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Mark Anstey

Modernisation and Migration: The Transformation of Labour Relations in the Global Automobile Industry

Abstract

The need to develop and sustain competitive advantage drives businesses to constant modernisation strategies. These have a powerful influence on the shaping of labour relations systems not only in enterprises and industries, but their nations of origin. New technology and systems of work organisation oblige change in labour relations arrangements. Imperatives for growth and profitability evoke searches for new markets, and the migration of production pushing businesses into political, economic and cultural realities quite different to those of their nations of origin. In this article a brief history of the automobile manufacturing industry is presented to illustrate how forces for modernisation, market factors and migratory production strategies shape, and are shaped, by labour relations in a particular industry across nations through time. The rise of China as an automobile producing nation is likely to have profound implications for labour relations systems everywhere.

1. Introduction

As the product of interactive strategic choices made by business, labour and governments, labour relations systems assume many forms across nations (Anstey 1997; Kochan et al., 1986; Poole 1986). For the most part studies have concentrated on the development of systems within nations or, in the case of comparative analyses, to evaluate commonalities, differences and larger trends amongst national systems. However the manner in which systems are shaped is changing. Where governments and labour, for the most part, are national entities, capital is increasingly international and globally mobile. Foreign direct investment quadrupled between 1993 and 1999 to $827bn, and the number of transnational companies rose from 7000 in 1970 to 60000 in 2000 with huge economic influence, accounting for a third of the world's private sector output. In short owners of capital increasingly interact with *many* governments and workforces across nations, shaping and being shaped by politics and cultures far beyond those of their nations of origin.

Labour relations systems in western economies have taken the form of 'national bargains' struck between governments, owners of capital and trade

unions. The social 'glue' was their recognition of interdependence. Each realised the best way to secure its own interests was through accommodation of the interests of others, and collective bargaining became the vehicle through which this was achieved. Despite the emphasis on collective bargaining in labour relations studies, it has been limited to a few developed market economies, and absent or severely constrained in communist or state corporatist arrangements of many developing nations where different realities shaped labour relations systems (Anstey 1997; Shadur 1994; Henley 1989; Siddique 1989; Kochan et al., 1986; Poole 1986; Bean 1985; Goldthorpe 1984; Wylczynski 1983). Collective bargaining then is but one option for structuring labour relations (Harrod 1988). Despite its values driven nature (it is the democratic choice), it is really the product of power realities in economies characterised by strong private sectors and powerful labour movements. These conditions are not evident in most developing nations where often the state is the biggest employer and the most powerful actor in the labour relations arena (Anstey 2004; Shadur 1994; Henley 1989; Siddique 1989). The centrality of the state however is nuanced by the choices of Transnational Corporations (TNCs).

Businesses are in a constant search for competitive advantage to sustain growth and profits. New technology, work methods, and systems of organisational design along with international mobility have reduced their dependence on nationally based workforces (Friedman 2005). As national businesses have mutated into trans-nationals they have the choice of many partners across nations, and indeed develop and sustain multiple partnerships as they seek to protect and develop their interests. This reality has profound implications for labour relations systems in both developed and developing economies.

Many new democracies are economically fragile. TNC's have significant leverage in a world in which half the world's population lives on less than $2 a day and about 190m are unemployed (ILO 2005) and there is competition amongst nations to attract investors for growth, job creation and tax revenue purposes. Hertz (2001) argues that TNCs erode democracies with governments paying greater attention to the interests of TNCs than those who elected them, investor interests superseding social concerns in a profit driven social order. This might apply to small failed states, but can it be applied to China or India whose economic growth and populations offer huge market potential? These are not wilting nations but ones able to increasingly dictate terms to cross national investors. As Stiglitz (2004) points out in his own powerful critique of the institutions governing globalisation, while millions have been marginalised from the global economy (largely in Africa) millions of others have benefited from its opportunities (largely in Asia). Grieder (1997) for instance shows how China used its purchasing leverage to oblige Boeing into transferring technologies and production facilities and jobs from the USA as part of a sales deal.

The purpose of this article is not simply to compare the labour relations systems of selected nations. Instead the analytic focus is on the development of a particular industry – the auto industry – and how it has shaped and been shaped by labour relations systems within and across nations through time. In the first instance it evaluates how labour relations arrangements have changed in the context of new work methods and technology (modernisation). Secondly it analyses the labour relations implications of the increasing migration of production to developing nations, and specifically China. The implications for labour relations arrangements in both traditional auto manufacturing nations and developing countries are evaluated.

2. The Automobile Manufacturing Industry

Peter Drucker (1946) called auto manufacturing the 'industry of industries'; Womack and his colleagues (1990) identified the motor car as the 'machine that changed the world'. The significance of the industry lies in its own immense size but also its linkages with many other industries (Dicken 2003). Automobiles account for almost half the world's oil consumption and rubber output each year, 25 percent of its glass and 15 percent of its steel. The industry contributes an estimated 10 percent of GDP in developed nations (Carson 2004) and accounts for 20 million jobs globally – over three million directly, and indirectly ten million in the materials and components supply chain, and seven million in sales and servicing (Dicken 2003). Driven by relentless competition auto manufacturers have been innovators in mass, lean and networked production systems, in the design of modern management systems, and pioneered the formation and management of transnational operations. For all these reasons the industry has been on the cutting edge in the development of labour relations systems internationally. For over a century car manufacturers have modernised, mutated and migrated to remain competitive – with significant implications for employment across nations; for the nature and location of work; for labour movements; for the shape of employment contracts and collective bargaining across nations; and for social development.

3. Modernisation: a century of technological and production innovation

In the pre-mass production beginnings of the auto manufacturing industry at the turn of the last century annual volumes were low (1000 or less), and entirely reliant on the capacity and skills of craft workers to take on work. Each vehicle was a unique product. Production was decentralised through small machine shops and coordinated into final assembly by an entrepreneur auto manufacturer. A scarcity of qualified journeymen gave craft workers control over production and pricing of goods. Several hundred auto companies emerged in North America and Western Europe to compete for market share (Womack et

al., 1990). The low volume, high cost / high price craft period however was short-lived.

3.1. The shift from craft to mass production

Two major innovations enabled Ford's mass production system – technology (machine tools capable of working on pre-hardened steel) for the consistent production of standardised interchangeable parts, and the moving assembly line (Womack et al., 1990, p. 27). His designs were simple and easy to assemble, work on and repair, reducing dependence on the fitters who formed the bulk of a car assembler's workforce. For example he replaced a system of bolting together four individually cast cylinders with a single engine block. Even before the moving assembly line Ford reduced an assembler's task cycle from 514 minutes in 1908 to 2,3 minutes, through delivery of parts to workers at workstations so they did not have to fetch them; and through interchangeability of parts allowing them to be simply fitted rather than filed into shape. The moving assembly line in 1913 further reduced task cycle times to 1,19 minutes. Assembly time for a complete vehicle dropped from 750 to 93 minutes – an 88 percent reduction in effort. High volumes facilitated new economies of scale, dramatically reducing unit costs of production. A capacity to produce two million vehicles per year by the 1920s allowed Ford to cut prices by two thirds even as he doubled workers' wages to $5 a day (Bluestone and Bluestone 1992; Womack et al., 1990). Ford's vision was that mass production – high volumes in standardised form – would reduce the cost of products, generate jobs, and enable pricing of products within reach of the masses for a general economic upliftment.

