The Problem of Productivity: Inflation and Collective Bargaining after World War II

Unwilling to wait decades for the political decline of New Deal liberalism, the core industries of post–World War II America repurposed collective bargaining as a means to reduce the costs of organized labor. New industrial relation strategies known as “wage-price policies” linked labor compensation with productivity in order to stabilize unit labor costs and prices. After reviewing the emergence and diffusion of wage-price policy within the managerial community, the article analyzes its implementation during the tumultuous 1959 bargaining round between the steel industry and the United Steelworkers. The union claimed that the industry’s goals centered on management’s antipathy to work rules, but industry records reveal that work rules were only part of its broader efforts to contain the inflationary consequences of the New Deal.

Keywords: inflation, productivity, collective bargaining, labor relations, General Motors, Treaty of Detroit, Lemuel Boulware, John Kendrick, steel industry, wage-price policy

The two and a half decades after World War II are fondly remembered as the “Golden Age of American Capitalism,” a period of growth and prosperity following the travails of the Great Depression. Yet to businessmen of the midcentury, this Golden Age was also one of great challenge. Wartime labor regulations had cemented industrial unionism as a fixture of the economy, ensuring that management would not have a free hand to distribute this prosperity as it saw fit. According to the consensus of

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modern historians of postwar industrial-labor relations, management felt so entrapped by the persistence of New Deal liberalism that it attempted to engineer a more flexible business climate through social and political activism. Drawing on the papers of trade associations, employer groups, and even evangelical religious organizations, historians have traced a long-run project to undermine the New Deal, especially its support for organized labor, from its origins in the 1930s until its dissolution under Ronald Reagan in the 1980s.¹

Lost in this long-run focus on corporative conservatism has been the fact that for many companies, such an outright rejection of the New Deal order was infeasible. To be sure, light manufacturing industries such as textiles, food processing, and basic consumer electronics were able to relocate their capital and employment to low-wage, nonunion areas with relative ease. Yet the capital-intensive durable and intermediate goods producers that dominated contemporary discussions of political economy would remain rooted to the unionized and high-wage mid-Atlantic and Midwest until the century’s final decades, and in many cases they still retain a significant profile in these areas.² Labor historians have often described how postwar legislation such as the Taft-Hartley Act of 1947 afforded these industries increased control of their unionized workplaces, but these legal changes did not provide an escape from the financial consequences of organized labor.³ Though the postwar Keynesian consensus promised to subsume class antagonism through a “politics of productivity” focused on aggregate growth, in practice, labor and management continued to view collective bargaining as a conflict over the distribution of income. When unions demanded real purchasing power and fringe benefits in excess of what productivity could absorb, management could attempt to shield its profits by shifting the costs of collective bargaining to its customers. In attempting to sidestep this conflict, however, management risked weakening its competitive position by unleashing the wage-price spiral that contemporary economists deemed “cost-push inflation.”⁴

Unable to afford to wait decades for the emergence of a more favorable political and social climate, managers of firms such as General Motors (GM), U.S. Steel, and General Electric (GE) recognized that they would have to find a way to stabilize their labor costs from within the confines of the New Deal order. Drawing on corporate records, this article explores how these companies sought to repurpose the institutions of collective bargaining as a means to combat cost-push inflation at its source. Importantly, the managers of these firms did not turn to the government to align the interests of labor and capital in wage and price restraint, as happened when incomes policies and social pacts were adopted in western Europe with American encouragement. Instead, American companies embarked on a voluntary and private program intended to safeguard their profits from labor and permit price restraint without first having to wage an uphill political battle against unions.

