Informational Barriers to Compensatory Bargains: Why Workers Defend Redundant Jobs

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Revise and Resubmit, *World Politics*

Abstract

This paper presents a novel explanation for why workers seek to defend redundant jobs rather than accepting compensation for job loss. While existing scholarship appeals to commitment problems, this paper shows that information problems can prevent the emergence of compensatory bargains even if the government can fully commit. Incomplete information prevents the government from screening between the intended beneficiaries of its compensation policy and opportunistic claimants. To limit opportunism, the maximum compensation that a government is willing to offer workers is less than workers' expected payoff from fighting for their jobs. Workers therefore retain an incentive to insist on the preservation of an inefficient status quo even after the government has made compensation available. Empirically, I study the failure of a compensatory solution to technological job losses in postwar Britain. New evidence from government and union archives shows that screening problems under incomplete information prevented the government from offering sufficient compensation to workers facing job loss, leading to the persistence of inefficient conflict in British industry.

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In a competitive international environment, a country's welfare depends on its ability to introduce new technologies at the greatest possible speed.[1] Often, however, technological change creates losers who may insist on the preservation of an inefficient status quo despite its costs for the broader public.[2] In principle, it should always be possible for a government to use the tax and transfer system to redistribute the gains from new technologies in a way that compensates those who lose out, eliminating their incentive to resist change.[3] A government has a clear incentive to compensate the losers of technological change if the losers are veto players, i.e., if they can impede the introduction of new technologies. Under such circumstances, purchasing the acquiescence of the losers through the provision of compensation is the way to ensure that new technologies are introduced at the socially optimal pace, thereby preserving a country's international competitiveness.

Why don't compensatory solutions always arise? Existing scholarship in international and comparative political economy relies on commitment problems to explain resistance to efficiency-enhancing changes.[4] On this view, losers from a proposed change may reject compensation and insist on the preservation of an inefficient status quo because they fear that the compensation offered by the winners will be withdrawn after they acquiesce. Commitment-based theories presuppose that the government has offered a level of compensation that is satisfactory to the veto players: the bargain fails because the promise of compensation is not enforceable, exposing the veto players to the risk that the government will renege *ex post*. Such theories struggle to make sense of situations in which the compensation the government offers is manifestly less than what the veto players could expect to receive by insisting on

[1] Mokyr (1992, 1994); Milner and Solstad (2021).

[2] See, canonically, Mokyr (1998); Acemoglu and Robinson (2000).

[3] This is true by definition: if the technology raises social welfare, this means the benefits it provides are greater than the costs it creates. The benefits can therefore be redistributed in a way that leaves everyone at least as well off as they had been before.

[4] Notably, North (1993); Acemoglu and Robinson (2000; 2006); Acemoglu (2003). Applications in political science include Baccini and Urpelainen (2014) in the context of economic reform and Gazmararian and Tingley (2023) in the context of green transition policies. Powell (2004) analyzes commitment problems in international bargaining.

the preservation of an inefficient status quo. In such settings, the problem is not that the offer is non-enforceable: the problem is that the offer is not good enough.

This paper explains how information problems can undermine the possibility of a compensatory bargain by imposing an upper bound on the generosity of the compensation that the government is willing to offer. The relevant friction is an adverse selection problem, which arises under incomplete information. In a context where the government lacks the information necessary to screen between the intended beneficiaries of its compensatory buyout and opportunistic claimants, any compensation it makes available to the losers of an efficiency-enhancing change can be exploited. The cost of this opportunistic behavior can easily exceed the efficiency gains that the government had hoped to reap from the introduction of the compensatory buyout in the first place. To limit the extent of opportunism under incomplete information, the government must limit the generosity of the compensation it offers. The resulting inadequacy of the available compensation encourages veto players to continue to insist on the preservation of the inefficient status quo. The inefficient outcome arises even if the agreement is fully enforceable and the government can credibly commit to its maximum offer of compensation.

An information problem of precisely this sort arises in the context of government efforts to compensate workers facing job loss as a result of technological change. A government has an incentive to compensate these workers inasmuch as they can exercise veto power over workforce restructuring within individual firms through the threat of strike action. Workers are more likely to be able to exercise veto power when they are organized in unions, since unions coordinate and subsidize collective action. Though unions rarely oppose the introduction of new technologies, they do sometimes insist that employers abstain from dismissing workers whose existing roles are made redundant by the introduction of new technologies.[5] The goal is to compel employers to keep these workers on payroll and redeploy them to new tasks. Unionized workers' efforts to restrict personnel reductions following the introduction of new

[5]See Sections 3 and 5 below.

technologies may discourage firms from introducing new technologies in the first place, even if this is not the unions' or workers' intent. This can lead to a slower pace of technological change and to lower economic growth and reduced international competitiveness. In such settings, the government has a strong incentive to compensate workers who lose their jobs as a result of technological change and who face reduced re-employment prospects. The government's problem, however, is that it cannot effectively distinguish among workers on the basis of the cause of job loss or their ability to find similar new work. Whatever compensation the government makes available is vulnerable to exploitation by workers who lose their jobs for reasons unrelated to technological change or who have experienced technological displacement but could easily find new work at a similar rate of pay. To limit exploitation by opportunistic claimants, the government therefore constrains the generosity of the compensation it offers, but this preserves the intended beneficiaries' incentives to resist job loss. What results is the persistence of employment rigidities that discourage investment in labor-saving technologies.

To demonstrate the empirical relevance of the informational theory developed here, this paper examines the politics of compensating workers for technological redundancy in Britain during the era of its relative decline in the decades after the Second World War. As I argue below, the British case is a least likely case for failure of the sort theorized here, since the British government had unusually strong incentives to devise a compensation scheme that would succeed in buying workers' acquiescence to job loss. This is because of widespread agreement among political actors that unionized workers were exercising veto power over workforce downsizing and thereby discouraging investments in new technology and undermining the competitiveness of British industry. This ubiquitous view of unionized workers as veto players in the process of industrial modernization led to the emergence of a political consensus about the need to buy acquiescence to job loss by providing compensation to those who lost their jobs as a result of technological change. The British government did, indeed, introduce a compensation scheme of this sort in the form of the Redundancy Payments Act

of 1965. This policy failed, however, to achieve its goal of bringing an end to conflict over workforce restructuring in British industry.

Drawing on archival evidence from the Ministry of Labour, the Treasury, and Britain's largest manufacturing union, the Amalgamated Engineering Union (AEU), this paper shows that the Redundancy Payments Act failed to achieve its desired objective as a result of policy design choices that reflected the information problem theorized here. Given the government's inability to screen between the intended beneficiaries of the compensation policy and opportunistic claimants, the government was compelled to offer compensation that was less than what was necessary to make workers indifferent between acquiescing and fighting for their jobs. Following the introduction of the policy, the AEU continued to support its members' efforts to resist workforce reduction on the grounds that the level of compensation provided by the government was inadequate. On both a theoretical and an empirical level, commitment theory fails to offer a plausible explanation for the AEU's continued resistance to job loss, as discussed below. Other explanations for the AEU's behavior, including its putatively non-encompassing structure and its leaders' proprietary interest in membership retention, fail as well, as we will see.[6] The AEU's continued insistence on the preservation of its members' jobs is thus best explained by the inadequacy of the compensation offered by the government.

The theory and evidence put forward in this paper explain why inefficient 'overmanning' and the associated problem of low investment and lagging productivity in British industry were not solved through a compensatory policy to 'buy out' workers in redundant jobs. More generally, this paper provides a new analytic tool for political economists by explaining how information problems lead to the breakdown of compensatory bargains, even when the government can fully commit. This tool may be broadly applicable for explaining the non-emergence of compensatory solutions for workers displaced through trade liberalization, market-oriented reform, and the green transition. In all of these settings, we know that

[6]See Olson (1982); Acemoglu and Robinson (2001).

workers may insist on the preservation of inefficient jobs or regulations: the theory developed in this paper may help to explain why this is the case. In the paper's final section, I show that the informational theory developed here can throw new light on the failure of Trade Adjustment Assistance to avert the surge in protectionism among American unions from the late 1960s onward as well as the failure of the compensation provided under the Clean Air Act to buy coal workers' support for green transition measures.

Section 2 of the paper explains how information problems can lead to the persistence of inefficient resistance to job loss. Section 3 introduces the British case. Section 4 draws on archival evidence from the British Ministry of Labour and the Treasury to show that screening problems limited the generosity of the compensation provided through the Redundancy Payments Act of 1965, which was meant to buy workers' acquiescence to technological job loss. Section 5 draws on archival evidence from the AEU to show that the union continued to support militant resistance to job loss because of the inadequate compensation provided under the Redundancy Payments Act. Section 6 considers several alternative explanations for the outcome observed in the British case. Section 7 discusses the theory's scope conditions and considers the broader applicability of the theory.

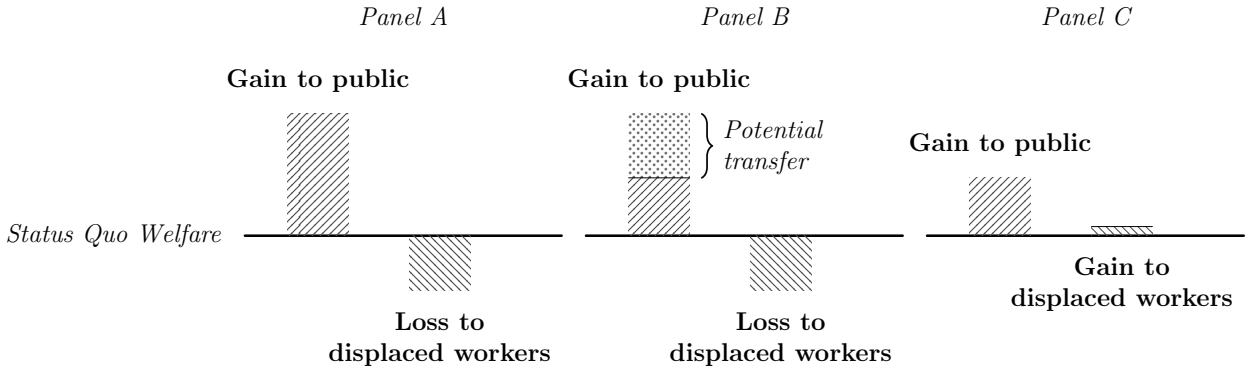
2. How incomplete information undermines efficient bargains

If employers are prevented from shedding redundant labor following the introduction of new technologies, they may abstain from making labor-saving investments, leading to declining productivity and a loss of international competitiveness. Losses in productivity and competitiveness can, in turn, impose costs on society as a whole in the form of declining incomes and contracting employment. Faced with restrictions on workforce reduction following the introduction of new technologies, it seems obvious that there must be a way of reconciling the imperative of technological progress with workers' understandable desire for security. This intuition is sound: if rapid technological diffusion makes society better

off, then it is by definition possible for a government to use the tax and transfer system to redistribute the gains from new technologies to compensate those who lose out.

The intuition is captured in **Figure 1** below. Panel A depicts a change in welfare associated with a departure from a status quo with employment rigidities and underinvestment in new technologies to an alternative with no rigidities and increased private investment. The change raises efficiency in the sense that total welfare is increased: the gain to the public is greater than the loss to displaced workers. Given that the change in question is efficient, it is necessarily the case that there is a possible transfer from the public to the displaced workers that leaves both groups better off than they had been under the relatively inefficient status quo ante. This is depicted in Panel B. Implementing this transfer, as depicted in Panel C, eliminates workers' incentives to resist job loss. To be sure, if the workers facing technological displacement are unable to defend their jobs, then the public has no incentive to enact a transfer of this sort. But to the extent that workers *can* enforce the preservation of the status quo, then the public is better off under compensation, since it is only by buying off the veto players that the more efficient alternative can be realized. The reason to compensate is strategic, not moral. Yet compensatory solutions do not always arise, as is clear from the persistence of inefficient conflict over job loss in postwar Britain. What stands in the way of efficient compensation in such settings?

Figure 1: Efficient compensation for technological job loss



One possibility is that the government is unable to credibly commit to its offer of compensation.[7] But despite their ubiquity in political economy research, commitment problems can only account for the failure of compensatory bargains under certain rather stringent conditions. First, there must be a temporal gap between the veto players' acquiescence to the terms of the government's offer and the government's fulfillment of the offer. Otherwise, there is no opportunity for the government to renege after the veto player has acquiesced, and thus no commitment problem. Second, the veto player's acquiescence to the offer must lead to a reduction in the veto player's bargaining power, i.e., the veto player's ability to re-impose the inefficient status quo ante. In the absence of such a reduction, the government has no incentive to renege after the veto player has acquiesced, since reneging would simply lead to the re-imposition of the inefficient arrangement that the government had sought to eliminate in the first place. Third, it must be the case that the veto player's acquiescence to the government's offer leads to a decline in the veto player's bargaining power that is sufficiently large that the government cannot offset the risk that it will renege through a larger up-front transfer.[8] A simple formal model in Appendix G clarifies these conditions, which are not always met, indicating that commitment problems do not offer a one-size-fits-all explanation for the failure of compensatory bargains.

More fundamentally, commitment-based approaches locate the source of bargaining failure in the inability to enforce the terms of an otherwise mutually beneficial agreement, rather than in the government's unwillingness to offer compensation that is sufficiently generous to induce the veto players' acquiescence. If the veto players are dissatisfied with the terms (i.e., generosity) of the offer, and the government is unwilling to increase the generosity of its terms, it is unnecessary to appeal to concerns about the *enforceability* of the offer (i.e., commitment concerns) to explain why the veto players reject the offer and insist on the

[7]North (1990); Acemoglu (2003); Acemoglu and Robinson (2006); Baccini and Urpelainen (2014); Gazmararian and Tingley (2023).

[8]This is canonically demonstrated in an international security setting by Fearon (1996).

status quo. Rather, it is necessary to identify the friction that prevents the government from increasing the generosity of its terms enough to purchase the veto players' acquiescence.

This paper explains how information problems can restrict the generosity of the compensation that the government is willing to offer, leading veto players to reject the offer because they are dissatisfied with the generosity of the terms, not because they are concerned about the offer's enforceability. The friction that produces this inefficient outcome is an adverse selection or screening problem, which arises from incomplete information.[9] The existence of adverse selection problems in the design of social insurance is, of course, well-recognized in labor economics.[10] The innovation in this paper is to introduce adverse selection, a familiar problem in economics, into the analysis of political economy settings in which governments seek to overcome veto players' resistance to socially beneficial changes. This paper shows how incomplete information leads to the persistence of inefficient social arrangements even in the absence of the commitment problems stressed in existing research.

To see how information problems can render the government unwilling to offer sufficient compensation to workers facing technological job loss, it is first necessary to define 'sufficient compensation.' Sufficient compensation does *not* refer to the indefinite payment of a worker's wage or making the worker 'whole' in an abstract sense. Rather, it refers to a level of compensation that makes a worker indifferent between acquiescing and fighting for her job. In the simplest form, this entails a transfer payment equal to the value of the difference between a worker's current wage and the wage at her next best employment opportunity, accumulated over the rest of her working life, discounted to the present, and multiplied by the probability that she would otherwise succeed in defending her current job. The provision of anything less than sufficient compensation fails to overcome the worker's incentive to resist dismissal. Importantly, this definition means that workers vary substantially in terms of the compensation required to induce their acquiescence, even if they earn the same wage.

[9]The argument here is analogous to Fearon's (1995) delineation of commitment problems and information problems as separate causes of war in international politics.

[10]An overview can be found in Boeri and van Ours (2013).

