unworkability was a major problem. What the debate definitely lacked was a more thorough investigation of the consequences of FOA awards and the attitudes of arbitrating parties towards the process.

A final problem attributed to FOA by Rehmus (1974) was the difficulty of determining what constitutes a final-offer. This problem arose because whereas some US States allow negotiations to continue during the arbitration process, in the belief

that a negotiated settlement is always better than an arbitrated one, whenever it comes, others stipulate that positions cannot be altered in the course of the hearing. Concerning the latter cases, Rehmus argued:

> "Those who refuse to permit such changed offers seem to be taking a draconian view of final-offer arbitration, insisting that it should be as unpalatable to the parties as possible. This may be what proponents of final offer intended, but I cannot believe it is good for the bargaining relationship or fair to the employees and governmental unit." (Rehmus 1974: 44)

The assessments of the pros and cons of FOA by these various authors resulted in three main camps: those who felt effective resolution was more important than deterrence and therefore preferred conventional arbitration to FOA; those who felt vice versa; and those who argued that an alternative arbitration system should be used which could provide the positive benefits of both deterrence and effective resolution if invoked. Their proposals are summarised in the next section.

d. Proposed alternatives to FOA and conventional arbitration

Out of the above debate came a myriad of proposals to replace basic arbitration with a procedure which would both promote agreements and provide acceptable awards if invoked. Some of the procedures advocated have been used in practice but others remain on the drawing board. Donn (1981) describes the range of suggestions in rather knockabout fashion:

> "If some of the procedures in use seem rather unorthodox fellows, some of the ones which are not in use are even wilder and crazier guys." (Donn 1981: 462).

Of the proposed alternatives actually in use, issue by issue FOA - designed to prevent the problem of zingers in package FOA - has been noticeably unsuccessful in promoting agreements as documented in chapter 3. In fact even the proponents of issue by issue FOA concede that it is likely to produce the same potential chilling effect of conventional arbitration since the parties will expect to win on at least some of the issues. Other proposals have slightly more subtlety than simply replacing package FOA with issue by issue FOA.

Restricted mediation-arbitration: Feuille (1977b) proposed a particularly modified version of FOA which permits mediation before arbitration for parties who wish to have it. A restrictive stipulation is that should mediation fail to provide a solution, the parties must submit their pre-mediation final positions to arbitration. A single third party should act as both mediator and arbitrator. Feuille argued that this procedure would increase the proportion of negotiated agreements (although it is not clear what his comparator was) because of increases in costs of remaining in disagreement and 'from the mediator's increased ability to induce concessions from each side'. His argument rested, though, on the curious notion that a mediated settlement can be classed as a negotiated settlement. It seems more likely that this procedure would induce pre-mediation chilling but would probably improve the chances of a mediated settlement compared to a procedure involving ordinary mediation-arbitration (i.e. where an arbitrator chooses between the final positions after mediation).

Repeated-offer selection: This is one of three modifications to basic FOA suggested by Donn (1977). Repeated-offer FOA is designed to counter the problem of inequitable final offers either one of which would be unworkable. The key featureis that if an arbitrator feels that both final offers are unacceptable, he or she could refuse to arbitrate and instead compel the parties to come back with two new offers. Donn believed that each party would then make further concessions based on the knowledge that their offer had been rejected. 'Thus the arbitrator is manipulating the parties' subjective perceptions of the probabilities that their own offer will be chosen.' (Donn 1977: 311) Donn correctly states that the arbitrator should not tell the parties why their offers are deficient since this would mean the arbitrator would be effectively writing the agreement. Having said this Donn rather strangely suggests that the arbitrator could (as an experiment) tell the parties which of their offers he would have chosen if compelled to do so. This experiment would surely have the same implication as the former suggestion which he himself rules out.

Repeated-offer FOA would soon come up against the problem of chilling, one would imagine, since the parties would have little incentive to negotiate an agreement prior to the first hearing - unless they felt that there was a strong probability that the arbitrator would chose to arbitrate at the first opportunity. Given the opinions of most

arbitrators about FOA restricting their discretion it would seem quite likely that over time they would increasingly reject the first set of 'final' positions. Donn himself acknowledges this potential difficulty and correctly states that this type of FOA would only encourage negotiated settlements if arbitrators very rarely rejected the first set of final offers.

Donn's second suggestion is **modified FOA** in which an arbitrator could reject both final offers if thought unacceptable and instead fashion his or her own award. A binding condition is that the resultant award must be accepted by both parties. If either or both refuse to accept the award, the arbitrator would be forced to make a straight choice between the original final offers. Again this is a type of arbitration designed to allay arbitrators' concerns about unacceptable offers.

In the event that the arbitrator decided to write his or her own award, they would surely have to produce a 'split the difference' award to maximise the chances that both parties would accept it. In fact there has been a case of quasi-modified FOA in the UK in the Iveco Ford case (explained in section 3) where the arbitrator selected the company's final offer but stated in his award that he would have preferred to make a compromise award which he also detailed. The company subsequently implemented this compromise award even though it was under no obligation to do so. The personnel manager at Iveco Ford claimed that with hindsight the action of the arbitrator undermined the company's trust in FOA and arbitration in general. If such action by the arbitrator was 'legalised' as in modified FOA, this effect could be more widespread.

Donn's preferred version of FOA was **multiple-offer selection** which again is designed to deal with the problem of arriving at Pareto-optimal awards. In the event that arbitration is reached the parties submit multiple final offers. Although the number could be many more, Donn describes a system involving three final offers per side. The arbitrator would then choose one of the six offers but would only announce which party's final offer he had selected. The losing party then chooses which one of the winner's three offers. This then becomes the award. In terms of economic theory each party would be specifying three different points on its indifference curve instead of only one as in basic FOA. Each party should therefore be indifferent between their three offers but is likely to prefer one of the other party's positions to the other two.

Therefore this technique may permit one side to be made better off at no loss of welfare to the other.

Although this version of FOA is theoretically appealing, there must be a strong suspicion that in practice it would not act as a spur to negotiated settlements. Parties, especially in the first few rounds of bargaining under the procedure, would probably want to play the game that this arbitration system encourages. A form of multiple-offer selection operated in the city of Eugene, Oregon in the 1970s where parties were allowed to submit two final offers rather than one. Long and Feuille (1974) document the first two years of bargaining under the procedure. Although the number of arbitration awards was not excessive, a very high proportion of (the admittedly small number of) negotiations reached impasse (five out of six). It seems that parties were enticed to reach arbitration, ascertain some information about the arbitrator's preferences in the arbitration hearing but then negotiate their own settlement without waiting for an arbitration award. Clearly any deterrent power of FOA is decreased by allowing multiple offers.

Wheeler (1977) looked to the British Whitley Council system and to legal litigation to provide another variety of arbitration - **closed-offer arbitration**. The main element in closed-offer arbitration is that in the event of arbitration the parties final offers need not necessarily be related to their pre-arbitration negotiations. Regardless of offers made in negotiations, the parties can enter the arbitration hearing with any offer they wish. This is akin to legal litigation where pre-trial negotiations are usually inadmissible as evidence should the case reach court. This should in theory allow free negotiations and remove the chilling effect of conventional arbitration. The arbitrator or judge then can enjoy the compromise option without prejudicing pre-hearing negotiations.

Wheeler himself pointed out two problems of closed-offer arbitration: confidentiality; and extreme offers. The confidentiality of pre-arbitration negotiations must be assured for this type of arbitration to properly function. This may be difficult for two reasons. First, particularly for public sector negotiations, it is quite likely that the parties positions will be revealed during negotiations because of union consultation with members over offers (both their own offers and the employer's) and/or because of canvassing for wider public support for each side's position through the media. The

confidentiality problem may be particularly acute if the arbitration panel is tri-partite since the union and employer representatives are likely to be fully informed about pre-arbitration negotiations. Even if the confidentiality problem is overcome, this type of arbitration may still provide a further difficulty in the form of extreme offers at arbitration. Although Wheeler does not make much of this problem, there is a considerable moral hazard predicament here. If a hearing takes place, not only do the parties have an incentive to present extreme offers, they are also likely to seek to restrict information provided for the arbitrator probably through the use of skilled advocates as in the legal system. Moreover, Wheeler fails to acknowledge that the main reason for extensive use of negotiations before legal trials is the excessive direct cost of litigation which is not such an issue in arbitration.

Finally, Donn and Hirsch (1983) proposed **cost-formula arbitration** as means of making arbitration costly but still permitting an arbitrator some discretion in writing an award. The notion underlying their proposal is that the imposition of substantial direct costs in the use of arbitration should increase the contract zone of negotiatable outcomes. Arbitration costs are usually flat rate whoever the parties and whatever the dispute. This means that larger bargaining units will find arbitration relatively cheaper than smaller units and will therefore have less disincentive to use arbitration. Secondly, the costs of arbitration provide no incentive to reasonableness once the parties decide that their problems are so intractable that arbitration has to be used.

Donn and Hirsch argued that if conventional arbitration costs were geared to be a function of the size of the bargaining unit and the magnitude of the difference in final positions submitted to arbitration, then conventional arbitration could deter disputes just as effectively as basic FOA. Without going into the details of their proposal it is clear that establishing such a system would be quite difficult - setting an arbitration tax rate, determining what to do about non-monetary items in a package etc. Again this proposal appears to provide for a rather complex game which over time is likely to become unacceptable to bargaining parties. The workability problem is heightened for public sector negotiations as successive legislatures would wish to amend details of the system if they felt that outcomes were unacceptable, say by redistributing the cost sharing to favour particular sides.

Although many of the above suggestions are theoretically interesting and could be explored by chapter three's experimenters for years to come, there must be some concern about the practicality of most of them. Either they will create their own chilling effect or the parties will be encouraged to play a game which is much more complex than ones currently played under more simple arbitration systems. Moreover the proposals appear to show far too much deference to the worries of arbitrators when ultimately the concern should really be to satisfy the public and parties' interests in terms of few disputes and non-biased outcomes. The inconclusiveness of the debate around what is the most appropriate system of arbitration to both deter its own use, create workable awards and keep arbitrators happy must explain why more recent North American authors on arbitration have concentrated on measuring the effects of actual arbitration mechanisms rather than on speculating about the possible effects of other systems.

3. Previous UK studies

a. Introduction

Concern with the practicalities of usage dominates the small existing FOA literature in the UK. However, despite the paucity of studies, they are in some ways more revealing than the more numerous body of US studies of this ilk since they are all based on examination of actual cases of FOA in action. Although we may worry about drawing too many conclusions from a few case studies, since there are a host of conventionally arbitrated disputes which have not been recorded for comparison and these few FOA cases may not be representative of FOA cases generally, they at least provide interesting examples of the problems of FOA in action. Potted histories of the five well documented cases of FOA usage previously examined are probably the most sensible way of highlighting the problems of FOA in action that other authors have identified. Other cases have been referred to in the literature (for the most up to date list prior to this study, see Lewis 1990: Table 1, page 43), but the full details of those are not so readily available as for the five discussed below. Various themes are drawn out before analysis of further evidence from the interviews at FOA usage (or near usage) plants in section 4.

b. Five cases of FOA in action

Cadbury (Chirk) 1984

The first documented use of FOA in the 1980s was at Cadbury's Chirk plant where an FOA dispute procedure had been agreed to in 1982 (see Appendix C for details of the dispute procedure). This was quite a straightforward case yet it still highlighted arbitrators' concerns about their discretion in even simple disputes, let alone the more complicated multi-issue disputes. In March 1984, a stalemate was reached during pay negotiations for a new contract to run from 25 March 1984 to March 1985. The company was offering 4 per cent and the union claiming 5.5 per cent. Negotiations proceeded through the disputes procedure although bypassing the conciliation stage, which illustrates the flexibility of most UK disputes procedures and perhaps poses a question about the usefulness of conciliation once an impasse is reached. However, no agreement was reached and the parties opted for FOA, choosing Mr F Burchill as the arbitrator under the auspices of ACAS. The hearing took place on 22 June 1984.

Burchill has not subsequently published a study of this path breaking case unlike some other arbitrators, but part of his award is recorded in the IDS report on the case (IDS 1988: 15). The award was made in July 1984. Burchill first commented that because of the nature of FOA one side was certain to be disappointed by the decision. Perhaps more interesting is that he also stated that "the terms of reference in this case are such that the positions of the parties are much closer than I have previously experienced". However, although he intimates that he would have like to further comments to the award, the dispute procedure at Cadbury specifically prohibits further recommendations or observations (see Appendix C). After going through the various arguments used, he said of the company's offer:

> "I do believe that in all circumstances it is reasonable. It does exceed the RPI; it matches offers across units and it fits into the range of current 'going rates' of increase. ... My decision is, taking into account all the circumstances, that the company's offer of 4 per cent ... be accepted rather than the trade union claim of 5.5 per cent."

Despite the simplicity of the case before him and the proximity of the final bids, the arbitrator still complained about the restriction of his ability to formulate an award to

satisfy both parties. The tendency for arbitrators to be the main opponents of FOA was even more apparent in later cases of FOA usage.

Sanyo (Lowestoft) 1985

The new style deal at Sanyo in Lowestoft is probably one of the best known of such deals in the UK. The 1985 dispute at the plant is also the most oft cited case of the problems that FOA can provide when used. This is despite the fact that FOA was not actually used in the 1985 dispute but rather problems with FOA were instrumental in the mediated settlement there. Although the details of the case have been well worked over (Kessler 1987, Gennard 1988, IDS 1988, Lewis 1990) they are worth repeating since they illuminate some of the problems of FOA identified by US writers in the 1970s.

Contract negotiations for the 1984/85 round failed to reach a settlement at the final JNC (Joint Negotiating Committee) meeting on 13 December 1984. By then the union's final claim was for:

1. A three-year agreement whereby Sanyo's pay and conditions would be increased to the industry average in steps of 30, 50 and 20 per cent.
2. Five weeks' holiday.
3. 39-hour week.

And the employer's final offer stood at:

1. All job salaries would be increased by 6 per cent from 1 December 1984.
2. Holiday entitlement would be increased by one day to 23 days a year.
3. The company would look positively on the introduction of a pension scheme.
4. A bonus of three weeks' pay would be paid pro rata to service in the last 12 months.
5. Other pre-review salary adjustments announced would be implemented subject to some detailed amendments and had been costed outside of the review.

The company's offer was rejected in a subsequent ballot of the workforce and the issues referred to FOA. The terms of reference were quite unusual in themselves and again illustrate the flexibility of the UK system in that ad hoc use of procedures is commonplace. The terms were:

"1. To attempt to resolve the disagreements between Sanyo and the EETPU over the review of salaries and conditions of employment due on 1 December 1984.

2. In the event that a mediated settlement is not possible then to arbitrate a settlement by deciding for the company's case or the union's case only."

Quite clearly the terms of reference allowed for mediation prior to the arbitration hearing even though the written disputes procedure did not mention mediation. This proved to be a problematic stage since the parties disagreed fundamentally about the purpose of mediation. The union argued that mediation should fulfil its usual function in the UK, i.e. a full-blown attempt to arrive at a settlement with the assistance of the mediator. The company, on the other hand, envisaged mediation as a means to clarify final negotiating positions and the terms of reference. This highlights one of the problems of any dispute procedure. Much depends on what parties expect from dispute procedures and it is important that both parties are fully informed about the exact specifications of each stage in a procedure. Difficulties caused by confusion are likely to intensify as the nature of an arbitration system becomes more complicated as with some of the systems envisaged by US writers described in section 2.

A second problem arose over what precisely was the union's last claim. The hearing was fixed for 10 and 11 January 1984 and the arbitrator (Professor Sid Kessler of City University Business School) received notification of the parties' final offers when he arrived in Lowestoft on 9 January. The union substantially modified its final claim compared to that of the last JNC meeting in December. The claim for a three-year agreement had been dropped and instead the following three point claim appeared:

1. An increase of £1.86 (8 per cent) per week on all salaries from 1 December 1984.

2. A 39-hour working week from 1 July 1985.

3. An extra day's holiday from January 1986 and a further day from January 1987.

At the start of proceedings the company protested at the union's changed claim with the following statement:

"The company has examined the union's submission and is deeply concerned that their claim against the company is different from their position when negotiations between the parties ended on 13 December 1984.

The company believes that the integrity of pendulum arbitration entirely depends upon both parties declaring their final positions for consideration at the final negotiating discussions. Therefore, the company firmly believes that the last opportunity the parties had to modify their proposals occurred during the JNC on 13 December 1984.

The concept behind pendulum arbitration is, we believe, to make negotiators carefully consider the content and direction of their final negotiating position in the knowledge that, without agreement, those positions would be tested by arbitration.

Changes made at the arbitration stage are not in keeping with the concept behind the pendulum arbitration process."

The union claimed that their revised final offer was in the spirit of FOA in the US (though it is not clear on what precedent). So the arbitrator was faced with three potential decisions: determining which of the union's positions should be considered its final offer; what function mediation was to fulfil; and if necessary the actual arbitration decision between the final offers.

In brief, Kessler decided to allow the union's second claim as their final position and he encouraged the parties to attempt to resolve the dispute through 'proper' mediation. His decisions were consented to by the parties. After a mediation hearing, Kessler made the following recommendations:

1. A 7 per cent increase on all salaries (claim=8 per cent, offer=6 per cent).
2. Extra holiday from 1 January 1985 and second day from 1 January 1986, giving 24 days (claim=25 days, offer=23 days).
3. A 39-hour week from December 1985 (claim=39-hour week from 1 July 1985, offer=status quo).

A classic case of 'splitting the difference'. After some consideration the mediated recommendations were accepted by both parties. This is probably not surprising since Kessler had fashioned the recommendation in a way which did not favour either side

and therefore he had not indicated which side he would have favoured if forced to arbitrate. Kessler was obviously quite satisfied with this mediated outcome:

> "A mediated settlement was therefore achieved, which I personally feel was a satisfactory outcome from what was a very difficult situation." (Kessler 1987: 41)

This dispute throws up certain procedural issues associated with FOA in action, some of which were discussed by Kessler in his reflections on what was to be learned from Sanyo. He concentrates on two questions: whether or not mediation and or conciliation should be included in FOA systems; and whether or not 'final offer' should constitute the last bargaining position (an issue raised in the US by Rehmus 1974). On the first he concludes, perhaps unsurprisingly, that:

> "... there is a strong case for a conciliation/mediation step between failure to agree and pendulum arbitration." (Kessler 1987: 42)

This was also the view of the EETPU post-Sanyo as explained in chapter 2 but was definitely not the view of Sanyo management who put the issue to a ballot of the workforce. As a result of that vote the Sanyo procedure now emphatically states that any failure to agree will be followed by FOA with no provision for mediation or conciliation (see Appendix C).

Kessler does not answer his second question concerning what should constitute the final offer but, as he argues that compromise is a good thing whenever it comes, he probably favours continuing negotiations and movement throughout the dispute procedure up to arbitration. The Sanyo 1985 dispute reveals more about FOA in action, however, than simply whether or not pre-arbitration procedures are valuable instruments and what constitutes a final offer.

The dispute raised doubts about the EETPU's commitment to and understanding of FOA. Chapter 2 revealed that Roy Sanderson, architect of the new style deals, initially favoured 'pure FOA' because this was the starkest dispute deterrent. However, when faced with the all or nothing position at Sanyo the concern was to avoid ignominious and possibly costly defeat at the hands of his own creation. Subsequently the EETPU tried to tone down their pure FOA agreements to more modified forms including conciliation and/or mediation. The fact that employees at Sanyo rejected a toned down version of their agreement in a ballot raises some interesting issues about FOA in action.

There may be principal-agent problems connected to the use of FOA in addition to those which are highlighted in chapter 3. If a failure to agree is reached a union leader, anxious to impress the membership, will be keen to salvage as much as possible from the dispute procedure. In fact he/she may be more concerned to 'win' in the dispute procedure than avoid the procedure itself. This problem will be compounded if full-time officers of the union do not get involved in a dispute until just before or even after impasse. This was certainly the case at Sanyo where Sanderson became part of the union team only after the breakdown of in-house negotiations. Obviously his main concern then was to prevent a defeat at all costs, even to the detriment of the integrity of the dispute procedure. Moreover in the aftermath of such an experience a union leader may be concerned that in order to prevent similar problems occurring in other organised plants the FOA procedure should be toned down. He or she may prefer to have more disputes but less total defeats than vice versa.

The Sanyo dispute indicates that to an extent there are problems of FOA usage. This is not surprising since it is exactly what FOA depends on to deter disputes. What is more interesting is how negotiators have reacted, given the potentiality of humiliating defeat once bargaining breaks down. The EETPU reacted in three ways: successfully stalled arbitration with an ad hoc mediation stage; drastically reduced their claim at the last possible moment; and, unsuccessfully, tried to alter the details of the procedure subsequent to the dispute. All three of these options were made possible because of the flexibility of the UK industrial relations system. A union faced with a similar situation in the US public sector could not have reacted in the same way, unless the legislated dispute procedure specifically allowed for it, which is improbable. They could lobby the legislature for a change in the procedure post-dispute but it is extremely unlikely that the workforce concerned would be allowed to vote to decide the issue, as at Sanyo.

Sanyo illustrates then that the problems of FOA in action may be augmented by the UK industrial relations system which permits great flexibility. In addition the actions and decisions made by the arbitrator in this dispute contributed to this flexibility. This may also be another reason why FOA does not generally appear to have been a good dispute deterrent in the UK - parties perceive that even if a failure to

agree is reached the malleability of the system means that they can probably mitigate the starkness of pure FOA.

Bowman Webber 1986

The arbitration of a dispute at the Bowman Webber glass plant in Harlow, Essex did not raise fundamental problems of FOA in action. The only notable point from the dispute is that again the negotiator was unhappy with the lack of a compromise option available to him. The details of the dispute are contained in two reports, by IRRR (1986) and IDS (1988). The dispute arose over shift premiums after the company proposed a move to double-day shift working in October 1985. After some compromise during negotiations the dispute boiled down to a company final offer of £151.91 and a union claim for £160.31 (both pro-rata across grades). After a hearing in February 1986, the arbitrator, Mr John Davies, a legal advisor to the British Medical Association, selected the union's final offer on the basis that the union had better substantiated its case on the grounds of comparability with other firms in the area.

Of particular interest in this context are comments made by Davies after the award. IDS reports that:

> "... the pendulum nature of the case had presented difficulties because 'the usual arbitrator's refuge of compromise' was not available." (IDS 1988: 13).

In similar vein Industrial Relations Services report that the arbitrator told them that if he had had an element of discretion his award would have been a compromise somewhere between the company's offer and the union's claim. Clearly arbitrator's are worried because under FOA they are inevitably the villain of the piece for one side whereas they are more used to playing the peacemaker. Unfortunately the reports on the Bowman Webber dispute do not indicate the reactions and attitudes of the parties towards FOA. If the experience made them negotiate more effectively in later years then it was probably a success. However, if it encouraged them to seek ways either to amend the procedure to make it more palatable if used again or to avoid the procedure altogether in future, then it may not have been a beneficial, cathartic process. Unfortunately, when approached for inclusion in the interview panel for this research,

Bowman Webber management refused access. This might suggest that FOA usage did not have beneficial after effects at Bowman Webber.

Iveco Ford 1987

The interventionist role of arbitrators is again and perhaps even better illustrated in the dispute at Iveco Ford's Langley plant in 1986-87 over cushioning payments for the cessation of shift work. This dispute has been extensively documented elsewhere (Davis 1989, IRRR 1987b, IDS 1988, Lewis 1990) so details of it will be kept brief.

Very soon after the signing of a new contract including FOA in November 1986, a dispute arose the following month over whether or not 33 employees who worked in the final assembly/inspection garage should receive cushioning payments for the loss of shift work premia. The company offered no payments since they were not contractually obliged to do so. The union claimed 2 years payments to compensate the loss of earnings. With the new system supposed to start on 23 February 1987 A failure to agree was reached on 17 February. There was a very short stoppage (one and a half hours) by the employees concerned on the 23rd but this was ended after the union and company agreed to refer the matter to FOA. Before the hearing the union amended its final claim to 1 year's cushioning payments but the company stuck to its position. Again this may illustrate the principal-agent situation within the union (TGWU) with the leaders anxious to 'win' the award once arbitration was reached.

The arbitrator (Roy Lewis, then of Warwick University's Industrial Relations Research Unit) found for the employer after the hearing on 30 March 1987. However, Lewis did not stop there. Although the terms of reference for the arbitrator clearly stated that a straight choice between two positions was required, in making his decision for the company Lewis also suggested a compromise solution in his award of three months' cushioning payments. This was one step further than Kessler's role at Sanyo where mediation and therefore a compromise option was agreed to by the parties without arbitration and certainly much more interventionist than Davies or Burchill who only hinted that they would have preferred a compromise option. Lewis's suggested compromise effectively became the non-binding arbitration award and subsequently was included into the terms of a new contract. Therefore he

fundamentally undermined the whole basis of FOA as a dispute deterrent. His decision had long term implications for the credibility of the FOA procedure at Iveco Ford which may or may not have been foreseen by him (see section 4).

IBC Vehicles 1988

The final of these five cases also concerns a brownfield, multi-union site like Iveco Ford and also involved Roy Lewis as the arbitrator. The dispute procedure at IBC is unusual in two respects: it allows the parties to choose their variation of arbitration (conventional or FOA) once arbitration is reached; and it stipulates that any arbitration award will be legally binding on the parties. This is similar therefore to the procedure operating for police and firefighter negotiations in New Jersey State (see chapter 3). The particular dispute in 1988 was resolved through FOA. It arose over different interpretations concerning the transition from the old agreement at GM Vauxhall's Luton plant and the new agreement at the joint venture with Isuzu of Japan on the same site. The point at issue was whether the company had to allow compensatory time off - lieu days - if workers were sick during holiday periods. The old agreement had provided for this but it was not expressly included in the new deal. The company interpreted the position that since the provision was not included in the new agreement it meant that the practice had been discarded. The union disagreed with this interpretation and a dispute **over the interpretation** ensued which was not settled in conciliation but instead reached arbitration. Lewis was asked to determine whether the company's or the unions' interpretation was correct.