To control supply costs, quality and delivery Ford bought suppliers in a process of vertical integration (Reich 1992; Womack et al., 1990). Single function replaced multi-purpose machines to reduce set-up times and skills and training required for their operation. The focus was on simplification of the production process and uninterrupted workflow. All nine models of the Model T rode on the same chassis. Inspections were minimal in a producer-push manufacturing environment in which the consumer bought with little concern for finishes or variation. Ford once commented the customer could have any colour Model T desired, 'provided it was black'.

Alfred Sloan of General Motors (GM) designed management systems for huge corporations with multiple facilities, in the form of hierarchical bureaucracies in tightly managed profit centres based on financial performance. He limited model ranges to cover different market needs, developed systems of stable funding with banks and introduced marketing professionals to complement the contribution of the engineers (Womack et al., 1990).

3.2. Labour relations in the mass production environment

The impact of mass production systems on the nature of work was profound. Piore and Sabel (1984) suggest that the worker who once used machinery as a tool now became controlled by it, and was defined by rather than defining the product (p. 23). Womack et al., (1990) observe pithily that the inter-changeable part was accompanied by the 'inter-changeable worker'. Where a craft worker had performed all the tasks of fetching parts, obtaining tools, repair, fitting, assembly and checking before sending the complete vehicle to shipping, labour was now divided to a single task. Faults were identified at the end of the assembly process where a team of skilled 're-workers' did the necessary adjustments. Work was dictated by the pace of the line. Indirect workers in the form of checkers, repairmen, and re-workers replaced the skilled assemblers. Engineers – product, manufacturing, industrial, electrical and others – assumed control of the production process, becoming the first 'knowledge' workers who seldom touched a car but designed it and its manufacture. Their job was to design products and processes to enable minimally trained workers to perform limited tasks on the line. Piore and Sabel (1984) conclude that in this way the new industrial worker was 'de-skilled' in a process in which tasks were sub-divided to their smallest component activities, sequenced, and allocated to workers specialised in small aspects of manufacture. Efficiencies were raised through a focus on narrow task ranges in a 'dedicated' production process.

The new mass production factories created thousands of jobs contributing to rapid urbanisation. The proportion of manufacturing workers in the USA grew from eight percent to 33 percent between 1870 and 1910; where only 20 percent lived in cities in 1870, by 1910 50 percent did so. Sixty percent of the huge number of immigrants who entered the USA at the time became manufacturing workers. As Reich (1992) notes people began to see their economic well-being as closely tied to the economic success of the nation, which in turn was dependent on the success of the new factories. However the cyclical nature of the industry translated into periodic mass hiring and layoffs with low levels of job security. Working conditions were tough and work repetitive and dispiriting. Rapid industrialisation saw twelve to fourteen hour workdays, six days a week; unremitting repetitive work controlled by the pace of production lines; low wages; poor factory conditions without regulatory controls over health and safety; with rapid urbanisation generating poor housing and sanitary conditions in overcrowded cities. In 1910 workers worked an average of 3000 hours per year (Drucker 1993). Workers now seldom work much more than 1800 hours a year in developed economies.

In response, across industrialising nations workers organised themselves into trade unions, using the strike weapon to mobilise workers and oppose employers. The engineering and automobile industries were central to labour mobilisation (Sisson 1987). Initially unions were met with stiff resistance from employers and governments. In Europe powerful centralised unions arose,

often driven by socialist ideology. Employers which had formed employer organisations in an effort to coordinate business interests in volatile economies – through cartels, price fixing, joint warehousing and bulk buys and other means of managing suppliers and controlling markets – extended these to respond to the union threat. Multi-employer bargaining emerged. In the USA a different dynamic prevailed. Trade unions were disparate, independently minded and more interested in a larger share of the fruits of capitalism than destroying it. The early American Federation of Labor (AFL) could only build a federation along lines of union autonomy. Concurrently employers, prevented from European style collaboration by anti-trust laws, needed alternative mechanisms to smooth markets – mergers and buy-outs, and systems of vertical integration. These gave rise to the 'huge corporation' and a single employer system of collective bargaining preferred (Anstey 2001, Reich 1992, Sisson 1987, Heckscher 1988, Kochan et al., 1986, Dulles and Dubofksy 1984, Estey 1981).

In 1936-1937 the militant Committee of Industrial Organisations (CIO), disillusioned with the AFL, took on GM in Flint, Michigan. Using a 'sit-down strike' they demanded recognition, seniority and job rights to lay the base for the system of 'job unionism' which became core to the US labour dispensation. The mass production system fragmented and deskilled work into limited repetitive task cycles, making workers easily replaceable. The particular form of organisation designed to optimise mass production systems was the hierarchical bureaucracy with a multi-tiered chain of command reflecting devolving levels of responsibility with limited spans of control. To find fit with these systems unions bargained rigidly defined work rules demarcating jobs along task and authority lines and attaching a wage to each job. Seniority (length of service) rather than skills or performance became the central criterion for promotion and job security. As mass production methods saw craft workers lose control over work processes, so industrial unions clawed some back through the power of the collective and strategies of 'job control' unionism. The 'interchangeable worker' was less vulnerable within a system which defined parameters around wages and work rules, and in which the threat of collective action (an injury to one is an injury to all) cautioned employers in their treatment of individuals (Brecher 1997; Heckscher 1988; Dulles and Dubofsky 1984; Estey 1981).

This arrangement underpinned the 'national bargains' bargained formally and informally across developed economies (Anstey 2001; Reich 1992). Although labour relations systems within the USA and countries in Western Europe assumed different forms they were founded on a common set of principles in which employers recognised the legitimacy of trade unions and their right to represent and bargain collectively on behalf of their members over wages and conditions of service, and trade unions accepted the legitimacy of the market system and committed to peace clauses, restricting use of the strike

to periodic rounds of collective bargaining regulated by procedural agreements with clear dispute resolution mechanisms. Conflict was regulated through a system of rules constraining managerial unilateralism but minimising disruption of production lines. In various ways governments assisted in the smoothing of markets and offered security to those who became casualties of periodic organisational restructuring (Anstey 2001; Reich 1992). Usually at the centre of national bargains were national corporations – the identities, location and workforces of auto manufacturers were then clearly nationally defined (Reich 1992). Kochan et al., (1986) termed the arrangements of the time the 'New Deal Industrial Relations System' underpinned in the USA by the passage of the National Labor Relations Act (NLRA) in 1935 which entrenched a system of collective bargaining as the means best suited to accommodate the interests of all stakeholders involved in the labour relations system. In the absence of centralised arrangements a system of pattern bargaining emerged to standardise wages, taking them out of the competitive equation in the industry. Ford, GM and Chrysler led the way, 'taking the heat' in turns in multi-year rounds of collective bargaining – once the benchmark had been set in one company, the others followed. Within the system the roles and responsibilities of management and trade unions were sharply defined, with the scope for union representation limited to distributive matters and management carrying rights and responsibilities as regards strategic planning. Unions curbed managerial unilateralism through 'job control' systems which limited managerial capacity to use workers outside tightly defined job categories with related wage levels, or to promote or layoff workers using criteria other than seniority (length of service). In this context US trade unions strengthened to a peak density of 35 percent in the early 1950s with 70 percent of manufacturing workers organised. Wages rose by an average of three percent per annum right up to 1973 as the economy grew and standards of living improved uninterrupted for decades. Collective bargaining was stabilised through pattern bargaining systems in which the automobile industry led the way. It seemed the magic formula for general social upliftment had been discovered.