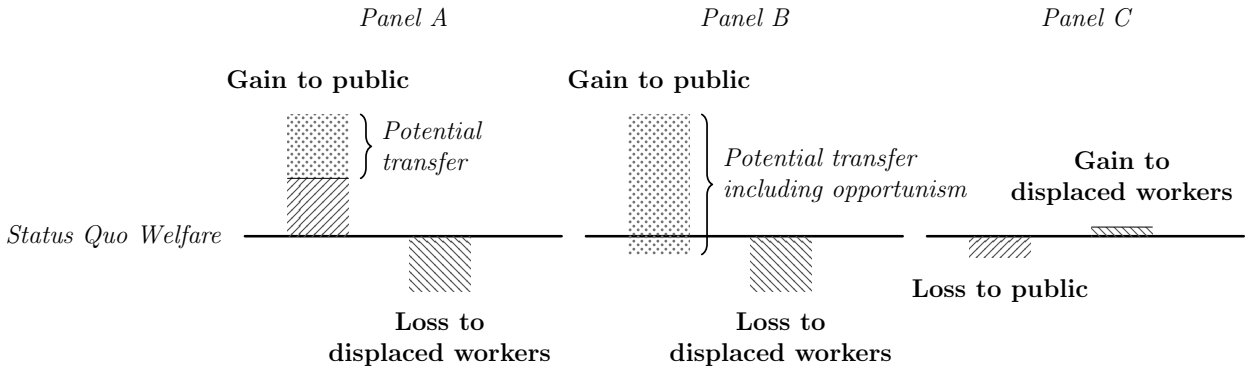
Some workers can easily find new work after experiencing job loss, whereas others cannot. Likewise, some are able to contest job loss with a reasonable likelihood of success, whereas others are not. Workers who can easily find new work or who are unlikely to be able to defend their jobs can be rendered indifferent between fighting and acquiescing with a lower level of compensation than other workers.

In arranging a compensatory buyout for workers in technologically threatened jobs, the government faces two screening problems. The first problem is distinguishing between workers who lose their jobs as a result of technological change and those who lose their jobs for other reasons. The second problem is distinguishing between those who experience technological job loss but could easily find new work at similar pay and those who experience technological job loss whose re-employment prospects are weak or nonexistent. Screening is necessary from the government's perspective because of the adverse effect on work incentives associated with the receipt of sufficient compensation for job loss. After all, the compensatory transfer is designed to be generous enough to make a worker indifferent between fighting to preserve her existing job and acquiescing to job loss: this is what is needed to purchase the acquiescence of the policy's intended beneficiaries. If all workers who lose their jobs get access to this generous compensation irrespective of the cause of job loss or their re-employment prospects, the government not only faces a much higher fiscal cost but also a reduction in labor supply as a growing share of the workforce selects out of employment and remains out of work longer than they would in the absence of compensation.

The government's inability to screen between the intended beneficiaries of its compensatory buyout and opportunistic claimants undermines the possibility of a bargain, leading to the persistence of an inefficient status quo. To fix ideas, the key intuition is depicted graphically in **Figure 2**. Panel A recapitulates what was established above: if the shift to flexible labor markets is efficient, a compensatory bargain should be possible that leaves everyone better off. Panel B shows that once the cost of opportunism by unintended beneficiaries is factored in, the cost of the compensatory buyout can exceed the benefit that the

government had hoped to obtain by offering the buyout in the first place. The cost of opportunism refers not only to the direct fiscal cost of the transfers to additional beneficiaries but also, more importantly, the indirect costs that stem from the adverse effect on labor supply, which reduces government revenue and constrains economic growth. Given these direct and indirect costs, enacting a compensatory buyout in the absence of effective screening can actually leave the public worse off than it had been under the inefficient status quo ante, as depicted in Panel C. Any rational government would opt to preserve the inefficient status quo over this worse alternative. It should be stressed that the argument does not depend on assumptions about a budget constraint: the key cost of opportunism from the government's perspective is the reduction in labor supply, which arises independently of the state of the budget and creates a budget constraint through reduced revenue from labor taxation even if one did not already exist.

Figure 2: Inefficient compensation in the absence of effective screening



Of course, in a more realistic setting, the government is not faced with an all-or-nothing choice of whether to compensate or to accept the inefficient status quo. Instead, the problem for the government is to set compensation at a level that achieves the maximum benefits (in terms of the number of target beneficiaries whose acquiescence to job loss is purchased) while minimizing the number of opportunists who withdraw from the workforce. This can be captured through a simple formalization of the government's decision problem. Consider a problem in which there is mass 1 of target beneficiaries (T) and mass k of opportunists

(O). $F_T(c)$ is the withdrawal function of T, denoting the share of T that will acquiesce to job loss at a given compensation c. This captures the fact that the value of 'sufficient compensation' varies among target beneficiaries on the basis of the expected cost of job loss and the likelihood that a given worker would succeed in defending her job. $F_O(c)$ captures the withdrawal function of O, denoting the share of O that will stop working at a given c. This reflects the idea that potential opportunists differ in the generosity of the compensation that is necessary to induce withdrawal from the labor force.

Let b denote additional growth achieved with every target beneficiary that acquiesces to job loss and let μ denote the shadow cost of public funds ($\mu > 1$), such that μc is the social cost of paying compensation at level c. We can first consider the government's utility function without the adverse selection problem, i.e., when the government can perfectly screen between T and O. In this baseline condition, the government's utility is $U_{baseline}(c) = (b - \mu c)F_T(c)$. This is the per-worker net benefit at compensation level c times the share of the target group that will acquiesce to job loss at c. An interior optimum is where $(b - \mu c)f_T(c) = \mu F_T(c)$. $f_T(c)$ is the slope of T's withdrawal function at point c, capturing the marginal increase in the share of T that will accept job loss in response to an increase in compensation at this level. Accordingly, the left-hand side of the equation $(b - \mu c)f_T(c)$ is the marginal benefit of an increase in c: the additional net social benefit eked out from a few more target beneficiaries acquiescing to job loss. $\mu F_T(c)$ captures the marginal cost of raising the level of compensation at c. Assuming that $U_{baseline}(c)$ is single-peaked, the c where these two values are equal, c^*, is the efficient compensatory buyout: any higher c leaves the public worse off.

Once we incorporate the adverse selection problem – the government's inability to distinguish between members of T and O – the government's utility function becomes $U_{AS}(c) = (b - \mu c)F_T(c) - (\lambda + \mu c)kF_O(c)$, where λ is the cost of each opportunist who withdraws from the labor force and $kF_O(c)$ is the mass of opportunists that withdraws from the labor force

at compensation c. Differentiating with respect to c and evaluating at the efficient level of compensation c^*, we get

$$U'_{AS}(c^*) = (b - \mu c^*) f_T(c^*) - \mu F_T(c^*) - k\Big[\mu F_O(c^*) + (\lambda + \mu c^*) f_O(c^*)\Big]$$

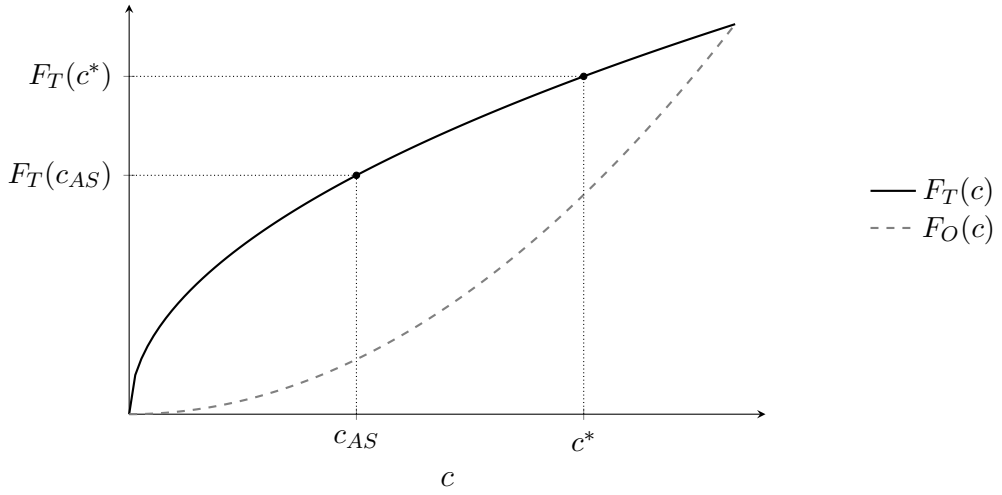
We already established above that $(b-\mu c^*) f_T(c^*) = \mu F_T(c^*)$, so the first two terms cancel out. We thus arrive at

$$U'_{AS}(c^*) = -k\Big[\mu F_O(c^*) + (\lambda + \mu c^*) f_O(c^*)\Big]$$

Since $k > 0$, $\mu > 0$, and $\lambda + \mu c^* > 0$, $U'_{AS}(c^*)$ is negative as long as $F_O(c^*) > 0$ or $f_O(c^*) > 0$, i.e., as long as any opportunists withdraw from the labor force at compensation c^* or would do so in response to a marginal increase in compensation. Given that the government's utility under adverse selection $U_{AS}(c)$ is falling at c^*, and assuming that $U_{AS}(c)$ is single-peaked over the relevant range, it must be the case that the optimal compensatory payment under adverse selection is less generous than the efficient level ($c_{AS} < c^*$). This means that the share of the target beneficiaries who are bought out is lower than would be efficient: $F_T(c_{AS}) < F_T(c^*)$. The extent of the inefficiency depends on the relative slopes of $F_T(c)$ and $F_O(c)$, i.e., how many additional opportunists a given increase in c brings in relative to additional target beneficiaries, along with the relative sizes of the target and opportunist populations. An illustrative version of this relationship is depicted in **Figure 3**. $F_T(c)$ is depicted as concave, which means that the number of additional workers whose acquiescence can be purchased via a marginal increase in c decreases as c gets large. This fits our setting, where many of the target beneficiaries are workers in manufacturing earning around the median wage. $F_O(c)$ is depicted as convex, capturing the intuition that take-up of compensation among opportunists will increase rapidly as c gets very high.

The government's inability to 'credibly commit' is irrelevant for explaining the inefficient outcome in this setting. An inefficiently large number of workers continue to contest job loss because the government is not offering sufficient compensation to encourage their acquiescence. If an actor rejects an offer because of dissatisfaction with the *contractual terms*, the rejection cannot be explained with reference to a commitment problem, since a commitment

Figure 3: Illustration of inefficient compensation under adverse selection



problem requires that parties are satisfied with *contractual terms* but are worried about the *enforceability of the contract.* Here, the problem is that the losses driven by adverse selection compel the government to adjust the contractual terms (i.e., the generosity of compensation) in a way that makes the terms unacceptable to an inefficiently large number of target beneficiaries. A partial predecessor is Lindvall's (2017) argument that the deadweight losses of compensation can foreclose an efficient bargain.[11] The theory developed here explains how information problems can lead to such losses.

The interesting question is why the screening problem highlighted here cannot be solved. The government has several policy levers at its disposal to deal with adverse selection. The first is to lower the face value of compensation in order to reduce the incentives for opportunism. The second is to adjust the terms of its offer by maintaining the face value of the compensation while instituting administrative procedures to screen between the intended beneficiaries of the compensatory buyout and other claimants. The problem is that using these policy levers to address the problem of opportunism undermines the efficacy of the

[11]Lindvall (2017) identifies additional causes of persistent inefficiency when governments are composed of multiple actors with different interests and when there are agency problems in the bureaucracy. This paper focuses on the determinants of persistent inefficiency in the circumstances ostensibly most favorable to an efficient solution, i.e., when the government is a unitary actor.

compensatory scheme as a means of buying acquiescence to job loss. If the government reduces the face value of the compensation it offers, this increases workers' incentives to contest workforce reduction. Enhanced screening procedures, meanwhile, increase the risk that the intended beneficiaries of the compensatory buyout will be mistakenly denied compensation. This is because attempts to reduce the likelihood of false positives mechanically raise the likelihood of false negatives. If workers worry that they will be denied compensation because the government's offer includes an elaborate screening process, the expected value of compensation falls, giving more workers an incentive to contest dismissal.

The third policy lever at the government's disposal is to force employers to internalize part of the cost of the compensatory transfer payment. This partially addresses the adverse selection problem because much of the 'opportunism' in this theory is in fact a reflection of *employer* opportunism or employer-worker collusion: employers typically want to shed low-productivity workers but are constrained from doing so because of the risk of workplace conflict. If the government makes generous compensation available for workers who experience job loss as a result of technological change, employers can opportunistically misclassify the grounds for dismissing other low-productivity (older) workers, enabling these workers to access generous compensation and thereby facilitating conflict-free labor-shedding.[12] Forcing the employer responsible for the dismissal to internalize part of the cost of the transfer payment c reduces the employer's incentive to exploit the availability of compensation in this way. This, however, is a very blunt instrument: since the government cannot screen between workers on the basis of the cause of their dismissal, it must impose this cost on all dismissals that an employer undertakes, including the technologically driven dismissals that the government wants to facilitate. Imposing high dismissal costs on employers would therefore be self-defeating from the government's perspective. The government can, at most,

[12]As Lazear (1979) shows, older employees' pay may exceed their marginal productivity because employers defer compensation until later in a worker's career to incentivize effort under imperfect monitoring.

impose a limited burden on employers to somewhat discourage opportunism without unduly discouraging the dismissals the government wants.

This section has established that the adverse selection problem that arises under incomplete information constrains the generosity of the compensation that a government is willing to offer workers who lose their jobs as a result of technological change. This leads an inefficiently large number of workers to continue to resist job loss even after the government has implemented its optimal compensatory offer under adverse selection. The problem is not the government's inability to credibly commit to the compensation it offers: rather, the problem is that the compensation it is offering is insufficiently generous to eliminate some workers' incentives to fight for their jobs.

3. Britain as a least likely case for the failure of a compensatory solution

To illustrate the empirical relevance and explanatory power of the theory developed above, I turn to Britain during the era of its relative decline in the decades following the Second World War. Between the 1950s and the 1970s, Britain experienced lower GDP growth than all of its peer countries while the productivity of its manufacturing sector fell behind that of foreign competitors and its share of international markets shrank drastically.[13] Although scholars have canvassed many explanations for Britain's under-performance, many prominent observers have granted an important role to worker-imposed restrictions on employers' control over dismissal. These employment rigidities are thought to have created a crisis of 'overmanning' in British industry, saddling firms with excess labor and discouraging employers from investing in labor-saving technologies. The ostensible result was wasteful industrial conflict, declining productivity, and reduced international competitiveness.[14]

[13]See, e.g., Broadberry and Crafts (2003).

[14]See, e.g., Hall (1986, 44-45), who observes that unionized workers' control over "manning levels" and their efforts to "protect their jobs" in the postwar period made it "difficult and costly for British manufacturers to introduce labor-saving forms of technology." Zysman (1983, 178) criticizes British unions for "resisting industrial change" and "defend[ing] the industrial status quo." Similar views can be found in Eichengreen (2007, 124), Foreman-Peck

These scholarly conclusions largely mirror the dominant view in British public debate in the postwar period. Britain's relative decline was a topic of intense public consternation from the late 1950s onward.[15] This was accompanied by growing public focus on labor-saving technological change as a key to unlocking productivity growth and restoring the competitive position of British industry.[16] By the early 1960s, a new conventional wisdom had formed that the informal restrictions on dismissal imposed by unionized workers were holding back productivity and discouraging investment in new technologies, thereby undermining the competitiveness of British exports.[17] In other words, it came to be widely believed that unionized workers were acting as "veto players" on industrial modernization by using the threat of strike action to deter dismissals. This was captured in the OECD's March 1962 report on the United Kingdom, which showed that the overall growth rate and the rate of increase in industrial productivity in Britain in the 1950s were less than half the corresponding rates in the member states of the European Economic Community. The report asserted that Britain's performance had been "hampered by a certain lack of labor mobility" which was, in turn, a consequence of "labour attitudes" and specifically "a tendency for labour to resist dismissals – evidenced by the number of strikes related to this cause."[18] Similar views were expressed by the National Economic Development Council (NEDC), a tripartite economic planning body created by the Macmillan government in 1962, in its 1963 report *Conditions Favourable for Faster Growth.*[19] Prominent pundits such as Michael Shanks of the *Financial*

et al. (1995, 179-184), Broadberry (1997, 316-317), and Crafts (2018, 87-96). Skeptical views about the role of unions in Britain's economic decline are summarized in Edgerton (2018).

[15]See, e.g., Tomlinson's (2002, 1965) discussion of "panic" about Britain's relative decline in the first years of the 1960s. See also Jefferys (1997, 110-112).

[16]See, for example, the Department of Scientific and Industrial Research's 1956 report *Automation: A report on the technical trends and their impact on management and labour* (DSIR 1956). On the technological changes of the period, see Booth (2006).

[17]See, e.g., Middlemas (1990, 32, 49).

[18]OECD (1962, 15).

[19]NEDC (1963, 10).