In his discussion of the case Lewis (1990: 47) points out that his first task was to actually clarify the unions' position. Note that the dispute at arbitration involved the procedural relationship between the old agreement and the new agreement rather than the substantive issue of time off in lieu. The company thought that the union's interpretation was that if the new agreement did not explicitly regulate a matter then the old agreement still applied. However, during the course of the hearing it became clear that the unions' interpretation was not so strong. The unions maintained that it understood that any issues not expressly regulated in the new agreement:

> 'were in principle appropriate for negotiation ... [but] that some previous practices not expressly regulated by the new agreement were intended to be and had been discarded'. (Lewis 1990: 47)

On the specific question of lieu day entitlement because the company had been inconsistent in negotiations and practice, the unions' interpretation was that the old condition applied. Lewis then states:

> "Having thus defined the unions' interpretation, I found that it was wholly correct. It also seemed to me that an award in these terms might help to ensure the parties' commitment to the deal, on which the success of the joint venture depended." (Lewis 1990: 47)

This case does not particularly add to knowledge about the problems of FOA in action apart from perhaps reiterating the point that disputes can often hinge on misunderstandings of an issue and that final offers may not always be clear cut. However, the case is fundamentally different from the other four cited since it actually boiled down to a rights rather than an interests dispute, although with substantive implications. We know that rights disputes by nature are often only resolvable by straight choice arbitration whether or not FOA is stipulated in the collective agreement. Therefore we should not be surprised that FOA functioned perfectly well for this dispute. The details of the dispute combined with information on other arbitrated disputes at IBC (from the interview) suggest that this is not a typical FOA deal because it effectively excludes interest disputes from being arbitrated through FOA. This was not discernable, however, until the interview had taken place.

c. Conclusion

It does appear from these five cases that the biggest problem with FOA in action is perceived and in some case fuelled by arbitrators. In none of the reports of these five cases are the attitudes and reactions of the bargaining parties recorded. FOA is not designed to provide an opportunity for arbitrators to demonstrate the skills of their craft and they should be aware that it is not their role. If arbitrators go around trying to undermine the whole basis of FOA then we should not be surprised that FOA may not have successfully deterred disputes in the UK thus far. Whoever had a hand in writing the Cadbury's (Chirk) agreement (see Appendix C) was alive to this potentiality since that agreement specifically prohibits an arbitrator from making further observations or recommendations in addition to an award. Perhaps if the Iveco Ford agreement had included a similar clause management's lasting impression of

FOA in action might not have been so negative (see section 4). Some counterweight to the arbitrator-centric reports of FOA usage are clearly needed. These are provided by the interviews with participants in various cases of FOA in action, some from cases already examined by other writers but others from more recent or non-publicised cases.

4. Evidence from the interviews

Specifications of the panel of plants where interviews took place are contained in chapter one. Table 5.1 provides information on the basic details of their disputes. Three of the disputes (Sanyo's in 1985, Iveco Ford's in 1986-87 and IBC's in 1988) have been examined quite thoroughly before and are described in the preceding section. Although this analysis is concerned to draw out some themes concerning disputes under FOA, brief descriptions of the other disputes examined are a useful backdrop to these themes. Of particular interest is the attitude of the negotiating parties (in most cases though only management's) towards FOA and arbitrators having experienced the procedure and with some hindsight.

a. The disputes

ABB Capacitors (Ellesmere Port) 1989

This firm is a subsidiary of the Scandinavian giant Asea Brown Boveri and was formerly known as BICC Capacitors when owned by BICC. The FOA and single union agreement (EETPU) developed after a beauty contest organised by the Managing Director, Mr John Conlan, in the mid 1980s. A dispute arose in 1989 during pay negotiations about the management's plan to increase skill differentials by awarding lower grade workers less than their higher skilled colleagues. The resultant use of FOA was relatively matter of fact, but even a simple case can raise issues about the practicalities of FOA. Parties' preconceptions about what FOA is and how it should be used (as in the Sanyo dispute) had a significant bearing on the consequences of FOA usage here. Specifically, Conlan stated, when discussing the introduction of the FOA procedure, that he never envisaged that it would be used over pay since that was management's prerogative. However, as the collective agreement did not exclude pay, this was not technically ruled out.

During negotiations management's position of 7.25 per cent for the lowest grades remained unchanged, the union's position remained 'a substantial increase' until just before arbitration. Although conciliation did take place under the auspices of ACAS, this resulted in no extra movement by either side. Prior to arbitration the union actually put a figure on its claim - 7.7 per cent - which was only a little above the employer's offer. The arbitrator found for the union.

The company duly implemented the award but, aggrieved that his prerogative had been undermined, Conlan made two significant decisions: decreed that FOA would never be used on a pay dispute again; and, even though the £21,000 cost of the award was not excessive and could have been accomodated, fired three members of staff to 'pay' for the award. So although the arbitration award was financially workable, the industrial relations implications of the defeat were certainly not acceptable because it implied that management's perception of ability to pay could be questioned. Conlan let it be known to the union and the employees that he "would never let a third party decide pay again". The wider implications of this case are assessed along with information from other cases below.

Anonco

Anonco is a small engineering plant now operating semi-independently from 1988 but still a subsidiary of a large engineering corporation. Before 1988 the plant had no independent personnel function and there was no plant-level bargaining with unions. When industrial relations were decentralised in 1988 corporate personnel managers wrote the collective agreement for Anonco, which included single union recognition and FOA. Consequently when the parties first began to negotiate with one another they were completely inexperienced and had little idea about the function of FOA as a dispute deterrent.

A dispute arose over the 1989 pay settlement and although this did not quite reach arbitration, it still provides another vignette to add to the general picture of FOA in action. The personnel manager stated that there had not been much movement during negotiations mainly because the employee representative had set the sights of the workforce too high and was subsequently unable to convince them management's offer would not be revised upwards. A gap of 'several per cent' persisted when a

failure to agree was reached. At this stage a regional official of the union became involved to perform what the personnel manager described as 'union conciliation'. The official "banged the members' heads together" to force acceptance of the employers offer rather than go to arbitration with such a large gap between the parties.

The dispute involved a similar role for the outside union official as that at Sanyo. The personnel manager believed that the employees had not really considered the implications of FOA defeat but that management and the trade union official were acutely aware of this. It was the role of the union official which prevented arbitration as in the Sanyo case except that in this case intervention did not involve any procedural skulduggery. Management's realisation of the potentiality of FOA after this near miss prompted the managing director of Anonco to call a meeting with a senior official of the union. After this the MD spoke to the personnel manager about FOA and emphasised that at all costs the company must avoid the use of FOA because of the consequent loss of financial control to a third party. This seems to be quite a positive outcome for FOA: the threat of its near use strengthened its deterrent power.

IBC Vehicles (Luton) 1988, 1990 and 1991

The 1988 dispute at IBC was followed by two further collective disputes. The first over the shorter working week was settled in conciliation without the need for arbitration. The second in 1991 was over a grading dispute involving just seven employees. Details of these disputes are somewhat incidental since they contribute to the picture that the IBC agreement envisaged FOA as a means to settle rights disputes only. This was confirmed in the interview with the personnel manager, Mr David Biggs. The key element here was the process of signing the new agreement which was stipulated by Isuzu as a necessity for their involvement in the new venture. Biggs states that a major role was played by Sir Pat Lowry as chairman of negotiations and that the latter was particularly influential in producing the conventional or FOA choice for disputes. The argument offered for both types being made available was that in some disputes the final positions would be so far apart that it 'would be unpalatable for either side to lose'.

The purist would argue that it is the fear of this which FOA relies on, therefore the IBC procedure effectively negates that fear. Again we find that one of the main

reasons for the undermining of pure FOA is the role of the arbitrator. Unfortunately, but probably for reasons of confidentiality or perhaps modesty, Lowry does not digress about his role in the IBC agreement in discussion of the dispute procedure (Lowry 1990: 73), so we cannot glean his opinions at the time on FOA. However in general comments about FOA he states that:

> "A degree of flexibility must be retained except in the most straightforward cases ... opposition to pendulum arbitration in the coalfields [at the turn of the century] came not from the negotiators but from the arbitrators. History seems to be repeating itself." (Lowry 1990: 77)

A second notable feature of the IBC experience is that conciliation was generally quite successful. Not only was the 1990 dispute regarding the shorter working week settled in conciliation but there was also some movement during conciliation prior to the 1991 arbitration on grading. Moreover, Biggs was one of the few managers to state that conciliation was very useful and constructive even though the conciliator did not use the threat of FOA to cajole the parties to reach agreement. This adds further to the impression that the IBC FOA agreement is very different from some of the others. FOA was not really seen as a dispute deterrent rather just an alternative means to resolve some of the disputes which were inevitably going to surface.

IBC represents the ultimate breakdown of FOA theory in the face of traditional UK industrial relations flexibility. Management is content to allow FOA to be used as a conflict resolution mechanism for small scale disputes, but would refuse to allow arbitration over a pay issue. The 1990 pay negotiations illustrate this point perfectly. A failure to agree was reached but the parties jointly agreed not to use the conciliation-arbitration procedure. Instead they adopted an ad hoc procedure of allowing the workforce to vote on the settlement with a view to taking industrial action if they did not accept management's offer. Employees accepted management's offer. A strike therefore was avoided but the dispute procedure was inconsequential in the aversion of strike action. In this plant, FOA is not acting as a strike substitute because there are certain issues that management would prefer to take a strike over than face the possibility of losing at arbitration. FOA is ineffectual unless the procedure is quite stark, it does not allow for ad hoc procedures and has commitment from both sides as a dispute deterrent.

Iveco Ford 1987

The IBC experience of and attitude towards FOA is very similar to that at Iveco Ford. Details of FOA in action at the plant have already been discussed. What was of particular interest therefore was garnering some attitudinal information from management concerning the use of FOA and the consequences of usage on subsequent years' industrial relations. It is clear that the experience of FOA did not enthuse management or unions into adapting to a dispute deterrent bargaining system. Instead they sought to circumvent arbitration altogether and return to more traditional means of resolving disputes.

Going back to the actual use of FOA in 1987, the personnel manager, Mr John Eskdale, stated that the reason management implemented the arbitrator's compromise option was that 'it felt fair' and that, more importantly, the company had to 'pay something to prevent a dispute'. If the award had been strictly implemented there would have been industrial action, since the union leaders had staked their reputations on achieving some concession, and the bargaining relationship would have been damaged. In other words the actual award was unworkable, but Lewis's (the arbitrator's) compromise suggestion successfully prevented industrial action. This provides something of a counterweight to the criticism of Lewis's actions above. It also suggests, however, that the parties were not prepared to live with the FOA procedure in the first place.

Since the use of FOA in 1987 both unions and management have indicated that they are not prepared to use arbitration again over a major collective issue such as a pay dispute. Preference for the traditional conflict resolution mechanisms in preference for FOA was graphically illustrated in 1990 when the plant experienced a six week strike over the two year pay settlement which also included proposals for changes in working practices. In seems clear that both management and unions preferred to submit themselves to the whims of industrial action rather than the whim of an arbitrator over such an important issue. Eskdale, in summing up the company's general attitude towards FOA, stated that 'it is potentially useful for non-pay issues and disciplinary or dismissal cases only'. There was certainly no enthusiasm for FOA but he also implied that FOA was never expected to fulfil an important industrial relations role at the plant.

The experiences of IBC and Iveco Ford suggest that perhaps FOA is useless without the concomitant new industrial relations structures of single-unionism, a no disruption clause, single status etc. It could also be argued that what is really lacking in both cases was any commitment from management in a low trust industrial relations environment. FOA needs to be clearly established as the final and binding stage in negotiations, rather than being one of the options should bargaining breakdown, if it is to be successful. These agreements have seen FOA fail because one side can always block FOA use and provoke or take industrial action instead. Therefore any power that FOA has to encourage settlements is dissipated. FOA becomes just another conflict resolution mechanism rather than a conflict deterrent. It is not designed to be a good resolver of conflicts, hence the problems with its use.

RHM Foods 1987 and 1990

There were two disputes which involved the use of the FOA procedure at RHM Foods in Wythenshawe, Manchester during the period examined. One in 1987 concerned whether or not mixers should get paid during meal breaks if their machines were still running. The second arose over the procedural aspects of the movement from hourly to monthly pay for a group of engineering employees. Both the personnel manager (Ms Julie Lynch) and the senior steward (Mr Graham Callton) of the GMB, the main union at the plant, were interviewed. The actual disputes were not complicated so there were no problems in determining final offers or how the procedure was supposed to function, but again the flexibility of dispute procedure usage was evident.

In the first case the union claimed an extra half an hour's pay for the *Paxo* mixers on the grounds that their machines were still running during the break and therefore they might have to be called back to the machines if a problem arose. The company refused the claim on the grounds that the running of machines during meal breaks was not a new phenomenon therefore there was no reason why these workers should now be paid for the time. Interestingly, although the collective agreement provides for conciliation (see Appendix C), the parties chose to by pass that stage and instead take the issue straight to arbitration. Both interviewees stated that this was because both parties were committed to their positions such that arbitration was the

only means of breaking the stalemate. The arbitrator found for the company at the hearing. Unfortunately the parties did not supply copies of the award so it is not possible to determine whether the arbitrator in this case complained about the lack of a compromise option.

Although the second arbitration award had substantive implications for one group of workers - previously hourly paid engineers - the actual dispute arose over one procedural aspect of the transition from hourly to monthly pay. Two months after the change in payment system, management became aware that the engineers were being paid more than had been budgeted for. It transpired that the wages officer and cashier had told the union representatives (AEU) in a meeting just involving them, that the engineers would receive an extra premium because of the change. A premium which had not been offered to them by management. Management claimed that this had been a mistake and that the premium should be removed. The company's and union's positions did not change during in-house negotiations and, having clarified their terms of reference, the parties referred the matter to ACAS. After unsuccessful conciliation the dispute progressed to arbitration under the auspices of a barrister selected by ACAS. The arbitrator chose for the union on the grounds that the wages officer and cashier were agents of management and having offered the premium could not renege on it.

Three aspects of the second dispute are notable: again conciliation proved to be an empty vessel since no movement occurred and the parties were not deterred from moving to arbitration; the arbitrator judged the issue on the procedural facts of the case rather than the cost implications significantly affecting the quality of the award - as a result of this management declared that it would block the use of a lawyer-arbitrator should it have to use arbitration again; and finally although the estimated cost of the award was £6,000, management paid for it by scaling down offers to the engineers in other areas. Lynch described this latter aspect as 'learning to live with' an unfavourable arbitration award. This illustrates another feature of the UK system which might not occur in North America. If management (and to a lesser extent unions) lose an arbitration award they can pay for it by altering other terms and conditions fairly easily, as the ABB Capacitors case also shows. By contrast, this is much more difficult in the US where collective agreements are complex, long term,

legal contracts which mean that once terms are determined for (usually) three years, they stay fixed. Although this suggests that completely unworkable awards are unlikely in the UK, it also provides another plausible explanation for why FOA also appears to have minimal deterrent power in the UK system.

The overall impressions of FOA from the two RHM Foods interviewees were quite favourable. The personnel manager stated that FOA had made industrial relations more constructive at the plant and even that using FOA 'was good for the factory'. She described the 1990 dispute as an 'honourable defeat' since the company had not actually capitulated to the unions but had instead showed trust by allowing a third party to decide the issue. Presumably she was also content because the pecuniary loss had been made good elsewhere. The steward was quite positive but a little more cautious about the benefits of FOA. He thought that the 'black and white' nature of FOA was 'a problem' and that this had discouraged the union from using FOA again after the 1987 dispute. This provides quite a neat picture of management willing to use FOA to foster high trust because losses can be mitigated and unions less willing to use it because defeats are less likely to be recouped. FOA could therefore really only be described as a dispute deterrent for the unions at RHM rather than for the management.

Sanyo (Lowestoft) 1985 and 1988

The details of the 1985 mediated dispute at Sanyo have already been fully set out in section 3 but there was also an arbitrated dispute in 1988 over the pay settlement. The union's initial claim for the 1987/88 salary review was for a 'substantial increase in all basic salaries' plus a demand to discuss bonus payments and an end to merit payments. The company first offered a 4.2 per cent increase on basic rates. In response at the first JNC meeting the union claimed a basic increase of 8.5 per cent plus the award of a bonus payment. The company came back with a six per cent offer plus certain conditions such as co-operation in improving productivity and absenteeism and no bonus to be paid. The workforce was balloted on this offer but it was rejected with 92.8 per cent voting against. At the final stage of the domestic procedure the union rejected the company's final offer of six per cent and reduced its claim to one item: an 8.5 per cent increase in basic rates. After a failure to agree was

reached both sides agreed to refer the matter to ACAS for arbitration. The arbitrator awarded for the union (in March 1988) on the grounds that it would 'provide a boost to morale and raise the level of employee commitment' which would in turn improve productivity and reduce absenteeism at the plant.

The personnel manager, Mr Noel Salmon, declared that the award was workable since labour costs were a very low proportion of total costs and that the award was a convenient way of improving employee commitment without capitulating to the union. The experience of FOA in 1988 was certainly far less complex and difficult than that in 1985. Salmon indicated that the 1985 experience meant that all parties were fully aware of what FOA entailed and it was therefore not surprising that the procedure went quite smoothly. He also argued that the main reason for the problems in 1985 was a clash of personalities between himself and Sanderson. This seems to be somewhat of an understatement, though, since there was also clearly some confusion over the procedural details of the FOA mechanism.

Sanyo (Newton Aycliffe) 1990

In 1988 Sanyo established another plant in the UK on a greenfield site at Newton Aycliffe in County Durham to manufacture microwaves. The FOA dispute procedure was agreed to in 1989 in time to cover the first proper terms and conditions review to determine salaries from 1 January each year starting from 1990. The procedure included a conciliation stage and the details of the procedure were quite tightly defined presumably because both the union (EETPU) and management had learned from the experience at other plants, particularly Sanyo at Lowestoft. The Advisory Body is the main bi-partite body comprising seven elected employee representatives and three management members. Any recommendation on pay has to back to Sanyo members, i.e. employees, for approval. If a recommendation is rejected by the workforce, then the Advisory Board drops out and management and union officials negotiate directly through conciliation.

For the first proper terms and conditions award (to begin 1 January 1990) the Advisory Board recommended 6 per cent but this was rejected by a workforce ballot. The union adopted a position of 8 per cent and these were the respective positions at conciliation, with the main argument over whether to use a 12 month or 7 month

inflation figure as a guide for the award. There was no movement during the conciliation stage apart from some cost-neutral changes offered by management which were rejected in a workforce ballot. Despite the dispute procedure's stipulation that any dispute should now progress to FOA, the matter was instead brought back in-house after conciliation. The Managing Director intervened directly to negotiate with the union full-time officer and offered a 'Japanese bonus': a 1 per cent one off payment in addition to the 6 per cent settlement. This offer was accepted by the workforce and therefore arbitration was avoided.

There are a two principal aspects to this dispute which are particularly relevant. First, on the role of conciliation, there must be a strong suspicion that it performed no positive function here since no substantive movement occurred. However, the personnel manager (Mr Paul Mann) argued that although conciliation was an empty vessel in substantive terms it was procedurally very useful because it established a negotiating relationship between the union and management outside the Advisory Board framework. This perahps suggests that the effectiveness criterion of compromise during conciliation may be too strong. In this case conciliation proved to be the catalyst which prompted the parties to resolve the dispute post conciliation and before arbitration. Secondly, as a consequence of this dispute the workings of the Advisory Body were altered such that the Terms and Conditions Review would be put on the agenda in August rather than December and more information would be provided by management for the negotiations. There was no proposal to scrap the conciliation stage of the procedure as had occurred at Sanyo, Lowestoft. In addition, in the following year management made a very high offer of 12 per cent plus an additional day's holiday 'to give the Advisory Board some credibility'. It appears that the near miss with FOA prompted both procedural and substantive changes to avoid the possibility of arbitration again.

Shotton Paper 1988

FOA was used at Shotton Paper's plant in North Wales to settle a dispute concerning the shift pattern. Before the dispute the plant operated on an eight hour shift system which provided for six days on, two days off and one week off in four. During the summer all employees worked six weeks straight then had two weeks off

because of holidays. In 1988 the union (EETPU) requested that this pattern be changed to 12 hour shifts on a four days on, four days off basis. Management was opposed to this on the grounds of loss in productivity and safety dangers through fatigue and problems of cover because of resultant absenteeism. During negotiations the union reduced its claim to this system just for summer working. Eventually after further negotiations the union official refused to continue to press the workforce's case on the grounds that 12 hour shifts were against national union policy. However, after another union threatened to recruit the workforce, the incumbent union sent in a new official to continue the claim. The final negotiating positions boiled down to management's refusal to alter the status quo and the union asking for an experimental use of the 12 hour shift pattern in the summer of 1989 with monitoring to check for any detrimental effects in line with management's objections.

As the plant's procedure does not provide for conciliation or mediation the dispute was taken straight from a failure to agree to FOA. At arbitration management claimed that effective monitoring would be impossible since the new system would coincide with the introduction of a new paper machine. The arbitrator, an academic from Cardiff, awarded in favour of the company on the basis of the inconsistency of the union's position. This is despite the fact that during the hearing he had been more attentive to the union side than the employer according to the personnel manager, Mr John Shield.

This case illustrates no particularly interesting aspects of FOA in action not also suggested by other cases. In terms of attitudes towards FOA and its function in the plant, Shield appeared to be quite content with FOA and claimed it had led to more effective negotiations at the plant than he had experienced in other plants. He stated that management had rejected the idea of including a pre-arbitration stage in the dispute procedure on the grounds that it would not have encouraged further compromise in this or other cases. When asked about the danger of unworkable awards, he said that this was unlikely to occur since even if arbitration was used 'you will have converged sufficiently that the gap [between final positions] is small' and therefore a 'defeat' would not be particularly more expensive than a 'victory'.

5. Summary and conclusions

Drawing together information from these various UK instances of use or near-use of FOA suggests a number of problems which can reduce the deterrent power of FOA. Some of these are peculiar to the UK but others may be a factor in problems with FOA usage in North America. Five themes stand out:

. **Flexibility**: The still relatively voluntarist nature of UK industrial relations means that procedural details of negotiations can be very flexible unlike in the US and Canada where the legalistic system precludes such flexibility. However, the dispute deterrent power of FOA relies on a certain amount of inflexibility - parties have to be sure that if they fail to negotiate an outcome, then winner takes all arbitration is definitely the outcome. Moreover the 'losing' party should not be able to easily mitigate the effects of an unfavourable award by negotiating or imposing changes in other terms and conditions. Further arbitrators need to be explicitly prevented from exercising their discretion under FOA for it to be effective, yet the UK has seen at least one arbitrator managing to achieve a compromise solution in an arbitration by FOA. The fact that arbitration awards are, in the great majority of agreements, not legally binding contributes to this flexibility. So whilst Kessler and Lewis may applaud flexibility which prevents unworkable awards, those interested in dispute deterrence may see this aspect of the UK system as a drawback.

. **The role of arbitrators**: Following on from the issue of flexibility is the role of arbitrators in undermining the deterrent power of FOA. The rather scathing opinions of the arbitration 'profession' have been laid out by the Central Arbitration Committe (1984) and ACAS (1987) and this has been carried forward into arbitration cases by individual arbitrators. Whilst some have confined themselves to merely expressing dissatisfaction with having no compromise option, others appear to have damaged the integrity of FOA by their actions during proceedings. Some negotiators have expressed dissappointment at these activities by arbitrators. Essentially arbitrators need to realise that their own interests in satisficing both parties must come second to maintaining the principle of FOA if this is what the parties want.

. **The role of union officials**: One feature of the very different context of FOA in the UK compared to North America which has not been suggested before concerns the role of union officials. In North America most bargaining units covered by FOA will be very large as they are overwhelmingly public sector units. Therefore one would imagine that relatively senior union officials are likely to be involved from quite early on in negotiations and will be interested in substantive outcomes from the off. On the other hand in the UK, because all FOA procedures are in private sector plants, union officials are unlikely to become involved in collective bargaining until a failure to agree is reached. A union leader faced with the immediate prospect of defeat under FOA may behave very differently from one who has been involved in negotiations from an early stage. This certainly seems to be the case in a number of the UK cases of FOA usage thus far. Union officials have either drastically cut their members' claim just before arbitration and/or tried to stymie the effect of arbitration with ad hoc use of other procedures, in order to be seen to 'win' procedurally. Such activities are also likely to undermine the integrity of an FOA procedure.

. **Empty vessels**: In general most managers viewed conciliation and/or mediation as empty vessels which did not contribute towards the encouragement of effective negotiations. In a couple of cases it was argued that conciliation had helped to clarify the parties' positions but rarely was there any movement in issues of substance during the hearings. Other managers argued that if anything conciliation helped to make the parties positions more intransigent rather than less. Interestingly the main union involved with FOA deals (EETPU) and its leader largely responsible for the early agreements (Roy Sanderson) increasingly took the opposite view - that some form of pre-arbitration was crucial to the success of these procedures after the Sanyo experience. The fact that the EETPU's members at Sanyo agreed with management might suggest that union leaders are more interested in avoiding total defeats at the hands of FOA rather than avoiding disputes in the first place. Perhaps union leaders are worried about their value in dispute-free plants.

. **Two types of FOA**: The case studies reveal that FOA is operating in two distinct ways in different UK plants: as a deterrent for all types of disputes; and

alternatively as merely a resolution mechanism for some, mainly rights, disputes. There seem to be two main determinants of which category a particular plant falls into. First, the level of trust in the bargaining relationship. In low trust, mainly multi-union environments FOA is merely seen as another mechanism to resolve the inevitable disputes that are going to arise. Management will not, however, allow a pay dispute to be decided by a third party but would instead prefer to resort to traditional means of settling conflict though industrial action. Secondly, it does appear that FOA is more likely to be viewed as a dispute deterrent when accompanied by other well known feature of the 'new style deals' stereotype such as single status, employee involvement and especially single unionism. Of course these may contribute towards an environment with higher trust and managers definitely view them as necessary for the deterrence of disputes alongside their FOA procedure.

Table 5.1
Disputes in the eight case study plants

Plant	Year of dispute	Issue(s)	Pre-arbitration	Arbitration award	
				For company	For union
ABB Capacitors	1989	Pay differentials	Conciliation		X
Anonco		Pay settlement	Settled in conciliation	-	-
IBC Vehicles	1988	Time off in lieu	Conciliation		X
"	1990	Shorter working week	Settled in conciliation	-	-
"	1991	Grading	Conciliation		X
Iveco Ford	1986-7	Cushioning pay	None	X	
RHM Foods	1987	Pay for meal breaks	Not used	X	
"	1990	Pay composition	Conciliation		X
Sanyo (Lowestoft)	1985	Pay package	Settled in mediation	-	-
"	1988	Pay	None		X
Sanyo (Newton Aycliffe)	1990	Pay	Settled in conciliation	-	-
Shotton Paper	1988	Shift pattern	None	X	

Chapter 6

Strikes and non-strike action: evidence on relative incidence

1. Introduction

Allan Flanders, writing in 1965 about the state of British industrial relations, said:

> "One of the notable features of workplace relations in recent years, not revealed by strike figures, has been the increasing use of 'cut price' industrial action such as overtime bans, working to rule or going slow." (Flanders 1970: 112).