Another group of auto giants – VW, BMW and Daimler Benz – took off in Germany where employees are offered far greater influence over strategic and operational aspects of enterprises through a system of co-determination and consultation than enjoyed by their US counterparts. However Germany's highly institutionalised system of dual representation, largely restricts collective bargaining and the right to strike to trade unions, and essentially to distributive matters (wages and conditions of employment). Unlike in the USA, it generally occurs at a regional sectoral level rather than the level of the firm (VWAG is an exception with an enterprise collective bargaining agreement). Through the Co-determination Acts (1951 and 1976) and Works Constitution Acts (1952 and 1972) German workers enjoy considerable advantage over their US counterparts in their access to information and influence over enterprise

matters from strategic to shop-floor matters. Employee representation on Supervisory Boards is significant but never outweighs the voting power of shareholders, and is limited to matters of strategy rather than operational control. In-company works councils complement board level participation and enjoy extensive rights of co-determination (empowering them to block managerial proposals, make proposals of their own, and refer disagreements to binding arbitration), and participation (rights to advance information and managerial motivations for planning and consultation with rights of referral to non-binding arbitration on managerial decision-making and binding arbitration on social consequences of such decisions) on defined matters. In these areas employees can influence and slow shareholder and managerial decisions in a manner not open to US workers, without removing final decision-making authority – but the use of the strike weapon is prohibited at the level of enterprise relations, and like the US system is restricted essentially to distributive matters (Anstey 1997; Weiss 1989).

Although the giant car producing countries, Germany and the USA, developed quite different labour relations dispensations reflecting diverse histories, cultures and moments of compromise then, both reflect tight restrictions on the use of disruptive industrial action. The Germans developed a more extensive system of employee participation than the Americans but both systems preserved extensive rights of managerial prerogative, both reflected deeply institutionalised systems of work rules and procedures in conformance with the mass production era, and both were shaken by new Japanese lean production methods.

4. The 'Toyota Production System': the shift from mass to lean production

By 1989 American dominance of the global automobile industry was under threat. Japanese car manufacturers had expanded their share of world production from one percent in 1955 to 28 percent, and driven US producers' share of their domestic market from 98 percent to under 70 percent (Dicken 2003; Womack et al., 1990). GM's share of the US market fell from 52 percent in 1960 to 35 percent in 1992. Its US vehicle sales dropped from 5,4 million in 1978 to 2,9 million in 1992, and employment from 612,000 to 368,000. In 1991 GM recorded a corporate loss of $7,1 billion in the USA (Greenwald 1992). European producers also felt the bite of Japanese competition during the early 1990s, with drops in demand and the elimination of hundreds of thousands of jobs. No Asian firms ranked in the top 15 producers globally in 1960, but by 2000 six companies had achieved this – Toyota, Honda, Nissan, Mitsubishi, and Mazda of Japan, along with South Korea's Hyundai (Dicken 2003).

To compete with US plants in which about 20 percent of cost lay in rework Toyota developed a 'lean' production process, based on a zero defect

philosophy. The essential elements of the Toyota Production System were the reduction of costs through quality, quantity controls and 'humanisation' (Monden 1983). Quantity control facilitates rapid adjustment to fluctuations in demand in terms of quantity and supply through eliminating inventories, buffers, stores and warehouses and by replacing central planning with control at the point of production. Methods include the kanban system, production smoothing, shortened set-up times and standardisation. Quality control eliminates costs associated with rework and waste. Methods include total quality management systems, 5S housekeeping, andon systems, Statistical Process Control (SPC), automation. Humanisation implies respect for humanity and includes efforts to motivate employees, tap their creativity, and raise morale. Methods include use of teams, training in problem-solving skills, quality and technical skills, flexible use of people through multi-skilling, job rotation, quality circles and suggestion schemes. In addition the system also gave rise to a flattening of organisational authority and grading structures as employees assumed greater control over and accountability for their work environments. As producers fought to achieve competitive edge they have supplemented lean production methods with outsourcing, use of new technology, customisation and use of e-facilities to eliminate costs and improve efficiencies in delivery. The Japanese then shifted competitive advantage to product development, Toyota and Honda bringing out new models in 42 months against the 65 months of US and European producers. Despite suggestions that there may be 'limits to lean' with Japan suffering from increased traffic due to JIT deliveries, a shortage of blue collar workers, too many costly product variations, stressed suppliers, and shortages of monies for new product development (Cusunamo 1994), its systems have been adopted by all major modern producers.

4.1. Labour relations in Japan's lean production system

The Japanese labour relations system took quite different form to those of the USA (despite its post-World War Two influence) and Western Europe, and supported lean production systems. Interestingly two Americans, Deming and Juran are credited with developing lean production in Japan after US producers ignored their ideas. Trade unions organise at the level of the enterprise. The number of unions rose from 29144 with 5,7m members in 1950 (46 percent density) to 72202 with 12,3m members (25 percent density) in 1990 (Japan Institute for Labour Policy and Training 2004). While this suggests a dispersion of union energies, the system is in fact a tightly coordinated one. Unions affiliate to a major central - Rengo. Collective bargaining occurs through a very ordered process expressed through an annual *Shunto* (Spring Wage Offensive) each year. After meeting with the government and the central employer body (Nikkerein) to discuss the economy, Rengo unions outline their demands each December, with an understanding that these will reflect needs and realities of the national economy. In January employers coordinate their stances; in

February unions confirm their demands; in April settlements are reached in iron and steel, shipping, electrical and automobile industries; in May deals are struck in textiles, food and petroleum; in June settlements are achieved in small and medium-sized enterprises; in the second half of the year wage deals are struck for the public sector. Centralised bargaining occurs in the textiles and transport sectors but is conducted at enterprise level in the remainder of the private sector. In this way wage bargaining is nationally coordinated but remains optimally responsive to the realities of individual firms (Japanese Institute of Labour 1996; Nakamura 1989). At the level of the firm the central features of the system are wide job descriptions, flexible use of workers, a lack of rigid work rules, bonus systems and long-term merit rating systems for managers and workers alike. Unlike the power-driven representative systems of influence preferred by Western workers, Japanese workers channel their participative energies through direct forms of participation in quality circles to improve quality and efficiencies in work processes under the leadership of supervisors (Imai 1991; Dale and Boaden 1990). These do not change power relations in traditional, hierarchically structured firms (Lawler 1989). By 1991 there were at least 170,000 quality circles involving over three million workers in Japanese industry, using kaizen techniques in their endeavours to lower production costs and raise productivity and quality as part of the lean production system. Employee suggestion schemes in Japan were garnering an average of 19 suggestions per employee, up from about five in the 1950s (Imai 1991). A cornerstone of Japanese stability is the 'lifetime employment system' in which a limited number of new graduates are hired each year for what is intended to be a full career within the company to retirement. The firm continuously trains and develops such employees, benefiting from their long-term experience and intimate knowledge and understanding of the firm. About 20 percent of employees are hired on this basis. This core of highly trained and committed employees provides the firm the necessary stability and flexibility to manage change through time. In addition Japanese workers show a lower propensity to strike action than many Western workers (Japan Institute for Labour Policy and Training 2004).

