Competition and the Workplace in the British Automobile Industry, 1945-1988

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This paper considers the impact of industrial relations on competitive performance. Recent changes in markets and technology have increased interest in the interaction of competitive strategies and workplace management and in particular have highlighted problems of adaptability in different national systems. The literature on the British automobile industry offers widely divergent views on these issues. One which has gained widespread acceptance is that defects at the level of industrial relations have seriously impaired company performance. Versions of this view have emanated from a variety of sources. The best known are the accounts of CPRS and Edwardes [3, 10], which argue that the crisis of the industry stemmed in large part from restrictive working practices, inadequate labor effort, excessive labor costs, and worker militancy. From a different vantage point, Lewchuk has recently argued that the long-run post-War production problems of the industry should be seen as the result of a conflict between the requirements of new American technology for greater direct management control of the production process and the constraints resulting from shopfloor "production institutions based on earlier craft technology." This contradiction was only resolved by the reassertion of managerial control in the 1980s and the "belated" introduction of Fordist techniques of labor management [13, 9].

On the other hand Williams et al. have argued that industrial relations have been of only minor significance in comparison to other causes of market failure [30, 31], and Marsden et al. [15] and Willman and Winch [35] both concur that the importance of labor relations problems has been consistently magnified out of proportion.

The next two sections of this paper consider the changing market and competitive strategies of the major companies in Britain and analyse how they have interacted with changing patterns of work organization and labor management.

Competitive Performance

Since the early 1970s the decline of British auto manufacturing has been precipitous. But over the previous twenty-five years sales had been high and the

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major British manufacturer, the British Motor Corporation (formed by a merger of Austin and Morris in 1952), had retained a fairly consistent 40% share of the UK market. For most of this time competition was a race for production rather than a struggle for market shares. The clearest sign of impending difficulties was that profit per car had been low and falling throughout the period, and even these low margins disappeared when volume fell off in cyclical downturns, notably those of 1956-57, 1961-62, and 1966-67 [31, Table 23].

In many respects this reflected important features of the wider product market within which BMC operated. The European mass market was the fastest growing market in the world, and though the British market was expanding somewhat less rapidly, British car ownership grew ten times over between 1950 and 1965. But it was a mass market only for very small cars in the 1950s and early 1960s (notably the VW Beetle and the Citroen 2CV in Europe and the Morris Minor and Mini in Britain) and for these and "super-minis," such as the Renault 5, the VW Golf, and the Austin-Morris 1100 from the late 1960s. Until as late as the end of the 1960s there was no mass market in Europe for medium-large 1500-1800cc cars [1, ch. 6].

One result was that, in the absence of significant cost-reducing process innovations, profit margins were low. Small cars were often as complex and costly to build as considerably larger ones and space-saving designs often resulted in considerable difficulties in manufacturing and assembly processes. Volkswagen was able to make profits on small cars by using high levels of dedicated automation on a single unchanging model of simplified design produced at very high volumes (the Beetle), but no other European manufacturer followed this route.

One barrier to the pursuit of such a route by British manufacturers was the diversity of British consumer demand. In contrast to the pattern of market-dominating designs in Germany-- where VW was able to take 40% of the domestic market with a single model-- or Italy, for example, no single model from any producer was ever able to take more than a 15% share of new registrations in Britain. Market share had to be put together out of a variety of models often selling in quite small volumes [31, Appendix 3].

The merger that formed British Leyland Motor Corporation (BLMC) in 1968 by bringing together the several remaining British car manufacturers with Leyland, the largest British truck firm, was intended to remedy the problem of a perceived lack of scale economies by consolidating and rationalizing manufacture. In all, the merger brought together 25 manufacturing companies with 80,000 workers, 1,300 different vehicle types, and 60 plants. The basic notion of the manufacturers and of the Labour government which sponsored the merger was to achieve economies of scale and renovate BMC's old management [28; 5, pp. 182-6; 12].