Unfortunately Flanders did not provide or cite any evidence to back up his claim. The official statistics on industrial action published by the Department of Employment still only record strikes, excluding all other forms of organised industrial action[1]. However, there have been a number of surveys of British industrial relations since 1965 which collected data on the incidence of the main types of industrial action. In the main these tend to show that the incidence of cut-price action relative to strike action has in fact been declining since the mid 1960s such that even if Flanders was correct about industrial conflict before 1965, his statement would certainly not apply to the 1970s and early 1980s. Brown (1981) summarised the survey evidence up to 1978 as damning to Flanders's analysis because 'the relative importance of action short of a strike has fallen'.

The CBI Databank is a previously under used survey which provides data on industrial action over pay claims in manufacturing for over 1000 bargaining groups per year in the 1980s. Evidence from this survey suggests that Flanders's analysis warrants some rehabilitation. Overall the incidence of non-strike action is higher than that of strikes in every year of pay bargaining recorded. The comparative picture is driven by one particular form of action short of a strike - the overtime ban - which has been substantially more prevalent than strike action throughout the 1980s according to these data. Although care must be taken when comparing results from very different surveys, the general picture seems to be that in this, as in other aspects of post-war industrial relations, the 1970s may have been a peculiar decade. A comparison of results from these surveys also suggests that the tactics of industrial conflict deserve more systematic investigation than they have thus far received. There has been a

disproportionate concentration of research effort on strikes to the detriment of other forms of organised industrial action.

The chapter is structured to emphasise the considerable differences between the surveys in a number of respects, such that comparison of their results is subject to a range of caveats. After detailing the surveys in section 2, the caveats are spelt out in section 3. The picture of comparative incidence of the different forms of industrial action is examined in section 4 and section 5 provides some tentative conclusions

2. The surveys

Workplace industrial relations surveys are not new to the 1980s and 1990s. Independent or official surveys have examined the British industrial relations system at (roughly) workplace level five different times before 1980. These surveys include the first study of its kind conducted in 1966 for the Donovan Commission (Government Social Survey 1968). In the 1970s, surveys were conducted by the Office of Population Censuses and Surveys (OPCS) in 1972 and 1973, commissioned by the Department of Employment (Parker 1974 and 1975), by Political and Economic Planning (PEP) in 1975 (Daniel 1976) and by researchers at Warwick University in 1977-78 (Brown 1981). More recent and well known are the three Workplace Industrial Relations Surveys (WIRS) of 1980 (Daniel and Millward 1983), 1984 (Millward and Stevens 1986) and 1990 (Millward et al 1992). Part of each survey's remit was to examine the incidence of different forms of organised industrial action. The four main forms of action recorded were strikes, overtime bans, work to rules and go slows. Most of the pre-1980 surveys also collected data on threats to strike but recording of such action was discontinued after 1975. The Confederation of British Industry (CBI) Pay Databank survey has been collected on a quarterly basis since 1979. Details of the sampling frame and composition of the survey can be found in chapter 1. In terms of industrial action the data refer only to action taken during the course of pay negotiations. Information is collected on the threat of action, whether action was taken and, if so, its form - overtime ban, work to rule or go slow[2], strike or other - and duration of the most important form of action.

3. The caveats

Before comparing the figures on industrial action from the CBI Databank to those produced by these earlier surveys, some of their idiosyncrasies should be highlighted. Specifications of the nine surveys are listed in Table 6.1. This records the year of the survey, its published report (where appropriate), the sample used, the timescale covered, and any restrictions of the survey in terms of unionised status, industries sampled and issues covered.

Five of the studies are genuine workplace surveys, the unit of analysis is the single establishment. Parker, however, employed a very unusual measure, the 'industrial relations situation', as the unit of analysis in his two surveys. This is defined as 'the establishment or that part of it which, for industrial relations purposes, was under the control of a single senior manager.'

Although participants in the Government Social Survey conducted in 1966 as part of the Donovan Commission's work were asked to respond to questions about their place of work, the results are not presented as per establishment for each category of respondent but rather per shop steward, manager, personnel officer and foreman. As there were likely to be more than one shop steward or foreman interviewed per plant, the resultant data cannot really be seen as even approximating plant based incidence. The foremen were drawn from the same plants as the managers but the shop stewards were selected through six trade unions, not necessarily connected to these plants. Finally, as detailed above the CBI sample is bargaining group rather than workplace based.

'Timescale' refers to the period of time covered by the resulting data. The most unusual survey in this respect is the 1966 survey. Participants were asked whether or not there had been a strike (say) at their place of work whilst they had been in their current position. Average post tenures in the sample ranged from five years for foremen, through six years for shop stewards, six-and-a-half years for personnel officers, to 8 years for the management respondents. This timescale compares with one or two years for the other surveys, apart from the CBI survey. The timescale of the CBI data is potentially different for each individual observation. The survey asked about industrial action in support of the most recent pay claim. The great majority (around 90%) of pay settlements apply for 12 months (Ingram 1991).

However, as the questions specifically relate to negotiations over pay, most of the industrial action is likely to be in a one or two month period surrounding the expiration of the contract.

A further feature of the surveys worth noting is that some surveys report the incidence of action in both plants where unions are recognised for collective bargaining and those where no union is recognised. However, some of the studies either only surveyed unionised states (Government Social Survey 1968, Daniel 1976), or only provide the breakdown of different types of action for unionised states (Daniel and Millward 1983)[3]. So for each of these three surveys the incidence of industrial action figures are based on a sample of respondents where unions, to some degree, are recognised for collective bargaining.

Industrial action is infrequent in non-union workplaces. Millward and Stevens (1986: Table 10.3) report the incidence as being less than 0.5% in non-union plants in 1984. In the CBI sample around 1.5% of non collectively bargained pay settlements involved some form of industrial action. Although this is considerably higher than the figure reported for all industrial action in WIRS 1984, it is still substantially less than the 6.6% recorded for settlements in the CBI data involving collective bargaining.

Five of the surveys contain data from across industrial sectors, very broadly defined in some cases - for example data from only four industries but at least one is in the service sector, Parker (1974). The CBI data (made available) are confined to manufacturing (data on private services have been collected since 1983 but are unavailable at present) as were the Daniel survey, the Warwick Survey and the shop steward responses to the government's 1966 survey. Note that the WIRS data are heavily dominated by industrial action in the public sector which is not covered by the CBI Databank. This is particularly influential in explaining the great disparity of results on the comparative incidence of strikes and non-strike action between the two sets of data.

Finally, and particularly important, all the surveys bar the CBI Databank record industrial action over any issue, whereas the CBI survey is restricted solely to action in pursuit of a pay claim or taken over a pay award. This would make meaningful comparisons between the surveys very difficult if type of industrial action employed in pay disputes was fundamentally different from that over other issues, such as working

hours, working conditions or disciplinary issues, i.e. pay disputes were more likely to be associated with a certain type of action.

Evidence from the successive WIRS on the reasons given for the most recent industrial action (Millward et al 1992: Table 8.3) in the main suggests that the restriction of the CBI survey to disputes over pay should not invalidate comparisons with other surveys. It is clear that pay was the predominant reason for strike and non-strike action for both manual and non-manual workers in 1980, and despite a slight decline, this was in general still the case in 1984 and 1990[4]. Note, however, that the WIRS definition of pay disputes could include action taken over merit-based pay systems as well as annual negotiations, unlike the CBI survey.

One unusual result for 1984 is the pattern for manual strikes with only 32% of respondents giving pay as the reason for the action compared to 59% in 1980. However, much of this difference is explained by the abnormally high level of 'political' strikes covered by the 1984 survey (which are classified as miscellaneous in WIRS) over privatisation in the postal services and telecommunications industry.

There are therefore a range of caveats which need to be borne in mind when comparing these surveys. The compositional differences of the sample, different timescales, varied units of analysis and respondents all mean that this is definitely not a comparison of like with like. The accumulation of results from the surveys cannot and should not be treated as a continuous time series. However, the comparative picture is still worth investigating since it suggests such a stark picture of change.

4. Comparative incidence of industrial action

Table's 6.2, 6.3 and 6.4 report the incidence of different forms of industrial action recorded by the surveys listed in Table 6.1. Table 6.2 shows the results from the pre-1980s surveys, Table 6.3 provides a breakdown of figures from the WIRS, and Table 6.4 shows figures for each pay year (August to July) from the CBI survey for 1979-1989.

The considerable dissimilarities of the surveys, described above, mean that it would be nonsensical to compare the absolute figures on levels of industrial action reported between the different surveys. However, one notable feature of Tables 6.2 and 6.3 which deserves some comment is the discrepancies in reported incidence for

the surveys which collected information from both management and worker representatives. Some of these discrepancies can be explained because there was no attempt to match the worker and management samples (as in the 1966 survey). However, in Parker's surveys and the WIRS there are differences in the responses from representatives of employees and management in the same establishment. In the latest reporting of data from the three WIRS, management and worker representative responses are combined in order to best measure the extent of industrial action in the majority of cases (Millward et al 1992: Table 8.2).

Daniel and Millward (1983) put the divergence in reporting between management and worker respondents down to three factors: problems over the definition of certain forms of action; incomplete recall of events; and 'telescoping' of events where events outside the reference period are recorded as inside it. They also point out that managers are more likely to understate the level of non-strike rather than strike action. The CBI Databank respondents are predominantly management members of the negotiating team, therefore there should be little suspicion that they are over reporting the incidence of non-strike action compared to strikes.

Given that we are ostensibly interested in the relative importance of different forms of action, the best means of comparison is to report the level of each form of industrial action relative to the level of strikes. Following Brown's example (Brown 1981: Table 5.3), Table 6.5 shows the relative incidence of any non-strike action, overtime bans and works to rule/go slows compared to the reported level of strikes.

Comparison of the 'any non-strike action' results from the pre-1980 surveys with the later surveys are problematic since before the former record 'threat of strike' as a form of non-strike action (or pressure). This category is not recorded or reported for the later surveys since it is is too nebulous. As Brown notes:

> "The pilot survey revealed that this definitionally difficult concept was of little value since, as several respondents put it, 'they're always threatening to strike'." (Brown 1981: p80).

Although the CBI Databank survey does record the occurence of threats to action, these data were not used for this analysis.

Note also that the work to rule and go slow classifications have been combined in the table because the CBI Databank treats them as a single category of action. As

this survey is the main new source of evidence reported here, some attempt must be made to make the surveys comparable. Therefore the incidence figures for works to rule and go slows from the non-CBI surveys are simply added together for Table 6.5. This does mean that the comparative incidence of works to rule / go slows compared to strikes for each of the non-CBI surveys is likely to be overstated - some of the respondents must have experienced both forms of action over the period. Such respondents will be recorded as two different observations for the non-CBI surveys rather than one for similar cases in the CBI data.

The relative incidence levels reported in Table 6.5 are displayed graphically in Figures 6.1 to 6.3. Figure 6.1 shows the relative level of any non-strike action compared to strike action recorded by the none surveys. In all but three surveys (in 1978, 1984 and 1990) non-strike action was more prevalent than strike action, and the CBI data fit with this general picture. However, as stated earlier there is a considerable problem with the pre-1978 results in that they record threat to strike as a form of non-strike action. Moreover, because the incidence of such threats is not trivial (ranging from 19 to 50 per cent across the surveys), comparisons of these indices is misleading. More interesting is the comparison of the CBI data to those surveys which did not record threats to strike within the catch-all of non-strike action. The relative incidence of any non-strike action is considerably and consistently higher in the CBI survey than the non-CBI surveys in 1978, 1980, 1984 and 1990. On average non-strike action is just over double the rate of strike action (2.10), which compares with 0.88, 1.23, 0.95 and 0.50 respectively for these other surveys.

When this picture is broken down into its constituent parts, a clear depiction of what is driving this comes out. The main explanation for the highly disparate comparative levels of non-strike and strike action is the considerably greater comparative use of overtime bans recorded by the CBI survey. Figures 6.2 and 6.3 depict the relative incidence of overtime bans and works to rule/go slows against strikes.

The picture of works to rule/go slows compared to strikes in Figure 6.3 shows that the incidence of these forms of action has been fairly consistently below the level of strikes throughout the period examined. The CBI data indices do not look out of place with results from the other surveys, although it may be that the non-CBI indices

are slightly overstated because of the addition of works to rule and go slows responses to match the figures with the CBI survey responses.

Without doubt the key feature of these figures is the picture of the relative prevalence of overtime bans compared to strikes shown in Figure 6.2. In every year of the CBI data the level of overtime bans is higher than that of strikes, though only just for 1979-80. On an annual average basis, the level of overtime bans was roughly double the level of strikes. These figures are remarkable when compared to the other surveys' results. All the studies conducted in the 1970s bar the OPCS survey of 1973 (which is considerably out of kilter with the others) indicate that the overtime ban was substantially less popular than the strike. If data from WIRS did not exist, the overwhelming impression from Figure 6.2 is that the overtime ban overtook the strike in the 1980s as the most popular form of organised industrial action. However, the WIRS data show a very different picture of a decline in the use of overtime bans, particularly after 1984 when the relative incidence drops from 0.58 to 0.30, alongside the decline in non-strike action more generally relative to strikes.

These very different indices require an explanation. Some of the difference between the WIRS and the CBI figures must be explained by the composition of the samples and particularly the restriction of the CBI data to only manufacturing, whereas the WIRS sample covers all industries and only around a fifth to a quarter of the weighted sample base in each year is made up of manufacturing plants (27%, 21% and 21% in the respective samples). The three source books do provide some breakdown of action across sectors (although unfortunately not below the 'any non-strike action' level to overtime bans and works to rule/go slows). The relative incidence of non-strike action to strike action is slightly higher for manufacturing compared to other sectors for manual and non-manual workers (classed separately) for 1980 and 1984, with the one exception of non-manuals in public services in 1980 (Millward and Stevens 1986: Table 10.2). Note, however, that the indices are still somewhat lower than those from the CBI data.

Even more consistent with the CBI data is the 1990 WIRS finding that the relative incidence of non-strike compared to strike action in manufacturing was 1.75 with 7% of plants reporting non-strike action and 4% reporting strikes, compared to the overall ratio of 0.50 (5% and 10% reporting each type of action respectively). One

suspects that a more thorough breakdown of the WIRS data to show overtime bans and works to rule/go slows relative to strikes in manufacturing would produce data not as much out of kilter with the CBI data. Furthermore, as explained above, the 1984 WIRS recorded a high level of industrial action over political issues for manual workers which usually meant strike rather than non-strike action. Perhaps if the WIRS results were restricted to solely pay issues, they would report a higher relative level of overtime bans compared to strikes.

Therefore the relatively simple picture of relative incidence reported in Table 6.5 and FIgure 6.2 must be qualified. In British manufacturing there appears to have been a shift towards the use of overtime bans relative to strikes in the 1980s compared to previous decades, especially over pay disputes. This has run alongside the continued decline in the absolute level of all forms of industrial action especially after 1983-84 (see Table 6.4).

5. Conclusions

This description of the reversal in the relative incidence of overtime bans and strikes between the 1970s and 1980s sheds light on, and provokes further questions about, some interesting issues in British industrial relations.

First, concerns the extent to which the 1970s should be seen as a unique decade in UK industrial relations. Already documented are post-war peaks in union membership and density (Bailey and Kelly 1990) and strike activity, whatever measure is used (Milner and Metcalf 1993). The evidence cited in this paper, suggests that a further peculiarity was over the preferred tactics of organised industrial conflict - in favour of the strike over non-strike action. Just as union membership and strike activity trends have been reversed in the 1980s, so too have the preferences for particular weapons of industrial conflict at least in manufacturing. However, because of the relative lack of data from before the 1970s on the incidence of forms of action other than strikes, it is not possible to state whether or not the overtime ban/strike comparison of the 1980s marks a return to the pre 1970s position, as the union membership and strike series suggest. Without the relevant data, this question could only be guessed at if we had some conception of what factors might determine the relative incidence of strikes and overtime bans.

There is an important, often unasked question which the divergent results of these various surveys makes all the more interesting. This concerns the tactics of industrial disputes. Specifically, why is it that some bargaining groups choose the overtime ban in preference for or as a preliminary to the strike, while others choose only to strike after reaching a failure to agree. The theoretical and empirical literature on strikes is huge (Edwards 1992), yet there has been very little work of any type on potential explanations for the incidence of overtime bans or other forms of organised action compared to strikes. Chapter 7 develops an argument that to date empirical studies of strikes using UK data have too readily sought to test economic strike theories developed in the US, without giving proper consideration to the different context of industrial action in the two countries. Economist's theories of strikes are based on the US private sector, where the strike is really the only possible action open to workers after a failure to agree in negotiations over a new contract. This is plainly not the case in the UK where there are a range of options available to workers after a failure to agree, including different sorts of industrial action and/or third party intervention.

Given that evidence from the UK in the 1980s shows that, over pay settlements in manufacturing at least, the overtime ban has been consistently more popular than the strike and that this may be a very different picture from the 1970s, further investigation of this whole area is warranted.

The strike weapon appears to be withering away as industrial relations progress into the 1990s (Department of Employment Gazette, successive issues: Table 4.2). Therefore it seems particularly pertinent to examine somewhat more closely what happened to other forms of organised and unorganised industrial action in the 1980s. The greater preference for the overtime ban over the strike as a means to pursue pay claims in manufacturing over the decade revealed by the CBI Databank survey, must rank as another major change in the outcomes of British industrial relations seen in the 1980s.

Footnotes

1. In fact the official strike figures also exclude stoppages involving fewer than 10 workers and those of less than one day's duration, except where the aggregate number of working days lost exceeds 100. See Milner and Metcalf (1993) for comprehensive information on the official strike figures, and a record since 1893 of official strike statistics.

2. Perhaps the major drawback of the CBI survey is that it does not measure work to rule and go slow as different categories. There may be very good reason for this, for instance if practitioners believe that only semantics separates the two forms of action. However, this makes comparison of the CBI data with evidence from other surveys on these two forms of industrial action very difficult. Hence another reason for the concentration on the overtime ban and strike comparison.

3. In their comparisons of data from the three WIRS, Millward et al. (1992) provide data for 1980 for unionised and non-unionised establishments combined.

4. The only exception to this is for non-strike action by non-manuals in 1990. 29% of the most recent cases of non-strike action were over pay (wage rates and earnings) issues compared to 36% over manning and work allocation.

Tables and Figures

a. Tables

b. Figures

c. Notes

1. Table 6.5 and Figures 6.1 to 6.3: For the 1978 Warwick survey only the figure for manual workers, and for the three WIRS only the combined answers for either manual and/or non-manual workers are reported as indices. The relevant indices (strikes=100) for the categories not reported are:

Year of survey	Worker type	Non-strike action	Overtime bans	Works to rule go slows	Respondent
		%	%	%	
1978	Non-manual	120	80	60	Managers
1980	Non-manual	200	125	100	Combined
	Manual	91	64	50	Combined
1984	Non-manual	86	43	43	Combined
	Manual	100	75	25	Combined
1990	Non-manual	25	13	13	Combined
	Manual	100	67	33	Combined

Table 6.1
Specfications of surveys

Study	Sample	Timescale	Union/non-union status	Industries	Issues
Government Social Survey (1968) Survey date: 1966	1197 shop stewards in 6 unions; 319 managers and 121 personnel officers in 343 plants; 598 foremen in 319 plants	Post tenures: Means (years) Stewards 6, Managers 9, Personnel Officers 6.5, Foremen 5.	Unionised plants only	Stewards: all industries. Others: Manufacturing and construction only.	Any
Parker (1974) Survey date: 1972	296 industrial relations 'situations' in 202 plants	Previous two years	Both	All	Any
Parker (1975) Survey date: 1973	468 industrial relations 'situations' in 319 plants	Previous two years	Both	All	Any
Daniel (1976) Survey date: 1975	242 establishments	Previous 12 months	Unionised plants only	Manufacturing only	Any
Brown (1983) Survey date: 1978	970 establishments	Previous two years	Both	Manufacturing only	Any
Daniel and Millward (1983) Survey date: 1980	2040 establishments	Previous 12 months	Both	All	Any
Millward and Stevens (1986) Survey date: 1984	2019 establishments	Previous 12 months	Both	All	Any
Millward et al (1990) Survey date: 1990	2061 establishments	Previous 12 months	Both	All	Any
CBI Pay Databank Survey dates: 1979-89	11866 bargaining rounds	Most recent pay claim or award	Both	Manufacturing[(i)]	Pay claim or award

Notes: (i) CBI Pay Databank survey also covered private services from 1983 but not included in data made available.

Table 6.2
Reported incidence of industrial action from various surveys 1966-1978

Year of survey	Worker type	Strike action	Non-strike action	Threat to strike	Overtime ban	Work to rule	Go slow	Other	Reported by
		%	%	%	%	%	%	%	
1966	Any	40	59	30	42	28	12	6	Stewards
	Any	30	55	33	33	18	18	6	Managers
	Any	na	32	46	48	27	23	10	Personnel officers
	Any	28	44	20	22	10	7	3	Foremen
1972	Any	35	60	24	38	30	7	7	Stewards
	Any	32	38	19	24	19	9	8	Managers
1973	Any	23	53	26	36	25	9	7	Stewards
	Any	18	40	19	25	17	9	7	Managers
1975	Any	24	na	50	17	16	7	5	Managers
1978	Manual	33	29	-	23	12	4	6	Senior managers
	Non-manual	5	6	-	4	3	1	1	"

Notes to Table 6.2:

(i) Sources: Government Social Survey (1968): para. 2.105 (stewards); para. 4.67 (managers and personnel officers); para. 5.43 (foremen).
Parker (1974): Tables 126 and 127.
Parker (1975): Tables 106 and 107
Daniel (1978): Table II 6.
Brown (1981): Table 5.1.

(ii) 'na' means not reported in text.

(iii) '-' means not recorded by the survey.

Table 6.3
Incidence of industrial action reported by Workplace Industrial Relations Surveys 1980,1984 and 1990

Survey	Worker type	Sub-sample	Strike action	Non-strike action	Overtime ban	Work to rule	Go slow	Other	Reported by
			%	%	%	%	%	%	
1980	Manual	Unionised	17	15	12	5	1	4	Worker reps.
		workplaces	19	15	11	5	2	5	Managers
		All workplaces	11	10	7	4	1	4	Combined answers
	Non-manual	Unionised	9	17	9	7	*	10	Worker reps.
		workplaces	8	12	8	4	*	6	Managers
		All workplaces	4	8	5	4	*	4	Combined answers
	Any	All workplaces	13	16	10	7	1	7	Combined answers
1984	Manual	All workplaces	8	8	6	2	*	4	Combined answers
	Non-manual	All workplaces	14	12	6	6	*	4	Combined answers
	Any	All workplaces	19	18	11	8	*	5	Combined answers
1990	Manual	All workplaces	3	3	2	1	*	1	Combined answers
	Non-manual	All workplaces	8	2	1	1	*	1	Combined answers
	Any	All workplaces	10	5	3	2	*	2	Combined answers

Sources: Daniel and Millward (1983), Table IX.1; Millward and Stevens (1986), Table 10.1; and Millward et al (1992), Table 8.2.

Table 6.4
Incidence of industrial action recorded by CBI Pay Databank 1979-89

	% of bargaining groups experiencing following forms of action					
	Any action	Strike	Non-strike action	Overtime ban	Work to rule, go slow	Other
By Pay Round						
1979-80	8.0	4.0	5.5	4.1	2.7	1.0
1980-81	6.2	2.1	4.5	3.8	1.8	0.7
1981-82	6.4	2.2	5.0	4.3	2.2	0.3
1982-83	5.6	2.0	4.4	3.9	1.5	0.4
1983-84	8.6	3.5	7.3	6.0	2.8	1.1
1984-85	4.2	1.1	3.5	3.1	1.3	0.2
1985-86	5.4	2.2	4.7	4.2	1.3	0.0
1986-87	4.3	1.2	3.8	3.4	1.3	0.3
1987-88	3.4	1.7	2.5	2.5	0.5	0.2
1988-89	2.0	0.7	1.9	1.7	0.6	0.2
Mean	**5.5**	**2.1**	**4.4**	**3.8**	**1.6**	**0.4**

Source: CBI Pay Databank
Notes: Number of observations = 11866

Table 6.5
The relative incidence of strike and non-strike action in Britain, 1966-1990

Year of survey		Any non-strike action		Overtime bans		Work to rule / go slows	
	Strikes	Non-CBI	CBI	Non-CBI	CBI	Non-CBI	CBI
1966	100	148		110		120	
	100	183		105		100	
	100	157		79		61	
1972	100	171		109		88	
	100	119		75		106	
1973	100	230		157		89	
	100	222		139		148	
1975	100	-		75		96	
1978	100	88		70		48	
1980	100	123	138	77	103	54	67
1981	100		214		182		86
1982	100		227		197		100
1983	100		220		192		72
1984	100	95	209	58	172	42	81
1985	100		318		278		114
1986	100		214		202		60
1987	100		317		279		107
1988	100		147		142		27
1989	100		271		244		87
1990	100	50		30		20	

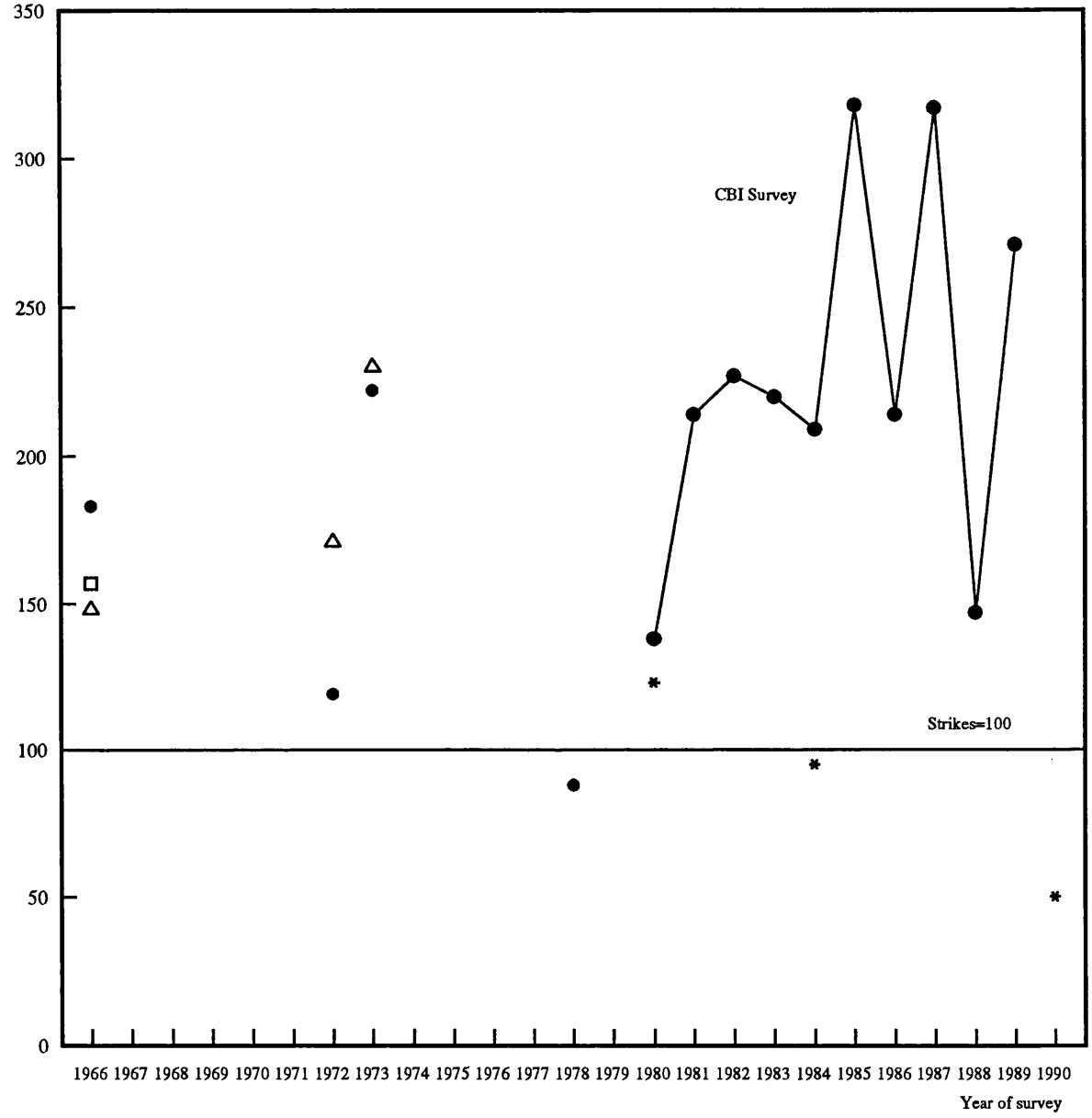
Notes: (i) Figures reported are the number of repondents experiencing given action as percentage of number experiencing strikes expressed as an index (strikes=100).