Times and Andrew Shonfield of the *Observer* stressed worker resistance to job loss as a key source of underperformance in British manufacturing.[20]

Alongside this widespread agreement about the problem of worker resistance to job loss, there emerged a consensus across the political spectrum that it was the British government's responsibility to solve this problem. The emergence of this consensus was a consequence of the perceived failure of the "voluntaristic" strategy to address worker resistance to job loss pursued by the Conservative Macmillan government from the late 1950s.[21] The idea had been to promote 'redundancy agreements' between employers and workers' representatives at the firm or industry level that would establish procedures for economically motivated dismissals, including advance notice provisions and lump-sum 'redundancy payments' to workers who were dismissed. In principle, such agreements could eliminate opposition to workforce downsizing, facilitating technological adaptation in British industry.[22] The Labour opposition was similarly hesitant to endorse statutory intervention and instead urged the spread of voluntary redundancy agreements, much like their Conservative adversaries.[23]

Policymakers soon, however, grew impatient with this "voluntaristic" approach to the problem of conflict over workforce restructuring. Most workers remained uncovered by redundancy agreements.[24] Even at firms where redundancy agreements had been established, it was not clear that the modest compensatory payments offered by employers were sufficient to buy workers' acquiescence to job loss. In major industries like engineering, unions refused to conclude a national redundancy agreement with the employers' federation on the grounds

[20]Shanks (1961, 141-145); Shonfield (1965, 113).

[21]On voluntarism, see Crouch (1982, 30).

[22]Ministry of Labour: National Joint Advisory Council: Provision for Redundancy NJC 346 (c. 1962), in LAB 13/1653.

[23]Even in its 1961 policy statement *Signposts for the Sixties*, the Labour Party said on the subject of redundancy agreements that "it is high time that what is now the exception became the rule" (Craig 1990, 26). This leaves unclear whether the party is calling for the spread of voluntary agreements or statutory intervention.

[24]The Conservative report *Industrial Change: the Human Aspect* reports that only 15% of manufacturing workers were covered by voluntary agreements (Conservative Political Centre 1963, 23).

that this would mean consenting to the meagerly compensated dismissal of their members. Strikes against redundancy remained a prominent cause of disruption and British firms were widely believed to carry unnecessary workers on payroll in order to avoid costly conflicts over dismissal.[25] It was increasingly seen as necessary for the government to step in and buy workers' acquiescence to job losses that arose from technological change and associated processes of industrial restructuring. The rationale was stated clearly by John Hare, the Conservative Minister of Labour:

> we must adjust ourselves to more rapid industrial and technical advance and the consequent changes this must have on employment. We should not and cannot allow this to take place at the expense of the individual. The fear of change and what it can mean is a powerful incentive to resist change and to slow it down by all possible means. We have to ensure that the need for change is accepted and that there is co-operation in creating an efficient and more flexible economy. The problem of security—of helping the worker to face change with confidence—is basic to our industrial efficiency.[26]

Similar conclusions were reached in the aforementioned report of the National Economic Development Council (NEDC). The NEDC concluded that unless measures are taken to "avoid the hardship of redundancy...the fear of redundancy will make workers oppose change."[27] Acknowledging the inadequacy of the existing social insurance provisions, NEDC endorsed statutory intervention to address "the financial loss which often accompanies job displacement."[28] Meanwhile, opinion within the governing Conservative Party shifted decisively in favor of statutory intervention to buy workers' acquiescence to technological redundancy. Prime Minister Macmillan gave the green light to a statutory compensation scheme in the spring of 1963, expressing the belief that the scheme would play a central role in the government's broader economic strategy.[29] The Conservative Party Advisory Committee on

[25]See section 5 below and Appendix F.
[26]Hansard, 4 Feb 1963.
[27]NEDC (1963, 10).
[28]NEDC (1963, 12).
[29]Note from Macmillan to the Minister of Labour, 25 February 1963, in PREM 11/4918.

Policy's sub-committee on industrial relations (created in 1962) produced a report in 1963 entitled *Industrial change: the human aspect* stating on the topic of redundancy that "we are convinced that no satisfactory solution will be found if the problem continues to be left entirely to voluntary negotiation between employers and trade unions."[30] This remarkable rejection of 'voluntarism' in favor of statutory intervention was echoed by the Conservative Party Conference of October 1963, which "urge[d] the Government to lay down basic standards of compensation for employees in the event of redundancy causing loss of wages."[31] A similar pivot took place within the Labour Party and the party endorsed a statutory redundancy scheme at its 1963 conference. This partially reflected entrepreneurship by Labour MPs like Julius Silverman and John Diamond, who repeatedly introduced private members' bills supporting a statutory compensation scheme from 1962 onward. Labour's October 1963 conference endorsed "compensatory payments" for workers who were made redundant.[32] The Party's 1964 manifesto promised "radical new measures to reconcile security with mobility" including "the right of compensation for loss of job."[33]

As this evidence shows, by 1963 a consensus had emerged that workers' resistance to technologically necessary dismissals was a key source of inefficiency in the British economy, that the magnitude of the problem was large, and that government intervention to provide compensation for technological job loss was the efficient solution. This makes Britain of the 1960s a case in which we would most expect a solution to end resistance to job loss by providing compensation to displaced workers. The same considerations make Britain a *least likely* case for the failure of a compensatory solution. In other settings, one might expect a compensatory solution to fail because of pervasive disagreement about the nature of the problem, the gravity of the problem, or the need for government intervention to solve the problem. But given the political consensus in Britain, why wasn't the government able to

[30]Conservative Political Centre (1963, 23).
[31]See full text in Craig (1990, 82).
[32]See full text in Craig (1982, 156).
[33]Full text in Craig (1990, 48).

bring an end to worker-imposed restrictions on dismissal? Existing scholarship observes the problem of workers' resistance to dismissal but does not explain why an efficient solution to this problem did not emerge.[34] It is to this question that we now turn.

4. How incomplete information limited the generosity of compensation

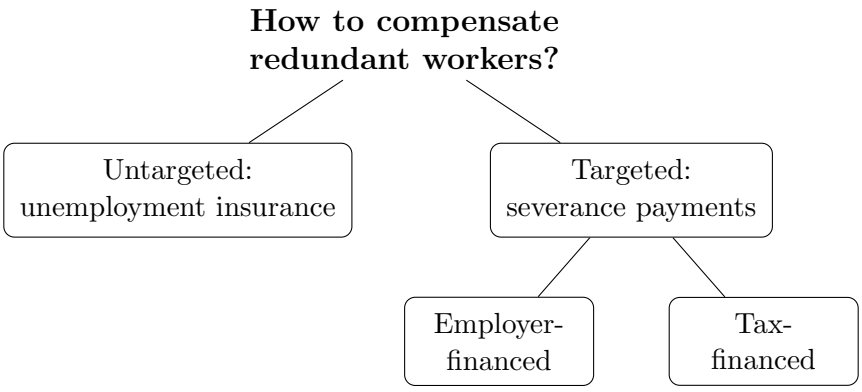
Under such circumstances, it should have been possible for the British government to offer a level of compensation to workers at risk of technological redundancy that would have made them indifferent between fighting for their jobs and acquiescing to dismissal, bringing an end to inefficient conflict over technological job loss in British industry. The British government did, indeed, introduce a compensation policy that aimed to resolve the problem of worker resistance to job loss. This was the Redundancy Payments Act (RPA) of 1965, which mandated that employers make lump-sum payments to any workers dismissed because their roles had become redundant. 70% of the cost would be reimbursed by a central fund that was financed by a special tax on all employers. This section draws on new evidence from the files of the Ministry of Labour and the Treasury at the National Archives that dealt with the development of the Redundancy Payments Act from its origin in 1962 to the passage of the bill in 1965. The evidence is drawn from intra- and inter-ministerial correspondence between key officials as well as from the memoranda of inter-ministerial committees on the development of the redundancy payments scheme.

As established in the preceding section, both the Conservatives and Labour had received mandates from their party conferences to pursue a compensatory buyout for workers facing job loss. Translating the political consensus over a buyout into an effective policy was, however, far from straightforward. Early discussions under the Macmillan government in 1962-1963 had already identified several possible forms for a policy to compensate "redundant" workers, which was understood by the Ministry of Labour to refer to workers who performed tasks that their employer no longer needed anyone to perform because of tech-

[34]See references at the start of this section.

nological change or associated processes of restructuring. This definition excluded workers who were dismissed because they were slow or ineffective at performing a given task (and would therefore be replaced by another worker) as well as workers who were dismissed because of a temporary decline in the employer's labor requirements. The key alternatives for compensating these workers are depicted in a stylized way in **Figure 4**. The first choice was between expanding the unemployment insurance system and creating a new severance ('redundancy') payments scheme to compensate workers dismissed on grounds of redundancy. The next choice, if severance payments were chosen, was whether to impose the cost of these payments on the employer responsible for dismissal or to finance them publicly.

Figure 4: Options for compensating redundant workers



Unemployment insurance was quickly recognized as an inappropriate tool for compensating redundant workers. The first problem stemmed from the fact that unemployment insurance, by nature, entails the provision of continuing payments to workers while they are unemployed. Such a policy cannot compensate workers for the long-term losses they incur if, having been made redundant by their employer, they find a new job that pays less than their old one. Policymakers correctly assessed that the losses from the transition into lower-paying employment constituted a greater share of the costs of redundancy than the losses that arose during unemployment itself for many workers. The second problem was that the expansion of unemployment insurance would primarily benefit workers who were

dismissed for reasons unrelated to redundancy.[35] The Ministry of Labour estimated that perhaps 150,000-300,000 workers were made redundant per year in the early 1960s, whereas approximately 2 million workers received unemployment benefits each year. The problem was clear: on the one hand, providing all unemployed workers with benefits sufficiently generous to buy redundant workers' acquiescence to job loss would "discourage mobility" and "reduce [workers'] incentive to seek and accept alternative employment." On the other hand, an expansion of unemployment benefits that was modest enough to avoid these incentive problems would not achieve the policy's intended goal of buying workers' acquiescence to redundancy, since "it is unlikely that [such] benefits could be provided on a scale sufficient to remove the financial worries of the higher paid worker [facing job loss]."[36] In the words of Treasury officials, expanding unemployment insurance to deal with the problem of resistance to redundancy was "badly aimed," "wasteful," "ineffective," and "self-contradictory, because [expanded benefits] would reduce the incentive to find fresh employment."[37]

To be sure, it was recognized at the time that unemployment benefits would, as a general matter, need to be raised to improve the standard of living of unemployed workers. This would require the addition of an earnings-related supplement to Britain's flat-rate unemployment insurance system, since raising the flat-rate benefit would "[raise] the benefits too close to the earnings of lower paid workers."[38] But, as was repeatedly stressed within the Ministry, the policy objective of reducing the hardship experienced by the unemployed was different from the objective of purchasing redundant workers' acquiescence to job loss. Blending these objectives by providing unemployment insurance generous enough to purchase redundant workers' acquiescence to job loss – say, the indefinite payment of their prior wage until they found equivalent new work – would far overshoot the desired level of 'hard-

[35]See the report of the Interdepartmental Committee on Redundancy, p. 6, in T 311/107.

[36]Report of the Interdepartmental Committee on Redundancy, p. 15. In T 311/107.

[37]See the Treasury's memorandum on redundancy (C.P. (64) 91) on 29 April 1964, in PREM 11/4918.

[38]NEDC (1963, 12).

ship reduction' for the unemployed more generally and would induce a severe contraction of labor supply, as highlighted by the Treasury above.

Policymakers therefore sought to design a separate scheme that would allow for compensation to be provided only to workers who were really "redundant" in the sense elaborated above. This was to be achieved through the provision of one-time severance payments to workers dismissed on grounds of redundancy. The problem was that distinguishing redundant workers from workers who were dismissed for other reasons required information that the government did not possess. Only the employer himself really knew why he had dismissed a given worker. As stated in the National Joint Advisory Council's memorandum on redundancy (c. 1963), "it seems unavoidable that in practice distinguishing redundancies from other dismissals must rest very largely in the first place on the employer who knows the full circumstances at first hand."[39] This is because "[i]t would probably be quite impracticable for employment exchanges or any similar statutory agency to separate those discharged because of redundancy from those discharged for other reasons (e.g., inefficiency)." The government would therefore have to rely on the employer's own view about whether the dismissal was undertaken because of redundancy or not.

This information asymmetry was problematic because employers' incentives were not aligned with those of the government. Relying on the employer to determine whether a given dismissal was on grounds of redundancy raised the possibility that employers would use the availability of publicly financed compensation to offload workers for reasons unrelated to genuine redundancy as defined above.[40] Officials at the Ministry of Labour and the Treasury believed that a publicly financed compensation scheme would enable "collusion" between employers and workers whereby employers would classify dismissed workers as 'redundant'

[39] In LAB 10/1861.

[40] See, e.g., comments by Under-Secretary of the Ministry of Labour Alan Marre in his memo "Redundancy Proposals – case for a central fund," 16 Oct. 1963, in LAB 10/1982; also Hare's comments at the National Joint Advisory Council's sub-committee on redundancy meeting in July 1963 in LAB 10/1861.

irrespective of the true cause of their dismissal so that the worker would be eligible for compensation.[41] Such collusion would be attractive to employers because it would make it easier for them to undertake conflict-free dismissals. Concerns about collusion around "bogus" redundancy claims weighed heavily on policymakers in both the Ministry of Labour and the Treasury.[42] This collusion was, of course, only possible because the government lacked information about the true cause of dismissal.

Given this information asymmetry, officials at the Ministry of Labour recognized that they could only control the abuse of the compensation scheme by employers if the employer responsible for the dismissal internalized a substantial part of the payment.[43] Early proposals under the Macmillan government required the employer to internalize the full cost of the payment. The problem was that requiring employers to make large compensatory payments to redundant workers would, it was thought, encourage labor-hoarding and disincentivize the very workforce reductions that a statutory redundancy payments scheme was meant to facilitate.[44] On the other hand, compensation payments that were low enough to be affordable to most employers would also be grossly inadequate in many cases to make up for the cost of job loss, meaning that they would fail to achieve the policy's central purpose of encouraging redundant workers' acquiescence to dismissal.

Referring back to Figure 4, we can now understand the predicament facing the government as it chose between tax-financed and employer-financed severance payments. Tax-financed payments would indeed encourage employers to shed redundant workers, but also to get rid of workers for other reasons. Employer-financed transfer payments would discourage 'excessive' labor-shedding but would also discourage employers from initiating the workforce

[41]See the notes for the Minister of Labour's meeting the British Employers' Confederation, Nov. 1963, in LAB 10/2024. William Armstrong, permanent secretary to the Treasury, raises a similar concern in his letter to James Dunnett, permanent secretary of the Ministry of Labour, on 4 Feb 1965, in LAB 10/1982.

[42]See letter from Ministry of Labour official Kenneth Barnes to Treasury official Leo Pliatzky on 23 Nov 1964, in T 227/2225.

[43]See Dunnett to Armstrong, 8 Feb. 1965, in LAB 10/1982.

[44]See letter from Dunnett to Armstrong on 14 Dec 1964, in LAB 10/1982.

reductions that the government sought to facilitate. The balance that policymakers struck was for the government to mandate that employers pay out the full cost of compensation to workers dismissed on grounds of redundancy and then to reimburse a share of the cost of the payment after the fact. This design choice was purely a reflection of the information asymmetry between the government and employers: if the government could perfectly screen between workers on the basis of the cause of their dismissal, it would be better not to force the employer to internalize any part of the cost, since the government's goal was to maximize employers' incentive to shed genuinely redundant workers. Given that they could not screen in this way, partial cost internalization by the employer was necessary. The extent of this internalization was contested, as we will see below.

Even with this safeguard in place, the government recognized that a large share of unemployed workers would end up receiving severance payments, including many who were not "redundant" in the relevant sense. Various policy designs that attempted to overcome these problems were rejected as self-defeating. Insisting on a narrow definition of redundancy and laboriously investigating the causes of dismissal in individual cases would undermine the efficacy of the scheme for encouraging acquiescence to redundancy. As deputy secretary of the cabinet Michael Cary pointed out in a 1963 memorandum for the prime minister, a narrow definition of redundancy "might well cause as much trouble with unions as the [redundancy payments] scheme would be supposed to obviate."[45] A similar point was made by Under-Secretary of the Ministry of Labour Alan Marre: a narrow definition of redundancy would defeat the very purpose of the legislation, since the imperfect screening procedures established to enforce such a definition would end up excluding a considerable share of genuinely redundant workers and would therefore fail to provide an adequate inducement to acquiesce to job loss.[46]

[45] 1963 memo on "Severance Payments" by Michael Cary in PREM 11/4918.