Central to corporate efforts to implement this noninflationary wage-price policy was a reconsideration of the importance of productivity to collective bargaining negotiations. Where labor had long cited this statistic as justification for greater compensation, postwar management increasingly came to view productivity as its key guidepost for cost containment. In 1948, GM initiated this transformation when it became the first company to tie real wages to expectations of future productivity growth for the nation as a whole. Having previously faced union demands to bargain on prices and profits directly, GM expected that this wage formula would establish a long-run “peace treaty” while allowing management to distribute productivity according to its own noninflationary understanding. Though GM would subsequently cement its labor peace by paying a premium above its productivity formula, a community of executives centered on GE vice president Lemuel Boulware continued to insist on taking a “New Look” at the use of productivity in bargaining. Boulware is a familiar figure to historians of postwar corporate conservatism due to his central role in a network of reactionary business and

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political leaders, including a GE spokesman and B-list actor named Ronald Reagan. Previous analyses of Boulware’s personal records have argued that his take-it-or-leave-it offers and divide-and-conquer tactics represented an attempt to undermine the New Deal order at the plant level. Yet as this article will demonstrate, Boulware’s papers also reveal that he expected that these innovations in labor relations would assist management in distributing the proceeds of productivity without having to become a party to inflation. Building on the statistics of economist John Kendrick, a pioneer in calculating productivity, Boulware and his many emulators developed collective bargaining strategies intended to force labor to acknowledge the fundamental claim of capital and profits to the fruits of productivity.

As a demonstration of how management applied these concepts of productivity to labor relations, this article concludes with a case study of the steel strike of 1959—among the most important incidents cited by modern historians as evidence of the business community’s reactionary opposition to the New Deal order. Though some accounts acknowledge that recession emboldened management to hold down labor costs, historians have generally accepted contemporary union claims that this dispute centered on management’s desire to set work rules unilaterally. However, lacking conclusive evidence of how top corporate officials themselves viewed this negotiation, these historians have instead relied on union records and the fragmentary papers of plant-level labor relations staff. In contrast, this article draws upon the internal deliberations of the steel industry’s Coordinating Committee, through which the industry’s dozen largest firms planned and implemented their bargaining strategy. These records demonstrate that the industry understood its emphasis on productivity as part of the contemporary corporate effort to contain the inflationary consequences of the New Deal order. By adopting a hard-nosed bargaining stance, the Coordinating Committee hoped to stabilize its unit labor costs and so obtain the capital necessary to keep pace with foreign competitors without risking the perpetuation of the wage-price spiral.


The New Deal had initially embraced industrial unionism as a way to end the Great Depression through the expansion of real purchasing power. Mass unemployment had given credence to the long-held argument of the labor movement that corporate management chose to retain the gains of productivity for itself in the form of high prices and low wages. Through collective bargaining, labor would instead force management to share these benefits with the workers who consumed their products, enhancing demand and restoring full employment. Of course, the Depression would come to an end through the macroeconomic stimulus of World War II, not the spread of unionization, but a labor movement that had gained a firm institutional foothold during the war was unwilling to abandon its position for the Keynesian promise that fiscal and monetary policies would sustain growth without further structural reform. Anticipating that the end of the mobilization economy would result in a sharp reduction of take-home pay, the labor movement flexed its newfound strength to demand that management raise wages without eroding the real value of this compensation through higher prices. In the most famous example of labor’s proposed postwar wage-price bargain, United Autoworkers (UAW) vice president Walter Reuther informed GM in 1945 that the union would be willing to reduce its wage demands only if, after public examination of the company’s finances, it determined that profits truly could not absorb this raise without price relief.8

As postwar corporate management learned to embrace Keynesian tools as a much less invasive way for the government to stabilize the business cycle, labor’s continued insistence on bargaining over prices and productivity appeared greatly troubling.9 Not only did GM and other firms decry these demands as an assault on managerial prerogatives and a backdoor attempt to replace free enterprise with communism, but they also found it deeply unsettling that labor seemingly demanded that all of an individual firm’s productivity be distributed to its employees in the form of wages. As GM chairman Alfred Sloan would complain to GM board member Walter Carpenter about Reuther’s demands, “What’s the use of trying to do a better job if the proceeds of same are

to be immediately taken away from you by labor?” As was heavily discussed in the contemporary economics and business press, even if a highly productive company such as GM could afford to pay higher wages without raising its own prices, other firms and industries would face union pressures to match this pattern. Over the entire economy, unit labor costs would rise, resulting in the perpetuation of the wage-price spiral. Only if pattern-setting and highly visible employers such as GM held the pace of compensation to a level that the average-productivity firm could absorb would it be possible to prevent cost-push inflation.