(ii) Range of responses recorded for same year signifies a multi-repondent survey. Details of surveys listed in Table 6.1

(iii) '-' indicates not recorded in survey.

Sources: Tables 6.2, 6.3 and 6.4.

Figure 6.1
Relative incidence of strike and non-strike action 1966-1990



Notes:

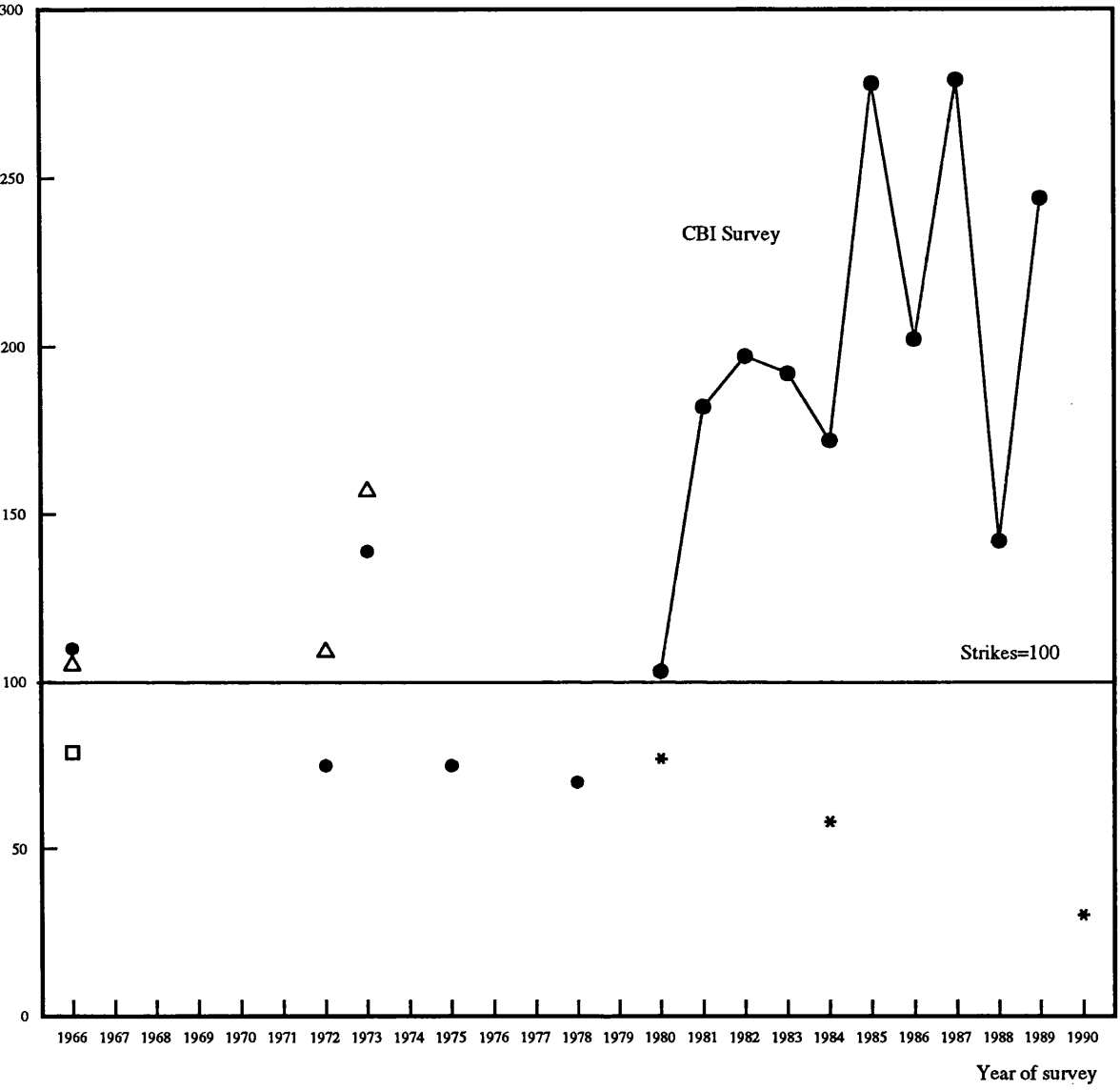
1. Reported by:

- ● Managers
- —●— Managers
- △ Shop stewards
- * Combined reports
- □ Foremen

2. Figures used are % reporting non-strike action/% reporting strikes.

Source: Table 6.5

Figure 6.2
Relative incidence of strikes and overtime bans 1966-1990

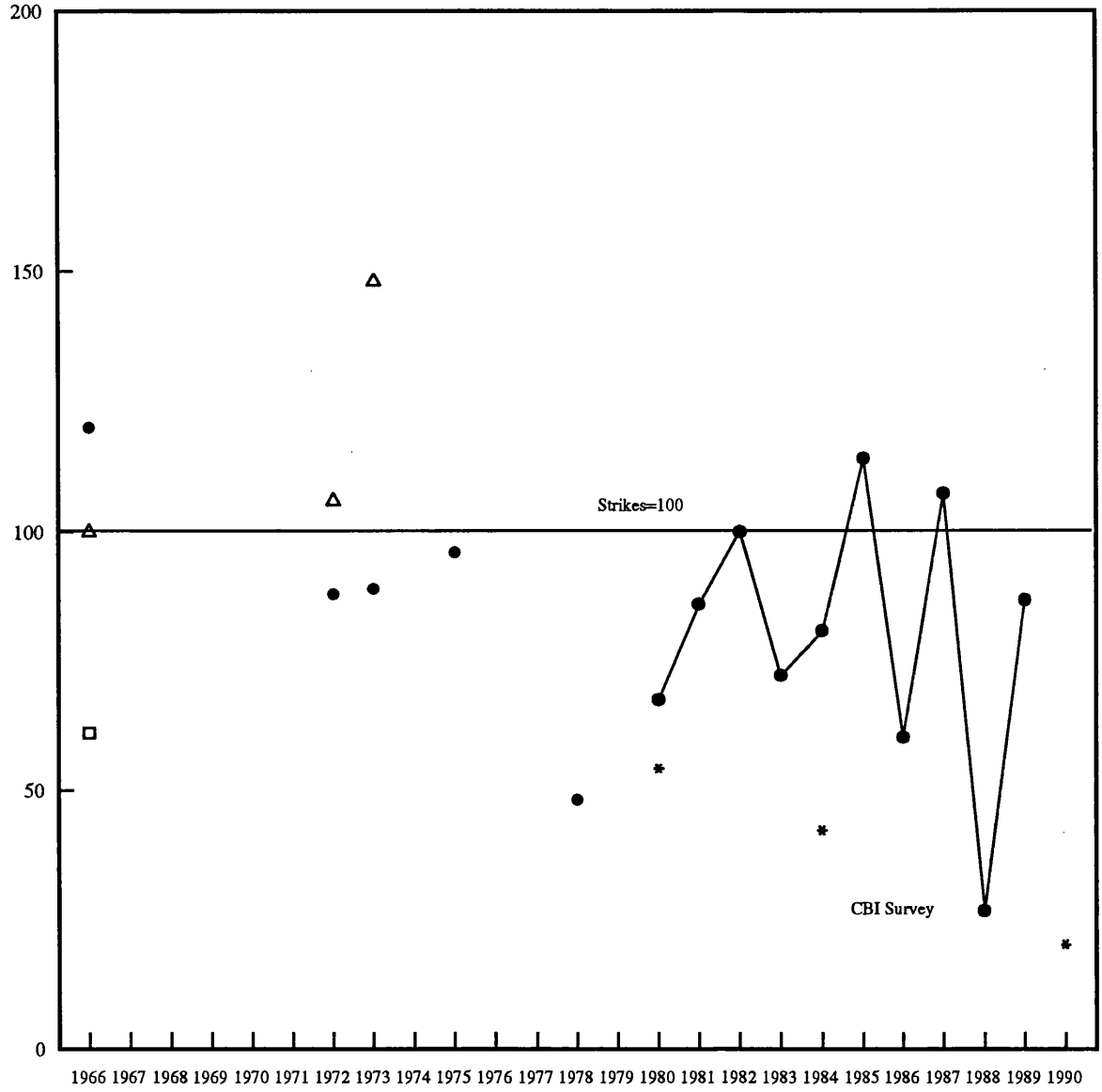


Notes:

1. Reported by:
   - ● Managers
   - —●— Managers
   - △ Shop stewards
   - * Combined reports
   - □ Foremen
2. Figures used are % reporting overtimes ban/% reporting strikes.

Source: Table 6.5

Figure 6.3
Relative incidence of strikes and works to rule/go slows 1966-1990



Notes:

1. Reported by:

- ● Managers
- —●— Managers
- △ Shop stewards
- * Combined reports
- □ Foremen

2. Figures used are % reporting works to rule/go slows/ % reporting strikes.

Source: Table 6.4

Chapter 7

Disputes, overtime bans and the tactics of industrial action

> "It appears from this that overtime bans may be as frequent as strikes - a reflection of the extensive use of overtime in this country..." (Donovan Commission, 1968: para 375)

> "... an explanation of differences in strikes might hold good for the use of all kinds of sanctions." Clegg (1976).

1. Introduction

Overtime bans were the most prevalent form of industrial action in manufacturing in the 1980s. During the decade over 4.5 per cent of wage settlements in UK manufacturing involved an overtime ban, according to data from the CBI Pay Databank. This is almost double the rate of strikes in such settlements for the same period (2.6 per cent). The Donovan Commission's survey of workplace industrial relations conducted in 1966 suggested that the incidence of overtime bans and strikes was very similar (Government Social Survey 1968), yet the Commission's Report devoted a whole chapter to strikes and a mere half sentence to overtime bans (quoted above). Although a great deal of time has been devoted to the issues of strike incidence, causes, duration and effect, there has been virtually no analysis of this apparently more popular form of action (at least in the 1980s). Clegg (1976) implied that a satisfactory explanation for the incidence of strikes would be sufficient as an explanation for the use of overtime bans and other industrial sanctions (quoted above). Perhaps this is one of the reasons why overtime bans have been so little investigated. Using data from the CBI Pay Databank covering over 1000 wage settlements per year in the 1980s, this chapter examines the incidence of these different forms of industrial action.

The paper also challenges the accepted economic approach to explaining strikes in the UK. Previous economics based UK empirical studies of strikes (Booth and Cressy 1990, Ingram, Metcalf and Wadsworth 1993) have been restricted to testing US economic strike theories, which are constructed on the basis of a very different

industrial relations system. In essence the established economic strike theories can really only be said to explain bargaining impasses. To explain the incidence of strikes or overtime bans (or any other outcome post-impasse) in the UK, some consideration of tactics as well as dispute causes is necessary.

Section 2 provides some further descriptive information on the incidence of overtime bans compared to strikes and other forms of industrial action in the 1980s, in addition to that provided in chapter six. The main conceptual basis of the paper is fleshed out in section 3. In section 4 the theories which attempt to explain bargaining impasses are assessed and some possible determinants are outlined. Section 5 discusses factors which could in theory influence the tactics of industrial action with special reference to overtime bans. Section 6 provides results from the CBI Pay Databank, on the incidence of different forms of industrial action. Conclusions and some implications concerning the findings are outlined in section 7.

2. Industrial action in the 1980s

Data from the CBI Pay Databank survey reveal that 6.6% of wage settlements in manufacturing in the 1980s, where collective bargaining took place, involved some form of industrial action. By far the most common form of action was the overtime ban - a restriction on the level of overtime working imposed as a sanction by workers. Table 7.1 records the incidence of the various forms of industrial action for each year in the sample, as well as by industry[1]. The sample for this table is all 9117 settlements in the CBI Databank in establishments where unions were recognised for determining some element of the pay and conditions of at least some of the workforce, hence the higher figures than those reported for the whole survey in Table 6.4.

The overtime ban was the most popular form of industrial action in every pay round covered. This is illustrated graphically in Figure 7.1. Note that after the overtime ban, the strike is next most prevalent form of action, followed by the go slow or work to rule. This picture of industrial action tactics is very different from that suggested by workplace surveys of the 1970s. Most of the latter report that strike action was the most popular form of industrial action. This comparison is explored in chapter 6, and the evidence presented here sheds some light on why the relative popularity of overtime bans and strikes seems to have reversed in the 1980s compared to the previous decade.

Particularly dispute prone industries in the 1980s were Coal and Petroleum Products (note that this does not include coal mining which is excluded from the survey), Instrument Engineering, Vehicles and Timber, which generally confirms expectations and earlier findings (Brown 1981). In terms of the strike versus overtime ban split, Coal and Petrol Products, Metals and Mechanical Engineering seem to have disproportionately higher incidences of overtime bans than strikes compared to other industries.

There is a general consensus in the academic literature concerning the complementary relationship between strikes and non-strike action (Clegg 1976, Smith et al 1978, Kelly and Nicolson 1980, Brown 1981, Ingram et al 1991). A plant which has one sort of action (say an overtime ban) in a particular bargaining round is also more likely to have another type of action (say a strike) in that round. This finding is supported for individual bargaining groups in the CBI data by the correlation coefficients between the various forms of action, which are all positive (Ingram et al 1991: Table 3).

One implication of this complementarity could be that explanations for strikes may also be appropriate for other forms of action, as implied by Clegg (1976). However, this second best approach can be rectified because of the depth of data from the CBI Databank. Despite the complementarity there are variations within the pattern and it is certainly not the case that all strikes are preceded by overtime bans, nor are all overtime bans followed by strikes[2]. Thus far no study has looked more closely at the connection between the two main forms of action. Specifically why the tactics of industrial conflict might vary between different bargaining groups and at different times.

3. Strike theories, bargaining impasses and industrial action

a. Introduction

Economic theories of bargaining and strikes are virtually all of US origin and consequently owe much to the particular industrial relations system and labour law environment which exists there. In fact most strike theories are restricted to theoretical modelling of contract renewal negotiations in the US private sector, and so ignore other (intracontractual and usually illegal public sector) strikes and other types of

bargaining impasse. The main thematic argument underlying this chapter is that because the particular contextual scenario on which strike theories are based does not even closely fit the UK industrial relations environment, strike theories when applied to the UK need to be relabelled as impasse theories. The key point is that, unlike in the US, in the UK there are a range of potential types of bargaining impasse which are not pre-determined before bargaining begins. This has important consequences and means that these strike theories cannot and should not be tested on UK data in the same way as they are tested on US and Canadian data.

The ensuing analysis suggests that previous micro studies of strikes in the UK which have attempted to test the various economic strike theories have actually only skimmed the surface of bargaining impasses and strikes. This argument does not necessarily invalidate their conclusions but rather suggests that they have not really conducted the right tests. Note that this point is about much more than semantics over what is the most appropriate nomenclature of these theories. It argues that 'strike theories' should be tested as impasse theories in the UK (i.e. with different dependent variables or sample selection than previously used), and that some consideration of the tactics of industrial action is a necessary complement to impasse theories for a more credible analysis of strikes and other forms of industrial action.

b. The context of strike theories

Existing economic models of strike activity concentrate on one particular type of strike - contract renewal strikes in the US and Canadian private sectors. Labour contracts are fixed term, usually three years duration and legally enforceable. About 50% of US strikes occur after the breakdown of negotiations over the new contract (Flaherty 1983). There has been very little work on the distinction between contract and intracontractural strikes and in the main this has largely been ignored in theories or analyses of strikes with Flaherty's (1983) paper an exception.

There are a number of reasons for this concentration on contract strikes. Principal is probably their lesser economic impact because of shorter duration, the lower number of workers involved and hence days lost. In addition, however, is the fact that the rules of the game are more closely defined for contract strikes than for more sporadic action, which suits econometric modellers. However for purposes of

comparison with the UK, the contractural nature of the strike may be less important than the legal environment and legal status of such contracts.

A crucial element is that the legally enforceable nature of North American collective agreements means that the only possible outcome should the parties fail to reach agreement on the terms of a new contract is a strike (or a lockout). The only sanction available to employees should they fail to agree new terms with their employer is a strike. There is no equivalent to the overtime ban or go slow as in the UK, nor can either or both sides call for the intervention of a third party to help resolve any impasse. It is the sole availability of the strike weapon in the private sector which makes economic theories of bargaining impasse almost by default also theories of strike incidence.

This may seem an overstylised description of the US scene. But this stark (strike or settle) picture is confirmed in a recent paper by Crampton and Tracey (1992):

> "Previous [strike] models have assumed that all labor disputes take the form of a strike." (p100).

Acknowledging this fact, Crampton and Tracy develop a new model on the basis that a 'holdout' is another possible outcome rather than just strike or settle. A holdout is defined as the time between the expiration of the previous contract and either the beginning of a strike or the settlement of a new contract, whichever comes first. It is quite clear that a 'holdout' cannot be classed as a post-impasse sanction. In the UK a holdout is equivalent to the extension of negotiations beyond the expected date of the next pay award or settlement. This would not be classed as a bargaining impasse in the UK, and certainly not a case of industrial action. There is no indication in the US literature that, once contract negotiations fail, there is any alternative to strike action and this is the context on which all the economic strike theories are based.

One caveat concerning private sector arbitration should be acknowledged though. Parties in the private sector can use arbitration as an alternative to strike action, but only in circumstances which do not undermine the general picture of impasse equals strike. In the terms of a new contract, parties can incorporate a clause which provides for arbitration rather than the strike option, should they fail to negotiate the next contract successfully. This is best classed as a voluntarily agreed,

compulsory arbitration clause. Again, fundamental to this scenario is the concept that the consequence of a bargaining impasse is pre-determined.

In this restricted context it is readily apparent that a theory which can successfully predict a failure to agree, will also predict the incidence of strike action (although an additional model is required to predict the duration of the stoppage) or arbitration should the parties have adopted such a clause.

This conclusion can also be applied to the use of dispute procedures in the public sector. As described in chapter three, although all North American public employees have no right to strike unless their particular State, Province or municipality legislature provides such a right (and very few jurisdictions have done), many of them are covered by compulsory arbitration or alternative dispute procedures (Ashenfelter 1985). Some jurisdictions provide a choice of procedure, but this is similar to the situation described in the private sector, i.e. the choice of post-impasse procedure is made before contract negotiations. Again the procedural outcome should negotiations fail is relatively pre-determined. This is not to deny that illegal strikes sometimes take place in the public sector (Olson 1986), but economic theorists have largely ignored this possibility when providing models which attempt to explain why dispute procedures are used.

c. An unexplored hiatus

Figure 7.2 provides a pictoral representation of the limiting effect of using existing economic strike theories in the UK. The stylised picture of the US and Canadian private and public sectors envisaged by economic models are indicated. The actual picture of dispute possibilities in the UK is spelt out below this. The argument for a new approach to the application of economic theories to the UK context hinges on this distinction. Whilst the actual North American context is slightly stylised for the sake of economic models, the UK context would have to be over simplified to be tested purely on such models. The great majority of bargaining pairs in the UK are not faced with a pre-determined procedural outcome should they fail to agree in negotiations.

A consequence of this critique is that a theory of strikes, or overtime bans, or arbitration usage should have two elements. The first comprising some version of the

economic theories of impasse, and the second hypothesising which action(s) the parties take, conditional on impasse. This second element represents an unexplored hiatus at the heart of the disputes literature. It is the conceptual equivalent of measuring the effect of unions on pay by only comparing 100 per cent unionised, closed shop plants with non-union equivalents. There are a range of possible positions in the haitus between these two polarised positions which would be, and in the case of industrial action have been, ignored.

d. Exploring the unexplored

Without explicitly defining it, Currie and McConnell (1991) have come upon a similar unexplored hiatus when studying disputes in the Canadian public sector. Their principal concern is to examine the impact of alternative bargaining laws on collective bargaining outcomes. The laws range from a right to strike to compulsory arbitration to choice of procedure to duty to bargain to no bargaining rights. The possible outcomes range therefore from negotiated settlement to mediated to arbitrated to strike. Interestingly cases of each different outcome are observed under all possible legislative frameworks, for example arbitration awards in right to strike jurisdictions and strikes in arbitration only (and therefore no legal right to strike) jurisdictions. Currie and McConnell examine the incidence of different types of disputes in two ways: first, using trimmed probability models; and second using multinomial logit models.

Trimmed probability models involve restriction of the sample to exclude other types of dispute other than those being examined. For instance when examining the impact of strikes, the sample includes only those bargaining rounds which involved a strike or a negotiated settlement. Rounds which result in arbitrated or mediated awards are excluded. Similar selection criteria is used to examine the incidence of arbitration awards and mediated settlements.

A more suitable statistical method is to use a multinomial logit estimation technique. This is designed to model choice among more than two outcomes and is therefore appropriate to estimate the choice among the four bargaining outcomes. As Currie and McConnell state:

> "These estimates should be more efficient than the estimates of the linear probability models." (p699)

Although the results are similar across the two different models there are some nuances which the trimmed models do not pick up, partly presumably because they are using smaller sample sizes.

Given evidence on the relative incidence of other forms of industrial action in the UK (chapter 6), it appears that the multinomial logit technique is appropriate for examining the incidence of industrial action here. This also suggests that the few previous studies of strikes using micro data in the UK may be misspecified, because none of them appear to have sample selected in their models to exclude other types of industrial action or impasse outcome. This is certainly the case for Ingram et al (1993) and Booth and Cressy (1990) who explicitly test economic strike theories, as well as Blanchflower and Cubbin (1986) and Machin et al (1993) who use more deductive analyses. Although the latter two studies do estimate separate equations on the probability of any industrial action and strikes (long and short), they do not use a trimmed probability model for the strikes equations. So in the latter the depdendent variable is actually '1' for strike and '0' for no action **or action short of a strike.**

The proposition in this paper is that these approaches hide much of the richness in UK data on disputes. A statistical technique which can test simultaneously for the different forms of industrial action will permit an investigation of the unexplored hiatus. This may then help to provide some insights into the tactics of industrial action as well as economic theories of bargaining breakdowns.

4. Dispute theories

a. Introduction

Accepting that a theory of disputes is a necessary prerequisite for an understanding of the incidence of different forms of industrial action, provides a welter of theories to draw on. As well as the various strike theories, such as Hicks's accident theory (Hicks 1932) and two main asymmetric information approaches, there are also a range of theories connected to the use of arbitration in the US public sector, which are outlined in chapter 3. The strike and arbitration theories highlight very similar elements, connected to parties' expectations, the information available to them and relationships between groups on the same side. Up to date summaries of the different models concerning causes of disputes can be found in Ashenfelter and Currie (1990)

and Babcock and Olson (1992). This section discusses some of the theories outlined and tested in chapter 3 but the variables used to test them are somewhat different for the CBI data and for ease of analysis the main points of the theories are best reiterated.

The approaches start from a similar pretext - the consequences of a bargaining impasse are costly to both sides, therefore if parties are correctly able to predict the outcome and they are risk averse, they should avoid the impasse. This suggests three main explanations for why impasses occur: One or both parties fail to correctly predict the outcome of the impasse, this is not necessarily a mistake but is certainly Pareto-inferior to a non-impasse settlement; the costs of the impasse are not sufficiently prohibitive to induce settlement; or the parties are not risk averse.