[46] See Marre's comments in a meeting of 29 November 1963, in LAB 10/2024.

Beneath these concerns lay a more fundamental problem: even if the scheme could be targeted at genuinely "redundant" workers, severance payments that were generous enough to purchase these workers' acquiescence to job loss would also, in many cases, be generous enough to undermine workers' incentive to seek out new work. Though the ideal policy would provide individualized payments whose generosity was an inverse function of a worker's re-employment prospects, this would require not only a great deal of idiosyncratic information about workers' skills and traits but also detailed information about prospective employers' requirements. Given the lack of information necessary for such fine-grained targeting, a government that was committed to adequately compensating workers who were made redundant would need to provide payments generous enough to meet the needs of workers with relatively poor re-employment prospects, which would mean providing payments of an equivalent magnitude to workers who could fairly easily find new work. At most, the government could modulate the generosity of compensation by age and tenure as loose proxies for re-employment prospects, but there was considerable variation within age-tenure groups that could not be addressed.

This raised the possibility of serious labor supply problems: Treasury officials emphasized that a displaced worker receiving both unemployment benefits and a redundancy payment might "get virtually the same income as when in employment" and stressed that the introduction of a statutory redundancy payments scheme would create a "real danger" of "raising payments to the unemployed to a level which will discourage them from seeking work."[47] One Treasury official even expressed concern that "[o]ne could drift into a position where there was chronic over-compensation for loss or change of job."[48] This was echoed by John Boyd-Carpenter, Chief Secretary to the Treasury, who wrote in relation to the question of redundancy payments that "in the long-term view there is a real risk that over-compensation

[47]J.E. Hansford to Carswell and Harding, 6 March 1963, in T 227/1498; H.A. Harding to Maude and Petsch, 8 March 1963, in T 227/1498.

[48]J.P. Carswell to Harding, 7 March 1963, in T 227/1498.

for unemployment could favour stagnation rather than growth."[49] The idea of making part or all of the compensatory payment conditional on a sufficiently vigorous job search was rejected on the grounds that this would undermine the efficacy of the payment as a tool for buying acquiescence to dismissal: a conditional offer would create uncertainty in workers' minds about whether they would actually receive the compensation and thereby lower the expected value of the policy.[50]

The only available solution was to limit the generosity of the payments provided to redundant workers: if severance payments were less than what was necessary to meet the cost of job loss for most redundant workers, then most workers who received the payment would remain incentivized to seek out new work. The problem, of course, was that a payment scheme that offered less than sufficient compensation for job loss would also be limited in its ability to achieve the policy objective of purchasing acquiescence to dismissal. The tradeoff was aptly summarized by Treasury economist David Norgrove in the context of a later review of the policy: a redundancy payments scheme will either "provide adequate compensation for redundancy" or maintain "incentives to seek a new job. It is unlikely to do both."[51] This is precisely the tradeoff captured by the theory developed above.

The implementation of the Conservative government's plan for redundancy payments was delayed because of resistance by British employers. Archival evidence on employer lobbying is presented in detail in Appendix A; the position of the Trades Union Congress is discussed in Appendix D. The Labour government that came to power in October 1964 pushed the compensation policy forward by acquiescing to employers' demands; evidence on this bargaining process is presented in Appendix B. The policy outcome, embodied in the Redundancy Payments Act of August 1965, granted workers redundancy payments at a scale

[49] John Boyd-Carpenter to Minister of Pensions and National Insurance Niall MacPherson, 18 March 1963, in T 227/1498.

[50] This is discussed in the Department of Employment Review of the Redundancy Payments Scheme circa 1972, in T 224/2758.

[51] Letter to Mountfield, 8 March 1973, in T 244/2758.

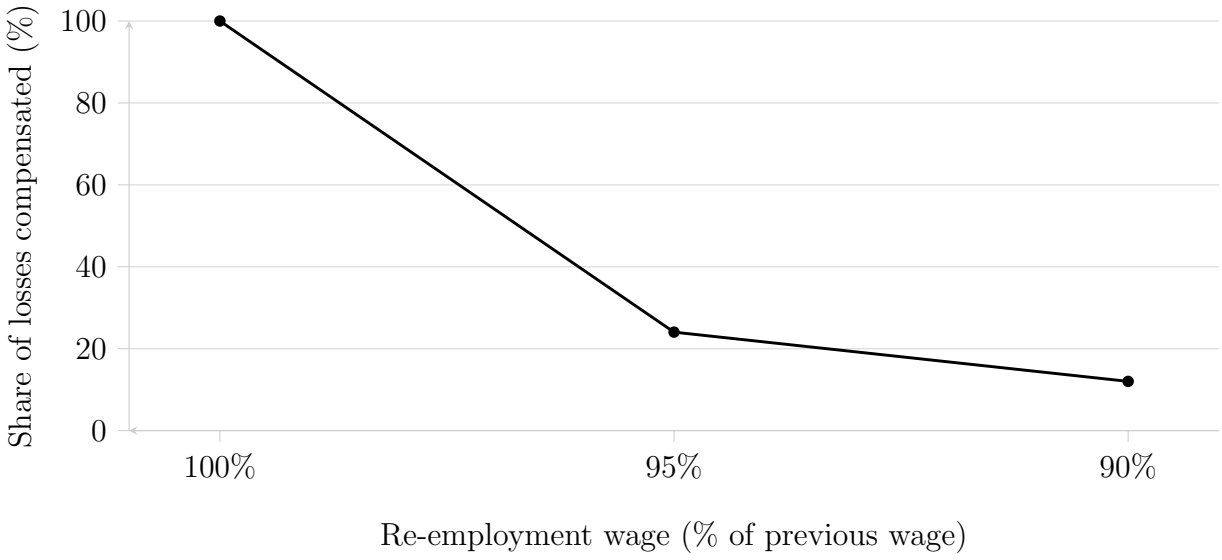
of half a week's pay for every year of service up to the age of 21, one week's pay for every year of service over the age of 21 and up to 40, and one and a half weeks' pay for every year of service after the age of 40, with a maximum of twenty reckonable years of service. 70% of the value of every redundancy payment would be reimbursed by a newly created redundancy fund, financed by a special tax on all employers. Over the second half of the 1960s, around 250,000 workers received a statutory redundancy payment each year. This rose to a peak of around 372,000 workers receiving a payment in 1971.[52]

The extent to which the Act compensated a worker for the cost of job loss depended primarily on the relationship between a worker's pre-displacement wage and his post-displacement wage. This is captured in **Figure 5** with the example of a 45-year-old worker with ten years of service at his firm. For the sake of simplicity, it is assumed that he immediately finds new work after redundancy. The horizontal axis depicts the worker's average wage between his redundancy at age 45 and his retirement at age 65, expressed as a share of his pre-displacement wage. The vertical axis captures the level of the compensation, in terms of the share of forgone earnings up to age 65 covered by the redundancy payment.

The figure makes clear that the losses workers experienced as a result of redundancy went largely uncompensated unless they were able to find new work at equivalent pay to what they previously earned. Even in the optimistic case of a worker whose average post-displacement wage was 95% of his prior level, the lion's share of his losses went uncompensated. For workers with poorer re-employment prospects, the contribution of the payment was trivial. In the case of the worker with a post-displacement wage of 95%, the uncompensated loss up to age 65 amounted to 76% of a year's pre-displacement pay, and for a worker with a post-displacement wage of 90%, the uncompensated loss up to age 65 amounted to 176% of a year's pay. If these workers discounted the future at a rate of 3%, the losses as percentages of a year's pay were 53% and 128%, respectively. Both of these figures rest on the optimistic

[52]Figures reported by Minister of State for Employment Paul Bryan in *Hansard* on 31 January 1972 and by Parliamentary Under-Secretary of State for Employment John Fraser in *Hansard* on 19 March 1975.

Figure 5: Compensation for a typical worker under the Redundancy Payments Act



Note: assumes a 45-year-old worker with 10 years' service.

assumption of re-employment at 95% or 90% of a worker's prior wage. Differences in age and years of service had ambiguous effects on the extent of the compensation offered. Though the Act offered larger payments to older workers and those with longer years of service, higher age and tenure could also be expected to have adversely affected a worker's post-displacement wage relative to his pre-displacement wage, leading to greater losses. Incorporating an unemployment spell would only increase the share of uncompensated losses. Appendix C works through a numerical example for a worker earning the average wage in the engineering industry: such a worker would continue to face large uncompensated losses as a result of job loss following the introduction of the Redundancy Payments Act. Appendix C also shows that this conclusion does not change if we incorporate the earnings-related unemployment benefits introduced by the Labour government in 1966. A British worker facing the prospect of redundancy in the late 1960s would only have seen the compensation provided under the RPA (plus unemployment benefits) as sufficient to make him willing to acquiesce to job loss if the likelihood that he would otherwise succeed in defending his job was quite low.

5. Why compensation failed to buy acquiescence to job loss

To study the effect of the Redundancy Payments Act on unionized workers' behavior, this section focuses on the British engineering industry, which comprises the manufacture of vehicles, machinery, and electrical equipment. Engineering was the largest part of British manufacturing and was Britain's key export industry.[53] It was also the industry in which strikes against redundancy were especially prominent: the primary union in British engineering, the Amalgamated Engineering Union (AEU), was the union most notorious in Britain for its willingness to fight employers' efforts to dismiss workers on grounds of redundancy. Prominent pundits like Michael Shanks of the *Financial Times* singled out the AEU in 1961 for its "ostrich-like policy" on redundancy in his book *The Stagnant Society*.[54] Similarly, *Economist* contributor Richard Denman declared in 1960 that the AEU's policy on redundancy was the "most important" cause of what he considered to be a "fantastically uneconomic distortion of manpower" brought about by firms' avoidance of dismissals. Denman urged the AEU to "grow up" and drop its policy of opposing redundancy so that "the employers would lose some of their terror at declaring anybody redundant."[55] Although these authors' opprobrium may have been unjustified, they were certainly right in recognizing the significance of the AEU's position on the issue: organizing almost a million members and around 26% of the engineering workforce in the mid-1960s, the AEU was regarded as the "brigade of guards" of the British labor movement and as a union whose strategic choices had major implications for the British economy as a whole.[56] Further information on the union is presented in Appendix E.

In this section, I draw on previously untapped evidence from the archives of the AEU, which are housed at the Modern Records Centre at the University of Warwick. The core of the evidence is drawn from the proceedings of the annual meetings of the AEU's National

[53] See e.g., Broadberry (1997).

[54] Shanks (1961, 144). See also Wigham (1961, 51).

[55] "The real problem in the Midlands," *Coventry Evening Telegraph*, 8 December 1960.

[56] This line is Herbert Tracey's, quoted in Edgerton (2018, 205).

Committee, the union's policy-making body. The National Committee was a 52-person deliberative council consisting of two delegates from each of the union's 26 geographic divisions. These delegates were selected by the heads of the union hierarchy in the large engineering firms within each division.[57] Further evidence is drawn from the annual meetings of the Confederation of Shipbuilding and Engineering Unions (CSEU), a group of thirty-four unions that formulated common bargaining demands to bring to the Engineering Employers' Federation. As the largest union in the CSEU by far, the AEU played a dominant role.

The AEU's National Committee first staked out its position on the issue of technological job loss in 1956, insisting that there was to be "[n]o redundancy arising from introduction of automation" and that "labour so displaced [was] to be retained on pay-roll pending alternative work without loss of earnings."[58] The National Committee reaffirmed its position repeatedly over the years that followed: while the 1956 resolution dealt specifically with redundancy created by automation, the following years' resolutions adopted a more general opposition to redundancy. The AEU National Committee's 1957 resolution stated that "where redundancy is threatened we instruct our Executive Council to warn the employers that this Union will move into action to safeguard the livelihood of our members" and that "the necessary action will be taken to enforce our demands."[59] This position was reaffirmed in the subsequent years.[60] The AEU was not opposed to the introduction of new technologies: rather, its goal was to compel employers to find a new role within the firm for workers whose existing roles had been rendered unnecessary, providing further in-house training as

[57]See Boraston et al. (1975, 10-40).

[58]Amalgamated Engineering Union, "Report of the Proceedings of the Thirty-Eighth National Committee...1956," 236-237, in MSS.259/AEU/4/2/8.

[59]AEU, "Report of Proceedings of the Thirty-Ninth National Committee...1957," 239, in MSS.259/AEU/4/2/9.

[60]AEU, "Report of Proceedings of the Forty-Second National Committee...1960," 241, in MSS.249/AEU/4/2/10; AEU, "Report of Proceedings of the Forty-Third National Committee...1961," 285, in same MSS; AEU, "Report of Proceedings of the Forty-Fourth National Committee...1962," 222, in same MSS; AEU, "Report of Proceedings of the Forty-Fifth National Committee...1963," 294-295, in MSS.259/AEU/4/2/11.

needed. Its strategy was to use the threat of strike action to compel employers to retain workers who would otherwise be dismissed. Though the union recognized that it would not succeed in every strike against job loss, the point of the AEU's strategy was, in the words of a member of its executive council, to "make dismissal so costly to the employer that he would not indulge in it with such frequency and ease as he did at the moment."[61] In short, by supporting strike action in opposition to redundancies, the union aimed to achieve a *de facto* employment guarantee for its members. Evidence on the union's implementation of this strategy is presented in Appendix F.

The union's policy meant, first of all, that it was opposed to a voluntary industry-wide agreement between the CSEU and the Engineering Employers' Federation that would establish standardized scales of employer-financed payments to workers declared redundant, since this would entail an admission that employers were free to dismiss as they saw fit.[62] The union was hostile to the 'voluntaristic' approach to the redundancy problem advocated by the Ministry of Labour in the late 1950s. The AEU was, however, equally hostile to statutory intervention on the issue of redundancy. The AEU's National Committee made this unambiguously clear when an overwhelming majority voted down a resolution in 1964 calling for a statutory redundancy payments scheme.[63]

The AEU's position was based on the belief that a national compensation scheme – whether established through a centralized agreement between unions and employers or by statute – would fail to actually compensate workers for the costs of job loss. In the words of Claude Berridge, a member of the AEU's seven-man executive council, a national compen-

[61]Confederation of Shipbuilding and Engineering Unions, *Report of Proceedings of the Twenty-fifth Annual Meeting, 21-24 June, 1960* (Newcastle: Co-operative Printing Society, 1960), 197, in MSS.787/323.

[62]Resolutions or amendments to this effect were voted down in 1959 and 1963; see AEU, "Report...1959," 229, in MSS.249/AEU/4/2/9; AEU, "Report...1963," 295-296, in MSS.259/AEU/4/2/11. The AEU continually used its clout as by far the largest union within the Confederation of Shipbuilding and Engineering Unions (CSEU) to prevent the CSEU from pursuing an agreement of this sort with the Engineering Employers' Federation.

[63]AEU, "Report...1964," 272, in MSS.259/AEU/4/2/11.

sation scheme was to be rejected because "the payment of a few pounds in compensation could in no way be considered as a dispensation of the employers' responsibility to their workpeople." Accordingly, Berridge thought that "we could not stoop to negotiate at national level for a few crumbs swept from the rich man's table for compensation."[64] As he put it in 1960, "we [are] not collecting odd coppers [i.e., a negligible sum] for workers declared redundant."[65] Berridge stressed the small monetary value of the compensation that workers could expect from a national compensation scheme, whether established by voluntary agreement with employers or through statutory intervention.

Stronger evidence for this view can be gleaned from the union's response to the passage of the Redundancy Payments Act in 1965. After a national redundancy payments scheme had been enacted, the AEU's National Committee unanimously passed a resolution demanding that the RPA be amended to require employers to pay a redundant worker's full wage "until acceptable alternative work is provided."[66] This demand was reiterated in 1968.[67] This indicates clearly that the AEU was willing to acquiesce to redundancy if workers continued to receive their previous wage until they found equivalent new work. As we saw in the previous section, a compensation scheme of such generosity was a non-starter for British policymakers. In the absence of compensation of this sort, the AEU reaffirmed its categorical opposition to redundancy and continued to insist that "no dismissals shall take place until suitable alternative work is found."[68]

[64]Confederation of Shipbuilding and Engineering Unions, *Report of the Proceedings of the Twenty-fourth Annual Meeting...1959* (Newcastle: Co-operative Printing Society), 145, MSS/787/322.