4.2. The search for competitive alternatives in the West – labour relations systems lose fit

To remain viable western mass production companies had to implement lean production systems. At the same time there was a search for alternatives. Swedish producers, Saab and Volvo, targeting high price low volume niche markets tried to improve efficiencies through extensive multi-skilling and employee participation in production. Semi-autonomous socio-technical teams operating in cells rather than an assembly line configuration, regulated their own activities as regards pacing, coordination, sequencing, and quality

control of work, and assumed responsibility for their own housekeeping, maintenance and administration.

Very flat structures saw only 16 managers in a plant of 1000 workers at the Uddevala plant. Unlike Japanese quality circles socio-technical teams gave rise to a drastic reduction in the horizontal division of labour; functionally coherent rather than fragmented repetitive jobs; a stationary production process (cells) rather than a moving assembly line; long rather than short task cycles; reductions in vertical division of labour with team systems replacing hierarchies; a transformation of first line management's role from controlling to coordinating, planning and resourcing; strong trade union commitment to the process; higher levels of skill development, job variety and responsibility for individual employees; with the idea that these reduce stress levels amongst workers and permit greater flexibility and quality in production for competitive purposes (Appelbaum and Batt 1994; Berggren 1993). Despite their successes in raising efficiencies (build hours per car reduced from 120 hours to 32 hours in 1992) these plants were closed with a return to more traditional modes of production. A fall in sales was critical to the decision, but in addition there was a wider retreat from Sweden's 'social bargain' by employers and government underway at the time, with unions losing influence at all levels of relations (Kjellberg 1994).

In the USA, GM experimented with a participative approach in its Saturn plant opened in 1982 following extensive consultations with the UAW. Unlike traditional lines Saturn introduced a moving platform system which keeps pace with the line. All training programmes and hiring decisions are participative. In the labour contract management rights clauses are replaced by a consensus driven decision-making process devolved to appropriate levels in the organisation in which either party can block proposals of the other, provided it can offer a better solution using criteria of the Saturn philosophy and mission. Union representatives serve on every level of management from basic work units through business units, through to a Manufacturing Action Council and a Strategic Action Council. Workers have used the system to influence the design of the vehicle, the choice of suppliers, dealer selection, marketing strategies, and even pricing. Despite its successes the Saturn project remains an isolated one and appears from a GM perspective to have limited wider application in an increasingly competitive environment. (Anstey 1997; Bluestone and Bluestone 1992).

In another experiment in 1984 GM reopened the Fremont plant it had closed previously after bitter relations with the UAW, in a joint venture with Toyota. Toyota was responsible for the design, equipping and operation of the plant; GM for marketing and distribution of products. The workforce was drawn from laid off UAW workers and an innovative labour contract was signed. By 1993 NUMMI employed 4200 people who produced 240,000 vehicles a year (at the time seven producers in South Africa employing about 37,500 people built a

total of 298051 vehicles) at a rate of 850 a day over two shifts. Apart from creating jobs the new plant saw a dramatic drop in absenteeism, grievances and disputes with over 90 percent of workers reporting satisfaction in their jobs. Uptime on the line rose from 60 percent in 1982 to over 90 percent in 1993. Participation in the suggestion programme rose from 26 percent in 1982 to 92 percent in 1991. Of the 10,000 suggestions submitted in 1990, 80 percent were implemented. The number of defects per vehicle, and rework requirements fell dramatically. Extensive use is made of teams, job rotation, multi-skilling, problem-solving, kaizen techniques, and andon systems. The 30 job classifications which characterised the old GM system gave way to four (three for artisans and one production workers); workers run their own time and motion studies in what Adler (1993) calls 'democratic Taylorism'; there are far fewer industrial engineers and managers in evidence; and a strong participatory process is in place (Adler 1993; Vasilash 1992; Forbes 1987; Niland 1989). The NUMMI experiment confirmed the superiority of lean production systems.

As the old mass producers transformed into lean manufacturers however labour relations arrangements lost fit. Flattened hierarchies reduced the number of grades in organisations giving rise to fewer job categories and a redistribution of competency requirements and responsibilities. Multi-skilling, flexible work systems and job rotation cut across the tight job categories and rigid work rules negotiated under job unionism; skills based and performance based pay systems undermined seniority (length of service) as the core principle of labour regimes. Outsourcing eroded and fragmented union membership, cornering unions into defensive tactics in successive workforce reductions. Employment contracts were transformed into service contracts with individual incomes often no longer based on hours of work but delivery to tight schedules, and the loss of service benefits. Opponents of lean production diagnosed its negative impact on individuals and unions but failed to offer viable alternatives for competitiveness and employment in the industry (Parker and Slaughter 1993; Robertson et al., 1992; Totsuka 1993).

As companies and unions struggled through the lean production transformation however, more profound changes were already underway. Traditional national automobile firms were mutating into transnational corporations operating across countries, cross-investing and migrating production to nations offering new markets and significantly lower labour costs.

5. Cross investment and the rise of Transnational Corporations

In the USA after the Second World War the health of the three car giants – GM, Ford and Chrysler – became synonymous with national welfare. Under threat in the 1980s, these firms looked not only to modernise production methods but also to spread their risk, and to access and develop new markets. They mutated from national to trans-national companies expanding operations and sourcing

arrangements across nations. Cross investment facilitated access to new markets, new designs and production technologies and more efficient delivery to markets. If they couldn't beat new competitors they would own them.

Table 1 reflects the top ten auto companies in 2003. Many of these companies are not 'stand alones'. Buy-outs and cross investment mean they represent stables of brands, and their production is globally dispersed rather than nationally centred. GM has bought either totally or in part Saab, Opel, Vauxhall, Isuzu, Subaru, Suzuki, Daewoo and Holden. Ford has bought or cross-invested in Mazda, Jaguar, Land Rover, Aston Martin, and Volvo. Volkswagen is cross-invested with Audi, Lamborghini, Rolls Royce and Bentley, SEAT, Skoda and Scania. Daimler has merged with Chrysler but is also cross invested with Mitsubishi and Hyundai. Nissan is cross invested with Renault which also has relations with Samsung and Volvo.

Table 1: Top Ten Auto producers in 2003

	Sales	Units	% global market	
1.	GM	185,5	8,59	15
2.	Toyota	153,1	6,78	11
3.	Ford	164,2	6,54	11
4.	Volkswagen	98,4	5,02	8
5.	Daimler Chrysler	171	4,36	7
6.	PSA/Peugeot Citroen	61,2	3,29	57
7.	Hyundai	38,9	3,05	5
8.	Nissan	65,8	2,97	5
9.	Honda	77,2	2,91	5
10.	Renault	42,4	2,39	4

The new TNC's have assumed massive influence in the global economy. Auto manufacturers rank amongst the world's biggest companies. At the end of 2003 GM was ranked fifth; Ford sixth; Daimler Chrysler seventh; Toyota eighth; Volkswagen fifteenth; and Honda twenty-fifth (*The Economist* 2005). Inter-company deals have included mergers and acquisitions, and a variety of collaborative arrangements and alliances in the form of transnational sourcing arrangements for components. Not all these have been happy marriages as the recent collapse of the GM-Fiat arrangement indicates.