Many of the theories outlined below are conceptually very appealing, but being able to distinguish between them through empirical testing has been distinctly unrewarding both in the US and the UK to date. There are two main reasons for this. First, many of the theories - asymmetric information, over optimism, risk aversity, principal-agent problems - are based on abstract concepts which can only be measured with proxies. Moreover some proxies are the same for different theories such that two or more theories might predict the same association (say between multi-unionism and the likelihood of a dispute). Second, most empirical studies have been unable to find support for one theory alone because disputes are likely to be caused by divergent factors in different contexts. Chapter 3 described that in the US, work has increasingly turned to the social science laboratory to attempt to test single theories of disputes avoiding the complexity of field data. Whilst such studies can be quite interesting because they usually suggest support for the individual theory being tested, taken as a whole they in fact reach a similar conclusion to studies based on real world data - that the range of different explanations for disputes can be supported by empirical evidence.

b. Failure to correctly predict the outcome of a dispute

There are three closely connected theories which attempt to explain why one or both parties might fail to correctly predict the outcome of a dispute.

i. *Asymmetric information*: If the parties are not fully informed about each other's concession curve post-impasse, then they may over or under estimate the final outcome. If one or both over estimate the other's reservation price (how low the union will go or how high the employer will go) then the resolution of the dispute by industrial action or third party intervention may be required (Kennan and Wilson 1989). There are two main versions of the theory dependent on where the asymmetries exist. The more orthodox version suggests that in certain contexts workers may be under informed about the level of employer profits. A dispute is one method for determining the employers 'ability to pay'. Ingram et al (1993) highlight an alternative version of the theory on strikes, that the employer has less information about the militancy of workers than the union negotiator, and therefore a strike is a means for workers to demonstrate their strength and solidarity. If it is assumed that the determinants of reservation price are principally the firm's profits and the militancy of the workers, then certain predictions can be made.

Factors likely to be associated with impasse inducing asymmetries include:

a. Whether or not the plant is part of a larger organisation rather than a single plant firm, workers may be less able to determine the true level of profit in the former;

b. Whether or not there was industrial action in the previous period, industrial action provides information to the employer about the militancy of the workers and therefore workers should not have to repeatedly take action to provide accurate information;

c. Industrial action legislation which make pre-strike ballots compulsory, providing workers can be held to the ballot result - forced to strike if the majority decision is for a strike[3] - then compulsory ballots should reduce the incidence of strikes since they provide accurate information on the militancy of workers (Metcalf and Dunn 1991, Manning 1993);

d. The presence of multiple bargaining units, each individual group may be less able to accurately determine what fraction of profits it can claim.

e. The occupational composition of the bargaining group. Non-manual employees may have access to more financial information concerning the employer's profits, because they are closer to the management function, than manual workers.

ii. *Principal-agent problems*: Asymmetric information and principal-agent problems have been intrinsically linked even though the two concepts are actually quite distinct. If asymmetries of information about the employer's ability to pay or employees militancy occur then impasses are likely. This is especially so if there are principal-agent problems. In other words, the asymmetries are inter-party and/or intra-party.

The most famous use of this analysis is the Ashenfelter and Johnson (1969) model of strikes but it also been used in reference to arbitration (McCall 1990). The classic interpretation is that union members (the principal) have less information about an employer's ability to pay than their negotiator (agent) and believe that the employer can pay more than the union negotiator says he can. A strike, or arbitration, is used to check that the negotiator is not shirking in negotiations. It seems plausible to argue that such principal-agent problems may be less likely in workplace bargaining (which predominates in the CBI sample) than a company, industry or national bargaining context.

Chapter 3 highlights an alternative version applied to arbitration which suggests that in certain contexts a management negotiator may be more concerned with impressing their constituency (higher level management) with a tough negotiating stance than preventing an impasse. This will be even more likely if there are asymmetries of information about arbitrator preferences, or worker militancy in the case of industrial action, between the different management levels.

Variables which can be used to test principal-agent theories include:

a. The wage outcome in the previous period, if the principal-agent problem is on the employees side then a lower real or relative wage at t-1 may be associated with a greater likelihood of an impasse at t, similarly on the employers side a previously high settlement may encourage a manager to be tougher in the current negotiations.

b. A management side principal-agent problem will be more likely if the plant is part of a larger organisation.

c. If Ashenfelter and Johnson are right about workers forcing unwilling union negotiators to sanction strike action, then legislation which provides union members greater power over the decision to call industrial action should

increase impasse incidence, all else equal. Therefore the industrial action balloting provision of the 1984 Employment Act could conceivably increase the incidence of industrial action. Bearing in mind the prediction made concerning ballots on asymmetric information theory, it will be interesting to establish which of these opposing forces has the greatest influence.

d. Certain occupational groups may be more likely to have principal-agent problems. One prediction might be that manual bargaining groups are more likely to experience asymmetries of information between leaders and members, than non-manual or mixed groups. One rationalisation for this is the role of shop stewards in manual bargaining groups who, as activists, may serve to drive an expectations or aspriations wedge between union members and their leaders.

e. Industrial action in the previous bargaining round, should be associated with a lower incidence of action in the following round. If a negotiator has recently been audited then both the negotiator should know not to shirk this time and the workers would not need to audit them again so soon.

iii. *Over optimistic expectations or differing beliefs*: This type of explanation has been principally applied to arbitration theories (Farber 1980, Farber and Bazerman 1989) and is specifically concerned with the predictions parties make concerning arbitrator behaviour. If parties are over optimistic about their chances of winning the award, i.e. they have differing beliefs about the arbitrator's preferred award, then they will fail to negotiate an agreement. Note that this hypothesis is bolstered if there are asymmetries of information, but it does not rely on those asymmetries. The parties may have exactly the same information but may assess that information in a biased way (Babcock et al 1991).

In some ways this is a modern, bargaining psychology version of Hicks's 'accident theory'. Impasses generated through over optimism are still 'mistakes' in an economic sense because they produce Pareto-inferior outcomes, but they are not really accidents. The theory is entirely based on the notion that parties will assess the same information in a biased rather than a rational way.

Concerning industrial action this theory would suggest that one cause of impasses leading to industrial action is that both sides are over optimistic about each other's concession curve, if action were to take place. In other words both sides believe that their opposite number will concede more and more quickly after an impasse than they actually do, even if they have the same information. It seems reasonable to argue that differing beliefs are more likely to be a cause of impasse when:

a. Macroeconomic conditions make predicting an opponent's reservation price more difficult, for instance in periods of high inflation or unemployment or when such indicators are more volatile (Currie 1989);

b. When there has not been industrial action in the previous pay round.

c. Costs are not sufficiently prohibitive

The comparative costs of negotiating a settlement against the costs of resolving it through either industrial action or third party intervention have been cited as a reason for disputes. Joint cost theory concerning strikes is the most well known impasse theory concerning costs. Reder and Neumann (1980) argue that bargaining involves the establishment of 'protocols' or rules for resolving predictable issues which might otherwise become disputes. Protocols cost bargaining time and effort to establish, so they are more likely to be developed if the costs of a potential dispute are high and the longer a bargaining relationship lasts. Similarly on arbitration, Bloom (1981) has argued that there are high potential costs associated with negotiations therefore arbitration must be an expensive option if it is to deter disputes. The cost of a dispute must be sufficiently high such that it is avoided through the development of a protocol.

Joint cost theory has been given relatively short shrift in some studies because pinning it down to predictions is difficult (Ingram et al 1992), though this criticism could also apply to other theories. McConnell (1990) has manipulated joint cost theory to claim that it could suggest that strikes are both contra-cyclical - good times in the product and labour markets raise joint costs and thereby lead to fewer strikes - and pro-cyclical - good times imply a high alternative wage in another workplace, making a strike more likely. However, it may still have some worth. The issue of the cost and time of developing rules or protocols does have some attractions.

Unfortunately there is no information on the length of bargaining history of the parties in the CBI data set, which might be a good proxy for whether or not rules will have been developed. However, other variables could might indicate the lack of such rules include:

a. If there was industrial action in the previous bargaining round. One interpretation might be that if a rule did not prevent action in the last round then it is still unlikely to do so in the current round. The absence of protocols might explain why some bargaining pairs are dispute prone. However, an alternative interpretation might be that action in the previous round would have stimulated the construction of new protocols to avoid a recurrence.

b. If the bargaining group is relatively small. It may be prohibitively expensive to develop rules for small bargaining groups compared to large groups. Therefore disputes might be more likely in smaller bargaining groups. Some care must be taken here, however, if small bargaining group also means small workplace, such a dispute although involving a small bargaining group may be relatively costly.

c. If labour costs are a low proportion of total costs. Bargaining group size may not be the best indication of the effect of a dispute on production and therefore on the incentives to develop protocols. However, joint cost theory might predict that disputes are more likely if labour costs are a low proportion of total costs, since a dispute involving labour may not disrupt production to the extent that it would if labour costs were a high proportion of total costs. Some care should be taken here though since low labour costs imply a more capital intensive plant such that labour may in fact be more able to disrupt production with fewer workers taking action than plants which are more labour intensive.

d. The legislation on industrial action in the 1980s has made industrial action progressively more difficult (costly) to call (Elgar and Simpson 1993, Marsh 1992). A strike cannot be maintained by secondary picketing or secondary action. Trade unions face financial penalties and cannot rely on the closed shop to secure solidarity. It seems that this legislative programme has raised the joint costs of industrial action. For employers the costs are the same as

before except for the prospect of damages if the strike is illegal. Therefore joint cost theory would predict a negative association between dispute rates and 1980s legislation.

d. Parties are not risk averse

All impasse or strike theories assume that parties are risk averse. Farber and Katz (1979) argue that even if the costs of disagreement are prohibitive, and there is full information, if parties are risk neutral or risk loving then impasses can occur. Taking the gamble may be preferable to the certainty of a possibly higher or lower negotiated settlement. The analysis of data from bargaining in new style deal plants in chapter three finds support for this explanation for the use of third party intervention in some UK plants. It has been suggested that groups take more risks and the positive association between strikes and multi-unionism under separate bargaining arrangements, found by Metcalf et al (1993a) and Machin et al (1993), provides further support for a risk aversity explanation of impasses which lead to industrial action. Further most studies of strikes have found a positive association between bargaining group or workplace size and dispute incidence. This may be because larger groups are more willing to take risks than smaller ones.

The predicted associations between the theories outlined above and the various factors mentioned are set out in Table 7.2. This illustrates the problem of distinguishing between the different theories because of their similar predictions concerning certain variables. It also highlights the malleability of some of the theories concerning predictions on certain variables.

5. Industrial dispute tactics

There are no established theories which attempt to analyse the tactical decisions which determine what happens after a bargaining impasse. What is really needed is some explanation for why, given that bargaining has broken down, some workers choose to go on strike, others use an overtime ban, some another form of industrial action such as a go-slow and still others press for third party intervention. An all encompassing theory which can explain these variations seems implausible but an explanation for the overtime ban versus the strike decision should be possible. There

are two main sources here: previous surveys which provide basic evidence on the incidence of overtime bans compared to strikes; and a case study of the 1973 miners' strike which was preceded by an overtime ban (Allen 1981). Five main factors have been suggested as possible influences on the tactical decision over which form of industrial action to employ and the expected determinants are summarised in Table 7.2.

a. Overtime working

Of course, just as the unemployed cannot go on strike, an overtime ban is only feasible if overtime is actually worked. What is less clear, however, is whether or not the relative level of overtime working across plants or time periods will be related to the incidence of overtime bans. The Donovan Report suggested a clear positive linkage between the aggregate level of overtime bans in the UK and the level of overtime working compared to our competitors (see quote at beginning of chapter).

However, this issue is surely not so straightforward. The cost versus effectiveness conundrum makes a prediction very difficult. If overtime working is relatively high, then the overtime ban will be more effective (costly for employers) but also more costly to employees than when overtime working is low. Similarly if overtime working is low it will be a relatively painless sanction compared to striking, but also may be comparatively ineffective for achieving concessions from the employer.

Allen's case study of the 1973 miners' strike includes a summary of the contemporary debate within the National Union of Mineworkers (NUM) about the pros and cons of an overtime ban. One of the unanticipated effects of the ban was that because as a consequence miners had to depend solely on their basic pay, the ban made them realise how low their non-overtime pay was. Allen states, "It [the overtime ban] had an enormous politicizing influence which no one really foresaw."(p 179).

Allen's conclusion about the galvanizing effect of the ban is perhaps an additional pointer to a positive relationship between the level of overtime working and the likelihood of an overtime ban being preferred to a strike. If the miners' scenario (an overtime ban focuses attention on basic pay and so increases militancy) holds for other workers, and union leaders are aware of this, then there should be a positive association between overtime working and overtime ban incidence given an impasse.

The direction of any possible effect can be tested, though unfortunately only with industry overtime figures (annual weekly averages) because the CBI data do not include information on overtime working.

b. Macroeconomic conditions

Brown (1981) argues that in 'good times', action short of a strike is popular whereas strikes are relatively more prevalent in 'bad times':

> "Employers may be more prepared to hold out against limited actions when they are operating at a low level of capacity (and thus when overtime bans and the like are relatively painless) than when they want to maximise production." (p 85)

There is again a cost versus effectiveness problem with this explanation which suggests that the opposite relationship could also exist. The relationship between the tactical decision to use the overtime ban or the strike and macroeconomic indicators (both levels and changes), can be tested using the CBI data.

c. Shopfloor organisation

Edwards (1983) and Brown (1981) using evidence from the Warwick Survey argue that the use of non-strike action (grouping overtime bans with other forms of non-strike action) is related to the level of shopfloor organisation. Long established groups of workers, well organised shop stewards, high union density, the closed shop and multi-unionism (which are presumably all heavily correlated) are seen as relatively more likely to be associated with non-strike action than their counterparts. They write:

> "Relatively youthful organisations will not have developed an established position and may thus have relied more on the weapon of the strike." (Edwards 1983: p 229)
>
> "..experience of non-strike action was much higher in plants with high levels of union density than it was elsewhere... [and] More complex steward organisation appears to permit the greater use of sanctions other than strikes" (Brown 1981: pp 89-90)

One rationalisation for the importance of union organisation in determining the tactics of industrial conflict concerns the role of the employer in the course of a dispute. During an overtime ban, employees continue to work a basic week and therefore they

come into contact with, and in some sense are still under the control of, the employer. However, during a strike there is likely to be no direct contact between management and rank and file workers. The maintenance of industrial action in the face of employer pressure on workers during an overtime ban may thus require a relatively high level of union organisation in comparison to the strike scenario.

d. Industry stocks

If overtime bans are used to reduce stocks in anticipation of a strike (as with the 1973 miners' strike) then we might expect a positive association between high stock levels and the preference for the overtime ban before or in place of a strike. This can be tested using industry level, annual stock figures.

e. The law on industrial action

The changing legal framework on industrial action in the 1980s may have encouraged the increasing use of the overtime ban compared to the strike over the decade for two reasons. The first, somewhat technical and not widely appreciated, concerns the details of the 1984 balloting provisions. The second is a more general point concerning the legal framework.

The technical issue concerns the wording of the main clause in the Trade Union Act 1984 concerning pre-action ballots. The key clause states that in a ballot a union must ask whether or not a worker is 'prepared to take part ... in a strike involving him in a breach of his contract of employment', (Wedderburn 1986: 74). The balloting law did not then specifically include non-strike industrial action and because it was unclear whether or not such action constitutes a breach of contract, it was not certain whether action short of a strike needed to be sanctioned by a pre-action ballot. This anomaly was cleared up by the 1988 Employment Act which amended the balloting provisions to cover any 'industrial action' rather than action in breach of an employment contract. However, if union leaders and members were aware of this irregularity in the law between 1984 and 1988 and were prepared to exploit it, we might expect to find a greater use of the overtime ban compared to strike action (or other action short of a strike) in this period, all else equal.

More generally there is some recent anecdotal evidence that the impact of the whole gamut of legislation may be disproportionately concentrated on the incidence of strikes. In a survey examining managements' actual use and willingness to use the new legal provisions on industrial action, Incomes Data Services (IDS) found that managers did not consider using the law to tackle non-strike action as readily as for strike action. One firm, quoted in the report, stated that:

> 'injunctions are too hamfisted to deal with bans and working to contract', (IDS 1992: 6).

IDS comment on the basis of their survey that:

> 'Industrial action short of a strike - more widespread in recent years, and especially during this recession - can therefore present a nagging problem', (IDS 1992: 6).

If the opinion expressed by this firm is shared more widely by managers as IDS suggest, and employees also see the law as being a much less important factor when considering non-strike action rather than strike action, then the 1980s law changes which weakened union power should be positively associated with the incidence of overtime bans compared to strikes. If proven, this would be a consequence of the 1980s changes which has not previously been identified.

6. Results

There are fifteen potential industrial action outcomes which could be recorded by the CBI survey, ranging from use of all four types of action through combinations of three and two and down to the use of a single type of action only. An empirical test based on sixteen different discreet outcomes (the sixteenth being no action) would be technically very difficult and probably unrewarding even if feasible. It seems more appropriate to test for the incidence of five different outcomes: the strike (with no overtime ban); the overtime ban (with no strike); the strike and overtime ban combined; industrial action involving neither of these; and no industrial action.

Table 7.3 presents results of four different multinomial logit regression models on an industrial action variable taking one of these five values for each bargaining round. The default category of the dependent variable is no industrial action. Interpretation of the results depends upon the sign of the coefficients across the

different outcomes and the varying level of marginal impact and significance. A consistent sign and predominantly significant coefficient is cited as evidence on dispute theories. Variation in sign across the outcomes is strong evidence concerning tactics. Notable differences in the marginal impact and/or significance of a variable on different outcomes provides weaker evidence on tactics.

a. Evidence on dispute theories

Factors which are consistent across the different industrial action outcomes and are also positively associated with the likelihood of a dispute are: the size of the bargaining group, if the group is manual, the level of regional monthly unemployment (Model II), if an overtime ban occurred in the previous bargaining round, the level of stocks in the industry, and the legislation index (a high index score indicates laws comparatively favourable to unions). Consistent negative coefficients appear for the non-manual bargaining group dummy, for those settlements after the 1984 Trade Union Act became law (except some estimates in model IV), for those bargaining pairs who experienced a go slow over the previous settlement and on the industry overtime working level.

Predominantly non-significant or inconsistently signed variables include the number of bargaining groups, if there was a strike over the previous contract, the relative wage under the previous contract (and the real wage, although not reported in tables), the level of union density in the industry, the level of inflation, the percentage change in both unemployment and inflation from the preceeding year (Model II), the proportion of labour costs in total costs (Model IV) and if the plant is a subsidiary of a larger enterprise (also Model IV). Some of these results require further clarification before discussing their implications for dispute theories.

Bargaining groups of 50 employees or over are significantly more likely to experience any form of industrial action than groups of under fifty employees. However there is no monotonic rise in the marginal effect of each bigger size dummy. In general, a bargaining group of over 500 workers is no more likely to experience any particular form of action than one of 50-100 workers. Note that this does not necessarily contradict previous findings on plant size and strike incidence (*inter alia* Prais 1978, Edwards 1981) because the unit of analysis here is the bargaining group

rather than the workplace as in those studies. Moreover the CBI data cover only industrial action over changes usually negotiated annually in collective terms and conditions rather than action over other issues such as redundancy, grading, discipline or dismissals, which are potentially more likely in larger units. However, Metcalf et al (1993a) who have thoroughly investigated the role of bargaining group and workplace size and multi-unionism with respect to strike action using a smaller sample of these data, conclude that it is the confluence of large plants, multi-unionism and multiple bargaining units (in particular more than 3) which significantly increases the probability of strikes.

Metcalf et al's results also put in context those presented here on the number of bargaining units. Although the sign on the coefficient for each outcome in each model is as expected, the coefficient only reaches significance for the overtime ban/no strike outcome in three of the models. The measure of multiple bargaining used for the full sample is a censored measure of 1,2 or 3+ bargaining units because this information is available for the whole sample whereas the specific number of bargaining groups is only available for a sub-sample. This may explain why the results presented do not show more consistently the expected significant relationship between multiple bargaining arrangements and dispute incidence[4].

The two results concerning industrial action over the previous contract need to be treated with some caution since they could be picking up unobserved characteristics of the bargaining group or workplace. So although the result concerning an overtime ban at t-1 seems *a priori* to provide evidence against most of the economic theories cited above, which predict that parties learn from their mistakes, we cannot reject any theory solely on this result.

The central question for this section is what these results can tell us about the merits or demerits of the five economic theories of disputes described in section 5. Perhaps unsurprisingly, given the problems of proxying these abstract concepts, none of the theories receives complete support from these data.

Whilst the **asymmetric information** theory is supported by the results on the manual and non-manual dummies and less consistently by the post 1984 Trade Union Act dummy, it is not supported by the results on multi-plant enterprises, the number of bargaining groups or previous industrial action. Some of the results in support of this

theory are also compatible with other theories such as principal-agent (manual groups) and joint costs (the post 1984 Act dummy), which again adds to the problem of distinguishing between the theories.

Principal-agent theory is only supported (on the employees' side) by the manual/non-manual results but the weight of evidence against this explanation is fairly comprehensive otherwise. While some results are in the right predicted direction but non-significant (previous wage and multi-unionism), three variables have opposite (and sometimes significant) signs to those predicted (multi-plant firms, previous industrial action and the 1984 Trade Union Act).

Joint cost theory emerges somewhat better than the other theories, suggesting that either it is a better explanation for disputes than other theories or perhaps more plausibly that it is sufficiently malleable to fit most results (as argued by Ingram et al 1993). The theory correctly predicts findings on the legisaltion index and the 1984 Trade Union Act in isolation. It is the only theory compatible with the positive signs on previous strikes or overtime bans, although the theory would also have been consistent with directly contrary results. It is not supported by the bargaining group size and labour costs/total costs results.

An proper appraisal of joint cost theory should really concentrate on some empirical measure of the development and determinants of protocols. The questions of how, why and when bargaining parties develop rules to prevent or settle costly disputes is the fulcrum of Reder and Neumann's theory, yet this is almost completely unexplored ground. The link between the incidence of disputes procedures and strikes has been partially examined (chapter 2, Blanchflower and Cubbin 1986, Booth and Cressy 1990), but the more fundamental issue of what prompts parties to develop rules is unresearched. Without this analysis, conclusions on joint cost theory are always likely to be relatively indefinite.

It is very difficult to test for the existence of **differing beliefs** as an explanation of bargaining impasses. Without some direct measure of the parties' prior beliefs concerning the dispute outcome (as in Babcock et al's experiment study, 1991), a second best solution is to test variables which might be expected to engender over optimism. Macroeconomic indicators have been used by Currie (1989) as proxies for such conditions. Three sets of indicators are used here - the levels (monthly), changes

(over 12 months) and volatility (mean/standard deviation, again over 12 months) of inflation and regional unemployment. The results on two of these sets (volatility, found to be insignificant, is not reported), set out in Model II of Table 7.3, suggest that only the level of unemployement at the time of the pay settlement is significantly associated (negative) with the incidence of disputes in general. Coefficients on the other three indicators reported are both inconsistently signed and not always significant. There is also little evidence that parties learn from their mistakes from the previous industrial action variables.

There is hardly any empirical support for a general differing beliefs explanation of disputes from the CBI data. However, much of this may be due to the simplicity of the proxies used to test a reasonably abstract theory. Case studies may a more appropriate means to test for the existence of over optimism as a cause of disputes. Chapter 3 documents that in some case studies of the use of final-offer arbitration, over optimism on the losing side is a credible explanation for why disputes developed and progressed to the ultimate sanction of winner takes all arbitration.

Finally, on dispute theories, although the coefficients on bargaining groups size and multi-unionism are consistent with the predictions of a **risk aversity** explanation, these seem insufficient to argue that risk taking is a generally applicable reason for the occurrence of industrial action. It may be that in certain situations more risk loving parties are willing to see a dispute progress to industrial action, but the cause of the original dispute may be over optimism or asymmetric information.

As predicted - and as demonstrated in other empirical studies (see chapter 3) - no single dispute theory emerges as a dominant explanation for impasses. While this result is illuminating, indicating that disputes are caused by a range of different factors contingent on certain contexts, it is also fairly unrewarding since it appears that economics can provide no straightforward answer as to why disputes occur. Whilst some authors continue to investigate this issue using more and more elaborate experiments, others have turned to complementary issues within the industrial disputes field. These alternative avenues include interest in the consequences of disputes (Metcalf et al 1993b and Richardson and Rubin 1993) and, in this case, the range of industrial action outcomes post-impasse.

b. Strong evidence on industrial action tactics

The criterion for strong evidence on dispute tactics is that variable coefficients for different outcomes - particularly for the two most popular forms of action - should be oppositely signed. Perhaps unsurprisingly there are very few factors which satisfy such a strong condition. Those which do so, indicate that union organisation and the macroeconomic environment have key roles in the tactical considerations over industrial action.

Industry **union density** is positively associated with only one industrial action outcome - an overtime ban without a strike - in all the models, and is negatively (though insignificantly) associated with all other possible outcomes. Above average union density increases the probability of an overtime ban without a strike being used by between 3.6 and 5.5 per cent, all else equal. Despite various caveats, over the use of aggregate density figures and that density may be proxying another factor, this result seems to be quite strong evidence to confirm Edwards's and Brown's suggestions concerning the role of union organisation and the tactics of industrial action, since it seems sensible to expect union organisation to be heavily correlated with union density.

There is some suggestion of a link between industrial action tactics and the **macroeconomic environment** from Model II. Although some of the results are non-significant, the signs on the coefficients suggest that whereas strikes without overtime bans are positively associated with the level of inflation, and negatively associated with the change in inflation, the reverse is indicated for actions involving overtime bans. Overtime bans are more likely to be employed when inflation is low or rising whereas strikes alone are more likely when inflation is relatively high or falling. The results on unemployment are less clear cut. Whereas the level of regional unemployment is positively associated with all forms of industrial action, strikes alone or preceeded by an overtime ban are more likely when unemployment is falling, but the probability of an overtime ban alone declines as unemployment falls.

Although the mechanisms of how macroeconomic conditions impact upon the tactical considerations over industrial action are not at all clear, at very least we can argue that for the 1980s Brown's argument that overtime bans are employed in good times and strikes in bad is not supported by these data. If anything it seems that the

evidence points to an opposite conclusion. One rationalisation for these results concerns the different roles of strike and non-strike action. Perhaps overtime bans are used in some situations as a relatively low cost way for employees to express dissatisfaction with a pay award rather than to necessarily expect to change the award, for which a strike may be more effective. The fact that overtime bans are marginally more popular in periods of low or rising inflation, when the rents avaliable for higher than average pay awards may be relatively low, provides some support for this suggestion. Furthermore Metcalf et al (1993b) find some evidence that strikes are positively associated with higher pay settlements yet there is no evidence that a similar association exists for the use of overtime bans (Metcalf et al 1993b (earlier version): Table 5, the coefficient on overtime ban in a wage equation is actually negative, though insignificant).

c. Weak evidence on industrial action tactics

There are a number of variables for which the significance level and/or marginal effect differs markedly across the possible industrial action outcomes which provides weaker evidence on the determinants of industrial dispute tactics.