As GM worked to safeguard its managerial prerogatives from the UAW, it simultaneously sought to implement this model of a noninflationary wage-price policy. As Sloan would later reflect to Harry Anderson, GM’s labor relations chief in the 1950s, GM’s top brass wished at this time “to get away from the eternal conflict with labor and put it on a business-like basis.” In 1946, GM had managed to beat back Reuther’s demands to negotiate on prices and obtain access to confidential financial information, albeit while providing wages higher than it had initially offered and raising prices in reflection of its costs. The next year, after Reuther had become head of the UAW, GM forced him to agree to never again call a political strike in the wake of a failed walkout in protest of the Taft-Hartley Act. As the third postwar bargaining round approached in 1948, GM management now desired to avoid these annual conflicts entirely by obtaining a multiyear collective bargaining contract. This “labor peace,” as the concept came to be known, would smooth the long-run production schedule while avoiding the strain on executive man-hours created by annual negotiations.

Importantly, GM president and CEO Charles E. Wilson recognized that this multiyear contract also presented an opportunity for management to institutionalize its model of distributing productivity on a noninflationary basis. As Wilson planned the company’s strategy for the 1948 collective bargaining negotiations, he insisted that wages must be based on the national average of productivity. Questioned by his fellow
GM executives about whether the union would break with this formula as soon as it could, Wilson replied with a justification straight out of contemporary economic theory: “They mustn’t do that. . . . [T]hat’s all there is to wack [sic] up. Anything beyond would be inflationary. . . . This isn’t just expediency, it’s a fundamentally sound document.” Wilson in fact hoped that GM could leverage its clout and visibility to encourage other companies to embrace noninflationary wage policy as the path to labor peace, but GM’s finance committee, which had to sign off on this proposal, held mixed feelings and would go no further than allowing GM to advocate this approach for itself.13

The 1948 contract between GM and the UAW banned most strike action for two years in return for a formal commitment to increase the real purchasing power of workers. At the core of this contract was the “automatic” or “annual improvement factor” (AIF), which would raise wages every year at a rate equal to the long-run trend in national labor productivity. The AIF was a landmark innovation in postwar labor relations: the U.S. Bureau of Labor Statistics (BLS) had on file only one other contract to make such a guarantee of increasing real wages—and that was from 1942.14 GM estimated that, nationwide, labor productivity had grown by 2 percent annually over the long run, so it offered the UAW 2 percent of the then $1.49 hourly wage, or 3 cents/hour, as the AIF to be paid every year. GM had not actually calculated its own productivity trend, but it safely assumed that it was well above the national average. As a result, the AIF would allow GM management to retain more of the gains of the company’s productivity than Reuther had previously proposed. So that the AIF would boost real purchasing power and not just nominal wages, moreover, GM combined it with a cost-of-living adjustment (COLA) of one additional cent for every 1.14 point increase in the consumer price index. This too was a novel innovation. Contract clauses calling for an adjustment of wages in the event of inflation had previously cropped up from time to time during periods of high inflation but had fallen out of favor by the time GM offered to include a COLA escalator. Only a quarter of a million manufacturing workers possessed this clause at the start of 1948, making GM a pioneer in reintroducing this contract form.15

When it came to a noninflationary wage-price policy, GM executives feared that this new wage formula might be misconstrued as dictating pricing policy. Though GM had successfully deflected Reuther’s previous demands to bargain over prices, the UAW had yet to fully acknowledge that pricing was the exclusive domain of management. When GM considered holding its prices steady on the 1949 models, board member Walter Carpenter even warned Wilson that “if you were to announce that the effect of this adjustment alone would not result in an adjustment of prices, the union would promptly respond that that is what they have been saying all along.”