6. Migration: the relocation of automobile manufacturing

Production in the early years of the auto industry was concentrated in the USA but other centres of mass production rapidly emerged in Western Europe between the 1940s and 1960s, and from there became increasingly globally dispersed. Japan's manufacturing took off in the 1970s and 1980s. As costs rose

and markets slowed in developed economies western manufacturers sought new markets in less developed ones.

Increasing investment and production occurred in South Korea, Brazil and Mexico and more recently in India and China, and South Africa. By 2000 GM and Ford were building over 60 percent of their vehicles abroad; Daimler-Chrysler and Honda over 50 percent; Volvo, Nissan and Fiat over a third of their production; and Toyota, Mitsubishi, Renault over a quarter (Dicken 2003). Between 1960 and 2000 US contribution to world automobile production dropped from over 50 percent to 14 percent and Great Britain's from ten percent to 4,5 percent. Spain from almost no production however grew to 5,6 percent in the same period and Japan from 1,3 percent to 20,5 percent. By 2000 the USA was a major importer of vehicles, accounting for 29,4 percent of imports internationally. Countries such as Canada, Mexico, Spain, South Korea, and more recently South Africa, increased their exports of automobiles quite rapidly. Germany and Japan maintained strong producer and exporter profiles (Dicken 2003).

Traditional markets have stalled in terms of growth or profitability. Profit margins declined from about 20 percent in the 1920s to about five percent in 2004, and the industry reflects a declining portion of stock market capitalisation in developed economies (Carson 2004). In 2005 Ford and GM experienced their worst US returns since 1992 as Asian and European producers invaded their profitable SUV markets. GM's employment level in the USA fell to 324,000 (from 612,000 in 1978) with another 25,000 jobs at risk. Ford has closed five plants in the last three years and is steadily cutting production. A major problem is the cost of health benefits negotiated by the UAW for current and past employees in the SUV profit bubble, estimated to add about $2000 to every unit produced. For every current employee GM now has 2,5 pensioners. High labour costs and saturated markets have prompted a major off-shore push for new markets by western producers.

6.1. The road to China

India produced 1,1 m vehicles in 2003 (Naamsa 2004), but the seismic shift has been to China whose auto production topped 5m in 2004, making it the third largest producer in the world behind the USA and Japan (*The Economist* 2005b; Naamsa 2004). It is projected to pass 10m by 2010, overtake Japan's output by 2015 and possibly exceed that of the USA to become the world's largest auto producing country by 2020 (PWC 2004 p. 20). With populations of over a billion and prolonged economic growth India and China offer massive opportunity. China has sustained an annual economic growth rate of ten percent over several decades. Despite rapid increases, car ownership at seven per 1000 people is very low compared to a global average of 120 and a figure of between 400 and 600 for most developed economies. Committed to developing its automobile industry, China has built 34,000 km of highway over the last 25

years and aiming to double this by 2020. It is second only to the USA in the extent of its motorways. (*The Economist* 2005b; *The Economist* 2004). The Chinese government continues to court foreign car-makers who want to invest $15bn to triple output to over seven million by 2008, but is looking for a global champion amongst its 120 small car-makers. Shanghai Automotive (SAIC) has moved to the fore listing shares overseas in 2005 and buying foreign technology (MG-Rover) to augment its partnership arrangements with both VW and GM.

International corporations have several developing concerns. One is intellectual copyright with Chinese companies accused of blatantly copying foreign models, although the new automotive policy threatens to prohibit those who violate such rights from market entry (PWC 2004). Another is that Chinese car-makers plan major capacity and export drives – they do not intend simply producing for domestic markets (*The Economist* 2005b and c; PWC 2004). Then there are rising pressures of competitiveness and profitability. Production dropped in 2004 as the government slowed its hot economy through restrictions on car-loans. A price war developed hitting profitability. In 2003 the Chinese market accounted for two-thirds of its global profits – they fell to half of this in 2004. It is predicted that vehicle prices will be the lowest in the world within five years – perhaps 40 to 50 percent lower than in developed markets. Ruthless low margin competition for domestic sales however may be offset for those using China as a production base for global markets. China's new policy for the automotive industry permits foreign investors more than 50 percent equity in joint ventures built in export processing zones and targeted at offshore markets (PWC 2004).

6.2. Labour relations in China

Over the last two decades China's reforms have been economic rather than political (Chang and Bain 2006). The nation is in an ideological and practical transition away from a command to a mixed economy increasingly influenced by market forces, accommodating private enterprises (domestic and foreign) and public-private partnerships alongside state and collectively owned enterprises. The 'transmission belt' role of unions was formalised in communist China from 1949 (Chang and Bain 2006) and as economic reform has rolled out there has inevitably been a degree of role ambiguity for all social actors, but official policy remains corporatist.

China as a 'single social interest' entity declared itself a 'non-active' member of the ILO in the 1970s. It re-initiated participation in 1983 although its government representative indicated it would not be applying some important ILO conventions and recommendations. Despite ILO censure, and blocking by the International Confederation of Free Trade Unions (ICFTU) following the crack-down on Workers Autonomous Federations calling for compliance with ILO standards in 1989 as part of the wider Democracy Movement, China has

increased its participation in the body. In 1993 it expressed interest in the standards and an attitude of positive cooperation, an approach strengthened in June 2000 by the Chinese labour minister's address to the International Labour Council (Chen 2002). The ILO recognises China's labour law is not devoid of rights and protections but is concerned over the 'controlled framework' within which unions must exercise them, and the lack of the protections for freedom of association key to free collective bargaining. China has ratified 23 of the ILO's 184 conventions and is looking to sign a further five (ILO 2005) but a critical gap remains in the area of freedom of association.

It is not properly protected in either the Trade Union Law (1992 and 2001) or the Labour Law (1994). Although the Trade Union Law defines unions as voluntary mass organisations of the working class open to all 'manual and mental workers', there is only one recognised union federation – the ACFTU. Currently about 590,000 union organisations exist with a membership of over 100 million. Article 4 of the Act ensures conformity with the direction of the ruling Party requiring unions to 'observe and safeguard the Constitution, take it as the fundamental criterion for their activities, take economic development as the central task, uphold the socialist road, the people's democratic dictatorship, leadership by the Communist Party of China, and Marxist-Leninism, Mao Zedong Thought and Deng Xiaoping Theory, persevere in reform and open policy, and conduct their work independently in accordance with the Constitution of trade unions', formulated by the National Congress of Trade Unions in compliance with the Constitution and all laws of the PRC.

In the tradition of single social interest systems unions are established at various levels according to 'principles of democratic centralism' but are subject also to leadership from trade union organisations at higher levels (Article 9). A tiered structure of union organisation and operation is outlined from basic (enterprises employing 25 or more) to national levels (Articles 10-18) with higher-level unions assisting basic ones in signing labour contracts, drafts of which must be submitted to their congresses for approval. Disputes over contractual breaches are referred to arbitration and may be brought before a People's Court if the union is unhappy with a determination (Article 20). The Trade Union Law suggests workers and staff in state-owned enterprises exercise a right of democratic management through a union committee (Article 35); and in collectively owned enterprises that committees must 'organise the participation of workers ... in democratic management and supervision, and defend their rights in electing and removing managerial personnel and deciding on major questions concerning operation and management' (Article 36). However enterprises are no longer simply state or collectively owned – foreign investment brought private shareholders and appointed managers. Article 37, somewhat vaguely, states that trade union committees of 'other' enterprises are to organise employee participation 'in a democratic management of the enterprises and institutions by ways appropriate to the

enterprises and institutions'. The ambiguity of roles and responsibilities in China's transitional society become clearly apparent.

