Why Do Voice Regimes Differ?

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Abstract
In this paper we seek to explain the emergence of different voice regimes, and to do so by using approaches from institutional economics. In particular we analyse the emergence of different voice regimes as a contracting problem; a "make" or "buy" decision on the part of the employer. A unique feature of the model is that the firm, having chosen its particular employee management regime, faces switching costs if it attempts to alter its original make or buy decision. A particular dimension of the employee management regime decision is the use of the union as agent or supplier of voice, or elements thereof. We argue that there are circumstances in which the employer may, on grounds of cost or risk, seek to subcontract aspects of the management of labour to a union and, further, that this (along with the presence of switching costs) helps explain the continued recognition of trade unions in many firms. In other circumstances, however, the employer may seek to construct voice mechanisms without union involvement. Workplace data from Britain are used to test these and other implications of the model.

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Introduction

A literature which borrows concepts from the analysis of product markets has proven fruitful in the analysis of labour relations. Specifically, the translation of Hirschman's exit-voice (Hirschman, 1970) balance from the analysis of firm and customer relations to labour relations by Freeman and Medoff has spawned an entire literature on the origins of and forms taken by voice mechanisms (Freeman and Medoff, 1984; Mishel and Voos, 1992).

A feature of this literature is that voice is in demand by both employers and employees. The rationale for employer demand remains that of the product market model; employee voice has certain beneficial effects on firm performance. The rationale for employee demand has changed slightly. In addition to the beneficial impact of voice on the employment experience and the avoidance of costly exit, there is also the essentially political idea of the positive affect attached to representation in the workplace (Freeman and Rogers, 1999; Towers, 1997). In addition to any economic utility to be derived, voice has psychological benefits which may vary according to the form voice takes.

In the original formulation (Freeman and Medoff, 1984) voice was identified with union presence. However, beginning with an early critique by Addison (1985) and followed by the growth in the analysis of human resource management, there has been a growing literature on different voice mechanisms, based on the proposition that there may be a variety of such mechanisms available to satisfy employer and employee demand which are not coterminous with union activity. And, indeed, survey evidence in Britain and USA shows that there is variance in the distribution of voice; specifically, both the incidence of employee voice and its forms appear to vary across employers. This variance has not been well explained and is the focus of this paper.

We seek to explain the emergence of different voice regimes, and to do so by also using approaches from institutional economics. In particular we wish to analyse the emergence of different voice regimes as a contracting problem; a make or buy decision on the part of the employer. A particular dimension of this decision is the use of the union as agent or supplier of voice regimes, or elements thereof. We argue that there are circumstances in which the employer may, on grounds of cost or risk, seek to subcontract aspects of the management of labour to a union and, further, that this helps explain the continued recognition of trade unions in many firms. In other circumstances, however, the employer may seek to construct voice mechanisms without union involvement.

The structure of the paper is as follows. Section 2 discusses the proximate influences on voice regimes, arguing the necessary preliminary that employer choice is a prime determinant. Section 3 discusses the factors influencing employer decision making - particularly what we characterise as the 'make or buy' decision, which generates inter-firm variance - and develops propositions. Sections 4 and 5 look at empirical evidence on changes to voice regimes in Britain, using WERS data. Section 6 assesses implications.

2. Union and Non-Union Voice Options

The probability of union voice within an establishment may be defined in terms of the values of and relationships between the following three variables.

(a) Employee propensity to join a union (M)

(b) Union propensity to organise a workplace (U)

(c) Employer propensity to deal with a union (E)

Union voice may be generated by several combinations of employer, union and employee action. It might be the case that employees become active around a grievance or set of grievances and seek out a union to join. It may be that a union focuses organising activity on a workplace. It may be that an employer pre-emptively recognises a union which then recruits. These are the simplest cases and the three proximate influences on recognition probably operate in complex and varied combinations in practice.

The possible combinations of E, U and M at any point in time are presented in Figure 1. Their characteristics are as follows:

1. E+,U+, M+; there is consensus between all parties about the desirability of union voice.
2. E+,U+, M- ; the employer sees the need for union voice and the union is willing to be recognised but there are low membership levels, perhaps because the establishment is a greenfield site.
3. E+,U-, M+; the employer wishes to have union voice and the membership levels are high but the union does not regard the proposed bargaining unit as financially viable.

4. E+,U-, M-; only the employer is enthusiastic. A typical case might be where the employer proposes a redundancy and wishes to have a union co-operate in it to ensure legality, but the union does not wish to be drawn in and employees do not see the union as offering job security or other benefits.
5. E-, U+, M+; the union has high membership levels and is pursuing recognition from a recalcitrant employer.
6. E-, U-, M+; there are high membership levels but employers and union are unenthusiastic; it may be that the union regards the probability of continued employer recalcitrance as high and the proposed bargaining unit inviable on those grounds (Willman, 2001).

This is a static view, and dynamics are dealt with below. All combinations are logically possible; arguably, none is empirically unlikely although it is difficult to estimate relative frequencies.

Union voice is likely, with differing probabilities, in four combinations;

E+,U+, M+

E+,U+, M-

E+,U-, M+

E-, U+, M+

Non union voice is likely in the following combinations

E-, U-, M-

E-, U-, M+

E-, U+, M-

E+, U-, M-

The pattern thus broadly dichotomises on employer preference[1] except in the two sets highlighted:

[1] It also dichotomises broadly on union preferences; the issues involved here are dealt with elsewhere (Willman, 2001).

E-, U+, M+; where the recalcitrant employer is pressured for union voice by both union and employees.

E+, U-, M-; where the employer, in the terms used below, wishes to subcontract voice production but has no counterparty.

We argue that employer preferences are empirically unstable in both cases. In the first, pressure, often supported by statute, overcomes employer opposition. In the second, apathy leads to a choice of non-union voice or no voice. A category of employers may exist for whom the benefits of voice are outweighed by the costs of its provision (Millward et al, 2000). In summary, employer preference for a particular voice regime is likely to be a prime factor in its emergence. Employer preferences may change, but we will argue below that there is a stickiness to regime choice based on switching costs.

There are empirical as well as theoretical reasons for allowing the primacy of employer choice in regime definition. First, employer preferences do appear to influence differences in unionisation at the national level, particularly between US and Europe. Second, there is evidence that employees are influenced in their voice preferences by the probability that the chosen mechanism will meet with employer approval (Freeman and Rogers, 1999; Diamond and Freeman, 2001). Third, unions are financially employer dependent to the extent that the viability of any union based voice regime depends on employer support (Willman et al, 1993).