Though GM ultimately hiked list prices by 3.2 percent to 7.5 percent on that year’s models, its emphasis on combating inflation meant that the company did not pass all of its labor costs to consumers. As Wilson later explained, GM’s unit labor costs and hence its marked-up prices should not increase under the AIF: “Productivity is assumed to increase at least as fast as hourly wages. Therefore, no price increase should result from such wage increases.” Nominal unit labor costs could still increase due to the COLA payments, but Wilson noted that the COLA depended on factors largely outside of the control of GM or the UAW, such as fiscal and monetary policy and harvests. When the company passed on these nominal costs, it was merely adjusting its prices to the existing inflation rate.

Indeed, when a fall in the cost of living reduced the COLA payment by two cents in each of the first two quarters of 1949, GM passed on these savings to consumers by reducing car prices by ten to forty dollars at each adjustment. At only about 1 percent of list prices per quarter, these cuts did not fully offset the previous increases. Yet the second of these price reductions coincided with the payment of the 3 cent AIF, revealing that GM indeed declined to raise prices in response to this new productivity-linked payment.

What’s Good for General Motors . . .

As the largest and richest corporation in the country, GM held immense influence over what other businesses did. In the postwar decades, GM’s multidivisional structure served as the model of a modern corporate organization adopted by other leading industrials. If

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16 Carpenter to Charles E. Wilson, 27 May 1948, Correspondence General Motors 1948, box 847, Carpenter Papers.
it worked for GM, then surely, thought other executives, a multidivisional organization would work for them as well. Yet when it came to industrial-labor relations, there was a great hesitation to adopt GM’s wage formula. Many of the leading advocates of wage-price policy in fact argued that long-run labor peace could not operate on this noninflationary basis. Even if national trend productivity could be measured accurately, which these economists cautioned had not yet been done, a union might identify the national productivity trend as the absolute minimum it would be willing to accept for a one-year deal and then demand added compensation to forgo the right to strike over a long-run contract. High-productivity firms such as GM would thus give into pressures to provide real compensation beyond the AIF to achieve multiyear labor peace, resulting in a continuation of cost-push inflation.

When compelled to decide between Wilson’s goals of multiyear labor peace and a noninflationary compensation pattern, GM would indeed choose the former. In 1950, GM and the UAW agreed to maintain the AIF and COLA as the basis for an unheard-of five-year contract, known as the “Treaty of Detroit.” GM agreed not only to increase the AIF to 2.5 percent, or 4 cents/hour—a rate within the estimated bounds of national productivity—but also to establish a new pension plan and increase insurance benefits. GM later expanded these benefits in 1953 and again in 1955 while maintaining the AIF at 2.5 percent of base rates. Only in the 1958 negotiations would GM show enough concern about the full costs of its contract that it was willing to cancel the existing contract and risk a company-wide strike to slow this pace closer to the original intent of the formula. Even then, GM ultimately agreed to liberalize fringe payments above the formula, and this practice would continue for several more decades.

To union spokespersons as well as many labor relations academics, fringe benefits such as pension plans appeared less inflationary than other forms of compensation because, unlike wages, they did not immediately raise the purchasing power of workers. Nevertheless, fringe

payments represented a real cost for management, and when not counted against the AIF, they pushed compensation well over the national productivity trend. Over this decade, straight-time hourly wages at GM had risen from $1.50/hour in 1948 to $2.47/hour in 1958. Including all fringe benefits, total compensation grew from $1.70/hour to $3.11/hour, an increase equivalent to about $2.60/hour in 1948 dollars. During this decade, the AIF paid out 52.5 cents/hour and the COLA a cumulative 47 cents/hour. Accepting GM’s understanding of the AIF as the “real” portion of the wage formula, 37.5 cents/hour of the approximate 90 cents/hour real increase in total compensation represented the premium for labor peace above the formula.23