The Trade Union Law reflects an odd collection of union obligations and rights somewhere between the administrative (transmission belt) functions of single social interest systems and more representative systems associated with developed market economies. They have rights to consultation with government over laws affecting worker interests, social and economic planning and policies affecting employment conditions and social insurance (Articles 32-34). Administrative departments for labour under people's governments at various levels must establish trilateral consultation with unions and enterprises to jointly analyse and settle major labour relations issues. On the other hand unions are required to organise and educate workers in order for them 'play to their role as masters of the country and participate in various ways and forms in the administration of state affairs, management of economic and cultural undertakings and handling of social affairs'; assist people's governments and 'safeguard the socialist state power under the people's democratic dictatorship led by the working class and based on an alliance of workers and peasants' (Article 5).

Unions are to represent and safeguard legitimate rights and interests of workers within the 'overall interests of the Chinese people' (Article 6) but also mobilise them to fulfil their production and work tasks and educate them to build a well-educated, self disciplined workforce with 'loft ideals and moral integrity' (Article 7). They must assist in welfare services to workers and in 'properly' dealing with matters concerning wages, health and safety as well as social insurance; conduct training in conjunction with enterprises in the need for workers and staff members to do their work, to protect the property of enterprises and the state 'in the attitude of masters of the country'; and mobilise workers in activities 'to make rational proposals and technical innovations' as well as in 'recreational and sports activities' (Articles 30-31). They must 'do a good job' with departments of choosing, commending, cultivating and administering good role models and advanced producers.

Under the Trade Union Law unions enjoy a 'right to be heard', rather than to collective bargaining. Unions have rights inter alia to: prior notice if an enterprise intends dissolving a labour contract, to demand reconsideration if this violates a law or contract, to 'advance an opinion' to an employer seen to have improperly punished a worker, and to 'support' workers wishing to bring a matter to arbitration or a People's Court. They can 'demand rectification' where an enterprise infringes rights and interests of employees by embezzling part of their wages, fails to provide occupational health and safety conditions, arbitrarily extends working hours, infringes on special rights enjoyed by women or minor workers or other serious infringements. If the employer refuses to correct matters they can then apply to the local people's government for a decision.

Unions must 'see to it' that appropriate safe and healthy working conditions are built into projects, and enterprises must give their opinions serious consideration. Where conditions are life-threatening the union has the right to propose a withdrawal of workers, and the enterprise must respond promptly. Unions enjoy rights to investigate infringements of legitimate health and safety rights and interests of workers with enterprises assistance; and must participate in investigations into cases of job related accidents causing death or injury, make proposals for solutions, and can demand that persons in charge be investigated for their liabilities. On other matters unions are limited to a problem-solving rather than an activist role as regards work stoppages or slow-down strikes, being obliged to consult with the enterprise to present opinions and demands of workers, and put forward proposals for solutions. An enterprise must try to satisfy reasonable demands, and the union must assist the enterprise to restore normal order and production and other work as soon as possible. Trade unions must participate in the conciliation of disputes, and local labour dispute arbitration bodies must include representatives of trade unions at appropriate levels. Trade union federations at or above county level may supply legal assistance to affiliates.

Despite a positive surge of tripartism at all levels in China, confirming union participation in social and economic policy, Chang and Bain (2006) argue that power remains concentrated in the state. They suggest that the state has in effect permitted employer unilateralism to substitute for administrative rules, but monitors labour relations closely and is active in mediating conflicting interests. By the end of 2002 635000 collective agreements were in existence, covering 80 million employees. Curiously however wage negotiations occur in only about six percent of private firms (Chang and Bain 2006). Interestingly the ACFTU has recently taken on foreign firms which it believes are required by law to establish unions. The companies (which include Kodak, Dell, McDonalds, Wal-Mart and Samsung) counter the law requires that workers request the establishment of unions which they have not done.

7. Labour relations in the global automobile industry: from the great sit-down to the great shake-out

The search for competitive advantage, growth and profitability by automobile manufacturers has been expressed through modernisation, and a migration of production. These have shaped labour relations systems in the industry. Ford's mass production system disempowered crafts-workers. Line workers clawed back some control over their working lives through industrial unions, using collective action to oblige auto manufacturers to negotiate working conditions. Job unionism and collective bargaining became the cornerstones of labour relations in the USA as well as Europe where producers imported mass

production methods, but designed labour relations arrangements to 'fit' with their own histories and cultures.

Toyota's lean production system ('super-Fordism') took root in Japan and then revolutionised the industry globally. The labour relations systems designed around mass production lost fit. Unions found themselves in strategic retreat, but more was to come. As the 'limits of lean' for competitive advantage were reached employers sought growth and profitability through new means. To access and develop new markets manufacturers, control costs and source materials and people more efficiently they migrated production – with profound labour relations implications.

The labour consequences of producer competitiveness will no longer be largely played out within and between democratic nations. China is in no rush to democracy but its cost advantages in production and the size of its untapped markets are too attractive for producers to stay out of the race despite risks of product piracy and the political baggage associated with operating in low labour cost authoritarian nations. Investors naturally look for best returns on investment. Cooke (2001; 1997) has shown North American investors prefer business environments in which labour is compliant, and structural arrangements permit room for unilateral or consultative decision-making rather than through collective bargaining.

However supportive of democracy and labour rights as part of such a democracy international business may be, its primary interests of profitability ensure that it seeks environments which offer best potential for uninterrupted production leading to least risk and highest returns on investment. In this regard history suggests that business is as happy to invest in authoritarian as democratic nations. In some as in South Africa, TNCs have played a role in pressuring regime change (Anstey 2006). However the mix of factors in China is very different – large TNCs need China in a way they did not need South Africa.

7.1. International labour relations standards and practices

The United Nations tries to ensure workers do not bear the brunt of international competition. In 2003 it adopted Norms on the Responsibilities of TNCs and Other Business Enterprises with regard to Human Rights. Through its Principles concerning Multinational Enterprises and Social Policy, the ILO promotes global labour agreements to govern the international practices of TNCs. By 2002, twenty such agreements existed covering over two million employees internationally. The deals signed by the International Metalworkers' Federation (IMF) with VWSA and Daimler Chrysler in 2002, along with bodies representing their global workforces cover more than 600,000 employees across nations. Agreements commit companies to core labour rights of freedom of association, non-discrimination, no use of forced labour or child labour, and adherence to at least minimum legal standards as regards compen-

sation and benefits, working hours and health and safety standards (Graham and Bibby 2002). Global labour agreement strictures are however largely procedural rather than substantive. Dualism in the global economy permits companies to seek competitive advantage through lower wage costs. Some developing nations see even the ILO's basic procedural protections as a form of disguised protectionism for developed economies. In the context of global unemployment TNC's can find governments and labour movements willing to ignore ILO standards at least in the short term. For instance, the government controlled All China Federation of Trade Unions (ACFTU) has been suspected of assisting local governments waive union rights to attract foreign firms in some areas (China Labour Watch 2004b). How big are the disparities?

7.2. Low wages and competitive advantage

Comparisons of wages across nations are fraught with complexity – issues of economic context, relative purchasing power, fluctuating currencies and accuracy of sources caution interpretations of the available data. Nevertheless there is still value in considering the implications to be drawn from them.