Two limitations of the approach emerge. First, employer discretion is the premise of employer choice; where union voice is statutory, the approach is of little use. Second, employers who are not in the voice market are excluded. They are dealt with in a separate paper (Gomez et al, 2002). We now turn to consideration of the factors influencing regime choice.

3. Making or Buying

3.1 Theoretical considerations

Our approach in this section relies on transaction cost economics and institutional theory. In essence, we focus on boundedly rational choice by employers who subsequently face high switching costs.

Transaction cost economics suggest that in exchanges characterised by asset specificity, frequency of interaction and uncertainty, choices about transaction governance structures are required, in particular, the choice whether to make or buy, or, more accurately, own or contract. All else equal, the more idiosyncratic the investments, the greater the frequency of interaction (and duration of exchange) and the greater the uncertainty facing the buyer, hierarchy rather than market will be preferred (Williamson, 1975, 1985, 1991). The vertical integration decision by the firm is paradigmatic

This choice of governance mechanism is made by parties operating under bounded rationality, faced with the possibility of seller opportunism[2], and operating on a risk neutral basis. The unit of analysis is the transaction, and variance in governance modes generated by variance in and interaction between boundedness of rationality, trust between parties (i.e. expectation of opportunism) and risk preference is not explored. The model thus has problems explaining the continued existence of different governance modes for similar transactions. The paradigmatic case is the difference in vertical integration between Ford and GM. Ecological analysis of organisational populations manifesting such variance has to rely on unsatisfactory assertions of disequilibrium.

Where one allows for such variance (as in Chiles and McMackin, 1996) one in effect shifts the unit of analysis from ecological to cognitive, focusing directly on managerial decision making and operating with a subjective conception of costs, i.e. as experienced by managerial decision makers. Focusing on conditions at the moment of regime choice allows consideration of different patterns among the three actor variables, but at the expense of predictive power. However, it also allows consideration of cohort effects and switching costs.

[2] Little changes under the assumption of bilateral opportunism (Willman, 1982).

We can read this over into the analysis of employment regimes in the following way. With no idiosyncracy, single interactions (the temporary employee paid by the piece) and no uncertainty, the employer will not want voice; the classic example might be the longshore hiring hall. However, the employer wanting voice faces a governance choice problem when seeking to 'purchase' a voice – producing workforce. 'Making', involves full provision of those mechanisms which might engender employee voice, including those perceived as legitimate by employees. Specifically, this would involve full provision of non-union voice. 'Buying' would, *in extremis*, involve the subcontracting out to a union of all aspects of voice provision. Hybrid and intermediate forms, which involve a mixture of union and non-union voice, are possible and might be differentiated in terms of variance in the nature of the transaction (asset specificity, frequency and uncertainty) or of the purchasing party (boundedness of rationality, expectation of opportunism and risk preference).

Where voice is not chosen, it may be assumed either that the employer is not concerned by employee exit, or that the costs of voice exceed those of exit. Where voice is chosen, we conceptualise the employer options within the transaction costs framework as follows

(a) Buy (i.e. union **U**)

This is closest to the Freeman and Medoff view of voice where the employer subcontracts to one or more unions the responsibility for the generation of voice. This involves, in Williamson's terms, a long term relational contract in which the employers direct costs in the production of voice are low but the risks of supplier opportunism are high.

(b) Make (i.e. non-union, **N**)

This is akin to the 'sophisticated HRM' approach and involves employers choosing directly to provide a set of employee voice mechanisms excluding third party intervention. Direct costs are correspondingly higher and, while there is a risk that the approach may not generate the voice required, there are no counterparty risks.

(c) Hedge (i.e. dual channel **D**)

Following Williamson (1991) we include a mixed option in which union and non-union voice mechanisms co-exist. This may be seen as a form of employer hedging, attempting to control both cost and risk. For simplicity, we treat this as a single option in what follows, acknowledging that a range of hybrids is possible across firms.

We consider the choice between these options in terms of three dimensions[3]: probability of regime success, gross return and total cost. At time zero, or period *t=0*, the choice framework is the following:

(1) $V_i^j = q_i^j R_i^j - C_i^j$

Where

q_i^j = probability that an employee management regime for employer *i* will meet with success[4], which inversely proxies the risk associated with regime choice, where *j* = (*U*,*N*,*D*) indexes the three voice regimes described above

R_i^j = gross return or benefit from voice regime adoption

C_i^j = the administrative cost of providing or purchasing voice regime *j*.

A rational employer, *i*, will adopt the voice regime with the greatest net benefit V_i^* Thus, 'buying' occurs when:

(2) $V_i^U \geq V_i^*$

This implies that the condition for the adoption of union voice is given by

(3) $q_i^U > \frac{C_i^U}{R_i^U}$.

The right-hand side of equation (2) defines a critical value for the probability of an employer adopting union voice. The critical value is

(4) $q_i^* = \frac{C_i^U}{R_i^U}$,

[3] This is an extension of the Farber and Western (2002) model.

[4] Where success is measured from management's perspective along a variety dimensions related to the ability of the voice regime to elicit employee behaviours that are favourable to productivity.

and unions will successfully target employers for whom $q_i^U \geq q_i^*$. Assuming R_i^j is the same for all forms of voice - i.e., voice is an experience good residing in a 'solution market' that may be secured equally through a variety of institutions[5] - the key variables are risk and cost.

The key risk item for non-union voice $q_i^{U^*}$ is the probability that the firm will be able to hire voice-production specialists and generate institutional forms which elicit voice without the existence of a third, independent party. The key risk item for q^{N_i} is the probability that the firm will find a non-opportunistic or incompetent counterparty. Where both risks are high, for example where personnel specialists are rare and unions militant or too weak to deliver voice, the firm may hedge and go for the hybrid option q^{D_i}.[6]

The key cost items are as in Figure 2, which depicts hypothetical firm A in three possible states. In reverse order, in case 3, the firm experiences C_i^U having entered a long term relational voice contract with a reliable union ($q^u=1$). If the union becomes less able to elicit voice and/or more militant, the firm may seek - providing that HRM itself is a reliable alternative ($q^N=1$) - to move to case 1, with costs C_i^N; this could occur through de-recognition. Where union and non-union prospects are equally risky($q^u=q^N=1$) the firm may seek to "hedge" and adopt a dual channel of union and non-union voice with costs C_i^D, as in case two. The figure also outlines the variable elements of any C_i^j. They are, for all, market wage and administrative costs (α), the former assumed regime independent and the latter regime dependent. For both C_i^U and C_i^D, there is the possibility of a wage mark up (δ) variations in which might generate regime switching behaviour. Note that the 'pure' administrative cost of voice α_1 is highest in the make case and lowest in the 'pure' buy case. Hedging, the highest cost option is also the lowest risk.