But both of these ideas were flawed. Economies of scale could not be achieved simply by aggregating the demand for highly diverse models and the

injection of managerial talent that they hoped for from the apparently dynamic Leyland was a chimera. There was no new management team on hand to turn BL around and it became a confused and unwieldy giant. Overlapping production and internal competition was hard to shakeout and the early years were characterized by managerial chaos described by one former manager as "a basic tribalism" [29, p. 163], a lack of common purpose, and serious conflicts between designers, finance, and production management [18].

Against this background, in the late 1960s and early 1970s, two major shifts in the market began to undercut the foundations of BMC/BLMC's traditional production strategy. This had been based on selling a variety of small cars, some in high and some in medium volumes, to individual private buyers. But in the sixties the rapid growth of new first-time buyers began to fall off and other segments of the market began to increase in importance.

The most dramatic change, and one that caught BMC (BLMC after 1968) flat-footed, was the rapid emergence of a fleet sales or "company car" sector. This was initially a largely unintended consequence of government taxation and income restraint policies which made it more advantageous for individuals to acquire cars as "payment in kind" as part of their employment compensation packages or for companies to buy fleets of cars and, in effect, lease them to their employees. But its effect was to create a new mass market for medium-sized (and generally more profitable) cars. Between 1964 and 1974 "company cars" rose from 7% to 40% of new car registrations [31, pp. 230-4].

Ford in particular quickly oriented itself to this new sector and with the Cortina quickly took a grip on it. BLMC tried and failed to challenge it in this sector with the Marina in the early 1970s, but thereafter Ford faced little direct competition in this market through the 1970s. The replacement of the Cortina by the Sierra in the early 1980s permitted GM to make major inroads into this sector with the Vauxhall Cavalier, but BL's next significant offering in this area (the Austin-Rover Montego in 1984) was a belated entry, and the firm's continued orientation to individual buyers meant that it lacked an adequate network of specialized dealers geared to handle fleet business [30, pp. 67-97].

Thus personal small cars became a much reduced segment of the market. In the early 1970s it was also the site of the most intense import competition. While barely any company fleets bought imported cars, the intensification of European and Japanese competition quickly took imports to about 50% of personal purchases. To a large extent a loss of market share in face of competition was unavoidable. In all major European markets (with the exception of the more protected Italian market) differentiated consumer demand had a similar effect, pushing the import share of new registrations to above one-third of the market. The British situation was exacerbated, however, by the expansion of "tied imports" by Ford and GM-Vauxhall, i.e. the sourcing of increasing numbers of apparently British-made models from their European factories.

The implication of these developments, however, was that by the late 1970s BL/Austin-Rover was increasingly confined to loyal individual purchasers in its domestic market. The vulnerability of its position was such that major failures of key models in the company car and supermini segments could have a devastating effect.

In the early 1970s this was precisely what happened. The Marina was launched as the "Cortina-killer" and the Allegro to replace the aging 1100 and to combat the rising tide of continental superminis-- both were disasters. Both were mediocre stylistic and engineering compromises aimed at cheapness rather than quality and, in the case of the Marina, reflecting BLMC's lack of experience in rear-wheel drive, medium sized cars as opposed to their customary small, front-wheel drive packages [6]. The Marina never reached half the level of Cortina sales and the Allegro took only 4% of the market where its predecessor the 1100 had held 14%. The new generation of European and Japanese hatchback superminis (VW Golf, Datsun Cherry, etc.) flooded in instead.

Volkswagen had faced many similar problems to BL in the early 1970s, in particular overdependence on the outdated Beetle [16]. But unlike BL they had retained modern factories and excellent technical capabilities and also an excellent European distribution network, and in consequence they were able to save themselves through the introduction of a range of sophisticated new models. But for BL this period of model-failure initiated a spiral of decline. Profit levels, which were already low, collapsed and they were unable to generate the profits necessary to replace their models or modernize facilities. This was made even worse by their policy of continuing to distribute profits to shareholders in order to maintain confidence and to prevent the company becoming vulnerable to takeovers. Between 1968 and 1974, when the company effectively went bankrupt and was nationalized, they distributed £70m out of £74m net profits to their shareholders [14].