Putting to rest the most immediate cost-push concern, GM would absorb this extra compensation into its above-average productivity growth. The quality-adjusted new car price index increased by 24.5 percent over this ten-year period, but over half of that increase occurred during the initial two-year contract, and quality-adjusted automotive prices held steady after 1951. Nevertheless, labor productivity for the nonfarm business sector as a whole grew at an annual rate of about 2.7 percent over this ten-year span, compared to about 4.3 percent for GM’s real compensation.24 Even if GM’s prices were restrained, the average firm with productivity growth slower than GM faced upward cost and price pressures as competition for labor spread the GM pattern, contrary to the noninflationary objective of wage-price policy. In 1963, Sloan publicly conceded in his memoirs that the GM formula had failed to live up to Wilson’s objective of a noninflationary wage-price policy: “The formula is by no means our whole labor contract. Because we have granted many fringe benefits some critics maintain that the cost increases are in excess of productivity and that, therefore, the formula plus the fringe benefits may have inflationary implications.”25

Despite their suspicions of the true costs of GM’s formula, most large industrial corporations soon followed its lead in paying a premium for labor peace. Long-run contracts initially took hold during the Korean War, when wage controls encouraged companies to match the Treaty of Detroit. According to the Bureau of National Affairs, a labor

23 “Wage and Fringe Benefits per Hour Worked, General Motors Corporation,” UAW Fringe Benefits 1955–1968 1 of 2, box 62, UAW Research Department Collection, part 1, Acc. 350, Reuther Library. Those figures are derived from General Motors, Sixteen Years of Progress through Collective Bargaining (Detroit, 1964).


25 Sloan, My Years with General Motors, 402.
consultancy, between 1950 and 1952 the frequency of one-year contracts in manufacturing fell from 45 percent to 29 percent. Two-year contracts, which had comprised half of all manufacturing contracts in 1950, declined in popularity slightly to 41 percent while contracts of over two years in length expanded from 5 percent to 30 percent. By 1960, 43 percent of all contracts would have a duration of eighteen to twenty-four months and 39 percent a duration of thirty to thirty-six months.\(^ {26}\)

The spread of multiyear contracts entailed the widespread adoption of deferred payment clauses. The BLS counted about five million workers who would benefit from a deferred increase in 1957, including three million who had signed contracts in 1956 and another two million in the year before that.\(^ {27}\)

In negotiating future deferred compensation, however, few firms actually insisted on holding to productivity as a guide for the noninflationary path to labor peace, as GM at least claimed to do. According to a National Industrial Conference Board survey of 213 firms and 39 unions with 8 million members, only a quarter of corporate labor-relations departments even utilized productivity statistics during the 1955–1956 bargaining round, compared to three-quarters of unions. The report noted that unions emphasized labor productivity in order to call attention to the distribution of income necessary to expand the economy to full employment, with many still referring to a lack of purchasing power as the cause of the Great Depression. In contrast, the firms that used productivity in bargaining did so defensively to refute union claims rather than proactively to contain costs. Some respondents cited the influence of the GM formula and its emphasis on the average productivity of the nation as a whole, but others in the sample indicated they did not use national data, leading the authors of the study to conclude that productivity remained a slogan more than a real issue.\(^ {28}\)