3.2 Regime switching

Two implications emerge. First, this logic indicates that switches from wholly union to wholly non-union voice (or the reverse) are less likely than a switch from either to a dual

[5] See Bryson and Gomez (2002) and Lambin (1997).

[6] In all three cases one can see the experiential characteristics of voice provision (i.e., the fact that any form of voice necessitates a trial or sampling period before the payoff can be accurately assessed). This is why voice regimes are experience goods for employers as well as employees (see Gomez and Gunderson, 2002 and Bryson and Gomez, 2002).

channel. If one form of voice provision is unsatisfactory (perhaps because the union is unreliable) or too costly (perhaps because of the number of personnel specialists required) then hedging to a dual channel is more likely than abandonment of sunk costs.

Several factors might induce switch. Union voice is fragile with low union membership, interruptions to voice supply (strikes), where the administrative costs rise or where for reasons of competition the firm negatively evaluates the equal supply of union voice to all competitors. Non-union voice is fragile where there are capability or cost questions, where the union wage premium disappears or where employer-made voice is not viewed as legitimate by employees. An interesting paradox emerges. In Britain and the United States, there is evidence that the union wage premium has fallen (Blanchflower and Bryson, 2003; Hildreth, 1999). In addition, over the last two decades, the number of strikes has fallen; i.e. C^u_i has fallen and q^u_i has increased. However, there is little evidence of a switch to union voice.

This raises the second implication of Figure 2. We argue for the existence of switching costs (S^j_{t+1}) once a voice regime is adopted (in period $t = 1$). Switching costs encourage inertia; hence movements away from an existing form of voice for an established employer are less likely than the adoption of alternative forms of voice by newly established firms. The voice-regime choice model (1) can therefore be re-written as

$$(5) \qquad V^j_{it+1} = q^j_i R^j_i - C^j_i + S^j_i$$

where an employer will once again desire union voice if $V^U_i \geq V^*_i$, and <u>remain</u> unionised even if a better non-union alternative exists. Persistence in the face of better alternatives occurs as long as switching costs remain greater than the net-benefits of changing voice regimes,

$$(6) \qquad S^U_{t+1} > V^* - V^U_i .$$

This explains why employers often stick with their original voice-regime decisions and why switching does not occur simply because expected net benefits are positive (as would be the case if equation (1) were in effect). The ability of this modelling framework to explain the broad patterns of voice regime adoption in Britain is elaborated below.

3.3 Interfirm heterogeneity

Voice mechanisms are experience goods operating in solution markets. They comprise a range of institutional options for securing employee compliance, retention, motivation and information sharing. Although we have assumed any combination of options can secure R_i^j, the value of R_i^j may be greater for some firms than others.[7] This can be conceptualised within this framework in terms of asset specificity. Where the employer experiences substantial exit costs and where the value of information sharing is high, for example where the workforce is highly skilled, the employer will be able to generate high R_i^j and thus endure higher C_i^j.

However, differences in risk preference may generate further variance. Chiles and McMackin (1996) argue that variable risk preferences will generate variable institutional choice within otherwise identical firms. Put another way, for them q_i^j is a subjective probability. Firms with an aversion to risk may opt for V_i^N where cheaper options exist because of an overestimation of union risk. Similarly, risk seeking firms may retain V_i^U where asset specificity might predict choice of V_i^N; options are depicted in Figure 3.

The figure (adapted from Chiles and McMackin, 1996) assumes a single curve for the 'make' decision (M). The curves O-RA,O-RN AND O-RS depict the risk-averse, risk-neutral and risk-seeking employer respectively. If a firm is located below (above) the M curve, it will always choose to buy (make) voice. However, as asset specificity increases (moving from point ***a*** to ***e*** along the 0-RA curve), firms who buy will endure higher costs of voice provision ($\boldsymbol{C^1} > \boldsymbol{C^0}$) than those making, thus ensuring a switch to the internal HRM option (***A1*** to ***A0***). As is also shown, risk averse employers will adopt the non-union voice option at lower levels of asset specificity than risk-seeking ones (***A0*** < ***A3***). What would differentiate such risk preferences? In this case, one could argue that firms facing higher levels of product market risk are likely to act in a risk-averse manner. This is essentially a risk appetite argument, (Adams, 1995) based on the neutral assumption of equal risk appetites.

[7] This is partly why we have insisted on retaining the subscript i throughout the modelling.

3.4 Field effects

So far, we have dealt with endogenous influences on decision making about voice regimes. However, there are likely to be environmental or field effects. Under the assumption of bounded rationality, one might expect employer choice to be influenced by legislation on the employment relationship (coercive pressure), by the availability of existing voice solutions provided by labour market groups or institutions (normative pressure) and by knowledge of the behaviour of other firms (mimetic pressures). All such pressures are likely to be isomorphic, i.e. towards conformity with existing practice (DiMaggio and Powell, 1983). However, there is evidence based in the application of institutional theory to the employment field that specific labour-market adaptations can be prompted by trigger events generating the diffusion of new 'solutions' to labour management problems (Dobbin et al, 1993).

We suggest that field level effects will influence employer choice of voice regime. Specifically, we identify

1. Cohort effects; the employer's choice of voice regime reflects the balance of coercive and normative isomorphic pressures at the time of regime selection.
2. Composition effects; the employer's choice of voice regime reflects the balance of available comparators to be imitated (mimetic pressure) at the point of regime selection.

To summarise; we argue that voice regimes reflect choices made by boundedly rational employers. They may be compared with make or buy decisions made under uncertainty and isomorphic pressures. Once made, switching costs are high. We now turn to empirical evidence to test the set of propositions which emerge from this approach. These are;

1. Employers are risk averse and tend to choose dominant voice regime options.
2. Regime switching is rare because switching costs are high so, once chosen, regimes tend to 'stick'. Where switching does occur, it usually involves hedging to dual channels to spread 'risk'. Radical switches between union and non-union voice are less frequent.
3. There are thus cohort effects in regime provision with change generated by new entrants, so compositional effects accompany the cohort effect.
4. The incentive for 'first moving' is often asset specificity.

