GM strike exposes incompetent use of 'just in time' inventory control

by Anthony K. Wikrent

The two-week strike by United Auto Workers Local 696 in Dayton, Ohio, which shut most of General Motors' parts and assembly plants in mid-March, is a reflection of a phase-shift in a rapidly emerging political fight over the fate of the U.S. industrial economy. The immediate issue is whether companies should be allowed to flee from their own workforces in search of cheaper labor costs elsewhere. The underlying issue is how to steer companies back to a position of increasing net economic gain for the entire society, rather than just the vary narrow group of company shareholders. To successfully do this, the axiomatic belief structure of American professional business management will have to be discarded, because it is fatally flawed by a predisposition to an oligarchical view of labor.

The issue in the General Motors (GM) strike was "outsourcing," the practice of a company buying parts and components from an outside vendor, rather than producing them itself. The GM strike was initiated after GM management violated "Appendix L" of the 1993 United Auto Workers (UAW) national contract with GM, which requires GM to give the union 150 days written notice of a contemplated outsourcing. The union then has 90 days to develop a proposal, using GM cost and production data, for keeping the work within GM. If GM deems the union proposal not competitive, GM is free to go to an outside firm for the work. After the strike, GM officials acknowledged that they failed to notify the union of their plans to outsource anti-skid braking systems from the German firm Robert Bosch GmbH in South Carolina, where the non-union workforce labor cost is about one-third that of GM's $45-an-hour labor cost.

In an interview on March 20, Lyndon LaRouche noted that the striking GM auto workers were "forcing the issue which is otherwise raised by Sens. Jeff Bingaman [D-N.M.] and Thomas Daschle [D-S.D.] in their report. The U.S. corporation has moved away from its former role of being dedicated to making profit by providing a service to the United States, that is, to contribute to the public good, into providing riches *at the expense of* the public good." (The Bingaman-Daschle report referred to is *Scrambling to Pay the Bills: Building Allies for America's Working Families.* For an analysis, see *EIR,* March 29, p. 18.)

U.S. corporations are now acting, LaRouche emphasized, "at the expense of American labor, at the expense of the American consumer, the American economy, and so forth, to the advantage of a small group of foreign as well as domestic speculators, centered on Wall Street. The so-called 'Michael Milken morality,' which has taken over since about 1982 . . . has taken over American corporate ownership, and our public morality, and our law."

LaRouche is referring to the rentier-financier mentality that has come to dominate U.S. management practices, since the British takeover of the major U.S. railroads, and the cartelization of U.S. industry by Anglo-American banker J.P. Morgan in the 1880s to 1890s. This oligarchical rentier-financier mentality stands in stark contrast to competent industrial management, and especially to the "Harmony of Interests" outlook behind the development of the modern U.S. economy, as discussed and implemented by such people as Henry Carey, William Kelley, and Thomas Edison (see *EIR,* Feb. 9, pp. 22-57).

The British faction

Indeed, it was a "British faction" on the GM board of directors which provoked the strike in Dayton. Following the 1993 national negotiations between the UAW and Chrysler, Ford, and GM, the GM directors established a special committee, and charged it with developing a strategy for reducing GM's "labor cost structure." Members of that special committee include Sir Dennis Weatherstone, the British chairman of J.P. Morgan and Co.; Thomas H. Wyman, chairman of S.G. Warburg and Co., the U.S. branch of the largest British investment bank, S.G. Warburg and Co. Ltd.; Paul O'Neill, chairman of the Aluminum Co. of America, which has at least two British knights on its board; and John Smale, the retired chairman of Proctor and Gamble, who is also a director of J.P. Morgan and Co.

The irony of the GM strike, is that GM's management had adopted certain management practices which could magnify the advantages of a Harmony of Interests approach to

industrial manufacturing, but which, when applied in a rentier-financier approach, actually increased the vulnerabilty of GM to labor strife. The perfect example of this is GM's use of "Just In Time Inventory" (JITI) control, in which a part or component is brought to the assembly plant just minutes or hours before it is installed into a vehicle on the assembly line. The intent is to save money by greatly reducing the carrying cost of inventory, for example, by not having to build warehouses to store a few weeks or few months worth of parts or components.