Manual bargaining groups are positively associated and non-manual groups negatively associated with all types of action (compared to the default mixed category), but the result is more pronounced for overtime bans rather than strikes. For instance Model II shows that the marginal probability of a strike alone is 0.1 per cent lower and non-significant for non-manuals than mixed groups but for overtime bans alone it is 2.9 per cent lower and highly significant. There may be two factors at work here. First, non-manuals are less likely to work rostered overtime perhaps because of more flexible hours arrangements such that an overtime ban is simply not feasible. This result might also add weight to the link between union organisation and industrial dispute tactics. The level of shop steward organisation among non-manuals is lower than that for manual and mixed bargaining groups (Millward and Stevens 1986: Table 3.11; Millward et al 1992: Table 4.2) and the closed shop is much less common for non-manuals than for manuals (Millward and Stevens 1986: Table 4.1; Millward et al 1992: Table 3.17).

Union organisation might also explain the fact that the number of bargaining groups (which is the best available measure of multi-unionism for this sample), although positive for all industrial action outcomes, only reaches significance for the overtime ban only option (in 3 of the 4 models reported). In contrast to this result, Machin et al (1993) using WIRS data from 1984 find that multi-unionism with separate bargaining is significantly and positively associated with strikes of one or more day's duration but not with shorter strikes or action short of a strike. However their multi-unionism and bargaining measures are somewhat different from those in the CBI sample and their data is only from one year in the 1980s so the divergent results are not necessarily incompatible.

The annual weekly average level of overtime working by industry is negatively associated with the use of all forms of industrial action but the marginal effect is consistently more for the use of an overtime ban only. So any hypothesised positive link between the level of overtime working and overtime bans can be rejected. On the contrary, in industries or time periods when overtime working is relatively high the probability of an overtime ban alone being used is effected much more than other industrial action outcomes including strikes. There are a number of mechanisms by which this result could be explained: because workers who work proportionately more overtime can use the threat of the overtime ban more effectively without actually having to take action; because high overtime working means heavy reliance on overtime pay, therefore reduced willingness to lose that pay through using the overtime ban; because an overtime ban is most effective for workers who do not usually work overtime - a refusal to work 'emergency' overtime may be a more potent weapon than refusal to work institutionalised overtime where both parties know that lost output can be made up after the dispute.

Although the results are not particularly robust to changes in specifications there is some suggestion that the industrial relations legislation of the 1980s has had differential impact on the incidence of overtime bans and strikes. It seems that in this respect the legislation as a whole has had more impact than the particular nuance of the 1984 Act's balloting provisions concerning strikes and non-strike industrial action. The coefficients on the 1984 Trade Union Act dummy are non-significant in both Models I and IV and are generally signed as expected (negative for all outcomes).

However, Freeman and Pelletier's (1990) index (Models II and III) is associated more significantly with action involving strikes than the overtime ban only. This adds therefore, albeit fairly weak, support to the findings of IDS's survey of management concerning the law and industrial action short of strike and provides a new twist to existing evidence on the impact of the law on British industrial relations in the 1980s.

7. Conclusions

Empirical testing of dispute theories - especially strike theories - has not arrived at a definitive answer to why disputes occur. Although the CBI data provide exactly the right type of data from bargaining group/pay negotiations scenarios on which economic theories are based, the picture of no dominant explanation persists. It seems that there are a range of credible economic theories which are unrankable by empirical testing.

An alternative to further examination of this melee of theories, is the tactics of industrial action. The richness and extent of the CBI data permit the first thorough analysis of this almost entirely unresearched area. Overall there is empirical support for the contention that union organisation and macroeconomic conditions are the main determinants of the tactics of industrial action although other factors may inflence whether or not a dispute reaches the industrial action stage in the first place. Other factors which seem to be marginally important include the occupational characteristics of the bargaining group, the number of bargaining groups in the workplace, the level of overtime working and the 1980s industrial relations legislation.

An interesting postscript to these findings concerns the very different picture of industrial action in the UK in the 1970s compared to the 1980s. Chapter 6 documents the reverse in relative prevalence of overtime bans and strikes between the two decades. In the light of evidence from this paper certain explanations emerge for this. The very different macroeconomic and legislative environments must provide a reasonably straightforward part of the explanation. The results on union organisation, however, provide something of a conundrum. There are two potential means to reconcile the finding that union organisation is positively associated with overtime bans as opposed to strikes in the 1980s yet strikes were more prevalent than overtime bans in the 1970s than 1980s when unions seemed *prima facie* to be better organised.

One explanation might be that any association between union organisation and industrial action tactics is contingent on other exogenous factors and that the association reversed over the two decades. Alternatively, although aggregate union density declined considerably in the 1980s, perhaps the result was a pared down, relatively well organised core whereas in the 1970s, although union membership was historically very high, this included a large proportion of workplaces where organisational features were less well developed.

Footnotes

1. Definitions of various forms of organised and unorganised industrial action can be found in Turkington (1976). Note that one drawback of the CBI data, for research purposes, is that works to rule and go slows are grouped under the same category, unlike in other surveys (chapter 6).

2. For the sample used here of 9117 pay settlements: there were 414 overtime bans of which only 96 (23.2%) were followed by a strike; conversely there were 233 strikes, 41.2% of which were preceded by an overtime ban.

3. Until the 1988 Employment Act, union members could be officially disciplined for not taking part in industrial action. Since the Act, union members can seek redress for being 'unjustifiably disciplined' in such cases, whether or not the action is lawful. This so-called strike-breaker's charter effectively means the floccinaucinihilipilification of pre-strike ballots. In other words because the balloters can not be held to the result, and therefore a 'Yes' vote is no indication of militancy, the ballots can be estimated as worthless.

4. Note that other measures of multiple bargaining were also tried but not reported, notably a dummy on more than one bargaining group, these were also non-significant.

Figure and tables

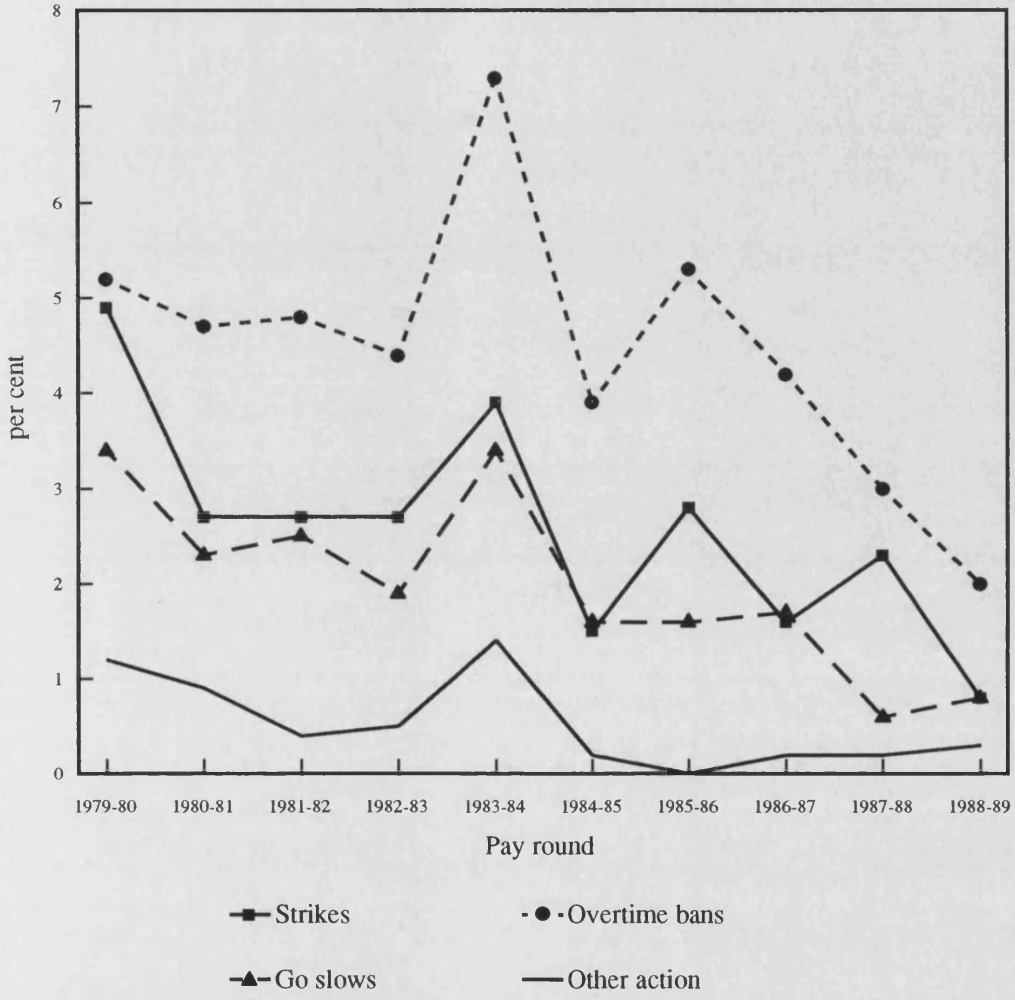
Table 7.1
Industrial action in unionised bargaining groups in British manufacturing 1979-89

	% of bargaining groups experiencing following forms of action				
	Strike	Overtime Ban	Go slow Work to Rule	Other	**Any action**
By Pay Round					
1979-80	4.9	5.2	3.4	1.2	9.8
1980-81	2.7	4.7	2.3	0.9	7.8
1981-82	2.7	4.8	2.5	0.4	7.3
1982-83	2.7	4.4	1.9	0.5	6.7
1983-84	3.9	7.3	3.4	1.4	10.3
1984-85	1.5	3.9	1.6	0.2	5.2
1985-86	2.8	5.3	1.6	0.0	6.6
1986-87	1.6	4.2	1.7	0.2	5.2
1987-88	2.3	3.0	0.6	0.2	4.2
1988-89	0.8	2.0	0.8	0.3	2.4
By Industry					
Food, Drink, Tobacco	2.5	4.5	2.1	0.3	6.7
Coal, Petroleum	2.0	11.1	6.1	*	11.1
Chemicals	1.5	2.4	1.0	0.5	4.0
Metal Manufacture	1.8	7.2	1.1	0.4	8.5
Mechanical Engineering	3.0	6.2	2.6	1.0	8.4
Instrument Engineering	3.2	7.1	5.1	0.6	11.6
Electrical Engineering	4.5	5.2	2.8	0.4	8.3
Shipbuilding	*	*	*	*	*
Vehicles	4.5	5.4	2.7	0.8	8.9
Metal Goods	2.7	4.5	1.5	0.3	6.4
Textiles	1.2	2.4	0.8	*	3.5
Leather Goods	1.9	*	*	*	1.9
Clothing, Footwear	*	*	*	*	*
Bricks, Pottery	1.9	1.5	1.5	0.4	2.6
Timber	4.2	8.4	4.2	*	10.2
Paper, Printing	1.7	3.2	2.5	1.1	5.1
Other Manufacturing	2.3	2.5	0.9	0.9	5.3
Mean	**2.6**	**4.5**	**2.0**	**0.5**	**6.6**

Source: CBI Pay Databank
Notes: (i) Number of observations = 9117. (ii) * denotes no action observed.

Figure 7.1

Industrial action in unionised bargaining groups in British manufacturing, 1979-89



Source: Table 7.1

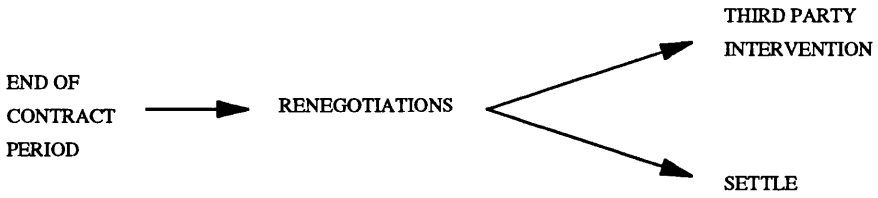
Figure 7.2

Dispute theories, the North American and UK contexts

1. NORTH AMERICAN DISPUTE THEORIES AND THEIR CONTEXTS

Strikes - contract renewals in the private sector

Dispute procedure usage - contract renewals in the public sector



2. THE UK CONTEXT - PRIVATE AND PUBLIC SECTORS

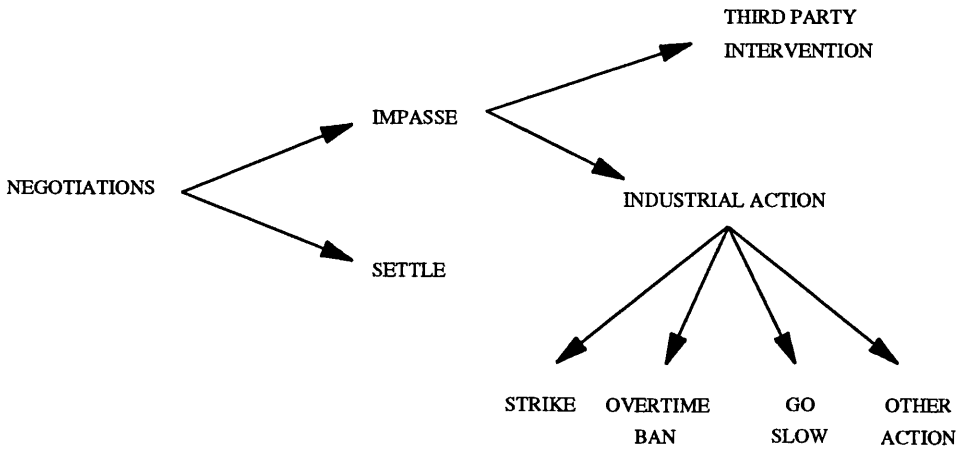


Table 7.2
Summary of predictions on disputes and industrial action tactics

Variables	Impasse Theories					Tactics[i]
	Asymmetric Information	Principal-agent	Differing Beliefs	Joint Costs	Risk Aversity	
Bargaining group size				-ve	+ve	
Multi-unionism	+ve	+ve			+ve	+ve
Multi-plant firm	+ve	+ve				
Industrial action previous contract	-ve	-ve	-ve	+ve or -ve		
Legislation index[ii]				+ve		-ve
Post 1984 Trade Union Act	-ve or no effect	+ve		-ve		+ve
Manual group	+ve	+ve				+ve
Low wage in previous contract		+ve or -ve				
Unemployment			+ve	+ve or -ve		+ve or -ve
Inflation			+ve	+ve or -ve		+ve or -ve
Labour costs				+ve or -ve		
% of overtime working						+ve
Union organisation						+ve
Stock levels						+ve

Notes: (i) Tactics column reports predicted associations with overtime ban rather than strike.

(ii) Legislation index scaled 1-20, **high index** implies **pro-union** legislation and vice versa.

(iii) See Data Appendix for detailed definition of variables.

Table 7.3
Multinomial logit estimates on industrial action (Model I)

Variables	Sample	Strike only = 1.15		Overtime ban & strike = 1.07		Overtime ban only = 3.30		Other action = 0.50	
	Mean	B	dP/dX	B	dP/dX	B	dP/dX	B	dP/dX
Constant		-4.818***		-6.599***		-4.711***		-4.056***	
		(0.944)		(1.028)		(0.575)		(1.312)	
Bargaining group									
50-100 workers	0.204	1.340***	0.015	1.322**	0.014	0.721***	0.023	1.171*	0.006
		(0.481)		(0.577)		(0.257)		(0.682)	
101-250 workers	0.268	1.306***	0.014	1.772***	0.018	0.843***	0.026	1.258*	0.006
		(0.460)		(0.540)		(0.241)		(0.660)	
251-500 workers	0.138	1.324***	0.015	1.581***	0.016	1.168***	0.037	1.494**	0.007
		(0.495)		(0.583)		(0.252)		(0.699)	
501+ workers	0.131	1.603***	0.018	1.846***	0.019	0.898***	0.028	1.424**	0.007
		(0.483)		(0.568)		(0.268)		(0.723)	
Manual	0.571	0.483	0.005	0.372	0.004	0.434*	0.014	0.543	0.003
		(0.411)		(0.440)		(0.252)		(0.633)	
Non-manual	0.333	-0.799	-0.009	-0.474	-0.005	-0.541*	-0.017	0.380	0.002
		(0.506)		(0.514)		(0.297)		(0.687)	
Number of bargaining groups	2.418	0.245	0.003	0.152	0.002	0.135	0.004	-0.273	-0.001
		(0.173)		(0.178)		(0.102)		(0.239)	

Post 1984 Trade Union Act	0.664	-0.271	-0.003	0.286	0.003	-0.142	-0.005	-0.075	0.000
		(0.271)		(0.297)		(0.165)		(0.411)	
Previous contract									
Strike	0.030	0.181	0.002	0.511	0.005	-0.016	-0.001	0.283	0.001
		(0.468)		(0.454)		(0.331)		(0.790)	
Overtime ban	0.050	1.404***	0.015	1.522***	0.016	1.498***	0.048	0.310	0.001
		(0.362)		(0.352)		(0.216)		(0.794)	
Go slow	0.023	-0.959	-0.011	-1.426*	-0.015	-0.675*	-0.022	0.575	0.003
		(0.669)		(0.776)		(0.384)		(0.950)	
Relative wage	-0.008	-0.037	0.000	0.024	0.000	-0.001	0.000	0.077	0.000
		(0.056)		(0.065)		(0.036)		(0.095)	
Industry charactersitics									
Overtime/total hours	0.120	-10.338*	-0.114	-7.886	-0.080	-7.065**	-0.224	-15.689*	-0.076
		(5.684)		(5.827)		(3.326)		(8.405)	
Stock/output	0.193	2.619**	0.029	2.495**	0.026	1.372*	0.043	1.931	0.009
		(1.136)		(1.068)		(0.722)		(1.711)	
Union density	0.434	-1.866	-0.022	0.050	0.000	1.256**	0.042	-1.380	-0.007
		(1.134)		(1.035)		(0.561)		(1.604)	
Regional dummies		Yes		Yes		Yes		Yes	
Diagnostics	Chi-squared	349.85	d.f.	88	Pseudo R^2	0.0845	Sample size	6943	

Table 7.3 (continued)
Multinomial logit estimates on industrial action (model II)

Variables	Sample	Strike only = 1.50		Overtime ban & strike = 1.05		Overtime ban only = 3.49		Other action = 0.59	
	Mean	B	dP/dX	B	dP/dX	B	dP/dX	B	dP/dX
Constant		-8.122***		-6.467***		-6.153***		-4.466***	
		(0.998)		(1.105)		(0.674)		(1.640)	
Bargaining group									
50-100 workers	0.202	0.878***	0.013	0.746*	0.007	0.576***	0.019	0.971**	0.005
		(0.337)		(0.385)		(0.205)		(0.466)	
101-250 workers	0.264	1.187***	0.017	0.982***	0.010	0.698***	0.023	0.883*	0.005
		(0.309)		(0.354)		(0.189)		(0.454)	
251-500 workers	0.138	1.225***	0.018	1.019***	0.010	1.069***	0.036	0.695	0.004
		(0.339)		(0.391)		(0.199)		(0.540)	
501+ workers	0.133	1.337***	0.019	1.139***	0.011	0.726***	0.024	1.005*	0.006
		(0.337)		(0.389)		(0.212)		(0.515)	
Manual	0.573	0.632*	0.009	0.246	0.002	0.340*	0.011	0.630	0.004
		(0.338)		(0.345)		(0.201)		(0.533)	
Non-manual	0.328	-0.092	-0.001	-0.734*	-0.007	-0.834***	-0.029	0.183	0.001
		(0.382)		(0.421)		(0.246)		(0.585)	
Number of bargaining groups	2.413	0.146	0.002	0.077	0.001	0.187**	0.006	-0.107	-0.001
		(0.129)		(0.149)		(0.085)		(0.192)	

Legislation index	10.276	0.148***	0.002	0.212***	0.002	0.065	0.002	-0.059	0.000
		(0.045)		(0.058)		(0.039)		(0.100)	
Industry characteristics									
Union density	0.434	-0.609	-0.010	-0.279	-0.003	1.426***	0.051	-2.003	-0.012
		(0.806)		(0.926)		(0.469)		(1.434)	
Overtime/total hours	0.120	-2.288	-0.030	-6.946	-0.070	-4.855*	-0.164	-9.747	-0.056
		(4.012)		(4.909)		(2.677)		(6.722)	
Stock/output	0.198	1.302	0.019	1.475	0.015	1.122*	0.038	0.558	0.003
		(0.912)		(1.031)		(0.596)		(1.892)	
Macroeconomic									
Unemployment level	9.579	0.066*	0.001	0.030	0.000	0.081***	0.003	0.016	0.000
		(0.038)		(0.044)		(0.025)		(0.058)	
Inflation level	7.768	0.046	0.001	-0.097*	-0.001	-0.007	0.000	0.080	0.000
		(0.036)		(0.054)		(0.028)		(0.061)	
Change in U	0.094	-0.479	-0.007	-1.601**	-0.017	0.464	0.017	0.705	0.004
		(0.460)		(0.719)		(0.293)		(0.616)	
Change in RPI	0.056	-0.220	-0.003	0.002	0.000	0.144	0.005	0.054	0.000
		(0.275)		(0.321)		(0.179)		(0.435)	

Diagnostics	Chi-squared	309.2	d.f.	60	Pseudo R^2	0.0526	Sample size	9117

Table 7.3 (continued)
Multinomial logit estimates on industrial action (model III)

Variables	Sample	Strike only = 1.50		Overtime ban & strike = 1.05		Overtime ban only = 3.49		Other = 0.59	
	Mean	B	dP/dX	B	dP/dX	B	dP/dX	B	dP/dX
Constant		-8.098***		-7.126***		-5.917***		-6.170***	
		(0.976)		(1.227)		(0.665)		(1.687)	
Bargaining group									
50-100 workers	0.202	0.905***	0.013	0.767**	0.008	0.597***	0.020	0.927**	0.005
		(0.338)		(0.387)		(0.206)		(0.468)	
101-250 workers	0.264	1.169***	0.017	0.974***	0.010	0.704***	0.023	0.835*	0.005
		(0.310)		(0.355)		(0.191)		(0.456)	
251-500 workers	0.138	1.207***	0.017	1.032***	0.010	1.070***	0.036	0.609	0.003
		(0.339)		(0.392)		(0.200)		(0.542)	
501+ workers	0.133	1.265***	0.018	1.121***	0.011	0.764***	0.025	0.889*	0.005
		(0.337)		(0.390)		(0.214)		(0.516)	
Manual	0.573	0.657*	0.010	0.189	0.002	0.323	0.011	0.701	0.004
		(0.339)		(0.345)		(0.201)		(0.534)	
Non-manual	0.328	-0.111	-0.001	-0.807*	-0.008	-0.857***	-0.030	0.190	0.001
		(0.382)		(0.420)		(0.246)		(0.587)	

Number of bargaining groups	2.413	0.142	0.002	0.103	0.001	0.194**	0.007	-0.096	-0.001
		(0.130)		(0.151)		(0.086)		(0.195)	
Legislation index	10.276	0.155***	0.002	0.083**	0.001	0.048*	0.002	0.170***	0.001
		(0.032)		(0.042)		(0.026)		(0.063)	
Industry characteristics									
Union density	0.434	-0.555	-0.009	-0.282	-0.003	1.545***	0.055	-1.972	-0.012
		(0.816)		(0.963)		(0.480)		(1.420)	
Overtime/total hours	0.120	-0.168	0.001	-3.560	-0.035	-4.122	-0.140	-10.580	-0.061
		(4.176)		(5.242)		(2.841)		(7.629)	
Stock/output	0.198	1.758**	0.026	1.813	0.018	0.901	0.030	-0.079	-0.001
		(0.893)		(1.125)		(0.629)		(2.171)	
Regional Dummies		Yes		Yes		Yes		Yes	
Year Dummies		Yes		Yes		Yes		Yes	
Diagnostics	Chi-squared	392.2	d.f.	104	Pseudo R^2	0.067		Sample size	9117

Table 7.3 (continued)
Multinomial logit estimates on industrial action (model IV)

Variables	Sample	Strike only = 1.09		Overtime ban & strike = 1.03		Overtime ban only = 3.27		Other action = 0.51	
	Mean	B	dP/dX	B	dP/dX	B	dP/dX	B	dP/dX
Constant		-4.125***		-6.586***		-4.545***		-2.974*	
		(1.195)		(1.252)		(0.708)		(1.559)	
Bargaining group									
50-100 workers	0.209	1.438**	0.015	1.095*	0.011	0.816***	0.026	1.164*	0.006
		(0.569)		(0.600)		(0.289)		(0.683)	
101-250 workers	0.263	1.272**	0.013	1.376**	0.014	0.755***	0.024	0.571	0.003
		(0.559)		(0.562)		(0.278)		(0.717)	
251-500 workers	0.128	0.992	0.010	1.410**	0.014	1.042***	0.033	1.384*	0.007
		(0.639)		(0.618)		(0.297)		(0.725)	
501+ workers	0.132	1.503**	0.016	1.618***	0.016	0.772**	0.024	0.533	0.003
		(0.592)		(0.599)		(0.309)		(0.834)	
Non-manual	0.313	-1.206***	-0.013	-0.486	-0.004	-1.156***	-0.037	0.247	0.002
		(0.418)		(0.358)		(0.238)		(0.429)	
Number of bargaining groups	2.385	0.234	0.002	0.386	0.004	0.223*	0.007	-0.148	-0.001
		(0.202)		(0.223)		(0.120)		(0.285)	
Labour costs	1.947	-0.271*	-0.003	-0.102	-0.001	0.021	0.001	-0.133	-0.001
		(0.159)		(0.148)		(0.078)		(0.220)	

Subsidiary	0.210	-0.693	-0.007	-0.012	0.000	-0.401*	-0.013	-1.093	-0.005
		(0.447)		(0.387)		(0.238)		(0.757)	
Previous contract									
Strike	0.030	0.177	0.002	0.213	0.002	-0.305	-0.010	-0.163	-0.001
		(0.570)		(0.579)		(0.426)		(1.089)	
Overtime ban	0.049	1.060**	0.011	1.710***	0.017	0.964***	0.030	0.582	0.003
		(0.476)		(0.408)		(0.297)		(0.930)	
Go slow	0.024	-0.331	-0.003	-1.886*	-0.019	-0.049	-0.001	0.013	0.000
		(0.724)		(1.065)		(0.439)		(1.271)	
Industry charactersitics									
Overtime/total hours	0.118	-8.782	-0.090	-8.186	-0.079	-8.271**	-0.260	-26.996***	-0.135
		(6.927)		(6.993)		(3.956)		(10.090)	
Stock/output	0.193	3.661**	0.038	4.478***	0.045	2.814**	0.089	3.774	0.018
		(1.823)		(1.647)		(1.106)		(2.970)	
Union density	0.435	-1.984	-0.022	-0.116	0.001	1.066*	0.036	-1.013	-0.005
		(1.298)		(1.187)		(0.644)		(1.755)	
Post 1984 Trade Union Act	0.604	-0.281	-0.003	0.425	0.004	0.192	0.006	0.403	0.002
		(0.326)		(0.344)		(0.191)		(0.477)	

Diagnostics	Chi-squared	210.25	d.f.	60	Pseudo R^2	0.0700	Sample size	5140

Notes to Table 7.3

(i) Dependent variable = Action: 1 = No action (default); 2 = Strike, no overtime ban; 3 = Overtime ban and strike; 4 = Overtime ban, no strike; 5 = Neither overtime ban nor strike.