5. Risk averse employers will be particularly likely to follow mimetic pressures.
6. Higher levels of product market risk are associated with risk aversion in regime selection.

We now turn to empirical analysis.

4. What Has Happened to Voice Regimes?

The high-tide of workplace-level union recognition in Britain was the 1950s (Millward et al, 2000: 101-102; Machin, 2000). Data available since 1984 show a steep decline in union-only voice arrangements, and a less marked decline in 'dual-channel' voice involving union and non-union channels in combination. These two changes were offset by a steep increase in voice arrangements that did not involve unions. We depict these changes in terms of our framework in Figure 4. It is striking that, although the forms of voice regime chosen by employers have changed markedly across the period, the balance between those wanting a voice regime and those choosing 'no voice' workplaces have remained stable.

In fact, the majority of unionised workplaces have combined union and non-union voice since the early 1980s (Table1). Dual channel voice predominated in 1984 even among those workplaces set up in the 1950s (see below), suggesting that it may have been the dominant regime for some time. However, the adoption of non-union voice by unionised workplaces became increasingly common in the 1980s and 1990s.

5. Assessing the Propositions

So, there are clear trends in the aggregate, with a shift from buying to making. In this section, we look more closely at the propositions outlined above. We find evidence of cohort and compositional effects. Radical shifting seems rare; hedging to dual channel regimes less so. We also find evidence of first mover asset specificity and the effects of product market risk on regime choice.

5.1 Regime switching and hedging

For the 1990s, we can gain insight into how regime changes occurred through the analysis of panel data for workplaces surviving over the period, coupled with data on workplace closures and new workplaces.[8]

Table 2 shows the incidence of regime switching among workplaces surviving over the period 1990-1998 and, for those who did switch, it shows initial and end regimes. Under a third of workplaces (29.5%) switched regimes. Of those who did switch, 42% moved to dual channel arrangements, hedging the risk attached to a single channel regime.

8.7% of workplaces switched out of union-only regimes. These switches out of union-only status outstripped the in-flow (8.7% versus 1.9%) resulting in a net reduction in union-only regimes among continuing workplaces. The stickiness of union regimes is confirmed by the rarity of union derecognition, which occurred in 5.2% of cases (or 9.2% of instances in which workplaces had started out with a union in 1990) (see Millward et al, 2000: 125).[9]

During the 1990s, the decline in union-only voice was largely accounted for by continuing workplaces switching from single-channel union representation to dual-channel arrangements (Millward et al, 2000: 124-125). Although new workplaces were not adopting union-only regimes, they only accounted for 28% of all workplaces extant at the end of the 1990s, making change *within* continuing workplaces the dominant factor (Millward et al, 2000: 8).

So why has there been such a big switch away from union-only to dual channel voice regimes? The evidence suggests that employers were hedging against the increased risk of union-only voice delivering effectively for them. First, the decline in union density within unionised workplaces (Millward et al, 2000: 139-145) made it more difficult for unions to operate as effective agents for employers. Second, national and sectoral-level collective bargaining - arrangements which had effectively removed pay as a source of competitive advantage - became much less prevalent (Millward et al, 2000: 185-196). As a consequence, employer support for unionisation declined over the period (Gallie et al, 1998: 107; Millward et al, 2000: 145-149; Bryson, 2001). This may reflect an increasing desire on the part of

[8] For a full description of these data see Millward et al., (2000: 248-255).
[9] The demise of union voice is also partly due to a positive association between unionisation and workplace closure in the 1990s (Bryson, 2003).

employers to deal with employees directly, rather than with unions. Certainly, this was a view expressed by over half (54%) of managers in unionised workplaces in 1998.[10]

Also during the 1990s there was an inflow of 9.6% to non-union only voice within continuing workplaces. However, 7.7% left non-union only status, indicating the volatility of this regime, a finding which may imply fewer switching costs than in the case of union regimes. Cohort effects played a bigger part than behavioural change among continuing workplaces in the rise of non-union only voice in the 1990s (see below).

5.2 Cohort effects

During the 1980s and 1990s, both the pre- and post-1980 cohorts experienced rapid increases in non-union only voice (17-33% in the case of the pre-1980 cohort, and 22-48% in the post-1980 cohort) and the demise of union-only voice (falling from 25-13% in the pre-1980 cohort and from 21-6% in the post-1980 cohort). But, throughout the period, non-union voice was more prevalent in the later cohort, while union-only voice was more prevalent in the earlier cohort. The regression analysis in Table 3 indicates that the odds of a workplace having a union-only regime were 1.75 times lower than having non-union voice only and were 1.61 times lower than having no voice where the workplace was set up after 1980. Dummies for the year of the survey show that, controlling for set-up date, there has been a significant increase in the relative prevalence of the alternatives to union-only voice, a trend which, in the case of non-union voice, continued in the 1990s.

Another way into this cohort effect is to examine the incidence of voice regimes in the 1984 data set by age of workplace. This is shown in Table 4 below. It suggests the incidence of non-union only regimes in 1984 was twice as high among workplaces aged under 25 years than it was among those aged 25 years or more. Assuming that regimes were chosen early on in the lives of these workplaces, this would indicate a shift to non-unionism at the end of the 1950s.

Our explanation is that normative pressures to avoid non-union only voice were high before 1960, possibly allied to the availability of institutions such as employer associations offering a ready alternative. This made q^u_i higher, i.e. the risk of adopting union voice was

[10] Compared to 86% in non-unionised workplaces. These figures are based on managerial respondents to the Workplace Employee Relations Survey 1998 in all workplaces with 10 or more employees.

lower. In workplaces founded after 1960, non-union only voice is much more likely indicating a decrease in q^{u}_{i} relative to q^{N}_{i} .

By the 1990s, mimetic isomorphism occurred as non-union only regimes established themselves as the norm. Indeed, the increase in solely non-union voice arrangements between 1990 and 1998 was largely accounted for by new workplaces adopting direct communication methods. They were much more likely to have solely non-union voice than continuing workplaces and those which had left the population in the 1990s (Millward, et al., 2000: 124-125). These trends point to a conscious decision to adopt direct communication methods in preference to union-based representation. The higher incidence of benchmarking among workplaces with non-union only regimes is also suggestive of mimetic practices.[11]

New entrants to the market are choosing the non-union route – almost irrespective of their characteristics (public vs. private sector being something of an exception).[12] Shift-share analyses indicate that, in the 1990s, nine-tenths of the lower rate of unionisation among new workplaces relative to workplaces leaving the population is due to different propensities to unionise, and only one-tenth is due to change in the composition of workplaces (Millward et al., 2000: 106-108).