The period since nationalization can be divided into two phases. The first lasted from 1975 to 1979 and centred around the attempted implementation of the Ryder Plan, intended to revive the company as a world class mass producer by remedying the historical underinvestment and expanding output and market share. The second phase, under the managements of Michael Edwardes and Graham Day, which has lasted from 1979 to the present, signalled an abandonment of this project and a turn to shrinking the company to a viable low-volume producer with a compact model line which could eventually be de-nationalized.

Ryder planned an ambitious investment program of £2,000 million, but there is now a general consensus among critics that the investment program was not allied to any clear strategic plan as to how to dramatically increase sales and output. His market share projections were wildly overoptimistic. For example, they assumed that BL would increase its share of the European market from 1.7% to 4% and increase its share of the UK market to 33% within ten years. In fact

the European share actually fell to below 1% in that period while the UK share continued to fall from 40% in 1968 and 30% in 1975 to 19% in 1981 and 15% in 1987. The principal problem in the late 1970s was that the company lacked the capacity to design and develop new models. The first new model after nationalization--the Metro-- did not appear until 1979, after prolonged disputes and redefinitions of its characteristics at top management level [17]. In the meantime sales continued to fall-- by 50% between 1974 and 1981 [32].

The principal explanations of the disasters of the 1970s clearly lie in inadequate models unable to hold their own in highly competitive market sectors. Falling sales volumes led to rapidly rising costs as core plants fell to below 60% capacity utilization and the company could not generate profits for reinvestment and renewal of the model range. In the meantime, government investments were largely swallowed by servicing debts and by plant closure, and redundancy programs and managerial disorganization following the BLMC and BL mergers vitiated against the most constructive use of available resources.

But it is important to qualify this picture in the light of two broader factors. In the first place in the early 1980s, with a modern range of excellent products and a more focused strategy, BL/Austin-Rover has done worse in terms of market share than it did with poor models and confused management in the late 1970s. In the second place, and apparently paradoxically, throughout the period of their most rapid decline until the mid 1980s, while market share was falling rapidly, their share of UK output was holding up remarkably well. In 1977 BL still held 50% of UK production. In other words, none of BL's UK rivals, notably the UK subsidiaries of Ford and GM, were any better able to resist import penetration. The "success" of the American multinationals was largely due to their ability to source the British market with "tied imports" from European subsidiaries [26].

This suggests that in addition to factors internal to the company a fuller explanation has to take account of certain other inescapable features of the competitive markets that UK producers have faced, notably the segmented nature of the market and the role of exports. Competition in the major European markets in the 1980s has focused on the provision of numerous, varied models to cover increasingly diverse consumer markets. As a result nearly all major European producers have been losing domestic market share. Fiat, which retains 60% of the Italian market, is a somewhat special case, but even the otherwise powerful Volkswagen has fallen to a 25% share of the German market. But all other major European producers, apart from BL/Austin-Rover, have recouped this loss by exporting on a relatively small scale into each of the other major national markets and typically taking a 3-5% market share. By the mid 1980s, however, BL/AR had come to depend on its home market for 75% of its sales (the highest of any European major) but held only a 15-18% share of that market (the lowest of any European major). The share of Austin-Rover exports tumbled

from 40% of output in 1978 to 20% in 1983. These falling export levels accounted for no less than 62% of overall decline in output.

Somewhat surprisingly, this speedy decline coincided with the renewed competitiveness of AR's model range. But the explanation of this apparent paradox is clear. First, the massive overvaluation of sterling in 1979-83 had a very severe effect and specifically caused AR to withdraw from attempting to sell in the US market. Second, as part of their retrenchment program in the 1970s BL had abandoned its European subsidiaries (in Italy and Belgium) which had conferred "domestic producer" status on it in these regional markets and had also discontinued most of its European distribution network, again as a cost-cutting measure.

This mixture of exogenous shocks and managerial miscalculations undercut exporting, and this became especially serious when new patterns of market segmentation in the home market emerged to further constrain domestic sales in the early 1980s. In particular, GM's strategic offensive to win market share in the British market, which was carried out despite a persistent lack of profits, established them as a first-rank, full-line producer in the British market and introduced a new pattern of three-way, head-to-head competition between three "domestic" producers (Ford, GM, AR) in all of the key market segments.