But this is not what JITI was orginally intended to be, as brought to its highest point of development by Toyota Motor Co. manufacturing engineer Taichi Ohno. In the Toyota Production System developed by Ohno in the 1950s and 1960s, JITI was not intended to be a cost-saving measure in and of itself, but rather a means by which to immediately identify errors or malfunctions in the entire process of producing a vehicle, whether it be assembling parts and components into the final vehicle, or producing those parts and components, *and to efficiently apply the creative mental powers of Toyota's labor force to solving the problem posed by those errors or malfunctions.* U.S. managers, with an oligarchical contempt for the value of human problem-solving capabilities, completely ignored the intent of Ohno's JITI; rather, in their obsession with cost accounting, they seized upon JITI as a means to reduce the costs of carrying inventory.

JITI, as applied in the United States, is largely a corruption of one small part of what is actually a quite competent system of managing industrial production. In order to truly understand the incompetence of U.S. managers, it is necessary to explain how Ohno developed the Toyota Production System.

Postwar conditions in Japan

Ohno's system was developed as an adaptation to the limitations of the devastated Japanese economy immediately following World War II. On the one hand, the market for new automobiles in Japan was extremely limited, making production runs of hundreds of thousands, let alone millions, of the same vehicle, impossible. The economies of scale that could be achieved with mass production in the United States, simply could not be replicated in Japan at the time. For Ohno, the immediate problem to be solved was the changing of dies, the patterns that give form to a sheet of steel in a stamping press. The typical body of a car or truck, since the days of Ford's Model T, are made of about 300 stamped metal parts that are welded together. Since it typically took a full day for specialists to set up a die correctly, so that the metal being stamped didn't wrinkle, or worst of all, melt in the die, U.S. auto manufacturers found that they could save thousands and even millions of dollars by dedicating a set of presses and dies to one part, and stamping that one part for months, or even years, without changing dies.

Toyota could not afford the hundreds of presses needed to mimic the U.S. approach; it could afford only a few presses, meaning that one press would have to make many different parts. This meant changing dies frequently, which would result in unconscionable delays, and unacceptable cost per piece stamped. According to the 1989 Massachusetts Institute of Technology book *The Machine that Changed the World,* Ohno's "idea was to develop simple die-change techniques and to change dies frequently—every two to three hours versus two to three months—using rollers to move dies in and out of position and simple adjustment mechanisms. Because the new techniques were easy to master and production workers were idle during the die changes, Ohno hit on the idea of letting the production workers perform the die changes as well. . . . By the late 1950s, he had reduced the time required to change dies from a day to an astonishing three minutes and eliminated the need for die-change specialists."

A surprising finding

Ohno soon realized something quite difficult to believe: It was costing Toyota less per part to make small batches of stampings, than to run off huge batches. "There were two reasons for this phenomenon," the MIT study explains. "Making small batches eliminated the carrying cost of the huge inventories of finished parts that mass-production systems required. Even more important, making only a few parts before assembling them into a car caused stamping mistakes to show up almost instantly." Being forced to immediately remedy the source of defective parts also reduced tremendously the number of finished vehicles that needed to be repaired in the "re-work" area at the end of the assembly line.

"The consequences of this latter discovery [the improved overall quality of the completely assembled vehicle] were enormous. It made those in the stamping shop much more concerned about quality, and it eliminated the waste of large numbers of defective parts—which had to be repaired at great expense, or even discarded—that were discovered only long after manufacture. But to make this system work at all—a system that ideally produced two hours or less of inventory—Ohno needed both an extremely skilled and a highly motivated workforce.

"If workers failed to anticipate problems before they occurred and didn't take the initiative to devise solutions, the work of the whole factory could easily come to a halt. Holding back knowledge and effort—repeatedly noted by industrial sociologists as a salient feature of all mass-production systems—would swiftly lead to disaster in Ohno's factory."

Thus, as Ohno devised it, Just In Time Inventory is not the means for reducing the carrying costs of inventory, but is the means for forcing into existence a process of production that calls forth the problem-solving capacities of the people involved in that process. Indeed, Toyota begins its 1992 book-

let on the Toyota Production System by stating, "The key to maximizing quality and productivity lies in tapping the innate judgment and creativity of employees in the workplace."

Toyota uses a Japanese word for this continually evolving process of improving the process of production: *kaizen.* Ohno's JITI is intended to force *kaizen.* Contrary to the way JITI has been presented in the United States, the MIT study states, "This simple idea was enormously difficult to implement in practice because it eliminated practically all inventories and meant that when one small part of the vast production system failed, the whole system came to a stop. In Ohno's view, this was precisely the power of his idea—it removed all safety nets and focused every member of the vast production process on anticipating problems before they became serious enough to stop everything."