Movement towards non-union voice can also be assessed by running multinomial regressions estimating the likelihood of the four voice regimes, splitting the analysis by year and looking at shifts in the coefficients over time. This analysis points to the dominance of the cohort effect: the coefficient on the set up date post 1980 increases over time for non-union voice relative to union-only voice (in 1984 the odds are 1.04, t = 0.08; in 1990, odds are 1.98, t = 2.50; in 1998, odds are 2.10, t = 2.43).[13]

5.3 First movers and asset specificicity

We hypothesised that the incentive for being a first mover might be high asset specificity, as indicated by a high percentage of non-manual workers or foreign ownership.

[11] Benchmarking is defined as 'examining the was things are done at other workplaces comparing with this establishment'. 60% of workplaces with non-union only regimes had benchmarked, compared with 42% of union-only regimes and 54% of dual channel regimes.

[12] The public sector may be exceptional because the returns to adopting a regime compatible with high asset specificity are low.

[13] These models are not shown but are available from the authors. Regressions control for broad sector, workplace size, foreign ownership, if single-establishment organisation, proportion of workforce part-time, proportion of workforce non-manual, set up post-1980, dummies for year of survey representing real time.

There is some support for this among workplaces that were set up before 1960: by 1984, 14% of these workplaces had non-union only regimes where 25%+ of their workforce were non-manuals, compared with 8% among those with <25% non-manuals. In keeping with the model, among those aged under 25 years in 1984, there was no difference between those with 25%+ non-manuals and those with <25% non-manuals (22% and 21% non-union voice only respectively).

Foreign-owned firms are higher on asset specificity, usually taking the form of a one-shot innovation of technique or product, leading firms to internalise the advantage rather than license other firms (Te Velde, 2001). For us, this one-shot innovation is on the labour management side. Unionisation rates were lower in 1984 among foreign-owned workplaces set up pre-1960 than they were among domestically owned workplaces of the same vintage (47% versus 71%). This is partly explained by a higher prevalence of non-union voice (19.3% versus 12.5%) and partly by higher 'no voice' (23.8% versus 16.4%). In keeping with the model, there was no difference in the younger age group (57% versus 63%).

Private service workplaces were also first movers. Among workplaces set up before 1960, non-union only voice made up 25% of all private service workplace regimes in 1984, compared with 11% among private manufacturers and 1% of the public sector. Among the younger workplaces in 1984 (those set up since 1960) non-union only voice made up 33% of private service workplaces, 31% of private manufacturing workplaces and 1% of public sector workplaces.

5.4 Competition and risk

Table 5 looks at the relationship between voice regime and product market competition. The probability of non-union only regime rises with the degree of product market competition. With an increase in the number of competitors, the probability of any union involvement in voice – either through union-only or dual channel forms, decreases. Of interest also is that the probability of 'no voice' also increases. Further confirmation of this comes from Table 6 which shows managers assessments in the 1998 survey of the degree of competition they face associated with non-union only voice regimes. In turn, this confirms the findings of Millward and Forth (2002: 15-16) who show product market pressures – indicated by setting productivity targets and JIT inventory systems – are associated with increased likelihood of direct communications (part of the non-union voice regime).

6. Implications and Conclusions

Our central concern in this paper has been to explain differences between voice regimes. We have argued that differences can be explained in terms of employer decision making under uncertainty and have used British data from successive WERS surveys to apply this approach to explain a central feature of the evolution of voice regimes in Britain – the move towards non-union voice as part or all of a voice regime.

In the broadest terms, our picture of this shift is as follows. Employers choosing voice regimes prior to 1960 did so in circumstances where union-based voice regimes were common exemplars and where there were normative and mimetic pressures to avoid non-union only regimes. The risk-averse option was dual channel voice. Over time, compositional shift from manufacturing to services and inward investments by companies with higher levels of asset specificity offered examples of non-union only voice. By the 1990's cohort effects dominate with almost all new entrants choosing non-union voice. Where union voice persists it is highly likely to do so as part of a dual channel voice regime.

Competition in the product market appears to encourage the shift towards non-union voice. Traditionally, this would be interpreted as a rent issue; in competitive product markets rent sharing possibilities disappear and the benefits of unionisation for employees diminish. However, where union wage premia are disappearing we suggest that an explanation in terms of risk management by employers is at least worth considering – employers facing high product market risk seek to control labour supply risk through a voice-making decision.

Our conclusions are summarised in Figure 5 and Table 7. Figure 5 depicts the declining costs of HRM provision in Britain over time, from the paradigmatic choice of union voice in the 1950s to the HRM dominated world of the 1990s. This decline in the make curve - perhaps through the increasing availability of HRM professionals and the spread of HRM benchmarking available - had the effect of lowering the make/buy threshold for firms across all risk appetites (e.g. the move from point ***f*** to ***a*** amongst all risk seeking firms). Second, increasing product market risk shifted the risk appetite of firms away from 0-RS towards 0-RA, thus compounding the move away from union voice and towards HRM and dual channels. We therefore suggest as the Table indicates that the default option in the choice of voice regime has shifted over time in the UK from union to non-union, from make to buy, according to changes in the values of risk and cost variables (we have assumed that returns were equal). The presence of switching costs in our model, however, makes regime

choice 'sticky' rendering radical switching (from union to non-union and vice versa) rare. This is also consistent with the evidence presented here.

Our findings can only be illustrative but we feel that the case for modelling employer decision making in order to explain voice regimes has been made. It can only be partial and a fuller explanation would need to examine employee attitudes towards unions and indeed union policies themselves, particularly as they relate to the variables C_i^U and $q^u{}_i$.

Table 1: Union and Non-Union Voice Arrangements in Unionised Workplaces, 1984 to 1998

Column percentages

	1984	*1990*	*1998*
Type of voice arrangement (5 items)			
Union only	35	26	21
Union and non-union	63	73	78
Voice, but nature not reported	2	1	1
Representative voice only	40	29	25
Representative and direct voice	60	71	74
Voice, but nature not reported	0	*	1
Weighted base	*1327*	*1053*	*845*
Unweighted base	*1593*	*1416*	*1116*

Base: all workplaces with 25 or more employees recognizing unions for pay bargaining. Union voice is defined as one or more recognized trade unions or a joint consultative committee meeting at least once a month with representatives chosen through union channels. Non-union voice defined as a joint consultative committee meeting at least once a month with representatives not chosen through union channels, regular meetings between senior management and the workforce, briefing groups.