In the 1970s leading models like the Cortina, Escort, or Austin 1100 had been able to take 10-15% shares of the overall market. But with three-way competition it has become hard for <u>any</u> model to take more than the 8% share which the Escort, as the biggest-selling model in Britain, held in 1987. Hence it would be extremely optimistic for AR to hope to gain more than a 5-6% share for each model in its compact three-model range and consequently to achieve more than a modest 15-20% overall market share [30, pp. 67-97]. To reverse this would require a major breakthrough in market share and historically such shifts have nearly always been linked to distinctive new product attributes (GM's European turnaround of the 1980s, for example, was based on its very modern front-wheel drive power train). AR's models are comparable with their competitors but possess no distinctive product advantage. Moreover, the company still has to contend with its old reputation for poor quality and reliability that persists even after the performance gap has been substantially eroded.

The Workplace

This interpretation of decline stresses the role of products, market structure, and marketing and distribution. The crisis was <u>not</u> primarily the result of industrial relations problems. In fact, it was management's misreading of their problems and their systematic privileging of the labor question over other issues that resulted in serious errors and distortions of performance and in significant part disabled them from confronting the real problems of the industry.

In the post-War boom until 1968, as we have seen, BMC/BLMC was focused on the volume production of small cars and beset by the problems of low and falling unit profits and the continuing requirements of the market for a diverse range of models. The system of production that they used was well-adapted to their short-run needs of (a) short-run flexibility for model change and cyclical fluctuations and (b) limited fixed capital investment. They made a wide variety of models in medium volumes using labor intensive methods and minimizing fixed investment. These methods enabled them to expand and contract output quickly with the fluctuations arising from model changes and cyclical shifts in the market [7].

The most notable feature was BMC's low levels of capital expenditure. Between 1954 and 1962, for example, they introduced five new models, including five new body shells and two new powertrains, and doubled their production capacity, yet spent only £78 million on capital investment, development costs, and tooling. They did not build any new factories but concentrated on reorganizing and re-equipping the existing ones, incrementally adding new machines or lines alongside the old rather than scrapping and building new ones. The sole exception was the installation of engine transfer machines at Longbridge in the mid 1950s. Hence manual labor remained relatively extensive and laborious: when the Mini lines were set up in 1959, no operation had a cycle time of less than 144 seconds in contrast to the 40-60 second cycle times typical of US factories of the time. Automated equipment in welding, painting, and test sections came only slowly, usually only where it could be added on relatively easily to existing plant layouts [31, pp. 220-4].

Thus, while output trebled, output per man year stayed roughly the same at 7-9 cars. The government inquiry at the time of nationalization in 1974-5 revealed the extent of this historical underinvestment. In 1972 BLMC fixed assets per man amounted to only £920 compared with £2,657 at Ford, Dagenham, and £3,608 at Ford, Halewood. In Europe the comparable figures were £3,632 for VW and £3,160 for Fiat, and in the US £4,346 for GM and £5,602 for Ford [12, Table 14].

Thus the production system, while undoubtedly highly mechanized, was not extensively automated. Relatively low pay and tight management control of incentives made it less attractive to invest in capital intensive methods and encouraged technical stagnation in the industry.[1] This had two important consequences. In contrast to the highly automated systems used by VW for mass

[1]This picture contrasts with that recently put forward by Lewchuk [13]. He argues that in the inter-war period, "British management's lack of control over effort norms discouraged investment in new equipment." As I have shown elsewhere it was exactly the opposite: the strength of managerial control encouraged the adoption and persistence of labour intensive methods [23, 24]. Lewchuk goes on to argue that in the 1940s and 1950s management did invest extensively in American technology and that this heightened the problems arising from their lack of control over the production process. In fact, however, the old pattern of strong management authority, low levels of capital investment, and labour intensive efforts driven by tight piecework incentives persisted into the 1960s.

production of the Beetle, this sort of labor-intensive system did not yield important economies of scale because unit costs per car did not fall rapidly as volumes rose. Second, in the absence of extensive machine pacing it considerably increased the requirements for managing complex production processes at the shopfloor level. In particular, as we shall see, it threw much of the burden of managing the production process on to the payments system.