Accompanying the spread of multiyear settlements was a gradual uptick in the price indexes, known as “creeping inflation.” At only about 3 percent a year as measured by the GNP deflator, this inflation appears small in hindsight. To contemporaries, however, the fact that the prices of capital goods produced in unionized industries were growing faster than the average suggested that management had seemingly chosen to collude with labor in passing on this premium for labor


peace to customers in the form of higher prices. Real compensation in the nonfarm business sector rose by 10 percent from the end of 1954 through the end of 1957, when three-year contracts had first become commonplace. That was the statistic of most relevance to unions, because it reflected gains in real purchasing power, but the theory of cost-push inflation required a comparison between prices, nominal compensation, and unit labor costs. Where adherence to a noninflationary wage-price policy was supposed to stabilize nominal unit labor costs and prices, unit labor costs grew by over 11 percent in this period as total labor compensation per hour increased by 17 percent.29

Management’s New Look

When the strong markets of the mid-1950s gave way to recession at the decade’s close, management was forced to reconsider its ability to paper over industrial-labor discord through the wage-price spiral. In 1961, Wharton professor Herbert Northrup described a change in collective bargaining and labor relations that he termed “Management’s ‘New Look.’” In sharp contrast to the decade-long “General Motors Era” built upon a “honeymoon of labor and industry in the basic industries,” Northrup explained how “ugly economic facts of life” in the form of recession and foreign competition renewed the emphasis on containing labor costs.30 Labor historians who have relied on government and union documents to peer behind the veil of management in this period have described how these economic conditions emboldened management to seek transformative changes to the fabric of the postwar social order. Without access to the records of these corporations themselves, however, historians have overlooked the essential role of productivity in the New Look. Even though these firms rejected the ostensibly noninflationary wage formula of GM, they still sought a wage-price policy that could prevent the New Deal order from inevitably giving rise to cost-push inflation.

The leading figure in this renewed emphasis on productivity during collective bargaining was Lemuel Boulware, GE’s vice president for employee and public relations. Boulware had long been concerned about the willingness of management to collude with labor in the

emergence of cost-push inflation. He feared that unions—an organized interest representing one claimant on corporate resources—had garnered too much political and bargaining power and demanded such high wages that management had to raise prices, or else “the business will be choked to death.” While inflation could temporarily plaster over management’s labor relations problems, Boulware considered management’s recourse to the wage-price spiral as evidence that it had failed in its duty to other claimants, including customers and the public, and had become “a party to cheapening all the dollars just as much as the force of the unions.”

Thus, as Boulware would charge in a well-received speech given to the National Association of Manufactures in December 1956, it was management and not labor that was ultimately responsible for paying wages and benefits that exceeded the bounds of productivity. In a not-so-veiled criticism of GM, Boulware criticized large employers with the fastest productivity growth for establishing compensation patterns that pushed up unit labor costs and prices across the economy.

Boulware was especially dismayed that companies—his own firm included—had become lulled into prioritizing the “short-term ‘good business’” during the 1950s while ignoring the long-run trend toward union domination and inflation. In 1955, the head office at GE had foreseen ten years of uninterrupted growth and directed Boulware’s labor relations staff to do what GM had done in 1950: secure five years of labor peace. Boulware warned that a contract of this length would come at a heavy price. International Union of Electrical Workers (IUE) president James Carey had already threatened to strike as soon as he could, and Boulware described how GE faced a choice between investing in a strike to stick to what he felt would be economically valid or giving in to Carey’s demands to avoid a showdown. In return for five years of labor peace, GE offered deferred payments starting at 3 percent per year and later rising to 3.5 percent, a quarterly COLA, and new fringe benefits.

As Boulware would later reflect, this total increase clearly exceeded the productivity trend and hence was inflationary, but GE had made this offer “in fairness to our employees” and in recognition of the “fashion of inflation which was being spread more or less irregularly across the economy.”