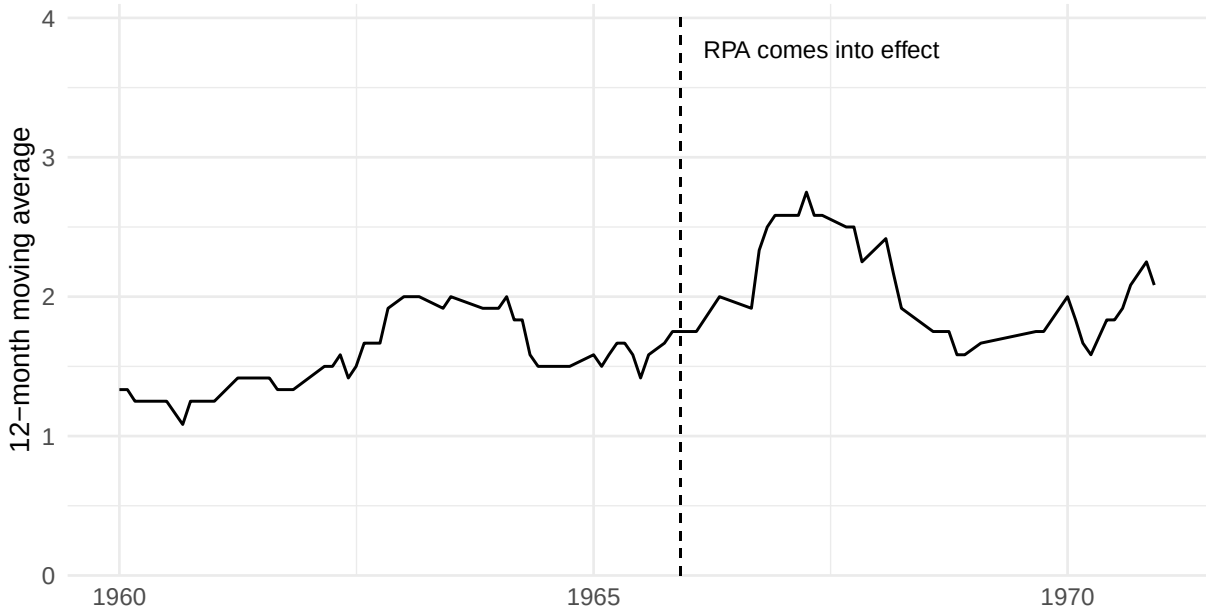
[65]CSEU, *Report...1960*, 198, MSS.787/323.

[66]AEU, "Report of the Proceedings of the Forty-Eighth National Committee...1966," 303, in MSS.259/AEU/4/2/13.

[67]AEU, "Report of the Proceedings of the Fifteenth National Committee...1968," 302, in MSS/259/AEU/4/2/13.

[68]AEU, "Report of the Proceedings of the Forty-Eighth National Committee...1966," 304, in MSS.259/AEU/4/2/13; AEU, "Report...1967," 349.

Figure 6: Redundancy-related strikes in EEF member establishments before and after the Redundancy Payments Act



Note: The unit is the twelve-month rolling average number of strikes per month. Strike data from the EEF via Hart (2008).

We can more systematically assess the consequences of the Redundancy Payments Act (RPA) for worker behavior with reference to the Engineering Employers' Federation's statistics on redundancy-related strikes at its member establishments, which were digitized by Hart (2008). Hart sorted the strikes into categories according to the issue at stake in each dispute as recorded by the EEF. I rely on his coding of redundancy-related disputes, which excludes strikes placed in the separate category of "dismissals" that were about victimization and disciplinary dismissals. A 12-month moving average of redundancy-related strikes among EEF member establishments is reported in **Figure 6**. As the figure shows, we do not observe a decline in redundancy-related strikes after the RPA came into effect in December 1965. If anything, the trend was in the opposite direction. Of course, it cannot be assumed that all else remained equal after the introduction of the RPA. The availability of statutory compensation for job loss may have encouraged more firms to attempt workforce reduction,

as the law intended, thereby provoking more conflict. Likewise, the explicit purpose of the deflationary measures imposed by the Wilson government in July 1966 was to induce labor-shedding and can be expected to have elicited more strikes than would otherwise have taken place. And of course, it is quite possible that the introduction of the RPA reduced the number of strikes that these measures provoked relative to an unobserved counterfactual of government deflation without additional compensation for job loss. The argument here is not that the RPA had no effect on the margin: indeed, the theory developed in Section 2 makes clear that the introduction of even a low level of compensation for job loss should succeed in purchasing acquiescence among those for whom the probability of a successful defense of their jobs was sufficiently low or who faced low costs as a result of job loss. What we can reasonably conclude from **Figure 6** is that the RPA was not successful in the strong sense of inducing a major reduction in redundancy-related conflict in engineering, the largest part of British manufacturing. Though the data series ends in 1970, we can see from the figure that redundancy-related conflict remained at the pre-RPA level even in the 1968-1970 period, after Wilson's deflationary measures had come and gone and aggregate manufacturing output was once again growing.

Because the compensation provided under the Redundancy Payments Act provided less than what many AEU members could expect to achieve by contesting job loss, the union continued to endorse opposition to job loss through strike action, as we saw above.[69] Continued fear of strikes encouraged employers in the engineering industry to abstain from personnel reductions that they might otherwise have undertaken. This was true, for instance, in the car plants of British Leyland, the national champion comprising Austin, Morris, Rover, Jaguar, and other marques. Concerned that mass dismissals would lead to strikes and wishing "to avoid a fight," British Leyland's chairman Donald Stokes abstained from undertaking perhaps 30,000 redundancies in 1968-1969 and instead sought "to expand [the company's]

[69]See also AEU, "Report...1970," 211, in MSS/259/4/AEU/4/2/14; AUEW [Amalgamated Union of Engineering Workers, the AEU's new name after merging with several smaller unions], "Report...1973," 213, in MSS.259/AEU/4/2/15.

production sufficiently to justify its surplus man-power."[70] Stokes's decision reflects the deterrent power of engineering unions' threats to resist redundancies. Management's concerns about conflict over workforce reduction are believed to have led to persistent 'overmanning' and to have contributed to the crisis of productivity at British Leyland in the 1970s.[71]

The problems at British Leyland were in some ways characteristic of those of British manufacturing as a whole. As Edward Heath explained to his shadow cabinet in early 1970, "employers have to be free to introduce new plant and get rid of men... Trouble at the moment, they cannot get rid of the men."[72] For scholars like Broadberry, the declining performance of British manufacturing in the 1970s was in large part a result of the presence of an excessive number of workers on payroll at British firms, which reflected employers' desire to avoid conflict with unions over dismissal. In Broadberry's view, "massive labor shedding" and a "shake-out of employment" would have been necessary to restore the competitive position of British industry.[73] The British government could have overcome the problem of resistance to redundancy by increasing the generosity of the payments it offered to redundant workers. As we have seen, however, concerns surrounding the disincentive effects of compensation for job loss in the absence of effective screening limited the generosity of the compensation that the government was willing to offer.

6. Assessing alternative explanations

Given that conflict over job loss was widely identified as a major source of inefficiency in postwar Britain, why wasn't it resolved through a compensatory buyout? The preceding sections have put forward evidence that provides strong support for the theory developed in Section 2, where it was shown that screening problems arising from incomplete information constrain the generosity of the compensation that a government is willing to offer for job loss,

[70]Turner (1971, 179-181). The quotations are Turner's words.

[71]E.g., Foreman-Peck et al. (1995, 179-184).

[72]Transcript of Shadow Cabinet Conference at Selsdon Park Hotel, Morning session, 1 February 1970, Thatcher Archives CRD 3/9/93.

[73]Broadberry (1997, 316-317); see also Crafts (2018, 87-96).

thereby preserving workers' incentives to fight for their jobs. The key alternative explanation is based on the logic of a commitment problem, which has already been discussed at some length. According to this view, persistent conflict might be explained by workers' fear that the government is going to renege on its offer of compensation after they have acquiesced.

For the failure of an efficient bargain to be explained by the government's inability to credibly commit, it must be the case that the government is offering sufficient compensation to make workers indifferent between fighting and acquiescing *if* the offer were enforceable. Inasmuch as proponents of commitment theory also believe that the government is offering less than sufficient compensation for job loss, they are blending disagreement over *contractual terms* (the generosity of the compensation offered) with the *enforceability of the contract* (the risk of ex post reneging). But commitment theories cannot explain disagreement over contractual terms. Inasmuch as proponents of commitment theory grant that a government is not offering a level of compensation that workers facing job loss deem sufficient, they are conceding that their theory does not explain workers' desire to keep their current jobs, since it is unnecessary to appeal to the non-credibility of an offer to explain its rejection if the offer itself is inadequate. The theoretical challenge is to explain *why* the offer is inadequate. Commitment theory does not offer an answer to this puzzle, but the informational theory developed in this paper does.

When it comes to the British case in particular, a commitment-based explanation for continued resistance to job loss can be refuted by examining the mechanics of the Redundancy Payments Act. Under the Act, a worker facing dismissal was provided with the full severance payment *at the time of dismissal*. After making the full payment to the worker up front, the employer then received a partial reimbursement from the government. There was no moment at which a risk of reneging from the employer or the government appeared: the worker had his cash in hand at the time of dismissal and was not dependent on continuing payments from the employer or the government. Fears of reneging cannot explain why a worker would strike instead of accepting dismissal in return for a severance payment. From the perspective

of a worker facing job loss at time *t*, it did not matter at all whether the government reversed the policy at time *t+1*: he had his cash in hand at time *t*. There was simply no room for a commitment problem. If the worker rejected the severance payment and chose to fight for his job, it must have been because there was something wrong with the value of the offer itself, i.e., the contractual terms. Inasmuch as we do not observe a policy design of this sort in other cases where compensation fails, the relevant question is why this policy design was not adopted. Any government facing worker resistance to job loss should be able to quickly and efficiently resolve workers' 'commitment' concerns by providing the cash up front at the moment of dismissal. Inasmuch as governments do not do this, the question is why not, and commitment theory does not offer an answer to this question.

Proponents of commitment theory might argue that their approach is meant to explain the attitudes of unions and not individual workers. But the attitudes of union leaders cannot in themselves explain the persistence of conflict over job loss: union leaders have no way of forcing their members to go on strike if they do not want to. If individual union members facing job loss were happy with the value of the compensation being offered to them through the Redundancy Payments Act, there was little that the AEU or any other union could do to induce its members to fight job loss rather than acquiescing in return for compensation. The persistence of conflict over job loss must therefore have reflected the inadequacy of the compensation being offered. It should also be stressed that the debates within the AEU and between the AEU and other unions in the engineering industry provide no evidence whatsoever that any actor within the AEU was concerned that the government would reverse the compensation scheme after it had been introduced. Rather, they emphasized the inadequacy of the compensation they were offered or expected to be offered. This weighs strongly against a commitment-based explanation. The fact that the AEU was not concerned about a commitment problem reflects the reality that there was widespread agreement across the Conservative and Labour parties about the need for statutory redundancy payments, as discussed in Section 3. Some would surely argue that unions like the AEU were concerned

that the introduction of the Redundancy Payments Act would lead to a long-term decline in their ability to contest dismissal because of membership losses. This argument lacks prima facie plausibility because the AEU's membership was stable during the period in question: it went from 1,131,072 members in 1965 to 1,221,856 in 1970 and 1,205,156 in 1975, despite the decline in engineering employment over this decade.[74] But even if we assume for the sake of argument that the introduction of the Redundancy Payments Act led to a reduction in the union's ability to effectively contest dismissals, this would not lead to a commitment problem or to the failure of an efficient bargain, since the government would simply adjust the terms of the offer to keep workers indifferent between fighting and acquiescing to job loss, as shown in Appendix G.

It is also worth considering four other possible explanations for the AEU's position. First, one might wonder whether the AEU's stance was a reflection of the proprietary interests of the union leadership in preserving the union's membership, rather than a reflection of the inadequacy of compensation for addressing the costs of job loss for the affected workers.[75] If true, we would expect union leaders to adopt a much more hard-line stance against compensation than rank-and-file members. Ordinary members should be satisfied with compensated job loss, while union leaders should oppose compensated job loss because of their proprietary interest in membership retention. This, however, is not what we observe. If anything, the AEU leadership favored a more moderate position on the issue and was forced into categorical opposition to redundancy by its membership.[76] This is more consistent with the view that union members saw the compensation on offer as inadequate and demanded that their union support them in contesting dismissals.

[74] AEU reports, various years. 1975 figure for the AUEW engineering section so as to ensure comparability with the earlier period (i.e., to rule out the positive membership effect of the merger with DATA).

[75] A theory along these lines is developed in Acemoglu and Robinson (2001).

[76] See e.g., "Engineers discuss redundancy," *Guardian* 6 May 1964; see also the notes of AEU National Committee member Richard Etheridge on the debates over redundancy strategy at the National Committee's 1958 and 1959 meetings, in MSS/202/A/3/2/1/7.

Second, one might propose that unions like the AEU only undertook militant resistance to job loss because employers were using workforce downsizing as an opportunity to target union activists with dismissal.[77] On this interpretation, unions would have acquiesced to mass dismissals if union activists had been protected. This explanation fails in several ways. If it were correct, employers could always avoid conflict over job loss by simply abstaining from dismissing union activists. The ubiquity of conflict over job loss in postwar Britain indicates that union resistance to workforce reduction was not so easy for employers to avoid. Moreover, if this theory were correct, employers and unions could eliminate the cause of conflict by signing an agreement to afford special protections to union activists or high-seniority workers. But in fact, we observe the AEU explicitly rejecting such an agreement on the grounds that it would mean acquiescing to the dismissal of ordinary union members, which the union saw as unacceptable.[78] Moreover, if a union leader behaved in the way this theory predicts – neglecting members' demands for employment security so long as union activists were protected – the leader would quickly be removed from office or come to preside over a union without members. The theory is thus implausible as an account of an equilibrium strategy within a voluntary membership organization like a trade union.

Third, one might propose that British unions like the AEU opposed a compensatory solution to the problem of technological displacement because of their putatively non-encompassing structure, i.e., small size.[79] Setting aside the empirical inaccuracy of this explanation of the AEU's strategy – the AEU was a large industrial union by international standards (Appendix

[77] See Golden (1997).

[78] In the words of AEU executive council member and soon-to-be president William Carron at the CSEU's 1953 annual meeting, "The AEU [was] opposed to the idea of accepting the inevitability of redundancy and then having to place our people in the position of deciding and agreeing who should become unemployed." CSEU, *Report of Proceedings of the Eighteenth Annual Meeting...11th, 12th, 13th and 14th August, 1953*, 180. In MSS.787/317. Regarding seniority rules, the AEU's policy-making body, the National Committee, rejected a commitment to LIFO by a 49-3 majority. Amalgamated Engineering Union, "Report of the Proceedings of the Thirty-Sixth National Committee...3rd to 14th May, 1954," 267, in MSS.259/AEU/4/2/8.

[79] Olson (1982).

E) – it is obviously true that a very large organization may ignore the interests of a threatened minority of its membership: if a union is sufficiently encompassing that a vast majority of its members face no risk of job loss, it may refuse to support worker resistance to job loss and settle for compensation even if the level of compensation is universally recognized to be inadequate. In such circumstances, workers are not veto players over dismissal and the strategic problem that is the topic of this paper does not arise. The question at stake in this paper is why the British government did not offer compensation at a level that would make unionized workers indifferent between fighting to preserve their jobs and accepting compensated job loss. Had it done so, the government would have purchased unions' acquiescence irrespective of their encompassing or non-encompassing character.