In the interwar years unions were almost entirely driven out of the auto factories and management achieved high levels of arbitrary authority in the workplace [23]. Except at Ford, which retained its US-style day-wage system, they used this power to establish payment-by-results systems which became their primary mechanism for controlling the organization of work. Tight control over the setting of piece-rates enabled them to operate a highly effective incentive system and to offer high wages for intense and continuous effort. There was a direct incentive for workers to maintain continuous production because their earnings directly depended on it.

Since unions remained weak in the core auto factories until the late 1950s [24], the bonus effectively substituted for direct supervision of work performance. Individual workers and work gangs would chase up stocks and supplies to ensure continuous work, improvise better ways of performing tasks to increase bonus earnings, devise improvised tools to facilitate tasks at their work station, and frequently try to reduce manning levels on their lines so that fewer workers could share the pool of bonus earnings. On the negative side, however, the pursuit of bonuses might result in poor quality work as workers took short-cuts to increase output which might, for example, lead to greater wear and tear on machines or result in quality problems at later stages of the manufacturing process, or neglect preventive maintenance because it might reduce the time available for earning bonus [25, 2, 4].

The emergence of effective shop steward organization in the early 1960s had two rather contradictory effects on this system. On the one hand shop stewards often operated in quasi-managerial roles in order to keep production and earnings running at high levels. Analysis of the daily working notebooks of the plant convenors at the two principal plants of BMC, Longbridge and Cowley, during the 1960s show stewards protesting about the poor quality of cars produced resulting from poor management organization, and demanding improved preventive maintenance and better stock control [11; 29, p. 172; 13, pp. 209-10]. One government inquiry into the Cowley plant in the late 1960s found that more working time was being lost to waiting due to shortage of supplies and machine breakdowns than to labor disputes and stoppages [19].

On the other hand, the stewards also began to engage more and more effectively in opportunistic shopfloor wage bargaining. As a result, during the 1960s incentive pay was coming to have an increasingly tenuous relationship to effort. The frequency and effectiveness of sectional bargaining, rather than productivity, more and more determined earnings. Management's capability to

control and direct the piecework system and to orchestrate the factory through it was eroded. As I have shown elsewhere, however, the loss of managerial control on the shopfloor was not the same thing as the existence of union control. The results of constant, fragmented sectional bargaining were often unsatisfactory to both management and labor. The spread of differential earnings within plants became anomalous and chaotic. Jobs which were easy to time-study would often have tight times and low earnings while others, which required no greater effort, might produce high earnings simply because stewards there could drive better bargains on jobs which were intrinsically harder to measure. Indeed, the closure and reopening of inter-job differentials became one of the characteristic tactics in the shop stewards' repertoire [25].

In general this sort of localized shopfloor bargaining gave the unions little scope for the pursuit of broader or more systematic bargaining goals. The wide scope and frequency of sectional bargaining resulted in a regime of high friction between line management, workers, and stewards. Each decision could be a dangerous precedent or stepping off point for further bargaining and both sides were liable to give ground unwittingly since the implications of particular decisions often were not immediately clear. Bargaining often centred around local anomalies, and the pursuit of relatively obscure sectional grievances could easily sap collective strength. By the late 1960s this proliferation of bargaining had resulted in an endemic pattern of short stoppages or go-slows.