Table 2: Switches in Voice Regime, 1990 to 1998

SHIFTERS shifts in voice regime, 90-98

			Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	union voice only	28	3.1	3.1	3.1
	2.00	dualc only	341	38.8	38.9	42.0
	3.00	non-u voice only	219	24.8	24.9	66.9
	4.00	no voice	40	4.6	4.6	71.5
	5.00	u only to dualc	70	8.0	8.0	79.5
	6.00	u only to non-u only	4	.5	.5	80.0
	7.00	u only to none	2	.2	.2	80.1
	8.00	dualc to u only	11	1.3	1.3	81.5
	9.00	dualc to non-u only	33	3.7	3.7	85.2
	10.00	dualc to none	7	.8	.8	85.9
	11.00	non-u only to u only	1	.1	.1	86.0
	12.00	non-u only to dualc	33	3.7	3.8	89.8
	13.00	non-u only to none	33	3.8	3.8	93.6
	14.00	none to u only	4	.5	.5	94.1
	15.00	none to dualc	5	.6	.6	94.6
	16.00	none to non-u only	47	5.4	5.4	100.0
	Total		879	99.8	100.0	
Missing	System		2	.2		
Total			881	100.0		

Table 3: Multinomial Logistic Regression Estimating Influences on Voice Regime, Pooled Data, 1984-1998

Survey multinomial logistic regression

pweight: weight — Number of obs = 5575
Strata: <one> — Number of strata = 1
PSU: <observations> — Number of PSUs = 5575
Population size = 5700.756
F(42, 5533) = 19.72
Prob > F = 0.0000

tvoice1r	RRR	Std. Err.	t	P>|t|	(95% Conf. Interval)	
dual channel						
public	.706019	.1067352	-2.30	0.021	.524934	.9495724
privmanu	.6345687	.1096353	-2.63	0.009	.4522551	.8903768
siz5099	.9813844	.1521692	-0.12	0.904	.7241473	1.329999
si100199	1.050833	.1612202	0.32	0.747	.7778803	1.419562
si200499	1.159674	.1868286	0.92	0.358	.8456171	1.590369
si500999	1.141524	.2229997	0.68	0.498	.7783314	1.674193
siz1000p	1.376782	.2858801	1.54	0.124	.91639	2.068475
foreign	1.110458	.2606817	0.45	0.655	.7008711	1.759408
single	.4938635	.1018093	-3.42	0.001	.3296817	.739808
proppt	2.967894	.9197073	3/51	0.000	1.61665	5.448547
propnm	1.759603	.3403288	2/92	0.003	1.204331	2.570888
supos802	.963104	.1768127	-0.20	0.838	.6720016	1.380308
wirs1984	.5039311	.0991396	-3.48	0.000	.3426698	.7410824
wirs1990	.758202	.1482997	-1.42	0.157	.5167244	1.112528
non-union						
public	.0469282	.0105285	-13.64	0.000	.0302289	.0728526
privmanu	.6411452	.1281067	-2.22	0.026	.4333527	.9485741
siz5099	.840811	.1475376	-.099	0.323	.5960808	1.186019
si100199	.4974092	.0879721	-3.95	0.000	.3516714	.7035428
si200499	.3351568	.0650134	-5.64	0.000	.2291379	.4902292
si500999	.1895916	.0451655	-6.98	0.000	.1188495	.3024411
siz1000p	.1786262	.0482815	-6.37	0.000	.1051528	.3034377
foreign	1.561132	.3839281	1.81	0.070	.9639594	2.528252
single	1.282701	.2535845	1.26	0.208	.870583	1.889909
proppt	6.568184	2.465094	5.02	0.000	3.147118	13.70811
propnm	3.490047	.8075267	5.40	0.000	2.217367	5.493195
supos802	1.746652	.3403751	2.86	0.004	1.192049	2.559284
wirs1984	.2166608	.0486221	-6.82	0.000	.1395454	.3363914
wirs1990	.5465941	.1169134	-2.82	0.005	.3593836	.8313266
none						
public	.0305251	.0110459	-9.64	0.000	.0150166	.0620499
privmanu	.9304635	.2071026	-0.32	0.746	.6014474	1.439465
siz5099	.5421152	.1032986	-3.21	0.001	.3731317	.7876276
si100199	.2637517	.0553329	-6.35	0.000	.1748161	.3979321
si200499	.1332359	.0321273	-8.36	0.000	.0830473	.2137553
si500999	.0933514	.0329297	-6.72	0.000	.0467514	.1864005
siz1000p	.606628	.0321237	-5.29	0.000	.021482	.171305
foreign	2.277203	.6258949	2.99	0.003	1.328605	3.903079
single	2.202135	.4645606	3.74	0.000	1.456251	3.330058
proppt	4.236837	1.807699	3.38	0.001	1.835638	9.779044
propnm	2.357549	.6261289	3.23	0.001	1.400702	3.968039
supos802	1.61095	.3492154	2.20	0.028	1.053227	2.464009
wirs1984	.4655366	.1141317	-3.12	0.002	.28789	.7528027
wirs1990	.8125657	.1967312	-0.86	0.391	.5055084	1.306137

(Outcome tvoice1r==union is the comparison group)

Table 4: Incidence of Voice Regimes by Period of Workplace Establishment (Unconditional Firm Cohort Effect): 1984 WERS

	Union voice	Dual channel	Non-union voice	No voice
Before 1960	.28	.43	.13	.17
1960-1974	.23	.42	.22	.13
1975-1984	.16	.42	.22	.20

Table 5: Voice and Competition

svytab tvoice1r tcompet, col ;

pweight:	weight	Number of obs	=	2950
Strata:	<one>	Number of strata	=	1
PSU:	<observations>	Number of PSUs	=	2950
		Population size	=	3219.9336

	Number of competitors for (main) product/service			
tvoice1r	none/dom	a few (u	many (6+	Total
union	.2959	.1169	.1121	.1277
dual cha	.3433	.2584	.264	.2683
non-unio	.2329	.3498	.3986	.3701
none	.1278	.275	.2253	.2339
Total	1	1	1	1

Key: column proportions

Pearson:

Uncorrected	chi2(6)	=	94.4224	
Design-based	F(5.68, 16745.83)	=	7.3331	P = 0.0000