There is considerable variance amongst nations as regards average income levels. *The Economist* (2005) estimates the following per capita GDPs: USA $37,240; Japan $33,680; Germany $29,130; South Africa $3550; and China $1090.

Wage levels reflect this reality. It is estimated here that a production worker on an assembly line earns about $55,000 in the USA, $66,000 in Germany, $36,500 in Japan, $10,150 in South Africa and $7300 in China.

There is also considerable variance amongst these nations regarding minimum wage setting. Unlike the USA there is no national minimum in South Africa where industry minima are either set through collective bargaining or government regulation. In Japan minima are set by Minimum Wage Councils by area and sector. In Germany there is no minimum wage but a useful index is the welfare grant. In China minimum wages are set by city – Shanghai is 630 yuan; Guangdong is 684 yuan (about US$80) per month (China Labour Watch 2004a). Unions are not very active in wage negotiations. The yuan set at 8,28 to the US$ since 1995 has recently been 'floated' but under tight regulations. Information as to actual wage levels is a little sketchy. A survey of wages in 800 foreign firms in China in 2003 by Hewitt Associate Consulting Corporation indicated wage levels had risen by seven percent over the previous year. At the time a senior executive in a foreign firm earned about US$77,700 annually, a mid-level executive about US$35,780 and a factory worker about US$4340 (http://www.business-in-asia.com/china.wages.html.) Global consultant group, Grant Thornton compared 406 Chinese facilities with ISO9000 quality certification and 681 US manufacturers in 2005. Chinese firms paid much lower wages – $121 per month as opposed to $2160 per month in the USA. However competitive advantage was not simply about lower wage costs.

Chinese firms invested far more in training: 25 percent of Chinese firms trained more than 40 hours per employee a year as opposed to 11 percent of US firms; 53 percent of Chinese firms trained more than 20 hours per employee a year as opposed to 35 percent of US firms. Investment in capital equipment and commitment to total quality management were also higher in Chinese firms (http://www.grantthornton.com). One source in a transnational corporation informed the author that the total wage cost of a Chinese worker is set at 20 percent of the cost of a worker in a plant in a developed nation – in a Japanese plant for instance this would be US$7300 pa. A small car produced in a Chinese auto assembler is currently priced at about $4000 (the equivalent of 6,5 months of earnings), while foreign firm products cost about $9000 (the equivalent of 14,8 months of earnings) but are falling in the price war (Johnson 2005).

One useful indicator for comparative purposes is the number of months earnings of a production worker relative to a base price car estimated here to be between 2,4 and 3,3 months in the USA, Germany and Japan but 12 months in South Africa, and in China about 6,5 months for a domestic model and 14,8 months for a foreign make.

Large disparities exist in wage levels across nations in the auto industry. Autos produced in the West or Japan are affordable relative to earnings there, but markets are saturated. Western producers will not access mass markets of developing economies with western cost structures. When they relocate factories they tap developing markets in the context of wage structures of those markets. Auto TNC's pay well above the minima in a nation such as China and can still produce and price more cheaply than in the USA, Japan or Germany for instance. A time will come when they use their off-shore production facilities to export vehicles back into Western markets, or when Chinese producers with government backing, having caught up on quality standards, limit TNC production and start exporting their own makes. This has benefits for developing nations. South Africa for instance has almost doubled its production in the last few years, largely on the basis of exports.

7.3. TNC's, trade unions and labour relations arrangements

In the auto manufacturing industry owners of capital are in a crisis of competition, their traditional markets saturated and boundaries being reached as regards modernisation strategies. The migration strategy is a complicated one as regards the management of labour relations, but clearly capital is in the driving seat in both developed and developing nations. While products and work processes can be standardised across nations, labour relations systems cannot. On this front TNC's must find fit with global business strategy but also with different cultures, complex mixes of legislative controls over employment relations and practices, differing levels of workforce education and development, and differing levels of unionisation and workforce propensities to strike. Labour relations is usually therefore delegated to local level manage-

ments with head office oversight. While compliance with national laws, culture and practices tends to see a decentralisation of the function, head offices pay a keen interest in employee relations owing to their impact on production processes and corporate image internationally (Stonehouse et al., 2000).

Apart from access to new markets, western investors prefer nations offering lower labour costs, a docile labour force, and an absence of restrictive labour regulations (Cooke 1997; Sengenberger 1994; Sengenberger and Campbell 1994; Marginson and Sisson 1993). The capacity of companies to migrate fundamentally alters the equation of interdependence which underpinned nationally based labour relations systems in developed economies. For unions the evolution of the transnational presents problems of mobilisation, often dividing rather than uniting workers across nations. Unions have accused TNC's of simultaneously eroding the job security and earnings of employees in developed nations while exploiting those in developing nations. Those in developing nations often lack the rights and protections of their first world counterparts, meaning not only that they are poorly paid but that they lack the rights to organise effectively for purposes of bargaining with employers and the state. Apart from formidable financial powers, transnational corporations have the capacity to move production facilities across nations and to source materials and skills internationally. Decision-making and authority systems are often remote and inaccessible, financial and business information is complex and difficult to unravel, and mobility affords a capacity to use the 'investment strike' should labour regulations or employee militancy cross a tolerance threshold. The capacity to source materials and markets far beyond those of any individual national boundaries 'immunises' them from the effects of local labour action to an extent (Brewster et al., 2003).

7.4. TNC's and collective bargaining

Lean methods coupled with the capacity to transfer production have altered collective bargaining in western economies. In the late 1970s, after decades of growth in which they achieved rising salaries and standards of living, US union membership and power declined in a wave of layoffs and plant closures and they were forced into 'concessionary bargaining' with wage cuts or freezes and 'give-backs' across thousands of enterprises, affecting millions of workers (Katz and Kochan 2000; Sloane and Whitney 1994; Bluestone and Bluestone 1992). Auto firms led the way. In 1979 Chrysler de-linked pay increases from those of Ford and GM, paying a wage twenty percent below competitors and ending cost of living increases. In exchange the president of the UAW acquired a seat on the Chrysler Board of Directors. In 1982 Ford and GM pushed pay and work rule concessions on the UAW in exchange for employment security guarantees and profit sharing. By the 1990s US firms were more competitive but labour relations had polarised. Some sought more participatory approaches to labour-management relations as in the Saturn project (Bluestone and

Bluestone 1992), while others devolved into more confrontational exchanges as evidenced in prolonged strikes in Caterpillar and the steel industry (Katz and Kochan 2000; Sloane and Whitney 1994). A new wave of concessionary bargaining is now evident (*The Economist* 2005a; Carson 2004). In Germany a similar trend is underway. In November 2004 IG Metall and UAW entered a collective agreement for sustainable future development and to secure employment. VWAG committed itself to maintain employment levels at its six plants in West Germany at the current level of 99,000 (no dismissals for operational reasons) until the end of 2011; the union accepted a wage freeze to end January 2007 (28 months), revisions in the bonus system, restructuring of the remuneration system towards a performance related system by mid-2006, substantially reduced starting rates for new employees, and a 35 hour working week (up from 28,8) (VWAG 2004).