A final explanation for the failure of the British government's compensatory buyout is that workers assigned non-material value to their jobs that the government's policy did not address. It is certainly true that workers derive non-material value or 'status' from their jobs, as proposed in important work by Lamont (2000), Gidron and Hall (2017), and Pelc (2025). Does the existence of such concerns explain the failure of compensation? To begin, it is important to note that the mere fact that workers assign non-material value to their jobs does *not* explain why a successful bargain would fail to emerge. This non-material value should simply raise the level of compensation necessary to make workers indifferent between fighting for their jobs and acquiescing to job loss, and the government should still have an incentive to provide this amount to overcome inefficient restrictions on dismissal. Presumably there is *some* level of monetary compensation at which workers would be willing to give up their jobs in spite of the non-monetary value they assign to their work. If these concerns are a barrier to labor market flexibility, the government should be able to simply pony up the additional funds. To explain why a government may be unwilling to increase the value of compensation in this way, we need a different theory, such as the one provided in this paper.

To constitute an independent explanation for the failure of an efficient bargain, the 'non-material' or 'status' view must entail one of two claims: either there is *no* level of compensation that would suffice to offset the non-monetary cost of job loss, or the necessary compensation would be *so costly* to the government that the cost of the buyout would exceed the economic gains from bringing an end to inefficient restrictions on dismissal. Both of these positions are rather extreme and do not seem to be what scholars like Lamont, Gidron and Hall, and Pelc have in mind: these scholars are identifying an important non-material value that many workers ascribe to their jobs but are not making the case that this value could not be offset by a generous policy bundle. In any case, the non-material or 'status' concerns highlighted by these authors are, despite their substantive importance, not relevant for explaining the outcome observed in the British case. This is because the compensation that the British government was offering workers who lost their jobs was inadequate even from the purely monetary perspective of wage replacement, as we saw above. To appeal to non-material or 'status' concerns to explain resistance to job loss would be to miss the point, since this would presuppose that the British government was offering sufficient monetary compensation for job loss. But the government clearly was not, for reasons consistent with the theory developed in this paper.

7. Scope conditions and implications

Why can't governments simply use compensation to buy the acquiescence of actors who might otherwise resist workforce downsizing following the introduction of new technologies? This paper introduces a new answer to this question based on the government's inability to ensure that its offer of compensation will not be opportunistically exploited. This vulnerability is a function of the government's lack of information. The empirical relevance of this approach has been demonstrated with reference to the problem of conflict over workforce reduction in postwar Britain. While many scholars have stressed the importance of this conflict for explaining Britain's relative decline between the 1950s and the 1970s, no scholar

has explained why this conflict was not overcome through the provision of compensation to workers made redundant by new technologies. This paper has shown that incomplete information constrained the generosity of the compensation that the government was willing to offer, leading to the persistence of inefficient conflict in British industry.

Why did Britain struggle with the problem of worker resistance to job loss more than other advanced democracies in the 1960s and 1970s? In West Germany, Britain's chief industrial competitor, workers had a much more limited ability to contest job losses: workplace institutions made plant-level strikes illegal in almost all circumstances and facilitated the co-optation of plant-level worker leaders by management.[80] Thus, workers were not veto players in the process of industrial adjustment and the German government did not need to buy workers' acquiescence to job loss: it could simply provide whatever level of compensation it thought morally appropriate or electorally expedient. Although many scholars point to Sweden as a case in which the government designed a successful retraining program and thereby achieved union buy-in for flexible adjustment to technological change, the economic literature provides little support for the view that Sweden's postwar retraining programs were effective.[81] Swedish unions, having concluded on their own that government-sponsored retraining as practiced in the 1960s did not satisfactorily address the costs of job loss, attempted to foist severe dismissal restrictions on employers in the early 1970s and pushed the government to preserve obsolete jobs by subsidizing uncompetitive firms.[82] While it can be said that West Germany achieved successful industrial adjustment in the 1970s as a result of institutions that prevented workers from exercising veto power, the very idea of Sweden

[80]Hohn (1988); Borgmann (1987); Kotthoff (1981); Schultz-Wild (1978).

[81]Flanagan (1987, 157-158); Calmfors (1993, 33); Edin and Topel (1997, 167); Forslund and Krueger (1997, 294). This indicates that King's (1995) conclusions about the failure of active labor market policies in Britain reflect a broader limitation of this kind of policy tool.

[82]For the unions' assessment, Anderman (1967, 135); Lundberg (1985); Henning (1984).

as a 'success story' is misleading: Sweden experienced close to zero per capita growth in the 1970s, a result even worse than Britain's and dismal in comparison to West Germany.[83]

As these comments suggest, it is important to highlight several scope conditions for the theory developed in this paper. First of all, the theory is relevant only in settings where the actors who would lose out from a departure from a status quo are also veto players. If the would-be losers cannot block a departure from the status quo, the government has little incentive to provide compensation (though it may still provide some compensation for moral reasons). Second, the theory only applies when the repression of veto players is not a viable alternative strategy (i.e., when repression is more costly than the persistence of an inefficient status quo). This is a corollary of the prior point: if veto players can be cheaply repressed, it is unnecessary to purchase their acquiescence.[84] Third, the theory only applies in situations in which the boundaries of the group that the government is trying to compensate are indeterminate (e.g., 'workers declared redundant by their employers'). This indeterminacy is what allows opportunistic claimants to present themselves as intended beneficiaries of a compensatory measure. When veto players are clearly defined individuals (e.g., the legal owners of a particular asset), it is easy for the government to offer targeted compensation without fearing that its offer will be exploited by opportunistic claimants.

Even with these scope conditions in mind, this paper provides political economists with an analytic tool that is potentially of broad applicability for explaining the failure of policies aimed at winning over the support of unionized workers whose livelihoods are threatened by technological change, free trade, or the green transition. I briefly discuss two examples on which the informational theory developed in this paper may shed new light. First, one may ask why Trade Adjustment Assistance, introduced by the Kennedy administration in 1962, failed to avert protectionist backlash against free trade among American unions. Given the

[83]In 1980, Swedish real GDP per capita stood at 103% of its 1970 level. In Britain, the equivalent figure was 110%, while in West Germany it was 136% (Penn World Tables; Feenstra et al. 2015).

[84]On repression as an alternative to compensation, Adserà and Boix (2002); Dean (2022).

analytic tools provided in existing scholarship, it would be tempting to explain this with reference to a commitment problem. But the issue was not that unions feared that the government would renege on the compensation it offered through TAA. Rather, the problem was that the level of compensation in TAA was not enough to make workers indifferent between fighting for trade protection and acquiescing to job loss. This reflected policy choices that limited the generosity of compensation offered through TAA and imposed stringent eligibility rules to ensure that it would not disincentivize job search or be exploited by opportunistic claimants. These choices reduced the expected value of the compensation to workers who faced trade-induced job loss. Given this upper bound on the compensation the federal government was willing to offer, it is unsurprising that the AFL-CIO became a protectionist force in American politics, throwing its weight behind the Burke-Hartke bill of 1971 and opposing the Trade Act of 1974.[85]

A second example is the United Mine Workers' opposition to the U.S. Clean Air Act (CAA) in 1990. Gazmararian and Tingley argue that the UMW's opposition reflected the non-credibility of government commitments to compensation. But the evidence they provide is more consistent with the informational theory developed in this paper: a majority in the U.S. Senate rejected the generous compensation scheme proposed by Senator Robert Byrd because of the program's expected cost, which was high in part because the government had no way of effectively screening out coal miners who lost their jobs for reasons other than the impact of the CAA.[86] A much less generous compensation scheme was included in the final version of the bill.[87] The UMW maintained an antagonistic posture toward the CAA thereafter, citing Congress's failure to pass Byrd's compensation proposal.[88] The evidence suggests that the union's position was *not* based on the fear that the government would renege on the compensation it offered in the CAA: the problem was that the compensation

[85]The account here is consistent with Alden (2016, ch. 6) and Benton (2022, chs. 5-7).
[86]Gazmararian and Tingley (2023, 158).
[87]Ibid., 161-163.
[88]Ibid., 116.

offered in the CAA was manifestly less than what would have been necessary to make coal workers give up the fight for their jobs. This is not to deny that credibility concerns play a role in the political economy of the energy transition, which is Gazmararian and Tingley's broader point: indeed, they present compelling evidence that commitment problems play an important role in this arena. But the example of the UMW's opposition to the CAA suggests that the research agenda on the green transition can benefit from the widened theoretical toolkit proposed in this paper.

These examples suggest that the theory developed in this paper may indeed be of broad applicability for problems in political economy. While some types of social conflict are surely explained by commitment problems, not every instance of inefficient conflict fits this mold. Information problems also have an important role to play in explaining inefficient social outcomes, including outcomes of considerable substantive significance such as the decline of British manufacturing in the decades following the Second World War. The argument developed in this paper also suggests that enhancing the government's ability to 'credibly commit' may not resolve all of the problems that scholars are concerned about when it comes to winning over the support of groups threatened by technological change, free trade, or the green transition. The concerns of members of these groups may reflect the inadequate level of compensation offered by the government rather than the credibility of the government's commitment to the compensation it offers. The inadequacy of the compensation that the government offers may, in turn, reflect information problems that are difficult if not impossible for a government to overcome.

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Appendix A: Employer lobbying around the Redundancy Payments Act

The main barrier to action on a redundancy payments scheme during the Conservative governments of Harold MacMillan and Alec Douglas-Home was the opposition of the British Employers' Confederation (BEC), the peak organization representing employers' interests on issues relating to industrial relations. The BEC's position was a nuanced one. The BEC's first-line position was one of total opposition to statutory intervention: it sought the preservation of the voluntaristic status quo according to which individual employers would make redundancy payments as they saw fit. Inasmuch as the BEC acknowledged that something needed to be done to assist displaced workers, it advocated for the provision of enhanced unemployment benefits to workers who agreed to relocate and undergo retraining in order to obtain new work. The BEC's fallback position was, however, quite different: if the government *were* to introduce a statutory redundancy payments scheme, the BEC wanted the full costs of the redundancy payments to fall on the taxpayer or on a centralized fund financed through contributions from *all* employers. In other words, the BEC's overriding concern was to avoid a situation in which individual firms would have to pay for redundancy payments to their employees: this could be achieved either by avoiding statutory intervention altogether or by socializing the costs of redundancy payments.[89]

These demands reflected the BEC's core constituency of mid-sized manufacturing firms. These firms were likely to confront the need for workforce downsizing and (unlike their larger counterparts) were unlikely to have already established a voluntary redundancy scheme for their workers. Such firms had good reason to be concerned about the additional costs they might face as a result of the introduction of a statutory scheme. To protect its members' interests, the BEC therefore engaged in a double game whereby it combined public opposition to a statutory redundancy payments scheme with simultaneous private lobbying to fully

[89]See Godber's summary of the BEC's position in *Hansard,* 14 February 1964.

socialize the costs of a statutory scheme, if one were to be introduced.[90] The BEC's efforts to fully socialize the costs of redundancy payments were at odds with the Ministry of Labour's desire to have the employer responsible for the dismissal internalize at least part of the cost of the payment in order to discourage collusion and excessive labor-shedding.[91] The BEC's push for cost socialization also placed it in conflict with other employers' associations, such as the Multiple Shops Federation (MSF), an association of retailers. Given the low rate of technological change in retail, the MSF recognized that its members were unlikely to benefit from fully subsidized redundancy payments and were very likely to be net contributors to a scheme in which all employers made contributions to a centralized fund that disbursed money to cover payments to workers made redundant by new technologies.[92]

Appendix B: Bargaining and the final form of the Redundancy Payments Act

Pressure from the BEC led to inaction under the Conservative governments of Harold MacMillan and Alec Douglas-Home. Having developed a statutory redundancy payments scheme over the course of 1963 and having received authorization for statutory intervention from the Conservative Party Conference in October of 1963, the government subsequently backpedaled on the topic of redundancy payments. This can plausibly be characterized as a capitulation to the BEC's demand for non-intervention: given that the government was unwilling to meet the BEC's demand for the full socialization of the costs of redundancy

[90] On the public position, see "Redundancy Talks in Difficulties: BEC is Opposed to Legislation," *Financial Times* 19 Nov. 1963; "Employers Advise Against Law for Workers' Security," *Financial Times* 20 July 1962. Privately, the BEC demanded that if a scheme were introduced, redundancy payments ought to be made from a centralized fund financed through equal contributions from workers, employers, and the state. See the letter from George Pollock of the BEC to Ned Dunnett of the Ministry of Labour on 29 Oct. 1963 in LAB 10/2024.

[91] See the discussion of the BEC's position and concerns about exploitation of a central fund in "Notes for Minister's meeting with the British Employers' Confederation," November 1963, in LAB 10/2024; see also the memo "Severance Pay: Main Policy Implications of a Fund," 15 Jan. 1965, in LAB 10/1982.

[92] See letters from J. Butler, director of the Multiple Shops Federation, on 9 March 1965 and 5 July 1965, in LAB 10/2048.

payments, the only path that would not incur the BEC's ire was one of inaction. The government therefore paused its plan for employer-financed redundancy payments, though it remained interested in re-initiating a push for statutory intervention at a later date. The Labour Party's election victory under the leadership of Harold Wilson in October of 1964 revived the prospects for statutory intervention, since the party had committed to statutory redundancy payments in its 1964 manifesto. The following months saw intensive policy development by the Ministry of Labour along with vigorous lobbying by the BEC, which sought to ensure that the costs of mandatory redundancy payments were as widely spread as possible. The Labour leadership was more willing to place a greater share of the costs of the redundancy payments scheme on a centralized fund, since this would allow for more generous redundancy payments than those envisioned by the preceding Conservative governments. But as a result of BEC lobbying, what was originally planned as a 50-50 cost-splitting arrangement between individual employers and a central fund became a 40-60 split and then, finally, a split approximating 30-70.[93] The Conservative opposition threatened to delay the bill in committee unless the Labour government acceded to the BEC's demands for cost socialization.[94]

Appendix C: Compensation provided under the Redundancy Payments Act

As noted in the main text, the Redundancy Payments Act of August 1965 granted workers redundancy payments at a scale of half a week's pay for every year of service up to the age of 21, one week's pay for every year of service over the age of 21 and up to 40, and one and

[93]See Treasury official and future Second Secretary Leo Pliatzky's notes to Treasury under-secretary Russell Bretherton on 20 Jan. 1965, in T 227/2225. On the BEC's demand for a centralized fund, see also Ministry of Labour official Kenneth Barnes to Pliatzky, in LAB 10/1982.

[94]See letter from Minister of Labour Ray Gunter to Chancellor James Callaghan on 3 June 1965, stating that the BEC has taken the view that leaving individual employers with 40% of the cost of payments is unacceptable. Gunter reports that Joseph Godber, former Minister of Labour and the leader of the Conservative opposition in the Standing Committee, promised to allow swift passage of the bill if the government conceded to the BEC's demands. Gunter therefore proposed increasing the share covered by the central fund to 70%. In T 227/225.

a half weeks' pay for every year of service after the age of 40, with a maximum of twenty reckonable years of service. Around 70% of the value of every redundancy payment would be reimbursed by a newly created redundancy fund, financed by a special tax on all employers, meaning that the employer responsible for the dismissal bore around 30% of the cost of the payment. By way of example, take a 45-year-old married male worker with one child who had been with his employer for 10 years and earned £21 a week (£17 16s net of taxes and contributions), which was about average for a skilled manual worker in the engineering industry. If this person were dismissed on grounds of redundancy, he would receive £252 as a redundancy payment.[95] Suppose he were unemployed for eight weeks, during which time he would receive the flat-rate £5 10s unemployment benefit, and were subsequently re-employed at a different firm at 90% of his previous pay (£18 18s, approximately £15 2s net).[96] This is approximately the pay cut he would endure if a skilled engineering worker took a job as a semi-skilled worker in the same industry, which was a common trajectory for skilled engineering workers made redundant.[97] The redundancy payment could be used to maintain the worker's past disposable income for the duration of his unemployment spell (when the gap between his net prior pay and unemployment benefit would total £98 8s) and for the subsequent 57 weeks. From then on, the worker would face uncompensated losses as a result of his reduced wage, which would (over the roughly 19-year period until his retirement at age 65) amount to around £2565, assuming his wage remained at 90% of his previous pay. This amounts to a total uncompensated loss of almost three years' net pay at his previous wage. This is a fairly optimistic example, since a large share of redundant workers experienced

[95]This example is based on the one given by D.B. Andren in his October 1967 report in T 227/3332, which uses tax and contribution rates for the year 1962. Wages for skilled and semi-skilled engineering workers can be found in British Labour Statistics Historical Abstract, Table 60; I refer to wage rates for June 1965.