Table 6: Voice and Competition

(KDEGREE + BASE1) BY VOICE2

		union and non-union rep voice, inc JCCs				
		1.00 union only	2.00 dual channel, u and non-u	3.00 non-union only	4.00 no voice	9.00 missing
How would you assess the degree of competition in this market?	1 Very high	32	39	47	48	6
	2 High	31	28	38	35	35
	3 Neither high nor low	15	6	5	9	23
	4 Low	5	14	7	4	32
	5 Very low	17	11	3	3	4
	8 Not answered	0	0		1	
	9 Dont know	0	1	0	0	
Base	Weighted	327	201	206	916	33
	Unweighted	355	454	244	543	23

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Table 7: Ranking of Voice Regime Risk and Cost Structures in Britain

	Incidence of Voice Regime (Rank Order)			Voice Regime Cost and Risk Parameters (High-Med-Low)								
				Buy			Dual			Make		
Period	**Buy**	**Dual**	**Make**	q	**C**	**S**	q	**C**	**S**	q	**C**	**S**
1970s	2	1	3	Med	**Low**	**High**	**High**	**High**	**Med**	**Low**	**High**	**Low**
1980s	3	1	2	**Low**	**Med**	**High**	**High**	**High**	**Med**	**Med**	**Med**	**Low**
1990s	3	2	1	**Med**	**Med**	**High**	**Med**	**High**	**Low**	**High**	**Low**	**Med**

q = Probability of voice regime success (inverse measure of risk 1- q);

C = Cost of voice regime

S = Switching costs out of voice regime.

Figure 1: Likelihood of Union or Non-Union Voice Based on Cross Classification of Employer, Union and Worker Preferences

Employer Propensity to Accept Unionisation (E)	Union Propensity to Organize Workplace (U)	Employee Propensity to Join Union (M)	Likely Voice Regime Outcome
High (+)	High (+)	High (+)	Union Voice
		Low (-)	Union Voice
	Low (-)	High (+)	Union Vo ice
		Low (-)	Non-Union Voice*
Low (-)	High (+)	High (+)	Union Voice*
		Low (-)	Non-Union Voice
	Low (-)	High (+)	Non-Union Voice
		Low (-)	Non-Union Voice

* Unstable employer preferences.