Thus, JITI was transformed by Ohno from an effect, into a cause. Originally, JITI was the effect of having to devise a means to produce small quantities of a large number of different parts on just a few stamping machines. As Ohno realized the unforeseen benefits of solving this problem, he began to develop a system of production in which JITI became the means to call forth creativity on the part of Ohno's workers. This is a cause far different than what most U.S. managers intend when they implement JITI.

Radical difference in approaches

The difference lies in the fact that Ohno's and Toyota's approach to industrial manufacturing is radically different from the typical U.S. approach. In its 1992 booklet, Toyota states: "Traditional approaches to cost management provide for adding cost and profit to derive the selling price. Cost and a minimum profit margin are the constants in this equation, and the selling price is the variable. Under such 'cost-plus' approaches, manufacturers seek to maintain profit margins by raising their selling prices to cover increases in costs. . . .

"At Toyota, we use a 'cost-reduction' approach. Market conditions determine a reasonable selling price, which becomes the constant in our equation; cost and the profit margin are the variables. We take responsibility for controlling costs internally. By keeping those costs below the reasonable selling price, we secure a profit. . . . That is why Toyota has devised its production system to highlight waste wherever it occurs and to illuminate ways to eliminate it. The preoccupation with arranging production processes in a continuous flow is a good example. That preoccupation reflects an almost obsessive determination to avoid producing more of any item at any stage than is absolutely necessary."

This last may sound no different than the typical U.S. manager's obsession with hammering down costs, but Toyota's meaning is entirely lost if you forget that the system is designed to call forth human creativity. That GM attempted to face down the UAW to uphold the company's right to outsource production, demonstrates that GM's management has no idea of what the proper role of JITI is. If they recognized that JITI is a means for ensuring the application of the creativity of its workers to the continual improvement of GM's process of production, GM would be trying to *reduce* outsourcing, rather than increase it, in order to maximize the application of its workers' creativity to the parts used in GM vehicles.

In fact, Toyota reports that its suppliers have found that implementing the Toyota Production System leads to a bettering of the relationship between management and employees. "That is mainly because," Toyota observes in its 1992 booklet, "the system provides for an expanded role for employees in designing and managing their own work. It brings together employees and management in the joint pursuit of improvements in productivity, quality, and working conditions."

GM's venture with Toyota

Ironically, GM management failed to grasp these lessons while studying at the very feet of Toyota, beginning more than ten years ago. In early 1983, Toyota agreed to invest $100 million to establish a joint venture with GM at a GM assembly plant which had been closed a few years before in Fremont, California. The venture was called New United Motor Manufacturing Inc., or NUMMI. The Japanese insisted that they alone would plan and equip the facility, supply the design for the vehicle to be built, and train the workers. Toyota had also wanted to solely select the workers, but GM insisted on rehiring the workers laid off a few years ago when the Fremont facility was closed, even though these workers were among the worst GM employees, with absentee rates of over 20%, and a non-ending series of labor disputes.

The results of the joint venture with Toyota, with NUMMI workers becoming the most productive in GM, shocked GM's managers. In her 1989 book, *Rude Awakening: The Rise, Fall, and Struggle for Recovery of General Motors,* Wall Street analyst Maryann Keller writes: "For those who believed that the Japanese industrial edge rested solely in technological prowess, the NUMMI experiment was a real revelation. The Toyota secret was, finally, no secret at all, and it was as old as history: Treat both white- and blue-collar workers with respect, encourage them to think independently, allow them to make decisions, and make them feel connected to an important effort. . . . Going to work for NUMMI was a shock to the system of GM employees, who were accustomed to stifling bureaucracy and an emphasis on high-tech solutions over worker initiative."

Keller cites a GM executive named Bera who was posted to NUMMI, who said, "I went through a personality change out there." But he found, upon leaving NUMMI and returning to GM, that GM had no plan for implementing the lessons learned at NUMMI, because of a fundamental misconception of what the Toyota Production System was all about. According to Keller, GM management believed that "the answer [learned at NUMMI] would be technology, rather than people-oriented. It would have been so much easier if Bera and

his fellow team members had returned to describe new equipment or production techniques. But, in fact, what the NUMMI team learned concerned a change in management philosophy, and company executives were no doubt reluctant to pursue this direction, for it touched the heart of what was culturally wrong with GM."