[96]This is a plausible example: as Mackay shows in his study of West Midlands engineering workers made redundant between 1966 and 1968, skilled manual workers were more likely to experience occupational downgrading than occupational upgrading after redundancy. See MacKay, D. I. "Redundancy and Re-engagement: A Study of Car Workers 1." The Manchester School 40.3 (1972): 295-312.

[97]Ibid.

a much longer unemployment spell: in Mackay and Reid's study of redundant engineering workers in the West Midlands, around 25% of male workers were unemployed for more than 16 weeks after redundancy.[98] A Gallup study of recently redundant car industry workers in December 1966-January 1967 found that 56% of those who had found new work incurred an income loss of more than £5 a week, a much larger loss than in the aforementioned example, though it is likely that the extent of these losses declined over time.[99]

In 1966, the Labour government under Harold Wilson increased the generosity of the flat-rate unemployment benefit and introduced an earnings-related supplement, which considerably increased the total unemployment benefit available to most workers. This was part of the Labour government's broader agenda of improving the economic security of working people and was not geared toward resolving conflict over redundancy (as discussed in Section 4 of the paper, unemployment insurance was widely recognized to be a poor tool for achieving this objective). Still, it is important to assess to what extent this increase in unemployment benefits alters the calculations above. Take again our married 45-year-old skilled engineering worker with one child earning £21 a week (£17 16s net of taxes and contributions). After becoming unemployed, he would receive a flat rate benefit of £7 12s 6d per week (up from £5 10s) plus an earnings-related supplement of £4, yielding a total weekly benefit of £11 12s 6d (a replacement rate of 65%).[100] If unemployed for eight weeks, he would receive a total of £93. The gap between his net prior pay and his total unemployment benefit over these eight weeks would amount to £49 4s. If (as in our optimistic example above) he then got a job earning £15 2s net, his £252 redundancy payment would allow him to maintain his past disposable income over the duration of his unemployment spell and for the first 75 weeks of his new job. From then on, he would face uncompensated losses as a result of his reduced wage, which over a 19-year period would amount to around £2517. Again, this amounts to

[98]D. I. MacKay and G. L. Reid, "Redundancy, Unemployment and Manpower Policy," *Economic Journal* 82.328 (1972): 1256-1272, 1257.

[99]See Gallup Poll Index, Report No. 81 (Jan. 1967), in LAB 110/2.

[100]Based on sums given by D.B. Andren in his October 1967 report in T 227/3332.

a total uncompensated loss of almost three years' pay at his previous wage. As this example suggests, incremental increases in the generosity of the benefits provided to workers while they are unemployed do little to address the longer-term losses they experience as a result of displacement, since most of the losses come from the gap between their old wage and their post-displacement wage after finding new work.

Appendix D: The view of the Trades Union Congress toward the RPA

In designing a redundancy payments scheme, the Ministry of Labour sought the support of the Trades Union Congress (TUC), Britain's peak-level union confederation. Many within the TUC leadership favored an increase in unemployment insurance benefits over the introduction of a statutory redundancy payments scheme, since the former would provide support to a much larger swath of workers. As we saw in the preceding section, the Ministry of Labour preferred a redundancy payments scheme precisely because it sought to constrain the number of workers who would benefit from more generous support by excluding workers who were unemployed for reasons unrelated to redundancy. If a statutory redundancy payments scheme were to be introduced, then the TUC wanted payments that were far more generous than those envisioned by the Ministry of Labour. For reasons discussed in the preceding section, such generous payments were only feasible if they were partially or wholly financed from a central fund or by general tax revenues.[101] Like the BEC, the TUC was therefore sympathetic to socializing the costs of a statutory redundancy payments scheme. This led Chancellor Reginald Maudling to complain that "one danger for us on [the National Economic Development Council] is always that the employers and the union representatives will seek the simple way out of any problem by agreeing that it can all be solved if the Government will only put up a lot more money," adding that "[t]his tendency we shall have

[101] As noted in a memo by Kenneth Barnes on 18 Nov. 1964, the TUC was indifferent about a centralized fund *per se*. But a fund would be necessary to provide payments on the scale envisioned by the TUC. In LAB 10/1982.

consistently to oppose."[102] The difference between the positions of the BEC and the TUC was that the TUC favored larger payments than those that the BEC or policymakers in the Ministry of Labour or the Treasury were willing to support. Given that the TUC had no control over individual unions' decisions about whether to contest mass dismissals through strike action, its support or opposition to a statutory redundancy payments scheme was of limited relevance. Yet the TUC's focus on the inadequate scale of the payments envisioned by the government presaged the problems that would undermine the efficacy of the scheme after its introduction, which are discussed in Section 5 of the main text.

Appendix E: Background information on the Amalgamated Engineering Union

As noted in the main text, the Amalgamated Engineering Union (AEU) was the largest union in the British engineering industry, which was the largest part of manufacturing in Britain. The AEU was one of Britain's 'big six' unions and the largest union representing manufacturing workers, since the other five of the 'big six' were the National Union of Mineworkers (NUM), the National Union of Railwaymen (NUR), the Union of Shop, Distributive and Allied Workers (USDAW), the Transport and General Workers' Union (TGWU), and the National Union of General and Municipal Workers (NUGMW). The TGWU and NUGMW were 'general' unions and organized less-skilled workers across many industries, including engineering and other parts of manufacturing. But a large share of their membership was outside of manufacturing (as their names suggest), meaning that the AEU was the largest manufacturing union. For readers more familiar with the American labor movement, it is useful to think of the AEU as an amalgam of the International Association of Machinists and parts of the United Auto Workers.

The AEU adhered to an industrial principle of organization in the sense that it aspired to organize workers across the skill distribution in the engineering industry and aspired to be the sole voice of workers in the engineering industry in bargaining with the Engineer-

[102]Memorandum by the Chancellor of the Exchequer, "National Economic Development Council: Training and Redundancy," for the cabinet, 26 February 1963, in 2AT 704/775/01.

ing Employers' Federation (EEF). The AEU is sometimes misleadingly classified as a 'craft' union because it descended from a union that only organized skilled manual workers, because it did not possess an organizational monopoly in engineering (i.e., there were other unions with members in the engineering industry), or because it was disproportionately composed of skilled manual workers and protected their interests on certain key issues like wage differentials and the integrity of the apprenticeship system. But all of these traits are shared by engineering unions in other countries that are universally seen as 'industrial' unions, such as the Industrial Union of Metalworkers (*Industriegewerkschaft Metall*, IG Metall) in Germany. Both of these unions were descended from organizations representing skilled manual workers. Contrary to popular perception, IG Metall did not possess an organizational monopoly in West German engineering: it competed with the *Deutsche Angestellten-Gewerkschaft* for the allegiances of non-manual employees and with the *Christliche Metallarbeiterverband* for members across the skill distribution.[103] Like the AEU, IG Metall was disproportionately composed of skilled manual workers and undeniably defended their interests when it came to wage differentials and the preservation of the apprenticeship system, which in both countries effectively excluded most workers who did not do an apprenticeship as an adolescent from ever attaining skilled status.

Accordingly, there is no basis for the claim that the AEU was a 'craft' union unless one also assigns this term to IG Metall, which is at odds with how this union is characterized in all existing research. It is true that the AEU had to deal with a greater number of other unions in engineering than did IG Metall. But this is a difference in degree rather than a difference in kind. Moreover, despite the presence of other unions in the industry, the AEU organized a similar share of the engineering workforce to that organized by IG Metall: in 1964, the AEU organized around 26.9% of the British engineering workforce, while IG Metall

[103]This is also true of the Swedish metalworkers' union (*Svenska Metallindustriarbetareförbundet*): Svenska Metall had to accept the presence of the Union of Clerical and Technical Employees in Industry (*Svenska Industritjänstemannaförbundet*) and the Foremen's and Supervisors' Union (*Svenska Förmäns och Arbetsledares Förbund*) along with a separate union for workers in engineering foundries (*Svenska Gjutareförbundet*).

organized around 33.4% of the German engineering workforce in the same year.[104] Overall, given the share of the engineering workforce they organized, it would be appropriate to conclude that the AEU was, to a first approximation, as 'encompassing' of an organization as was IG Metall, which is typically seen as a quite 'encompassing' interest group in the Olsonian sense. Given the presence of other unions in British engineering, overall union density in British engineering was much higher than in West Germany: 72.4% of manual workers in British engineering were organized into unions in 1964, whereas the comparable figure for manual worker membership in West German engineering in 1964 was 44.2%.[105]

While there were many more unions in British engineering than in Germany, this does not mean that collective bargaining in British engineering proceeded by way of a free-for-all. Rather, all of the unions in British engineering were organized into the Confederation of Shipbuilding and Engineering Unions (CSEU), a national association of 33 unions that formulated a common set of demands and negotiated collective agreements with employers' associations in engineering and shipbuilding.[106] Around 80% of the confederation's membership was in its largest six unions. As the largest union in the Confederation by far, the AEU possessed a plurality of votes on the Confederation's executive council and held a predominant but not overwhelming position in the setting of CSEU policy. From the AEU's perspective, the CSEU was an unhappy substitute for the amalgamation of all unions in the engineering industry into a single union, which in effect would mean subsuming all of the

[104]British membership figures from Confederation of Shipbuilding and Engineering Unions, *Report of the Proceedings of the Twenty-ninth Annual Meeting...23rd, 24th, 25th and 26th June, 1964* (Newcastle: Co-operative Printing Society, 1964), 2; IG Metall density from H. Bayer, W. Streeck, and E. Treu, *Die westdeutsche Gewerkschaftsbewegung in Zahlen* (Hain: Meisenheim, 1981), 64-68.

[105]See the previous note and A. Marsh, *Industrial Relations in Engineering* (Oxford: Pergamon, 1965), 3; H. Bayer, W. Streeck, and E. Treu, *Die westdeutsche Gewerkschaftsbewegung in Zahlen* (Hain: Meisenheim, 1981), 64-68.

[106]For background, see A. Marsh, *Industrial Relations in Engineering* (Oxford: Pergamon, 1965); Eric Wigham, *The Power to Manage: A History of the Engineering Employers' Federation* (London: Palgrave Macmillan, 1973), chs. 7-9. The CSEU's shipbuilding section bargained separately with the Shipbuilding Employers' Federation (SEF).

CSEU's other member unions into the AEU. Resistance by other unions to amalgamation under the AEU's banner meant that the CSEU remained the vehicle for the expression of the engineering unions' shared demands. The head of the CSEU's engineering section was typically the AEU president. As a general matter, it appears that the AEU exercised a veto over Confederation policy but could not necessarily compel the CSEU to adopt its preferred policy. Inasmuch as the AEU sought a national agreement with employers, this would have to arise through bargaining between the CSEU and the EEF. That said, the AEU could formulate an autonomous policy and act independently if the implementation of this policy did not require agreement with the EEF.

As a powerful industrial union in the country's largest industry, the AEU was jealous of its autonomy and hostile to interference from its national labor confederation, the Trades Union Congress (TUC). The same can be said of the attitude of its West German counterpart, IG Metall, toward the West German labor confederation, the *Deutscher Gewerkschaftsbund* (DGB). In neither country did the confederation play a role in formulating the engineering unions' bargaining demands or strategies. Indeed, the relative militancy of the engineering unions and their workers tended to be a thorn in the side of the more accommodationist leadership of the national confederations.[107] Engineering unions saw themselves as the vanguard of the labor movement with a special responsibility to break through employer resistance and secure improvements in wages and working conditions.[108]

[107]On IG Metall's conflict with the DGB, see Theo Pirker, *Die Blinde Macht: Die Gewerkschaftsbewegung in der Bundesrepublik,* Vol. 2 (Olle & Wolter, 1979), throughout and esp. 192-194. The powerlessness of the TUC is a constant theme in the literature on British industrial relations.

[108]On IG Metall's self-understanding in this regard, see Pirker, *Die Blinde Macht*, Vol. 2, 183-184.

Appendix F: The implementation of the AEU's strategy toward job loss

The discussion in the main text naturally raises questions about the implementation of the AEU's position. As shown in this section, the AEU's strategy balanced the aim of deterring dismissals with a recognition that the union could not support an indefinite strike in every instance. The AEU's policy did not require indefinite support for a strike in opposition to each and every instance of redundancy. After all, it could not be assumed that workers themselves would be willing to strike indefinitely in opposition to redundancy even with official support.[109] It would be consistent with the policy to authorize AEU district officials to bargain for compensated dismissal if an extended strike failed to yield sufficient concessions from management. According to union policy, the AEU's District Committees had the authority to make the call about whether a strike would proceed.

An early example of a 'test case' of the AEU's policy was an attempt by the Coventry machine tool firm Wickman Ltd. to dismiss 60 of its 400 workers (most of whom were AEU members) on grounds of redundancy in late October 1958 rather than implementing short-time working as demanded by the workers' representatives.[110] The strike at this small firm was considered by the local paper to be "Coventry's most important strike of 1958" – quite

[109]In an early case at the Glasgow plant of the office machinery firm Remington Rand, the AEU district committee supported the threat by 1600 of their members and other workers (the manual workers in the plant were 80% AEU organized, including many women) to unilaterally impose a four-day week if management did not agree to introduce short-time working as an alternative to dismissing 80 workers. Management carried out the dismissals anyways and the workers implemented their threat with the support of the AEU district committee and the divisional organizer. But the effort collapsed as shop stewards were convinced to acquiesce to the dismissals in return for a promise to consult over the use of short-time working as an alternative to redundancy in a second round of redundancy that the AEU convenor Callum Mackay said was "imminent." "Hope Yet In Redundancy Dispute," *Edinburgh Evening News*, 1 Nov. 1957; "79 Dismissed At Glasgow Works: Firm ignores 4-day week threat," *The Scotsman*, 2 November 1957; "Remington Workers Back Yesterday: Enforcing 4-day week," *The Scotsman*, 6 November 1957; "Workers Drop Four-day Week Plan," *Edinburgh Evening News*, 7 November 1957.

[110]For the 'test case' claim, see "Short Time or Redundancy? Coventry Strike as Test of Union Policy," *Birmingham Daily Post*, 30 October 1958; "Engineers Call for Shorter Week," *Birmingham Daily Post*, 14 November 1958.

a claim in Britain's 'motor city' – because of the principle at stake.[111] Elsewhere, the same paper called it "the 'short-time versus redundancy' strike."[112] The AEU district officials pledged support from the outset and pressed the two unions with small memberships in the plant to back the strike as well.[113] The AEU subsequently financed a month-long strike by the firm's workers and endorsed a return to work only after the Wickman management had withdrawn the dismissal notices and agreed to implement short-time working while the question went through the Engineering Procedure.[114] This solution was endorsed by a majority ballot of the striking workers.[115] Ultimately, the National Conference between the EEF and union representatives registered a failure to agree and the AEU authorized district officials to negotiate redundancy terms with management.[116] The agreement negotiated in early January of 1959 entailed the dismissal of 28 workers instead of the 60 who had originally been issued notices in October.[117]

[111] "Boom For Coventry Motor Firms – Despite Strikes," *Coventry Evening Telegraph,* 1 January 1959.

[112] "Wickman Redundancy Strike: Explanation of AEU Attitude," *Coventry Evening Telegraph*, Nov. 10, 1958.

[113] "Strikers at Wickmans Seek Union Backing," *Coventry Evening Telegraph*, 22 October 1958, noting that the AEU district committee had already pledged "maximum support" and "congratulated the Wickman members" on their stand against redundancy. There was not yet an announced position from the Transport and General Workers' Union or the National Society of Metal Mechanics.

[114] See the AEU executive council's decision to pay dispute benefit in AEU Executive Council Minute 250, 4 November 1958, in MSS.259/AEU/1/1/153.

[115] "Explanation of AEU Attitude," *Coventry Evening Telegraph*, Nov. 10, 1958; "Coventry Strike Called Off," *Birmingham Daily Post* 13 November 1958

[116] "Proceedings in Central Conference between Engineering and Allied Employers' National Federation and Amalgamated Engineering Union, Transport and General Workers' Union, National Society of Metal Mechanics, York, Friday, 12th December, 1958," in MSS.237/1/13/111.