Figure 2: The Firm's Make or Buy Decision in Three Possible States

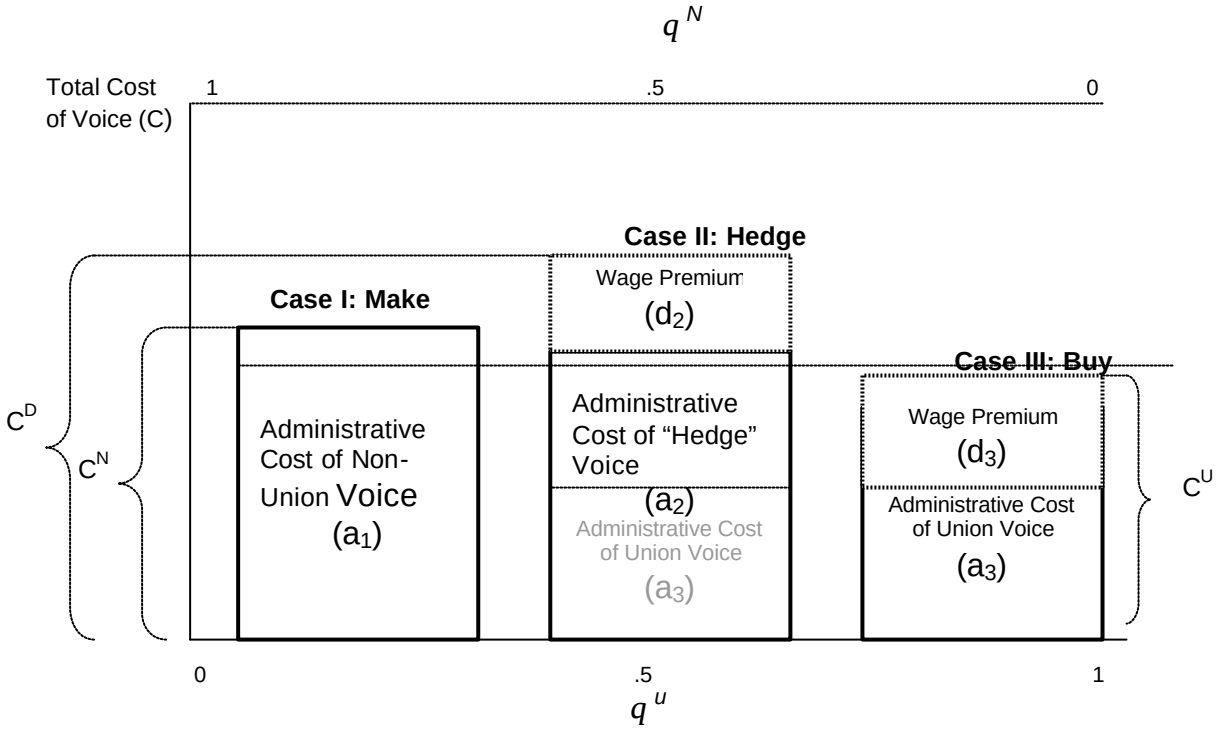


Figure 3: Variable Risk, Asset Specificity and Regime Choice

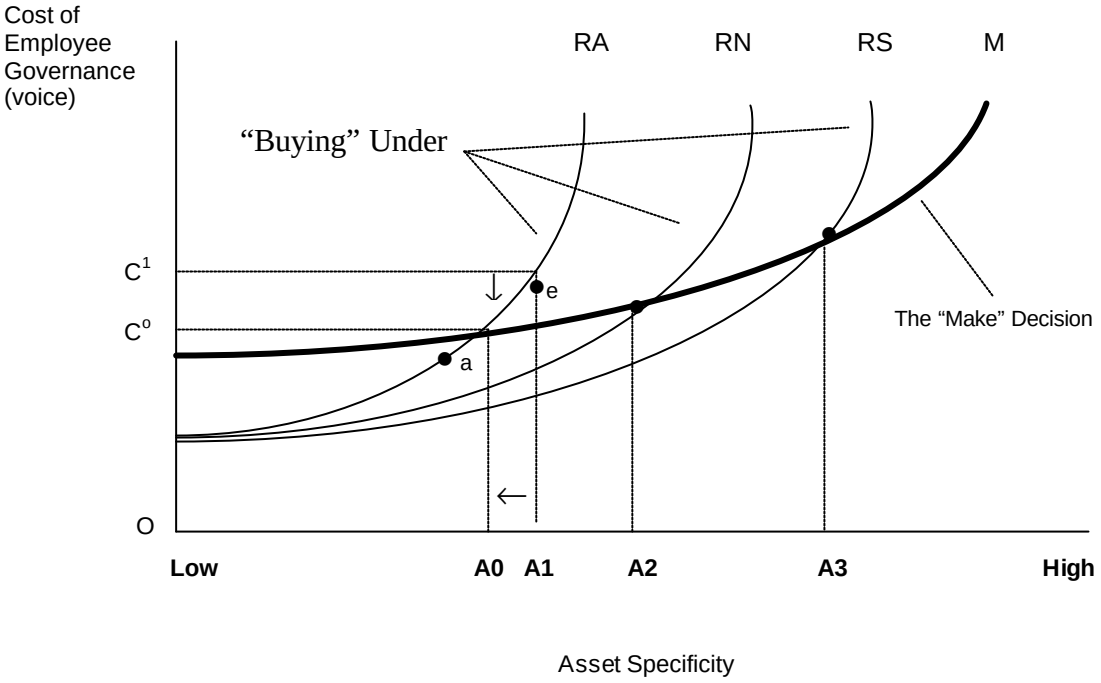
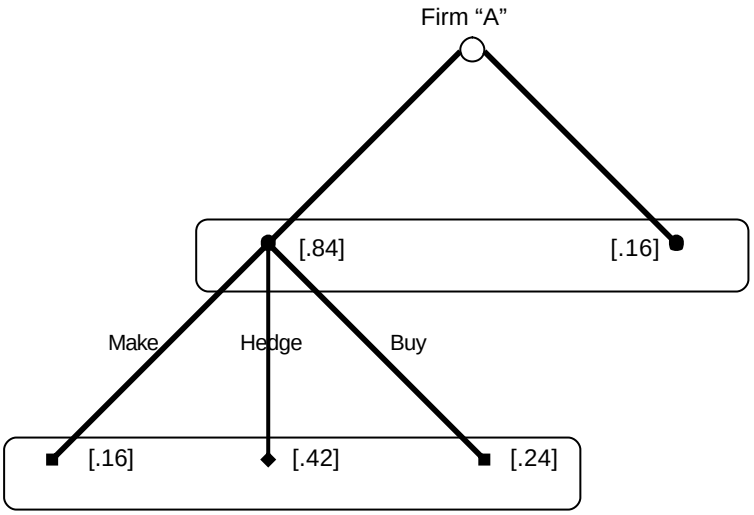


Figure 4: Voice Regime Choice in Britain: 1984 and 2001

a) Probabilities in 1984



b) Probabilities in 2001

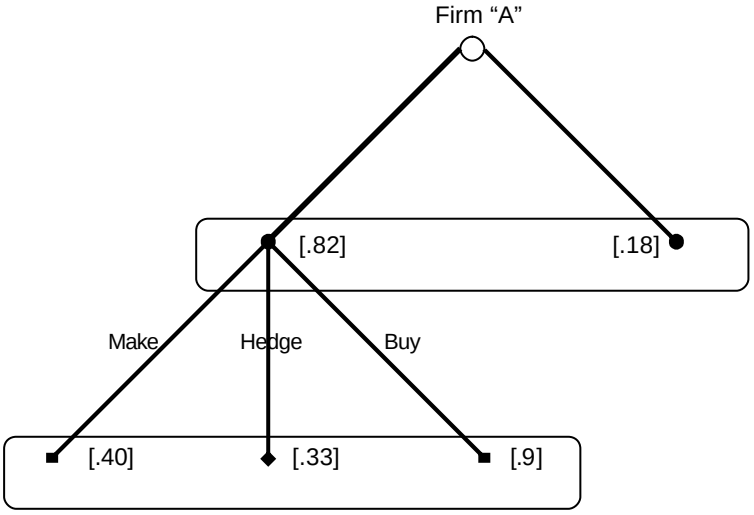
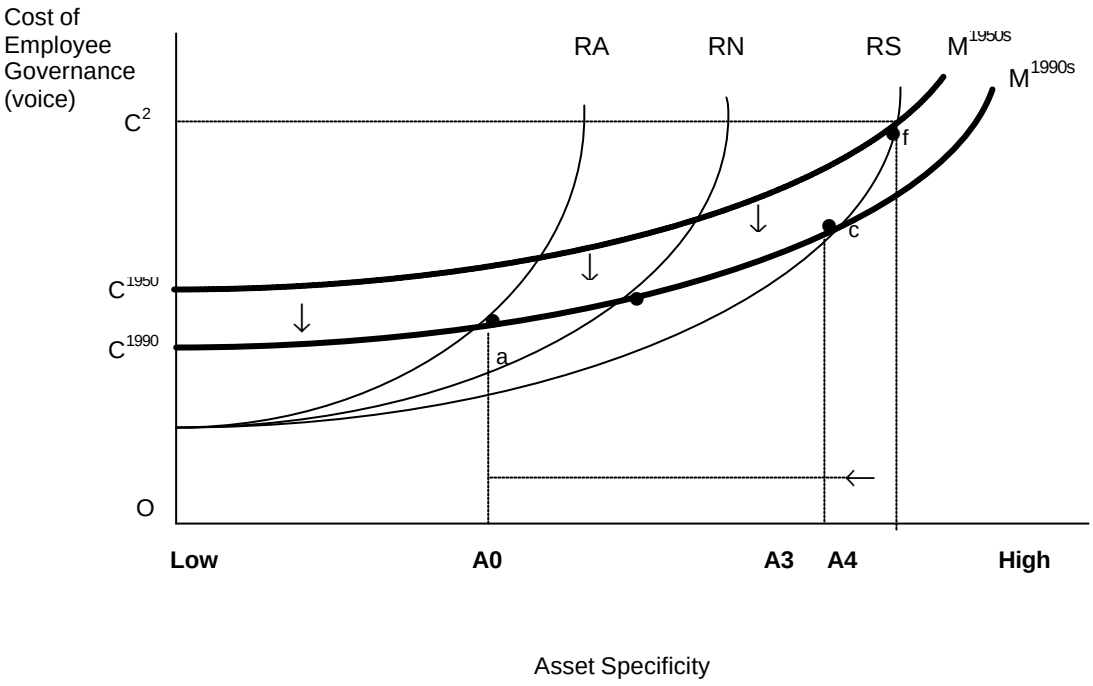


Figure 5: The Paradigmatic Choice of Voice Regime in 1950s and 1990s Britain



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