(ii) Standard errors in parentheses.

(iii) Defaults: for bargaining group size = less than 50 employees; for type of bargaining group = mixed (manual and non-manual) group; for previous contract = no industrial action over previous contract; post Trade Union Act = 1979-July 1984.

(iv) Significance: *** 1%, ** 5%, * 10%.

Data appendix

Definitions of the variables are as follows:

- **Number of workers in bargaining group**: categorised into 5 groups. Default in Table 7.3 is less than 50 workers.
- **Number of bargaining groups**: takes value of 1, 2 or 3. Latter category indicates presence of at least three groups in the workplace.
- **Composition of bargaining group**: manual, non-manual or mixed (default).
- **Action last year**: strike, overtime ban, go slow/work to rule, none (default) involving same bargaining group in connection with last year's settlement.
- **Relative wage**: nominal percentage increase in earnings of typical employee in previous year minus mean percentage increase in earnings of industry (1 digit Activity Heading) to which group belongs, disaggregated manual/non-manual/ mixed.
- **Real wage**: last year's annual percentage increase in settlement earnings minus increase in retail price index at date of settlement.
- **Labour costs**: categorical variable, takes value one if labour costs are less than 25% of total costs, two: 25-40%, three: 41-55%, four: 56-70%, five: over 70%.
- **Subsidiary**: takes value one if establishment is part of larger company, zero otherwise (N.B. Labour costs and subsidiary only recorded for sub-sample of 5140 settlements where unions are recognised for bargaining).

In addition the CBI dataset has been supplemented with information from the following sources:

- **Unemployment**: monthly unemployment rate disaggregated by 10 standard regions. Source: Department of Employment Gazette, Table 2.3.

  Change in unemployment: percentage change in level of unemployment for each region from 12 months ago.

  Volatility of unemployment calculated as: Mean/standard deviation, for twelve months prior to settlement (results not reported, insignificant in all models).
- **Inflation**: monthly percentage index in retail price index. Source: Department of Employment Gazette, Table 6.4.

  Change in inflation: percentage change in inflation from 12 months ago.

Volatility of inflation calculated as: Mean/standard deviation, for twelve months prior to settlement (results not reported, insignificant in all models).

- **Legislation index**: ratings (one to five) for each of 4 categories of industrial relations legislation: recognition, individual rights to associate/disassociate, immunities, relative power of employers/unions. These are summed to produce a total out of 20. High index implies pro union legislation and vice versa. Source: Freeman and Pelletier (1990).
- **Legislation dummy 84-89**: takes value one if settlement occurred after July 1984, zero otherwise.
- **Overtime/total hours**: Average weekly overtime hours for full-time manual males on adult rates for year to April, divided by average weekly total hours for same, disaggregated by industry (2 digit Activity Heading). Note that this includes workers who do not work overtime. Source: New Earnings Survey, Part C, Table 54.
- **Union density**: union density figures among employees in Great Britain for 1989, disaggregated by industry (2 digit). Source: Bird, Stevens and Yates (1991) using Labour Force Survey.
- **Stocks**: Stocks and work in progress at end of year divided by gross output for year, disaggregated by industry (2 digit). Source: Census of Production, Table 5.

Technical appendix

The industrial action incidence equations in Table 7.3 are estimated by a multinomial logistic regression. The dependent variable (ACTION) is categorical but unordered taking values from 1 to 5: 1 = No industrial action (which is the default or base category in all calculations); 2 = Strike but no overtime ban; 3 = Strike and overtime ban; 4 = Overtime ban but no strike; and 5 = Action, but neither strike nor overtime ban (i.e. either work to rule/go slow and/or 'other'). The probability that a strike only outcome will occur during the wage bargain is given by

$$P(A_2) = \frac{e^{Xb(A_2)}}{1 + e^{Xb(A_2)} + e^{Xb(A_3)} + e^{Xb(A_4)} + e^{Xb(A_5)}}$$

where A_2-A_5 represent scores (2)-(5) on the ACTION variable, X is the vector of explanatory variables and *b* is the vector of estimated coefficients. The marginal effect of each exogenous varible, x_i, is given by

$$\frac{\delta P(A_2)}{\delta x_i} = \bar{P}(A_2)\,[\beta_{A_2} - \sum_{A=3}^{5} \bar{P}_A \beta_A]$$

where β is the estimated coefficient on x_i. So for example the marginal effect of an increase in union density on the probability of an overtime ban but no strike outcome (using estimates from Model I, Table 7.3) is

(0.033) [1.256 - {(-1.866*0.0115) + (0.050*0.0107) + (-1.380*0.005)}] = 0.042

Appendix A

Evidence from company accounts on the performance of new style deal plants

1. Introduction

One aspect of the research strategy on the FOA project was to acquire as much relevant information about the identified FOA and non-FOA plants as possible, without (or before) approaching the plants directly. The type of information sought was; the incidence of particular disputes procedures; the characteristics of the companies/workplaces, in order to assess any pattern of FOA or new style deal incidence; and performance indicators to measure the impact of FOA and new style deals. The basic disputes procedures of a number of the plants were identifiable from various industrial relations reports and studies. In terms of company/workplace characteristics and indicators of performance, two potential sources were the CBI Pay Databank and annual company accounts.

Unfortunately the first source of data, which would have provided the most valuable information, proved unprofitable because only one of the 101 plants identified was included in the CBI sample. Turning to the second source, annual company accounts, it was not clear what type of information was available, whether or not the available information was appropriate for measuring characteristics or performance, or for how many of the companies the accounts were accessible.

Company accounts are publicly available, for a small fee, at Company House, now located in Cardiff. However the accounts of the largest companies in particular industries are distilled into various business information reports, held in the Business Reference Section of the British Library in London. An assessment of the usefulness of company accounts data was made on the basis of these reports, before considering a comprehensive look at the individual accounts.

The information was assessed on three criteria: What type of information is available and what is its drawbacks? What company characteristics do the data reveal that is relevant to an assessment of the incidence of FOA and new style deals? Do the data allow an evaluation of the impact of FOA/new style deals and, if so, what was the impact?

In total, company accounts data were obtained on thirty-five (34.7%) of the 101

identified plants. The data were collated from various business reports but principally ICC Business Ratio Reports which provide accounts information on the top 50-140 UK companies in particular industries. Other reports were also utilised but not all provided the same comprehensive level of information contained in the ICC Reports. The small size of the sample means that the potential for analysis of incidence and performance was quite circumscribed especially in terms of trying to assess any FOA/non-FOA variation. Therefore we concentrated on assessing the value of the data, and assessing what it could tell us about the sample as a whole rather than about variations between different groups within the sample.

2. Information available and its drawbacks

Annual company accounts provide a wide range of data on a firm's economic performance, but the principal results collected for our purposes were turnover (Table A.1), profits (Table A.2) and employee remuneration per employee (Table A.3). Unfortunately there are a number of drawbacks concerning the data.

Employee remuneration information is not provided in many of the business reports, so these figures were only collected for the twenty-one companies listed in the ICC Reports. The number of employees was also usually provided in the latter reports and this is reported in Table A.4.

The accounts data is for the individual plant alone for only just under half of the plants (45.7%), but for the majority the data is either definitely for the company as a whole (42.9%) or not clearly for one or the other (11.4%). Note that the individual plants for which data is available may still be part of a larger company, but must have some sort of separate accounts status, hence the individual reporting. Unfortunately the lack of individual plant accounts for the majority means that no assessment of individual plant characteristics or performance can be made from the aggregated company accounts figures in the multi-plant companies. This makes the prospect of assessing the impact of FOA or new style deals through company accounts data somewhat limited.

The business information reports in general only list three years worth of accounts and because previous reports were not usually available the data in general do not cover more than this time period. Without a longer series of data, an analysis of

the impact of a change in employment practices (the introduction of a new style deal) would be very difficult. This problem is compounded by the fact that the results are concentrated in the period 1986-1988, after the introduction of many of the deals. This drawback means that the separation of the finanacial performance characteristic as a measure of incidence from that of the impact of FOA/new style deals is particularly difficult. In other words you can not make valid suppositions on the type of company that signs a new style deal on the basis of performance data after the fact.

3. Company characteristics and the incidence of FOA/new style deals

Company size: The group of companies who's accounts are reported are probably disproportionately larger than the rest of the companies involved in new style deals, therefore the distribution of company size may not be similar across the whole set of new style deals. Note also that not all of the company reports listed the number of employees.

Of those listed in Table A.4, there are two very large companies with new style deal plants, BICC Cables and RHM Foods, both with over 39,000 employees (latest figures, 1988 and 1989 respectively) in the UK and also nine middle ranking companies with between 2,000 and 10,000 employees. The largest single-plant company is Toshiba Consumer Products UK (over 1000 employees) and the smallest is Star Micronics with only 25 employees (1989 figure).

Multi/single-plant: Again the company accounts group may be biased in favour of multi-plant companies compared to the whole new style deals group. Unfortunately the accounts themselves do not provide enough information to determine what proportion of the companies are single-plant. As stated above over 40% of the accounts listed are definitely for multi-plant companies, but this does not necessarily mean that the other 60% are single-plant companies. The precise split of the plants into multi or single-plant companies is therefore unclear.

Financial performance characteristics: The initial emphasis in the new style deals literature was that most of the established companies signing the agreements (usually on greenfield sites) were already quite successful (Bassett 1986). However, there is also evidence that some companies/plants with financial and industrial relations problems have been signing similar agreements in order to try to solve their problems (IRRR 1986). The relative size of these two groups was unclear, therefore one of the

rationales behind using the accounts data was to actually provide some empirical evidence on the extent of different levels of financial performance across the new style deal plants.

Whilst accounts data can certainly provide some pointers about the relative size of these groups there are a number of problems associated with the data for an adequate analysis.

. The lack of longer time series of data is the most fundamental drawback here. As stated above, it is somewhat artificial to make suppositions on the type of company signing new style deals on the basis of performance data since the deal was signed.

. The multi-plant aggregation means that even if a company as a whole is making a loss (or a profit) the individual plant with the new style deal may be making a profit (or a loss).

. The absence of accounts data from a comparison group of similar companies which have not introduced new style deals suggests that any conclusions about the performance characteristics of our group may not have external validity.

Unfortunately these various caveats mean that we are not able to assess the relative sizes of different financial performance groups amongst the plants but rather can make only general comments about performance levels.

The figures certainly show that the companies are not uniformly successful profit makers, fourteen of the companies listed made a loss in at least one of the years of available accounts data (see Table A.2 for the profit/loss figures). However, the majority of the companies have made profits (some very large) for most the years of recorded data. Seventeen of the companies have improved their profit performance year on year throughout the period of accounts data.

The profit/loss margin (profits divided by sales) is a better means of comparing financial performance across the companies and these figures are shown in Table A.5. Eleven of the companies have had profit margins consistently in the 0-10% range, and six have had profit margins over 10% throughout the recorded period. Of the remaining 18, three made profits every year (some years below 10%, others above), only three consistently made losses and twelve had mixed fortunes with losses in at least one year.

The size of the losses was greatest at Chronar Ltd with margins of -63% and -44% in consecutive years. The highest consistent profit margin was in Shotton Paper with two years of profit margin over 25% and one over 12% and an average of over 22%. It seems safe therefore to state at the very least that there is a spread of performance amongst the companies with new style deals such that company financial performance is not a key determinant of the incidence of new style deals.

4. Assessing new style deals by financial performance

Profits: The profits data presented in Tables A.2 and A.5 could also be used to test the impact of a new style deal if we had information on when the deal was introduced, accounts data from both before and after the introduction and some controls for other determinants of performance. Unfortunately none of these criteria are satisfied therefore second best means of analysis are required.

One, perhaps dubious, means of comparison would be to contrast the performance of the single-plant companies (and hence wholly covered by a new style deal) with the multi-plant companies (only partly covered by a new style deal). Both the highest and lowest profit margins (annual average) are in two single-plant companies. When banded into five categories of performance there seems to be a slight association between the single plant companies and poorer performance (see Table A.7) but of course this could be due to other factors such as the greater market share of the multi-plant companies or economies of scale.

Employee remuneration: There are some quite strange figures quoted in the employee remuneration data, including Star Micronics which reputedly disbursed from £19,590 to £23,640 per employee (1987 to 1989). In one company (GPT) the figure rises from £3,260 in 1988 to £13,250 in 1989, a rise in remuneration per employee of over 300%! Many of the figures appear baffling and even an index measure of remuneration (Table A.6) does not help to make them look less odd. In only eight of the companies are the index figures within a reasonable range (of plus or minus 7% points) from the national earnings index which averaged 8.36% over the period 1986-1989 (min 7.8%, max 9.1%).

Of course it may be that the figures indicate the effect of a new style deal on the responsiveness of pay bargaining to company performance to such an extent that

employees earnings can vary as much as profits can from year to year. However the profit margins reported in Table A.5 do not vary anything like as much as the remuneration figures, nor is it the case that the ranking of companies by remuneration index in a particular year is similar to that of companies by profit margin in that year, or previous years.

A more sensible interpretation is that, in the majority of cases, the figures do not even approximate the changes in average earnings of the company's employees but rather constitute some sort of residual figure in accounting terms. Unfortunately therefore it seems best to conclude that the idiosyncratic nature of the employee remuneration figures makes them an unproductive means of analysing the impact of new style deals or FOA on earnings.

5. Conclusions

Company accounts data do not seem to be a particularly useful source of information for evaluating final offer arbitration agreements (incidence or impact) or even new style deals more generally. There are a number of problems with the data: Not all companies' accounts are readily available; the aggregation of accounts to company level means that the performance of individual workplaces can not always be isolated; data is not usually accessible over the long run so a pre-test/post-test analysis is not usually possible; and accounting practices mean that the employee remuneration figures do not seem to correspond to earnings data. Despite all these drawbacks the data are still of some interest because they provide some more depth to an analysis of the type of companies with new style deals. On this issue, the company accounts confirm the great diversity of companies with new style deals from the very profitable (BICC Cables) to the large loss makers (Norsk-Hydro), from high (RHM Foods) to low turnover (Afig Electronics), both multi-plant (AVX) and single-plant (Toshiba), from very large (BICC Cables) to very small (Star Micronics) workforces.

Tables

Notes and Sources:

1. Level of information: CO = Company, multi-plant.
WP = Workplace, single or multi-plant company.
? = Not clear from accounts what level of the company the data refer to.

2. Sources: (see bibliography for titles of individual reports under following headings)

ICC Business Ratio Report: An Industry Sector Analysis, Hampton: ICC Business Ratios.

ICC Financial Survey and Company Directory, Hampton: ICC Financial Surveys.

Infotech Financial Comparison and Market Directory, Nottingham: Infotech Services.

Jordans, Bristol: Jordan and Sons.

World Electronic Company File 1990/91, BEP Data Services.

Table A.1
Sales

Company name	Level of information	Sales figures (£000s)					
		1989	1988	1987	1986	1985	1984
AB Electronics	CO	208614	198744	171637	129891	122069	
ABB Capacitors	CO				25102	25467	22937
AFIG Electronics	WP		1356	275			
AIWA UK	CO		34566	6956	26507		
Anacomp	?			52039	36402	8341	
Anglesey Aluminium	WP			101160	79979	82158	
Avel Transformers	CO		9095	2686	2941		
AVX	CO		87746	55467	45876		
Beck Electronics	WP	2756	2551	1944			
BICC Cables	CO		2947000	2489000	2413000	2109000	
Bonas Machine	WP		16345	10690	9626	3358	
Bowman Webber	WP				4913	4364	
Brother Industries UK	?	73178	66170	42147			
Cadbury	CO		488036	486036	442697		
Christian Salveson	CO		298187	204828	294959		
Chronar	WP		2020	1306			
Coca-Cola Schweppes	CO	660652	524003	447457	128680		
Excel Wound Components	WP	3345	2782	2098			

Table A.1 continued

Company name	Level of information	Sales figures (£000s)					
		1989	1988	1987	1986	1985	1984
GPT	CO	509100	138700				
Hitachi Consumer Products UK	WP		93679	82324	60455	34600	54500
IMI Pactrol	WP				4026	2888	2085
Komatsu	WP	84005	55008	18617			
Lithgow Electronics	WP		8497	9522	5493		
NCR Co (Manufacturing)	CO		260164	224927	193385	173174	
Norsk-Hydro Fertilisers	CO				306493	343678	354073
NSK Bearings	?	45639	37545	26629			
RHM Foods	CO	1786100	1668600	1543800			
Sanyo Industries	CO		40700	46700	18500	15300	
Shotton Paper	WP	85663	74499	66805			
Sony UK	?		324523	312290	255210		
Star Micronics	WP	16660	10602	6946			
St Austell Brewery	WP		16964	15376	15008		
Sun Valley Poultry	CO		134734	115653	98253		
TDS Circuits	WP		8387	9535	8020		
Toshiba Consumer Products	WP		127104	106869	78792		

Table A.2
Profits

Company name	Level of information	Profits figures (£000s)					
		1989	1988	1987	1986	1985	1984
AB Electronics	CO	15222	16400	8031	6439	4032	
ABB Capacitors	CO				-1139	594	444
AFIG Electronics	WP		9	19			
AIWA UK	CO		-350	-1218	643		
Anacomp	?			-2698	1093	-593	
Anglesey Aluminium	WP			13387	5365	-4360	
Avel Transformers	CO		6	-91	25		
AVX	CO		3475	2235	1349		
Beck Electronics	WP	322	497	260			
BICC Cables	CO		156000	128000	101000	92000	
Bonas Machine	WP		2517	1519	1195	242	
Bowman Webber	WP				-127	297	
Brother Industries UK	?	1089	2156	3148			
Cadbury	CO		67837	52496	39400		
Christian Salveson	CO		46626	41975	38773		
Chronar	WP		-890	-823			
Coca-Cola Schweppes	CO	31709	25191	9203	-1937		
Excel Wound Components	WP	74	-70	-3			

Table A.2 continued

Company name	Level of information	Profits figures (£000s)					
		1989	1988	1987	1986	1985	1984
GPT	CO	37900	37600				
Hitachi Consumer Products UK	WP		209	30	24		
IMI Pactrol	WP				537	414	382
Komatsu	WP	111	-2334	-4961			
Lithgow Electronics	WP		101	496	248		
NCR Co (Manufacturing)	CO		45592	41401	41309	36023	
Norsk-Hydro Fertilisers	CO				-16795	-29926	-3385
NSK Bearings	?	347	2104	2065			
RHM Foods	CO	176500	156000	116100			
Sanyo Industries	CO		-1400	-2300	-1200		
Shotton Paper	WP	10783	21359	16786			
Sony UK	?		5597	5346	3917		
Star Micronics	WP	1097	138	-140			
St Austell Brewery	WP	2320	2059	2016			
Sun Valley Poultry	CO		6959	4038	5100		
TDS Circuits	WP		-1971	55	-473		
Toshiba Consumer Products	WP		-786	959	554		

Table A.3
Remuneration per employee

Company name	Level of information	Remuneration per employee figures (£000s)				
		1989	1988	1987	1986	1985
AB Electronics	CO	9.42	8.67	8.22	7.52	6.87
ABB Capacitors	CO	N/A				
AFIG Electronics	WP	N/A				
AIWA UK	CO		8.73	2.54	7.29	
Anacomp	?		8.83	7.21	6.43	
Anglesey Aluminium	WP	N/A				
Avel Transformers	CO	N/A				
AVX	CO		11.13	8.38	7.96	
Beck Electronics	WP	N/A				
BICC Cables	CO		11.38			
Bonas Machine	WP		12.38	9.73	8.28	3.34
Bowman Webber	WP	N/A				
Brother Industries UK	?	7.47	6.84	5.98		
Cadbury	CO	N/A				
Christian Salveson	CO	N/A				
Chronar	WP	N/A				
Coca-Cola Schweppes	CO	14.91	12.56	11.10	12.18	
Excel Wound Components	WP	6.48	7.06	6.58		

Table A.3 continued

Company name	Level of information	Remuneration per employee figures (£000s)				
		1989	1988	1987	1986	1985
GPT	CO	13.25	3.26			
Hitachi Consumer Products UK	WP		7.33	7.01	6.48	
IMI Pactrol	WP	N/A				
Komatsu	WP	18.74	16.14	16.69		
Lithgow Electronics	WP	N/A				
NCR Co (Manufacturing)	CO		14.31	13.51	12.80	11.34
Norsk-Hydro Fertilisers	CO	N/A				
NSK Bearings	?	10.38	9.82	9.00		
RHM Foods	CO	9.12	8.78	8.63		
Sanyo Industries	CO	N/A				
Shotton Paper	WP	N/A				
Sony UK	?		5.50	9.10	9.01	
Star Micronics	WP	23.64	19.81	19.59		
St Austell Brewery	WP		5.01	4.92		
Sun Valley Poultry	CO		8.68	8.10	7.42	
TDS Circuits	WP		12.38	12.37	11.52	
Toshiba Consumer Products	WP		6.78	6.29	5.92	

Table A.4
Number of Employees

Company name	Level of information	Number of Employees					
		1989	1988	1987	1986	1985	1984
AB Electronics	CO	5290	5003	4211	3539	3480	
ABB Capacitors	CO				398	228	246
AFIG Electronics	WP		58	39			
AIWA UK	CO		385	239	218		
Anacomp	?		784	540	58		
Anglesey Aluminium	WP			829	779	852	
Avel Transformers	CO	N/A					
AVX	CO		2558	2310	1439		
Beck Electronics	WP	N/A					
BICC Cables	CO		44738	44370	45593	46419	
Bonas Machine	WP		266	224	232	257	
Bowman Webber	WP				131	105	
Brother Industries UK	?	801	686	365			
Cadbury	CO		6317	6476	6786		
Christian Salveson	CO		6910	5865	6193		
Chronar	WP	N/A					
Coca-Cola Schweppes	CO	4571	4736	4703	1459		
Excel Wound Components	WP	193	177	139			

Table A.4 continued

Company name	Level of information	Number of Employees					
		1989	1988	1987	1986	1985	1984
GPT	CO	9126	7727				
Hitachi Consumer Products UK	WP		947	940	870	950	1510
IMI Pactrol	WP				139	105	65
Komatsu	WP	356	317	189			
Lithgow Electronics	WP	N/A					
NCR Co (Manufacturing)	CO		3759	3687	3455	3391	
Norsk-Hydro Fertilisers	CO				2524	3044	3190
NSK Bearings	?	651	548	467			
RHM Foods	CO	39189	38195	35686			
Sanyo Industries	CO		597				
Shotton Paper	WP	N/A					
Sony UK	?		1946	1972	1777		
Star Micronics	WP	25	21	17			
St Austell Brewery	WP	176	471	447			
Sun Valley Poultry	CO		2899	2781	2399		
TDS Circuits	WP		216	206	235		
Toshiba Consumer Products	WP		1113	1028	817		

Table A.5
Profit/Loss Margin

Company name	Level of information	Profit/Sales %					
		1989	1988	1987	1986	1985	1984
AB Electronics	CO	7.30	8.25	4.68	4.96	3.30	
ABB Capacitors	CO				-4.54	2.33	1.94
AFIG Electronics	WP		0.66	6.91			
AIWA UK	CO		-1.01	-17.51	2.43		
Anacomp	?			-5.18	3.00	-7.11	
Anglesey Aluminium	WP			13.23	6.71	-5.31	
Avel Transformers	CO		0.07	-3.39	0.85		
AVX	CO		3.96	4.03	2.94		
Beck Electronics	WP	11.67	19.48	13.37			
BICC Cables	CO		5.29	5.14	4.71	4.36	
Bonas Machine	WP		15.40	14.21	12.41	7.21	
Bowman Webber	WP				-2.58	6.81	
Brother Industries UK	?	1.49	3.26	7.47			
Cadbury	CO		13.90	10.80	8.90		
Christian Salveson	CO		15.64	20.49	13.15		
Chronar	WP		-44.06	-63.02			
Coca-Cola Schweppes	CO	4.80	4.81	2.06	-1.51		
Excel Wound Components	WP	2.21	-2.52	-0.14			

Table A.5 continued

Company name	Level of information	Profit/sales %					
		1989	1988	1987	1986	1985	1984
GPT	CO	7.44	27.11				
Hitachi Consumer Products UK	WP		0.22	0.04	0.04		
IMI Pactrol	WP				13.34	14.34	18.32
Komatsu	WP	0.13	-4.24	-26.65			
Lithgow Electronics	WP		1.19	5.21	4.51		
NCR Co (Manufacturing)	CO		17.52	18.41	21.36	20.80	
Norsk-Hydro Fertilisers	CO				-5.48	-8.71	-0.96
NSK Bearings	?	0.76	5.60	7.75			
RHM Foods	CO	9.88	9.35	7.52			
Sanyo Industries	CO		-3.44	-4.93	-6.49		
Shotton Paper	WP	12.59	28.67	25.13			
Sony UK	?		1.72	1.71	1.53		
Star Micronics	WP	6.58	1.30	-2.02			
St Austell Brewery	WP		12.14	13.11			
Sun Valley Poultry	CO		5.16	3.49	5.19		
TDS Circuits	WP		-23.50	0.58	-5.90		
Toshiba Consumer Products	WP		-0.62	0.90	0.70		

Table A.6
Employee remuneration index

Company name	Level of information	% change on previous year			
		1989	1988	1987	1986
AB Electronics	CO	8.59	5.50	9.35	9.41
ABB Capacitors	CO	N/A			
AFIG Electronics	WP	N/A			
AIWA UK	CO		243.73	-65.16	
Anacomp	?		22.45	12.10	
Anglesey Aluminium	WP	N/A			
Avel Transformers	CO	N/A			
AVX	CO		32.79	5.27	
Beck Electronics	WP	N/A			
BICC Cables	CO	N/A			
Bonas Machine	WP		27.22	17.42	147.86
Bowman Webber	WP	N/A			
Brother Industries UK	?	9.21	14.46		
Cadbury	CO	N/A			
Christian Salveson	CO	N/A			
Chronar	WP	N/A			
Coca-Cola Schweppes	CO	18.75	13.18	-8.89	
Excel Wound Components	WP	-8.22	7.20		
GPT	CO	306.22			
Hitachi Consumer Products	WP		4.62	8.20	
IMI Pactrol	WP	N/A			
Komatsu	WP	16.07	-3.27		
Lithgow Electronics	WP	N/A			
NCR Co (Manufacturing)	CO		5.91	5.56	12.85
Norsk-Hydro Fertilisers	CO	N/A			
NSK Bearings	?	5.72	9.10		
RHM Foods	CO	3.86	1.71		
Sanyo Industries	CO	N/A			
Shotton Paper	WP	N/A			
Sony UK	?		-39.51	1.04	
Star Micronics	WP	19.34	1.13		
St Austell Brewery	WP		1.81		
Sun Valley Poultry	CO		7.16	9.20	
TDS Circuits	WP		0.08	7.38	
Toshiba Consumer Products	WP		7.67	6.33	

Table A.7
Comparison of the financial performance of single and multi-plant companies

Ranking	Single plant companies	Multi-plant companies
	%	%
1	25.0	13.3
2	6.3	13.3
3	18.8	33.3
4	43.8	26.6
5	6.3	13.3

Notes: (i) Ranking

1 = Profit margin >10% in every year
2 = Profit margin >0% every year and >10% at least one year
3 = Profit margin <10% but >0% every year
4 = Profit margin varies from >0% to <0% in different years
5 = Profit margin <0% every year

Appendix B

The Postal Survey Questionnaire

EMPLOYEE RELATIONS IN THE 1980S

A. WORKPLACE INFORMATION (Please tick where appropriate)

We would like to ask you some general questions about your workplace to set the scene.