31 Lemuel Ricketts Boulware to George L. Beaver, 21 Feb. 1958, box 66, Boulware Papers, Lemuel R. Boulware Papers, Ms. 52, Kislack Center, University of Pennsylvania, Philadelphia (hereafter, Boulware Papers).
33 Boulware to Allan B. Kline, 8 Oct. 1956, box 64, Boulware Papers.
Until his full retirement in 1960, Boulware repeatedly emphasized the need to base collective bargaining outcomes on a noninflationary wage-price policy. Boulware told his counterpart at Bethlehem Steel that his message about relating labor compensation to productivity was “one of the most tedious subjects we have ever had to deal with here,” but he nevertheless believed that it was one that was absolutely necessary to spread. Among the key venues through which Boulware proselytized for wage-price policy was the Employers’ Labor Relations Information Committee (ELRIC). Established in 1953, ELRIC was the brainchild of GE president Ralph Cordiner and Champion Paper and Fiber Company president Reuben Robertson Jr. The latter’s experience as an industry member of the Wage Stabilization Board during the Korean War had convinced him that the “wage problem” would only be solved when management figured out a way to allocate the gains of productivity without adopting the one-size-fits-all approach of the GM formula. To accomplish this, Robertson believed, the rest of the business community had to create public understanding of the industrial-labor tools that would generate a fair distribution of income.

By the end of the 1950s, ELRIC had become a leading clearinghouse for corporate studies of productivity. ELRIC’s fifth annual report, in 1958, described how that organization had shifted its efforts to the wage-inflation problem in light of the recession, noting that “the question of wage increases not fully earned by increased productivity has disturbing implications for future management planning.” Over the next two years, the executives who comprised ELRIC worked to develop a rigorous theory of wages and prices that businesses could communicate to the public and apply at the bargaining table. At the committee’s meetings, these executives debated whether wages and prices should be determined by free market forces or by some productivity trend. If the latter, what measure of productivity should be used: the national average, company-specific trends, or some other measure? And how could the contributions of management and capital investment be accounted for alongside the traditional labor productivity metric?

35 Boulware to J. M. Larkin, 29 Apr. 1959, box 68, Boulware Papers.
In addressing these concerns, Boulware and other ELRIC members shifted their attention from the conventional measure of labor productivity, the ratio of output to labor input, to the then novel concept of total factor productivity (TFP), which relates output to the sum of all measurable inputs. Midcentury executives associated this concept with the economist John Kendrick, whose 1961 masterpiece, *Productivity Trends in the United States*, demonstrated that TFP grew more slowly than did labor productivity. Kendrick also found that for the post–World War II period, real income per unit of labor input had risen at 3.9 percent a year while real income per unit of capital input had fallen at an average of 3 percent per annum. Kendrick did not take an alarmist view of this short-run trend, instead attributing it to diminishing marginal returns, growing productivity in capital goods production, and relative factor demands. Still, he acknowledged that this decline in the return on capital could not continue forever without dampening new investment. Inducing further investment would require either inflation or, in a suggestion with appeal to Kendrick’s corporate readers, that “the increase in wage rates relative to the price of capital slows.”

Kendrick would serve as a frequent guest speaker at trade group meetings, correspondent with corporate economists, and essayist for managerial periodicals. He had in fact received support for his growth accounting research from GM chairman Alfred Sloan’s eponymous foundation due to lingering concerns about the effects of the GM formula, and the AIF specifically, on the economy. Kendrick was skeptical about the practical application of a wage formula such as GM used. He noted that the auto industry’s AIF had become “merely part of a larger package” possessed by the UAW, and carmakers were unable to hold the entire compensation package, fringe benefits and all, to a noninflationary ceiling. Yet rather than “throw productivity out the window as a practical guide,” as Kendrick acknowledged that his pessimism might be interpreted as suggesting, he urged businesses to recognize that productivity still limited the extent that real wages could grow without inflation. Even if it did not prove an automatic formula, productivity in both its labor and total-factor definitions remained “an important background factor in labor negotiations” with the potential to minimize inflation.