7.5. TNC's and the utility of the strike

The Great Sit-down Strike in General Motors' Flint plant in 1936-1937 obliged the company to recognise and negotiate with the UAW, and the strike (actual or threatened) became the major source of leverage for unions in collective bargaining. Its utility declined when companies were able to move production to other countries although Silver (2003) shows that although unions are weakened at sites of disinvestment, labour mobilisation and strike activity migrate with auto manufacturers. During the 1930s and 1940s 75 percent of strike activity in the global automobile industry occurred in the USA and Canada where the industry was concentrated; it rose from 23 percent to almost 50 percent in Western Europe between the 1930s and 1970s when production grew from 1,1m to 10,4m; from two percent to 32 percent in Southern Europe between the 1950s and 1970s; and it climbed from three percent in the Argentina, Brazil, South Korea, South Africa cluster between the 1970s and 1990s. Although capital mobility relocates labour militancy, the returns on industrial action for labour diminish as there is a move away from the point of origin or innovation of an industry. In addition the risks of strike action for labour are high as illustrated in the VWSA strike in South Africa in 2001 (Anstey 2006).

8. The future

This analysis has tracked the development of the automobile industry through several developmental leaps. Employers have competed for advantage through technological innovation and new systems of work organisation, and then more recently through relocation of production in order to access and develop new markets. Auto production rose from about 10 million in 1950 to 70 million in 1998 with the industry experiencing a huge over-capacity, estimated at between 15 and 20 million vehicles a year. In 2003 the industry operated at only

75 percent of capacity (PWC 2004). As a consumer-pull market has replaced the producer-push conditions of earlier eras, large auto manufacturers are in continuous search for competitive edge in terms of quality, cost, service and delivery to boost growth and profitability.

Several things are clear. The industry has reached its zenith in the developed economies. The labour relations systems for which western workers struggled are now in decline, if not in terms of their structures at least in terms of their fruits. Western markets are saturated, there is a crisis of over-capacity, and investment, returns, jobs and terms and conditions of work are in decline. Unions can use their democratic freedoms to bargain the pace but not the downward direction of their job opportunities and substantive benefits in the industry. This is not to suggest the end of the industry in western nations but certainly the boundaries of growth and profitability have been found.

Major producers have long recognised the need for new markets as reflected in decisions of new investment, and location of new factories. Although Carson (2004 p. 4) suggests the excitement is overblown, investment and production trends clearly indicate China to have become the destination of choice for automobile manufacturers. Its large population, high economic growth rate, low levels of car ownership and a government anxious to develop the industry and willing to develop the infrastructure necessary to support it, make it a region of opportunity.

The move to China is a profoundly important one. This is not a small cost cutting offshore exercise by major western producers to a developing economy offering cheap labour. It represents an accelerating shift in automobile manufacturing out of one region to another. The labour implications of competition have largely been played out in and between democratic nations to date. The Chinese government however is not committed to a democracy, and it will not be a passive partner in the process, simply offering cheap labour to TNC's. It does not just want jobs, it wants investment, expertise, technology and infrastructure as part of grand vision for sustained growth and development. Its bargaining chips are huge market potential, a fast developing infrastructure and cheap labour, at least in the launch phase of the process – and the fact that the TNC's have nowhere to go in traditional markets.

The interesting questions lie less with what will happen in labour relations in traditional western auto manufacturing nations, more what will happen in China. It can be argued that forces associated with economic growth will inevitably see democracy emerge along with a rising worker militancy and strengthening over time of labour rights and protections. Silver (2003) would perhaps argue that TNC's will only enjoy a short period of low wage advantage, before Chinese workers mobilise for a greater share of the wealth they are creating, and for political freedoms just as they have done across South America, Southern and Eastern Europe and in South Africa. Lessons of history run counter to the master-minds of China's development strategy who seem to

think that development can be centrally managed through selective liberalisation. Rather growth is likely to see the rise of new economic and political forces, dispersing the power of the state and obliging it increasingly into a role as partner rather than commander in an industrial development process within a wider democratic dispensation. There is of course strength in such arguments. However there are also some counter views. Sauls (2005) suggests that globalisation may not simply continue along the track envisaged by its western advocates. He argues that there is rising evidence of flaws in its (largely liberal market) logic, and that countries such as India, China, Malaysia, Indonesia, Brazil and Venezuela are successfully developing their own pragmatic (and nationalist) approaches to challenges of development. In excluding Japan from her global strike trends analysis Silver (2003) argued that unlike western firms its companies had implemented lean production systems in a context of lifetime employment for a core of workers which promoted a uniquely cooperative relationship. In short the Japanese approached issues of industrial development, employment security, and national interest differently to the west. Friedman (1994) has also argued that Asian approaches to managing political transitions and developing economies have been profoundly different to those employed in the west – more centred in national consensus building than simply liberalising markets and introducing systems of pluralist adversarialism. Notably Chinese progress in building tripartite structures seems to be far in advance of its collective bargaining systems. The pace and direction of change in China then might be quite different to western experience and expectation.

The Chinese government has indicated that it is in a rush for managed social and economic development rather than democracy. The TNC's will offer their workforces and trade unions basic rights and freedoms enshrined by ILO standards and pay above average wages, but they will not be pushing to raise labour costs. Chinese unions operate within political, ideological and legal constraints, but does this mean they will inevitably follow the mobilisation routes of western labour movements? For reasons of compliance or culture or indeed, a deep sense of partnership with government in managing the long term national development project labour may not push for rapid wage increases (or political transformation) in the manner of other developing nations. So a cost cushion may exist for some time for TNC's and domestic Chinese producers as they gear up for a more assertive role in the global automobile industry. Besides, the fact that Chinese wages are so low might enable the industry for a period to accommodate both a degree of militancy, and increases in labour cost, without losing its attraction as a production site or losing its growth momentum.

Labour relations systems developed in early auto manufacturing plants reflected a recognition on the part of auto manufacturers that disruptive strike action might be better dealt with through strategies of accommodation than

coercion. Unions were given legitimacy in exchange for periods of labour peace and procedural adherence. These arrangements of 'regulated adversarialism' shaped the labour dispensations of western nations, finding fit not only with the production environment but also western political and economic philosophies. However the systems themselves, and the returns for those in the relationship were only viable to the extent that they allowed businesses to remain in business. As competition has stiffened competitive advantage was sought through modernisation of production systems and the migration of production – the labour relations arrangements of early mass production factories lost fit. The first wave of change was largely absorbed within developed and democratic economies. The waves now progressively reflect manufacturers' choices to locate auto production away from such environments. As production rises in China so too does its influence over the industry as a whole, including labour relations arrangements. As the major emergent player in the world of auto production it is large enough not to have to simply comply with the values and philosophies of the host nations of TNC's or the ILO. Its social partners may not make choices or behave in a manner expected by western analysts. As a consequence a new logic of labour relations may now gather momentum not only in the automobile industry but internationally based on quite different thinking about social, economic and political development.

It is the strategic choices of automobile companies, based in their need for competitive advantage that have shaped labour relations in the industry – this analysis shows that however powerful it is within certain nations, organised labour has been in constant catch-up. Its power is rooted in the successes of the businesses it organises. As the automobile industry moves eastwards, it is reshaping labour systems not only in its destination but its points of departure.

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Mark Anstey
Labour Relations and Human Resources Unit
Nelson Mandela Metropolitan University
Port Elizabeth
South Africa
E-mail: mark.anstey@nmmu.ac.za