[117] The *Birmingham Daily Post* reported that "the EEF was unable to agree that the union had any right to insist on part-time working as an alternative to redundancy." "Two Disputes Go to Talks," *Birmingham Daily Post* 13 December 1958; "No Agreement on Wickman Redundancy," *Coventry Evening Telegraph,* 13 December 1958; "Redundancy Dispute at Coventry Settled," *Birmingham Daily Post*, 10 January 1959. The *Birmingham Daily Post* interpreted this as a reversal or violation of union policy but this interpretation is un-

Another example of the implementation of the AEU's policy was its response to an announcement of the dismissal of 850 workers by Rootes, one of Britain's major car producers, in early 1961. The AEU representatives at the plant announced their categorical opposition to dismissal, even after the number was reduced to 720, and this position was endorsed by the AEU's district officials, who promised support "for any action deemed necessary by the trade unionists at Rootes to resist the company's proposed redundancy."[118] In early March the company agreed to defer all of the dismissals by six weeks. In early April, all 720 of the dismissals were finally called off, though management grumbled about the continued presence of "surplus labour."[119] More generally, the tendency of engineering firms to rely on short-time working over dismissals was at least partially attributable to the desire to avoid strikes.[120] The AEU's support for anti-redundancy actions did not mean that it was willing to support any strike threat issued by its members. When workers at a different Rootes plant went on strike in opposition to short-time working later in 1961 after management had said this was necessary to avoid dismissals, the AEU leadership denied financial support and threatened all the striking workers with expulsion unless they promptly returned to work.[121] This was the other side of the same coin: the union's policy was that workers *should* accept short-time work when necessary as a means of avoiding dismissals.

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warranted, as discussed above. "Coventry Strike Demand Rejected: Unions Insist on Talks," *Birmingham Daily Post*, 8 January 1959.

[118] "Coventry AEU Pledge on Resistance to Redundancy Plan," *Coventry Evening Telegraph* 23 February 1961; see also "Rootes Reject Union Plea on Redundancies," *Coventry Evening Telegraph* 14 February 1961.

[119] "Dismissal plan shelved: Rootes group sales improve: reprieve for 720," *The Scotsman* 7 April 1961; "Car Sackings are Called Off," *Daily Mirror,* 7 April 1961; on the six-week delay, "Rootes Group Dismissals Plan: Mr. Cockin is Asked to Explain," *Birmingham Daily Post* 4 March 1961.

[120] "Unions Agree on Short-time Working to Save Jobs: BMC Cuts Output by Twelve Percent," *Birmingham Post*, 13 October 1960, noting the use of short-time working not only at BMC but also at Rover in Solihull and Standard Motors (by then Standard-Triumph) of Coventry.

[121] "New Strike at BMC Plant in Birmingham; Threat to Rootes," *Birmingham Daily Post*, 15 September 1961; "AEU Says Strike is 'Irresponsible,'" *Coventry Evening Telegraph* 12 October 1961.

A further example of the AEU national leadership's willingness to support collective resistance to dismissal came at the Nottingham plant of the Raleigh Bicycle Company, where the AEU threw its weight behind members who went on strike in response to an effort to dismiss 25 workers. The AEU subsequently called out all of its members in that plant and in the company's two other plants, while also urging AEU members at the other firms to refuse to work on components supplied by Raleigh.[122] The rationale for the strike, in the words of the AEU assistant general secretary and future MP Ernie Roberts, was that "[w]e are quite certain that these [workers] could easily be absorbed by Raleigh."[123] The company refused to negotiate and the strike ended after thirteen weeks with the strikers conceding defeat, their numbers reduced by the decision of some members to return to work.[124]

More systematic information on the implementation of the AEU's policy can be gleaned from the EEF's strike records, which have been digitized by Robert Hart (2008). The EEF attempted to record information about every strike that occurred at a member firm including the unions and the number of workers involved, the cause of the strike, and a brief assessment of the outcome as reported by the member firm.[125] For instance, the 1958 dispute at Wickman is accurately recorded as having been about "Redundancy of certain workers." Strike data are, of course, evidence of observed conflict and thus give a biased portrait of the state of affairs in engineering: after all, had the AEU's strategy been completely

[122] "New Moves in Raleigh Strike," *Birmingham Daily Post* 25 February 1964; "Cycle Strike: Lockheed Men Asked to Help," *Birmingham Daily Post* 9 March 1964; "Lockheed AEU Call to 'Black' Raleigh Work," *Coventry Evening Telegraph* 19 March 1964; this call was eventually refused by the Lockheed workers despite the urging of AEU officials: "Raleigh Strike Falls after Spa's No: Lockheed AEU Told: You were their strong weapon," *Leamington Spa Courier* 10 April 1964.

[123] "'Threaten to leave home': advice to strikers' wives," *Birmingham Daily Post*, 9 March 1964.

[124] Some 150 workers returned despite the AEU's instructions to stay out: see "Few Raleigh men fight on," *Birmingham Daily Post,* 24 March 1964; "Full Output On Monday," *Coventry Evening Telegraph*, April 2, 1964; "More Raleigh Strikers Return," *Birmingham Daily Post* April 2 1964; "13 week strike 'achieves nothing,'" *Birmingham Daily Post* 8 April 1964.

[125] To be sure, the causes of strikes are often multifaceted and difficult to unambiguously determine.

successful, it would never be involved in any anti-redundancy strikes, since employers would be successfully deterred from attempting dismissals. The data also provide an incomplete record of work stoppages surrounding redundancy in engineering, given imperfect reporting and the fact that the data only includes strikes at member establishments of the EEF. But the evidence is useful inasmuch as it shows that the AEU's strategy was more than hot air.

Table F1 shows the number of reported strikes relating to redundancy at EEF member establishments over the period 1946-1970. Hart sorted the strikes into categories according to the issue at stake in each dispute as recorded by the EEF. I rely on his coding of redundancy-related disputes, which excludes strikes placed in the separate category of "dismissals" that were about victimization and disciplinary dismissals.[126] The second column reports the total number of redundancy-related strikes at EEF member establishments per year. The third and fourth columns refer to the median number of workers who took part in redundancy-related strikes and the median duration of these strikes in days. The fifth column reports the total number of striker days lost per year to redundancy-related strikes, while the sixth column reports the share of strikes in which the AEU was involved.

Overall, these data make clear that the AEU was engaged in widespread resistance to dismissal from 1956 onward, as one would expect on the basis of the discussion of AEU policy. From an industry-wide perspective, the successful implementation of the AEU's strategy of delegated deterrence did not require that the union leadership support an indefinite strike in every instance of mass dismissal. Nor did it require that every strike be successful in inducing management to abstain from dismissals. The purpose of the strategy was rather to discourage employers from initiating dismissals in the first place by inspiring fear that this could lead to a disruptive strike, the costs of which might outweigh the potential gains from workforce reduction. In the words of AEU executive council member Claude Berridge, the "cash value" of the AEU's policy came from the employment security that this threat

[126]This may yield some under-counting of redundancy-related disputes because some of the strikes Hart counts as "dismissal" strikes rather than "redundancy" strikes appear on the basis of the EEF strike descriptions to have been about redundancy.

Table F1: Redundancy-related strikes in EEF member establishments, 1946–1970

Year	Strikes	Median workers	Median days	Days lost	% involving AEU
1946	2	214	3	752	100%
1947	2	51	2	200	0%
1948	5	362	2	5,310	80%
1949	6	271	5	7,791	50%
1950	7	291	3	35,378	57%
1951	13	110	3	67,952	46%
1952	8	200	3	13,028	50%
1953	7	327	4	78,782	86%
1954	3	90	14	10,292	33%
1955	9	115	7	22,038	67%
1956	28	487	4	125,755	79%
1957	17	130	4	26,632	71%
1958	16	178	9	43,227	69%
1959	12	362	7	87,837	83%
1960	13	650	6	52,280	39%
1961	9	41	4	21,336	44%
1962	20	320	7	99,226	60%
1963	10	130	3	9,284	50%
1964	11	200	7	33,764	55%
1965	19	300	4	29,538	79%
1966	20	30	2	17,974	45%
1967	12	63	3	17,571	50%
1968	14	240	1	11,330	71%
1969	6	1,004	1	13,383	83%
1970	22	55	3	13,401	46%
Average	11.6	249	4.4	33,762	60%

Note: Days lost refers to striker days lost (strikers times duration of strike). % Involving AEU refers to the share of strikes in which the AEU took part. The table only reports strikes at EEF member establishments recorded as having been caused by a redundancy dispute. From EEF records via Hart (2008).

provided for the union's members. Indeed, inasmuch as the AEU's policy was successful, we would expect to see a *decline* in the incidence of redundancy-related strikes as employers adjusted to the AEU's threat by avoiding dismissals. As this makes clear, it is wrong to think of the strikes *per se* as the 'problem' facing engineering employers. The problem was rather one of overmanning driven by employers' acquiescence to inefficient personnel arrangements in order to avoid conflict.

Appendix G: Why binding contracts are unnecessary to secure efficiency

Some might argue that a union would reject a compensatory bargain because it fears that the government will renege on its offer of compensation after the union has acquiesced to job losses. This might seem like a rational fear if assenting to the bargain in time t weakens the union and reduces its ability to contest job losses in time *t+1*. As has already been discussed in Section 5 of the main text, this fails as an explanation of the failure of a compensatory bargain because it wrongly assumes that a union dictates whether its members accept compensation or strike against job loss. Individual workers facing job loss at time t base their decision about whether to strike on the basis of the compensation available in time t, irrespective of how things might change at time $t+1$. Thus, even if a union leader encourages her members to resist job loss at time t because she worries that acquiescence will weaken the union and create an opportunity for the government to renege at $t+1$, this will not stand in the way of an efficient solution to conflict over job loss: workers will acquiesce to dismissal if the government has offered sufficient compensation, irrespective of what their leader wants them to do.

But even if we assume for the sake of argument that a union is a unitary actor with total control over the behavior of its members, the union's concern that acquiescence to job loss in time t will weaken the union in time $t+1$ is not sufficient to explain why the union would reject a compensatory bargain in time t. As Fearon (1996) has already shown in the context of interstate bargaining, the fact that the terms of the bargain induce a power shift in one party's favor at the expense of the other is not sufficient to explain why a bargain fails to emerge. An efficient bargain should prevail even if the bargain produces an "endogenous power shift," i.e., a shift in the balance of power that derives from the bargain itself. This can be illustrated with a simple two-period game. In each period, the union and the government, representing the interests of the public, fight over a pie of size 1. The union wins with probability $p \in [0,1]$ and the fighting destroys a share of the pie, meaning that only $\psi \in (0,1)$ remains after the fighting has concluded in each round. The union and the

government have a common discount factor $\delta \in (0, 1]$. The outcome is inefficient because some share of the total pie is destroyed in the fighting ($(1+\delta)\psi < 1+\delta$). An efficient bargain is therefore possible that could leave both sides better off.

In the no-bargain baseline condition, the union's expected payoff is $V_U^N = (1 + \delta)p\psi$. In other words, in each round, the union gets the pie, reduced by the efficiency cost of fighting, times the probability that it wins. The government's no-bargain payoff is $V_G^N = (1 + \delta)\psi(1 - p)$. Now consider what happens if the government offers the union a bargain that makes the union exactly indifferent between fighting and not fighting: in the absence of reneging, the bargain offers the union $p\psi$ in both rounds, increasing the government's expected payoff from $(1+\delta)\psi(1-p)$ to $(1+\delta)(1-p\psi)$. Assenting to the bargain in the first round reduces the union's second-round bargaining power by $\alpha \in (0, 1)$. Since the bargain is not enforceable, the government can renege in the second round. If the government reneges entirely in the second round, the union will fight, achieving an expected second-round payoff of $p\alpha\psi$ for itself. This reduced payoff reflects the reduction in its bargaining power between the first and second rounds. The government's payoff from reneging entirely is $(1 - p\alpha)\psi$. Instead of reneging entirely, the government can partially renege by adjusting its second-round offer to the union from $p\psi$ to $p\alpha\psi$, which still keeps the union indifferent between adhering to the terms of the revised bargain and fighting. The government's second-round payoff if it partially reneges in this way is $1 - p\alpha\psi$, which is strictly greater than its second-round payoff from adhering to the terms of the first-round bargain, $1 - p\psi$, and strictly greater than its second-round payoff from reneging entirely, $(1 - p\alpha)\psi$.

Recognizing that the government will partially renege in the second round to exploit the weakness brought about by the union's acquiescence to the bargain in the first round, the union faces a choice about whether to accept the government's offer in the first round or to maintain the no-bargain baseline. If it accepts the bargain, its expected payoff is $V_U^B = p\psi(1+\alpha\delta)$, reflecting its expectation that the government will partially renege in the second round. As we have seen, its expected payoff in the no-bargain baseline is $V_U^N = (1 + \delta)p\psi$.

Since $\alpha < 1$ by definition, the no-bargain payoff is always superior to the bargained payoff given the government's inability to commit to pay any more than $p\alpha\psi$ in the second round. But the possibility of an efficient bargain re-emerges if the government can sweeten its first-round offer with an additional transfer to 'compensate' the union for the risk that the government will renege in the second round. It is rational for the government to offer such a transfer, since the government is better off if it can induce the union to accept a bargain rather than preserving the inefficient no-bargain baseline. To purchase the union's support for the bargain, it needs to add a first-round transfer τ equal in value to the difference between the union's no-bargain payoff and its payoff under the bargain:

$\tau = (1 + \delta)p\psi - p\psi(1 + \alpha\delta)$, which simplifies to $\tau = \delta p\psi(1 - \alpha)$.

The government will be both willing and able to make this transfer as long as τ is less than the difference between its payoff under the bargain (with partial reneging) and the no-bargain baseline: i.e., as long as

$\delta p\psi(1 - \alpha) < [(1 - p\psi) + \delta(1 - p\alpha\psi)] - [(1 + \delta)\psi(1 - p)]$

This simplifies to $0 < (1+\delta)(1-\psi)$, which is always true given the parameter definitions above. This means that the government can always induce the union to acquiesce to the terms of the bargain even if both parties anticipate that the government will partially renege in the second round. This is achieved by offering the union a more generous payoff in the first round, which is always worth it from the government's perspective because the surplus from a bargained solution, $(1 + \delta)(1 - \psi)$, is strictly positive.

We can create space for a commitment problem by assuming that the government cannot draw from its second-round payoff to finance the transfer to the union in the first period. If the government must finance the whole transfer from its first-round bargained payoff, the relevant condition for a feasible transfer becomes $\delta p\psi(1 - \alpha) < 1 - p\psi - (1 - p)\psi$. This reduces to $\delta p\psi(1 - \alpha) < 1 - \psi$, meaning that a transfer to buy the union's acquiescence remains possible so long as the size of the transfer is less than the total first-round surplus from bargaining rather than fighting, $1-\psi$. The inequality can be re-arranged to $p < \frac{1-\psi}{\delta\psi(1-\alpha)}$.

This means that when we rule out borrowing from the future, the parameter space in which an efficient bargain is possible shrinks as fighting becomes less destructive (ψ gets large), as the parties grow more patient (δ gets large), and as the union's second-round power loss becomes more severe (α gets small). The relevant question is then whether it is reasonable in a given empirical setting to assume that the bargain induces a large power shift in the government's favor at the union's expense. Given that the typical proposed mechanism is a gradual weakening of the union through membership attrition, as in Acemoglu and Robinson (2001), it seems implausible to characterize the power shift as a debilitating decline in the union's bargaining power from one period to the next.

In summary, even if we grant the union unitary-actor assumption for the sake of argument, the government's inability to 'credibly commit' does not necessarily lead to the failure of an efficient solution, since the government should be able to offset the losses from its second-round reneging with a first-round transfer. We can only generate a commitment problem if we constrain the government's ability to use its second-period payoff to finance a first-period transfer, and even then, a commitment problem will only arise when the between-period power shift in question is large, when the parties are patient, or when conflict is not very destructive. These conditions certainly cannot be assumed to hold, and the crucial power-shift condition is not particularly plausible in the case studied here, given that there is not strong evidence of a power shift of any sort – as discussed in Section 5, the AEU's membership was stable over the decade after the introduction of the Redundancy Payments Act. Of course, once we abandon the implausible union unitary-actor assumption, the problem analyzed through the model above does not arise, since the government can buy unionized workers' acquiescence to job loss in any period t by offering sufficient compensation in period t, irrespective of the credibility of its future commitments.