Had NUMMI not hired the former GM workers, GM's management might have been able to claim that the success of NUMMI, and especially the excellent relationship between employees and managers and NUMMI, was the result of replacing the former GM problem workers. But since the former workers were hired, GM's managers cannot delude themselves on this point. Yet, the recent strike in Dayton shows that GM management has been unable to learn the lessons of the NUMMI experience. The problem, in no small degree, is that GM managers are unable to even conceive of what NUMMI is actually all about, because of the oligarchical rentier-financier contempt for human labor that has come to dominate U.S. business management thinking. This outlook is based on fundamental assumptions about human nature, and the character of human beings, which predispose U.S. business managers to see their employees as troublesome burdens, rather than as their company's greatest assets.

The chasm between these two management cultures we have discussed here, is captured by the following statistics from the MIT study: An industrial worker at a Japanese auto manufacturer in Japan submits an average of 61.4 suggestions per year. By contrast, U.S. workers at U.S. auto manufacturers submit 0.4 suggestions per year. Under Japanese management, the number of suggestions submitted by U.S. workers (working at Japanese transplants in North America) shoots up a statistically significant 250%, to 1.4 suggestions annually.

The efficacy of Ohno's and Toyota's approach is very evident today: The U.S. automakers, and Wall Street's analysts of the auto industry, profess themselves terrified at the likely prospect that Toyota and a few other Japanese automakers will still be able to produce and distribute vehicles in the U.S. market for a profit, even if the yen-to-dollar exchange rate remains near 100 yen. Significantly, it is very rarely mentioned that Japanese auto workers are now paid more than U.S. auto workers. The London *Financial Times* reported on March 16, 1995, that the German automotive industry trade association found that the employment cost of U.S. auto workers in 1994 was 39.55 deutschemarks per hour, 13% less than the DM 45.47 per hour for Japanese auto workers. That reversed the cost relationship of the two countries in 1991, when U.S. auto workers cost DM 35.05 per hour, slightly more than the DM 33.87 per hour cost for Japanese auto workers.

That U.S. industrial managers would implement JITI primarily as a means of reducing the carrying cost of inventory, merely reflects the cultural bias of U.S. management to elevate financial considerations above all others. On a deeper level, it reflects their bias toward an oligarchical view of human labor.

Bouchard implements IMF agenda in Quebec

by Raynald Rouleau

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For three days, on March 18-20, the "elites" of the Canadian province of Quebec met in an attempt to come to a consensus about what to do about Quebec's financial difficulties. This was an extraordinary conference, in the sense that the leaders from the top Canadian financial institutions, industries, labor unions, community groups, clergy, students, etc., all gathered to "work together" to formulate a plan of action. The conference was called by the Parti Québecois' new chief, Lucien Bouchard, who recently took office as premier of Quebec.

Pressure seems to have come down from the world's financial elites, that if Quebec does not "straighten out" its finances, Standard and Poors and Moody's rating agencies would downgrade its financial paper—which in turn would cost Quebec millions of dollars more to borrow on the international market. This pressure seems to be strong enough that the idea of a new referendum on whether Quebec will secede from Canada, has now been pushed back to somewhere after the next provincial election, which could be as far as two or three years away. On the other hand, Bouchard could declare an election tomorrow morning if he wanted to, but he has said it certainly wouldn't be this year.

Bouchard could have gone the way of French President Jacques Chirac, or of Ontario Prime Minister Mike Harris, and taken an axe to the government budget. But, in both of those cases, the population has risen to a point of near uncontrollability. The government of Quebec now has a debt of Can $75 billion (U.S. $52 billion), the equivalent of each person carrying Can $10,169 in debt. For every dollar spent, 14¢ goes directly for interest payments. Unemployment is more than 11%. Drastic budget cuts in Quebec on the scale of what Chirac or Harris have imposed, would be a little more tricky, because of the question of "independence." Historical precedents show that if tight social control is not kept, there is the possibility that real independence-minded leaders could emerge, and turn the population against the British Empire.

So Bouchard seems to have been brought in, in part to "smooth" the implementation of these drastic budget cuts. According to sources, the idea of a "consensus conference"