In many senses management had lost effective control of their piecework systems by the mid to late 1960s and felt that the traditional wage system no longer served its purpose. But it is important to make three qualifications to this picture in assessing the role of the rise of shopfloor bargaining in the performance problems of the industry. First, as I have argued elsewhere, there is no clear evidence that the increase in shopfloor bargaining resulted in any sharp rise in earnings levels or labor costs [25]. Second, the prevalence of short, local strikes was probably less damaging than has often been argued. Major studies by Turner et al. in the 1960s [27] and by Durcan et al. [8] and Marsden et al. [15, ch. 6] in the 1980s all suggest that small, dispersed stoppages had little impact on overall production levels, while larger stoppages tended to be associated with recessions. Until 1968 strikes were not a major problem for output. Given the product market position which we described earlier, uninterrupted production would often have left the company simply with larger stocks of unsalable cars. Third, the bargaining horizons of the steward organizations remained very limited and focused almost exclusively on wages issues. In comparative perspective, stewards continued to respect very large areas of unilateral management control and "the right to manage," especially over issues such as hire and fire, plant closures and information disclosure, labor mobility, and the use of overtime and short-time to cover fluctuations in production. Moreover, both Streeck and Willman have recently demonstrated that shopfloor

bargaining posed no major constraints for the introduction of automation or new technology [21; 34, Chs. 7 and 8].

Nevertheless, by the late 1960s BL management had come to identify the continued existence of the piecework system as the principal cause of their production problems. Moreover, both stewards and management believed that its replacement by a system of Measured Day Work (MDW) would destroy the bargaining power of the shopfloor. They envisaged plant and group negotiations becoming centralized in the hands of management and union officials, thus curbing sectional activities. But they failed to realize the implications that the new system would have both in reshaping the concerns of shopfloor negotiations and throwing into relief a new set of management problems in the organization of production.

As MDW was introduced on a plant by plant basis stewards continued to find plenty of bargaining opportunities but, since earnings levels were now fixed, shifted their focus from an almost exclusive attention to pay and the maximization of earnings to the minimization of effort, better job conditions, and security of earnings. The intensity of effort and the pacing role of piecework fell away. Stewards ceased to attempt to correct production problems as they occurred or chase up materials. Extra labor was now welcomed to the sections to ease effort rather than shunned because it reduced earnings. Where workers had formerly improvised to keep aged machines running they now let them break down and waited for the repairmen to come. As one commentator has put it, "effort drift" replaced "wage drift" [22].

MDW was hastily established with little method or time study and no thorough reform of supervisory systems. It put the responsibility for maintaining the continuity and quality of production and the flow of materials squarely on to management's shoulders: but management was not equipped for these new tasks. It was to take the company nearly ten years to integrate their new payment system with restructured work organization and managerial systems and to follow through the extensive implications that the new system had for stock and quality control, buying and production programming, and production engineering and job design. Until the early 1980s there was no available breakdown of factory costs on a model by model basis and shopfloor management remained rudimentary.

When Michael Edwardes arrived as Managing Director in 1978, ten years after the beginning of the implementation of MDW, he found production organization at factory level "a shambles" [10, p. 52]. Edwardes initiated a program of systematic reforms in management practices. In particular, over the course of several years he reformed works accountancy practice to clarify the allocation of profits and losses across products [10, p. 165] as well as major reforms in storage, scheduling, and co-ordination with suppliers. In addition he conducted a vigorous managerial purge of the "old guard" from BL.

These changes were of considerable significance, yet they played a relatively small part in how Edwardes' saw his overall strategy. For Edwardes

the key strategic need was to solve what he called "the labour problem." His "recovery plan" was based on four elements. A massive program of plant closures and redundancies would cut the company back to a viable core operation. At the same time a range of new, modern cars would spearhead "product-led recovery." This new generation of cars would be manufactured by the most modern automation systems and the production system would be regenerated by a thoroughgoing reform of working practices [35, pp. 17-43].

But of all these elements, Edwardes most clearly emphasized the reform of work practices, arguing that they were a prerequisite for the efficient use of new technology and the production of competitive models. The "labour question" was seen as being so important that it was worth taking the company to the brink-- and possibly over it-- in order to resolve it. During 1980-1 the company used the threat of the closure of the company as their principal weapon and ultimately imposed the new practices unilaterally in the Blue Newspaper of April 1980.