1. How many people work at this workplace?

- Less than 25 ☐
- 25-99 ☐
- 100-249 ☐
- 250-499 ☐
- 500+ ☐

2. Please indicate the percentage of the workforce that are:

A) MALE
- 0-24% ☐
- 25-49% ☐
- 50-74% ☐
- 75-100% ☐

B) FULL TIME
- 0-24% ☐
- 25-49% ☐
- 50-74% ☐
- 75-100% ☐

3. Do you distinguish between manual and non-manual workers?

YES ☐ NO ☐

If **YES**, please indicate the percentage of the workforce that is

MANUAL
- 0-24% ☐
- 25-49% ☐
- 50-74% ☐
- 75-100% ☐

4. Which of the following best describes the main industrial activity at the workplace?
Please tick one box only

- Metal manufacturing, ore and mineral extraction ☐
- Chemicals and man-made fibres ☐
- Mechanical engineering ☐
- Office machinery, electrical engineering and instruments ☐
- Motor vehicles and parts ☐
- Other transport equipment ☐
- Other metal goods ☐
- Food, drink and tobacco ☐
- Textiles, leather, footwear and clothing ☐
- Timber, wooden furniture, rubber, plastics ☐
- Paper products, printing and publishing ☐
- Transport ☐

Other (please specify) ☐

5. When did your company begin operations in this industry?

Pre 1980 ☐
1980-85 ☐
1986 ☐
1987 ☐
1988 ☐
1989 ☐
1990 ☐

6. When were operations begun on this site?

Pre 1980 ☐
1980-85 ☐
1986 ☐
1987 ☐
1988 ☐
1989 ☐
1990 ☐

7. Is the workplace part of a larger company?

YES ☐ NO ☐

8. If **YES**, where is the headquarters of the company?

IN THE UK ☐
OTHER EUROPE, EEC ☐
OTHER EUROPE, NON-EEC ☐
JAPAN ☐
USA ☐
OTHER ☐

B. TRADE UNIONS

1. Are any trade unions or staff associations recognised for bargaining over the pay and conditions of employees in the workplace?

YES ☐ Please answer Q2
NO ☐ Please go to Section F

2. Which union(s) is(are) recognised?

AEU ☐
EETPU ☐
ISTC ☐
GMB ☐
MSF ☐
TGWU ☐
STAFF ASSOCIATION ☐
Other (please specify) ☐

3. What percentage of employees at this workplace are members of trade unions?

0-24% ☐
25-49% ☐
50-74% ☐
75-100% ☐
Don't know ☐

C. COLLECTIVE AGREEMENTS

1. Is there a collective agreement with the union(s)?

YES ☐ Please answer Q2
NO ☐ Please go to Section F

2. If YES, what percentage of the workforce is covered by the collective agreement?

0-24% ☐
25-49% ☐
50-74% ☐
75-100% ☐
Don't know ☐

3. Does the collective agreement cover any of the following issues:

pay negotiations YES ☐ NO ☐

dispute resolution YES ☐ NO ☐

single union recognition YES ☐ NO ☐

flexibility in tasks YES ☐ NO ☐

flexibility in work patterns YES ☐ NO ☐

single status YES ☐ NO ☐

employee involvement YES ☐ NO ☐

a ban on industrial action YES ☐ NO ☐

D. DISPUTE RESOLUTION PROCEDURE

1. Turning now to the procedures covering pay negotiations, in the pay negotiations with the largest bargaining group, is there a specified procedure for resolving disputes?

YES ☐ Please answer Q2
NO ☐ Please go to Section E

2. When was this dispute resolution procedure introduced?

Pre 1980 ☐
1980-85 ☐
1986 ☐
1987 ☐
1988 ☐
1989 ☐
1990 ☐

3. Has the dispute resolution procedure ever been used?

	1986	87	88	89	90
YES	☐	☐	☐	☐	☐
NO	☐	☐	☐	☐	☐

4. Does the dispute resolution procedure involve any of the following?

Conciliation YES ☐
NO ☐

Mediation YES ☐
NO ☐

Arbitration YES ☐ **Please answer Q5**
NO ☐ **Please go to Section E**

5. What is the procedure for referring a dispute over pay negotiations to arbitration?

Either party may refer a dispute YES ☐ NO ☐

Both parties must agree to refer the dispute YES ☐ NO ☐

Arbitration is automatically triggered once a certain stage in negotiations is reached without agreement YES ☐ NO ☐

Other (please specify) YES ☐ NO ☐

6. Once arbitration has been triggered, how is the arbitrator chosen?

ACAS recommends an arbitrator YES ☐ NO ☐

There is a standing arbitrator previously agreed by the parties YES ☐ NO ☐

Arbitrator determined when necessary by agreement between the parties YES ☐ NO ☐

Other (please specify) YES ☐ NO ☐

7. What form does the arbitration take?

The arbitrator is free to make any decision within the terms of reference YES ☐ NO ☐

The arbitrator chooses either the last offer of the firm or of the union (so-called 'final offer' or 'pendulum' arbitration) YES ☐ NO ☐

Other (please specify) YES ☐ NO ☐

8. Does the procedure specify that the decision of the arbitrator will be binding on all parties?

YES ☐ NO ☐

E. PAY SETTLEMENTS

1. What was the approximate % pay settlement for the largest bargaining group in the following years?

	1986	87	88	89	90
0-4%	☐	☐	☐	☐	☐
5-7%	☐	☐	☐	☐	☐
8-10%	☐	☐	☐	☐	☐
10+%	☐	☐	☐	☐	☐
Don't know/can't remember	☐	☐	☐	☐	☐

2. Were any of the pay settlements contingent on major changes in work practices? (eg more flexible patterns of hours or reduced demarcations)

	1986	87	88	89	90
YES	☐	☐	☐	☐	☐
NO	☐	☐	☐	☐	☐

If yes, please give brief details,

1986

1987

1988

1989

1990

F. INDUSTRIAL ACTION

1. Was there any industrial action at this workplace in connection with the pay negotiations of the **largest bargaining group** in these years?

	1986	87	88	89	90
threatened	☐	☐	☐	☐	☐
taken	☐	☐	☐	☐	☐

If neither: Please go to Section G

2. If **taken**, what form(s) did the action take?

	1986	87	88	89	90
Go slow/work to rule	☐	☐	☐	☐	☐
Overtime ban	☐	☐	☐	☐	☐
Strike	☐	☐	☐	☐	☐
Other (please specify)	☐	☐	☐	☐	☐

☐

3. In the case of **strike** action:

. what percentage of employees at this workplace took strike action?

	1986	87	88	89	90
0-24%	☐	☐	☐	☐	☐
25-49%	☐	☐	☐	☐	☐
50-74%	☐	☐	☐	☐	☐
75-100%	☐	☐	☐	☐	☐
Don't know/can't remember	☐	☐	☐	☐	☐

. how long was the strike?

	1986	87	88	89	90
Less than one day	☐	☐	☐	☐	☐
1-5 days	☐	☐	☐	☐	☐
More then 5 days	☐	☐	☐	☐	☐
Don't know/can't remember	☐	☐	☐	☐	☐

G. OTHER INFORMATION

1. How would you rate management/employee relations generally at this workplace? Please choose a number from this scale.

Very good	**1**
	2
Good	**3**
	4
Poor	**5**
	6
Very poor	**7**
Don't know	**8**

2. It is possible that we may wish to make further contact for additional information. Are you willing to be contacted?

YES ☐ **NO** ☐

Appendix C

Extracts from EETPU Model Agreement and disputes procedures from eight collective agreements.

The following extracts are verbatim records of the documents concerned except that some spelling errors are corrected and some agreements are abridged for the sake of space. The general substance of the grievance procedures are not affected in any particular case.

1. Extract from EETPU Model Memorandum of Agreement

Appendix V.3: Collective Grievance Procedure

1) General

Where an issue concerns a group of employees, the procedure for raising the grievance will be as follows:-

i) Stage One

The item will be raised on the agenda of the Advisory Board by any Board member or the Company, and a Board recommendation sought. If nor resolution is found at Stage One, Stage Two will be implemented. Where it is mutually agreed to discuss an item without initial reference to the Advisory Board, for example, matters of interpretation of agreements, the item will be referred directly to Stage Two of the procedure.

ii) Stage Two

If the matter is not resolved after full consideration of the Board recommendation by both the Management and Union Members, it will be formally referred for resolution at this Stage, between the Company and internal Union representatives.

iii) Stage Three

If Stage Two fails to bring about a settlement, the local Full-time official will become involved and then the National Officer of the Union.

iv) Stage Four

If the matter is not resolved after every effort has been made by the Company and the Union officials, it will be jointly referred to ACAS for Conciliation. This joint reference will be based on a mutual understanding that such a reference can assist in the process of jointly finding a self-solution.

v) Stage Five

If Stage Four fails to produce a mutually satisfactory resolution, then either side can proceed to Arbitration. The reference will be submitted to ACAS for the appointment of a mutually agreed independent Arbitrator. The Arbitrator will decide the issue on a 'Pendulum Arbitration' basis. The brief to the Arbitrator will be to fully investigate evidence form both parties, relevant to the issue, and without compromise, to find for one party or the other. The Arbitrator's decision will be binding on both parties and will represent the final solution to the issue.

OR

Stage Five **Alternative (1)**

If Stage Four fails to produce a mutually satisfactory resolution, then either side can proceed to Arbitration. The reference will be submitted to ACAS for the appointment of a mutually agreed independent Arbitrator to consider in full the relevant evidence submitted by both parties in order to find a solution. The Arbitrator's decision will be final and binding on both parties and will represent the final solution to the issue.

OR

Stage Five **Alternative (2)**

If Stage Four fails to produce a mutually satisfactory resolution, the Union may recommend a withdrawal of labour. Any withdrawal of labour will only take place once the statutory ballot requirements have been observed and the action endorsed by the Union membership.

Source: EETPU

2. Extracts from collective agreements of 8 new style deal plants

a. Important agreements not included in eight interview plants

i. Toshiba Consumer Products Ltd (Plymouth) and the EETPU, dated April 1981.

The trade union recognises that in those matters affecting more than one individual, or matters which concern the Company or a section as a whole, the representative does not take up an issue unless it has reached stage two of the procedure.

The subjects which should first be raised at the Advisory Board include:

- Company investment policy and business plans
- Company trading performance
- Company operating efficiency
- Company manpower and stability of employment
- Terms and conditions of employment including pay and benefits and conditions of service
- Work environment and conditions

The following procedure shall apply:

Stage One — Items raised on the agenda of the Company Advisory Board by Advisory Board member of the Company.

Stage Two — If the matter is not resolved a reference shall be raised by the area official/national officer of the trade union within the Company.

Stage Three — If the matter is not resolved a joint reference shall be made to an independent arbitrator.

Arbitration — Both the Company and the trade union shall represent their case to an agreed independent arbitrator. The terms of reference will be to find in favour of either the Company or the trade union. A compromise solutions shall not be recommended. Both parties agree to abide by the decision of the arbitrator.

Source: Trevor (1988, Appendix 1 p. 245).

ii. Cadbury's Ltd (Chirk) and the TGWU, dated 1982.

Procedure for resolving disputes

The parties to the agreement undertake:

- To work within the procedure applicable to the site whether formally agreed or in being through custom and practice.
- If procedure is exhausted, to co-operate with conciliation and mediation arranged through ACAS. If conciliation and mediation fail normally to accept the result of arbitration, but both sides reserve the right in exceptional circumstances not to participate in this final stage of procedure.
- The form of the arbitration may be by mutual agreement that the trade union and company will present their case to the arbitrator who will then be required to decide which case has the greater merit. He would decide for one case or the other, cannot split the difference nor make further recommendations or observations. In making his decision his criterion would be to select the case which will improve the long term prosperity of the company and its Chirk employees in cases of "interest". In cases of "right" the arbitrator would make a decision in keeping with current agreements and natural justice. These terms of reference are subject to confirmation and variation be mutual agreement.
- To avoid frivolous use of these procedures.

Source: Wilkinson (1987, Appendix, p. 35)

iii. Nissan Motor Manufacturing (UK) Ltd (Sunderland) and AEU, dated 1985.

Procedure

a. It is recognised by the Company and the Union that it is in their mutual interest that issues affecting employees should be dealt with effectively and speedily in an atmosphere of mutual trust and confidence and it is intended that most issues will be resolved informally between the employee(s) and his/their immediate supervisor. This may not always be possible, therefore the following formal procedure for the resolution of problems is agreed.

Stage 1 If the issue is not resolved informally, the employee may discuss the matter with his representative and together they may approach the immediate supervisor.

Stage 2 If the issue is not resolved at Stage 1, the employee, accompanied by his representative, may raise the issue with the immediate supervisor and the appropriate Departmental Manager.

Stage 3 If the issue is not resolved at Stage 2, the employee, accompanied by his representative, may raise the matter with the Personnel Manager and the appropriate Departmental Manager.

Stage 4 If the issue is not resolved at Stage 3, it may be referred normally to the Company Council (or a sub-committee thereof) and exceptionally to the Union Divisional for discussion with an appropriate nominated by the Company.

b. The Company and the Union are totally committed to resolving such matters 'in house' at as early a stage in the procedure as possible. However in exceptional circumstances, if this is not possible, unresolved issues will be referred to the Advisory, Conciliation and Arbitration Service for resolution. This will normally be by conciliation as it is recognised that such issues may not always be appropriate for arbitration. If, however, arbitration is appropriate the terms of reference will be agreed and the arbitrator will be allowed to decide positively in favour of one side or the other. The arbitrator will be asked to take account of those aspects of the issues that are already agreed. Both parties agree to accept the decision of the arbitrator.

Source: Wilkinson (1987, Appendix, pp. 38-39).

iv. Yuasa Batteries (UK) Ltd (Ebbw Vale) and the EETPU, dated 1986.

Collective Grievance Procedure

1. General

Where an issue involves a group of Company members, the procedure for raising the grievance will be as follows:-

i) Stage One

The item will be raised on the agenda of the Advisory Board by any Board member or the Company, and a Board recommendation sought. If no resolution is found at Stage One, Stage Two will be implemented. Where it is mutually agreed to discuss an item without initial reference to the Advisory Board, for example, matters of interpretation of agreements, the item will be referred directly to Stage Two of the procedure.

ii) Stage Two

If the matter is not resolved after full consideration of the Board, after recommendation by both the Management and Union members, it will be formally referred for resolution at this Stage, between Company and internal union representatives.

iii) Stage Three

If Stage Two fails to bring about a settlement, the Full-Time Official, National Officer or Executive Councillor of the Union will be involved.

iv) Stage Four

If the matter is not resolved after every effort has been made by the Company and the Union officials, it will be jointly referred to ACAS for Conciliation. This joint reference will be based on a mutual understanding that such a reference can assist in the process of jointly finding a self-solution.

v) Stage Five

If the conciliation process fails to provide an agreed resolution, the matter will again be referred to ACAS for the appointment of a mutually agreed independent arbitrator. The arbitrator will decide the issue on a 'Pendulum Arbitration' basis. The brief of the arbitrator will be to fully investigate evidence from both parties, relevant to the issue, and to find for one party or the other - without compromise. This arbitration decision will be binding on both parties and will represent the final solution to the issue. Wherever possible, this reference to ACAS will be on a joint basis.

However, if, after a period of ten working days from exhaustion of Stage Four, there is no joint agreement to progress the issue, either party can, if they so wish, refer the matter to ACAS for Pendulum Arbitration under Stage Five. As a matter of courtesy, the party making the reference will inform the other party prior to contacting ACAS.

Notes:

1. It is mutually agreed and fully understood that Stages Four and Five will rarely, if ever be used. There will be no unreasonable delay on either side at any stage.
2. Where the resolution of any collective issue is referred to a ballot, this can take place at the end of Stage Three or Four. Any ballot will be conducted in secret, the wording of the ballot papers to be agreed between the Company and the Union.
3. A secret ballot will be conducted on the premises or by postal system to each individual's home (which ever is thought and agreed to be the most appropriate method).
4. If it is mutually agreed that a mass meeting may help to resolve an issue after Stage's Three or Four of the Procedure, it may be held on company premises.

Source: Wilkinson (1987, Appendix, pp.41-43).

B. Four agreements from the eight interview plants

i. Iveco Ford Truck Ltd (Slough) and the TGWU, AEU and EETPU, dated 21/11/86.

4. <u>Grievance Procedure</u>

4.1 The Company and the Unions agree that, at each stage of the Procedure, every effort will be made to resolve grievances raised.

4.2 This Procedure covers any grievance directly affecting the employment of employees, with the exception of grievances connected with Works Standards and Health and Safety, which should be dealt with in accordance with the provisions of the appropriate Procedures set out in this Agreement.

4.3 Stage 1: Any employee who wishes to raise a grievance directly affecting his employment must first discuss it with his Foreman who will, if necessary, ensure that the employee is aware of the help that can be obtained from the Shop Steward.

4.4 Stage 2: If the employee is not satisfied with the reply he receives at Stage 1, he may discuss the grievance with the Shop Steward, and together they may make a further approach to the Foreman who will complete a written procedure report of the grievance, recording the Failure to Agree, which both parties will be expected to sign.

4.5 Stage 3: If there is no satisfaction at Stage 2, the Shop Steward and the Employee may raise the grievance with the appropriate Superintendent. The Foreman may be present at this meeting.

4.6 Stage 4: If no resolution has been reached at Stage 3, the Superintendent will refer the grievance to the Personnel Manager, who will arrange appropriate discussions.

4.7 Stage 5: If the grievance has not been resolved at these discussions either Party may:

(i) put the grievance on the Agenda for the next meeting of the Joint Works Committee, and/or

(ii) refer the grievance directly to the District Official(s) of the Union(s) involved for discussions arranged by the Personnel Manager.

4.8 The Grievance Procedure must be completed within ten working days of the date on which the grievance was put into the Procedure. All Parties will use their best endeavours to ensure that the grievance is resolved at the earliest possible stage of Procedure.

4.9 In the exceptional circumstance that a grievance remains unresolved following Stage 5 (ii), the Procedure has been exhausted and both Parties will give consideration to referring the issue to the Advisory, Conciliation and Arbitration Service (ACAS) for an independent judgement.

Such action will be taken only with the mutual consent of both Parties. It will be understood by both sides that ACAS will judge the issue according to the principles of binding Pendulum Arbitration in respect of the final position of each Party at the conclusion of Procedure. To this end ACAS will be provided with the formal record of Procedure meetings together with a written submission from both Parties. Additionally, ACAS may invite either or both Parties to give oral evidence in support of the written submissions. ACAS will study the evidence submitted and will decide the issue in such a way as to accept either the Company submission or the Union submission. The decision will be communicated in writing to both Parties.

Source: Iveco Ford Handbook for Hourly Paid Employees.

ii. RHM Foods Ltd (Wythenshawe) and the GMB, undated and abridged.

5. PROCEDURE FOR AVOIDING AND SETTLEMENT OF DISPUTES

Intention and General Principle

The Company and the Union recognise that any form of industrial action can damage our business and is, therefore, harmful to our customers, employees and shareholders alike. ... It follows therefore that in order to promote the success of our Company and it's employees, all differences will be resolved by discussion and negotiation within a framework of mutual understanding and respect without the imposition of restrictive practices of any kind.

Collective and Individual Grievances

Many grievances are escalated through disputes procedures because of an initial lack of understanding of the true nature of the problem, and without full and proper

discussion of the main issues. Grievances should therefore be discussed informally in the first instance between the employee concerned and their Supervisor/Departmental Manager. Every attempt should be made to resolve matters in this informal way. ... Should this method of dealing with the issue fail, then the following stages would be followed.

i) An issue affecting a number of employees from one section must be raised by the section's accredited representative with the Departmental Head/Supervisor of the area concerned. The Departmental Head/Supervisor will arrange a meeting to discuss the matter as soon as possible. ...

ii) Should the outcome/decision fail to satisfy the employees concerned, then it will be referred to the Departmental Manager/Shift Manager who will arrange a meeting as soon as possible. ...

iii) Failing settlement at Stage (ii) the matter will be referred to the Personnel Manager, who will arrange a meeting within three working days after the matter has been referred to him/her. ...

iv) Failing settlement at Stage (iii) the matter will be referred to the Factory Manager who will arrange a meeting with Shop Stewards within five working days after the matter has been referred to him/her. ...

v) (Excepting individual grievances)
Failing settlement of Stage (iv) the matter will be referred to the Full-Time Officer of the Union and a meeting will be arranged with the Factory Manager.

vi) Should the matter remain unresolved after Stage (v), then the Company and the Union will consider the circumstances and decide upon the next most appropriate stage, which may include:-

a) Involvement of a member of Senior Management from Divisional Personnel; (a meeting with a member of Senior Management from Divisional Personnel will be held at the request of either party).

b) Mediation/Conciliation: (there must be mutual agreement before the matter is referred to the Mediation/Conciliation stage).

c) Arbitration.

The parties agree that arbitration will be the final stage in any dispute and the written terms of reference will be agreed beforehand. The Arbitrator will be asked to find

wholly in favour of one side or the other. The Arbitrator's decision will be final and binding on both parties. Status quo shall prevail until the procedure has been exhausted.

Source: Memorandum of Domestic Agreement.

iii. Sanyo Industries (UK) Ltd (Lowestoft) and the EETPU, dated 10/6/82.

7. In the event that the Company and the Union shall be unable ultimately to resolve between themselves any discussion or disputes they may jointly agree to appoint an arbitrator and in this connection:-

(1) The Arbitrator will consider evidence presented to him by the Company and the Union and any factors that he believes to be appropriate

(2) The Arbitrator will decide in favour of one party

(3) The decision of the Arbitrator will be final and binding and will represent the final solution to the issue

CODE OF PRACTICE

ARBITRATION

In the event that Arbitration is necessary the statements exchanged prior to the Union ballot will be provided unaltered to the Arbitrator. Further, both parties will submit to the Arbitrator and exchange statements of case at least one day prior to the arbitration hearing. The Arbitrator will hear evidence in support of the final positions of the parties as submitted prior to the union ballot. The Arbitrator will then act in accordance with clause 7 of the Sanyo agreement.

Source: Sanyo Staff Handbook.

iv. Shotton Paper Company Ltd (Shotton) and the EETPU, dated 16/8/84 and abridged.

GRIEVANCE PROCEDURE

The grievance procedure provides all employees with the opportunity to resolve grievances as speedily as possible in a fair and equitable manner.

First Stage

If an employee has an individual grievance relating to his employment and wishes to raise it, he must in the first instance discuss the matter with his immediate supervisor. ... Every effort will be made to resolve it at this level.

Second Stage

If the employee and the recognised Union Representative are dissatisfied with the reply and wish to pursue the matter further, they should request the supervisor to arrange an interview with the Superintendent. ...

The Superintendent will then discuss the grievance with the employee and give him his decision normally within five working days of the interview. ...

Third Stage

If the employee and the recognised Union representative are still dissatisfied with the decision and wish to take the matter further, they may request the Superintendent to arrange an interview with the Department Manager. ...

The Department Manager will then discuss the grievance and will give a decision normally within five working days of the interview. ...

Fourth Stage

If the matter remained unresolved it will be taken up by the recognised full time Union Official with the Personnel Manager and/or the Director nominated by the Board. ...

The Personnel Manager and/or the Director will then discuss the grievance with the employee and will give him a decision normally within five working days of the interview. ...

If the matter is not resolved at this stage and the parties agree, then it may be referred to the Executive level of the Union.

Fifth Stage

If the matter is not resolved at the previous stage, then it will be referred to the Advisory, Conciliation and Arbitration Service who will nominate an independent arbitrator acceptable to both parties.

The terms of reference of the arbitrator will be to find in favour of one party or the other. A compromise solution shall not be recommended. Both parties agree to be bound by the decision of the arbitrator.

The Company and the Union have reached this agreement with a mutual understanding that Stage 5 references will be rarely, if ever, needed. In particular, there is mutual trust that neither side will progress issues which will be detrimental to the other or both. The Company and the Union agree that there will be no delay on either side in implementing each stage of the procedure.

NOTES

(a) A member of the Personnel Department may be involved in the procedure from Stage Two onwards.

(b) **Matters of collective interest should be raised by a recognised Union representative for the group in question.** (author's emphasis)

Source: Collective agreement.

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