This document swept away the old practices of "mutuality" and established that henceforth the organization of work would be the sole prerogative of management, notably in respect of changes in performance standards, manning levels, relief times, and the deployment of labor. The previous 500 hourly-paid job classifications were swept away and replaced with five company-wide grades and non-negotiable, plant-wide incentive schemes. In a period of three years shop steward authority on the shopfloor was effectively destroyed. The number of full-time shop stewards at BL was cut from 20 to 6 and those that remained had their facilities and mobility restricted and were strictly confined to procedural roles in dealing with job grievances. By 1983 the weakening of shop stewards had gone so far that at Cowley over half of the shop steward constituencies had no representative. Indeed, Paul Willman has suggested that the company had probably gone so far that it was in danger of breaking down the structures of "orderly" trade unionism [33]. Nevertheless, despite these problems, by the mid 1980s, the company was more strike free than it had been for thirty years. In the late 1970s they had lost an average of 5% of working hours per year to strikes but in 1980-5 they lost only 1.5%.

Edwardes claimed that the reform of working practices and the re-establishment of management's right to manage was one of his principal achievements and the foundation for what he called the "productivity miracle" at BL-- a claim that was to achieve almost icon status in subsequent pronouncements by the Thatcher government. But, as Williams et al. have demonstrated, the "productivity miracle" is a myth [30, pp. 14-34]. Improvements in output per man had almost nothing to do with changes in working practices. Essentially, productivity had plunged between 1972 and 1980 because output collapsed while levels of employment fell more slowly. In 1980-83 Edwardes slashed the workforce from 80,000 to 41,000 and thus brought the workforce into line with decreased output levels. The main sources of these cuts in labor were not changes in manning levels but the closure of plants and labor-displacing

investments in certain key facilities such as highly automated body shops. Apart from mass sackings, the incremental gains from reformed work practices were insignificant. Even so, however, the closures failed to resolve the overcapacity problem. In the mid 1980s AR was still producing only 450,000 cars per year in facilities designed to produce 750,000 cars. In other words, while AR focused on whittling away its variable costs, its fixed costs continued to soar. The new sophisticated capital investment simply remained unused.

Management attention was almost excessively focused on one relatively minor aspect of its overall problems. No similar efforts were directed towards improving supplier relationships, worker training, quality control, or renovation of marketing and distribution networks. Moreover, even in terms of simply costs and productivity the attention to managerial rights was probably dysfunctional. In particular, Willman and Winch have shown that an obsessive concern with displacing direct labor from the production process was responsible for serious errors in the configuration of automation for the Metro. The Metro facility was "the line manager's revenge," reducing direct labor to a minimum, but this was only possible, they argue, by opting for extremely rigid multi-weld systems dedicated to the production of a single model instead of using other, more flexible systems that were available. The result was that the company saddled itself with an enormous fixed cost burden when, as proved to be the case, the Metro lines could only be used at 60% capacity [35, pp. 129-90; 20].

Moreover, the strategy of confrontation, discipline, and managerial unilateralism fits uncomfortably with the emergent needs of high-quality manufacturing processes in the 1980s. AR's attempts to involve employees in concern for product quality or co-operative working practices fitted ill with their coercive managerial style. Moreover, automation could not dispense with the need for continued responsible and attentive work on the part of the workforce.

Why did the Edwardes management privilege the labor question in this way? Certainly many groups within management, particularly at line management level, believed that the endless shopfloor friction which had taken up so much of their time and energy in the past was a fundamental cause of low productivity and poor company performance. Instead of taking a broader view of strategic problems, higher management endorsed this view for a mixture of political and strategic reasons. First, from his autobiography, it is quite clear that Edwardes believed that the plants were being kept in "a continuing state of master-minded anarchy," primarily through the activity of Communist led militants [10, p. 110]. Moreover, this nostrum was shared by both government and the City. The Callaghan Labour government in the late 1970s had started the practice of making continued government support for the company dependent on industrial relations performance, and the Thatcher government made it clear that unless the company demonstrated its ability to control labor it could hope for no further subsidies. Whatever their rationale in terms of the efficiency of production, aggressive policies towards labor were a political *sine qua non* for survival. In

other words, both managerial ideologies and short-term political necessities pushed the labor question to the fore and fostered its prioritization in ways that had little bearing on the ultimate ability of the company to remedy its decline.

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