Union economists also engaged with Kendrick’s arguments during this time, and they found much to appreciate in his emphasis that

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productivity should not serve as a single rigid standard for bargaining. Still, the growing affinity between businesspeople and Kendrick did not escape the notice of organized labor. In July 1960, AFL-CIO research director Stanley Ruttenberg sent a missive to the research directors at all of his affiliated unions warning that “there has been a trend on the part of some large companies to claim that the appropriate productivity measure for collective bargaining is a new productivity index called ‘total factor productivity.’” Ruttenberg noted that Kendrick himself had discouraged the use of TFP as the single yardstick for collective bargaining before listing two reasons of his own for why unions could not allow “this measure [to] become a recognized factor in collective bargaining.” The more obvious of the two was the fact that TFP rose more slowly than labor productivity, meaning that corporate efforts to apply TFP in bargaining would result in a lower ceiling for labor compensation gains. More ominously, Ruttenberg noted that discarding labor productivity in favor of TFP would reduce the employee share of income in favor of capital, conjuring up concerns about inadequate purchasing power and depression.41

What labor viewed as a danger in the use of TFP during bargaining, however, management recognized as a way to shield capital from the effects of excessive compensation. Kendrick’s work on TFP directly addressed the concern of businesspeople that relating wages to labor productivity allowed workers to claim such a large return that there would be insufficient resources to invest in new machines and technologies without inflation. Discussions among ELRIC members about the use of productivity in labor negotiations drew heavily on Kendrick and his work on TFP. In early 1958, DuPont president Crawford Greenewalt announced to other ELRIC members, as Cliff Hood of U.S. Steel recalled when writing to Greenewalt for more information, that his staff had a “handle” on productivity, “which may prove effective in definitizing [sic] production [productivity] measurement.” Greenewalt invited other corporations to send representatives to DuPont to learn about this new measure of productivity. This thirty-minute slide narration, “The Measure of Productivity – A Challenge to Management,” covered the controversy over cost-push inflation and reviewed Kendrick’s work. It cautioned against establishing a rigid AIF, lest an employer “price himself out of business before the [business] cycle is completed.” Instead, the report recommended that employers emphasize the

41 Stanley Ruttenberg to all AFL-CIO Research Directors, 6 July 1960, Productivity Measures – BLS Seminar, 4 Oct. 1960, box 58, UAW Research Department Collection, part 1, Reuther Library.
importance of productivity, and especially its Total Factor variety, so that “intelligent decisions can be made” in bargaining.\footnote{C. F. Hood to Greenewalt, 15 Mar. 1958, Employee Relations, General 1953–1966, box 6, Greenewalt Papers; Bernard Rogers and Roger Fulton, “The Measure of Productivity – A Challenge to Management,” in The 32nd NAM Institute on Industrial Relations, March 14–18, 1960, 73–76, Hagley Museum and Library, Wilmington, Del. (hereafter, Hagley Library).}

By the end of 1960, fifty-nine companies and groups had viewed DuPont’s slide presentation, and their testimonials reveal that this analysis paralleled the investigations underway at other ELRIC members.\footnote{Employee Relations Department to Executive Committee, 10 Feb. 1961, re: Employee Relations Department Annual Report – 1960, Annual Reports to Executive Committee (1958–1959), box 1, Du Pont Human Resources Records, Acc. 1615, Hagley Library; Hood to Greenewalt, 18 Apr. 1958; and Henry Ford II to Greenewalt, 28 Mar. 1960, both in Employee Relations, General 1953–1966, box 6, Greenewalt Papers.}

For instance, GE president Cordiner would present a discussion of productivity to the ELRIC board in which he echoed Kendrick by suggesting that management take a more flexible approach to wage-price policy rather than risk the AIF becoming a floor to wage negotiations.\footnote{“Observations on the Usefulness of Productivity in Establishing Compensation Levels,” Employee Relations – Employers’ Labor Relations Information Committee, 1960–1961, box 9, Greenewalt Papers.}

Boulware’s staff economist, Francis Highton, elaborated on this approach in the course of his correspondence to his counterpart at GM, director of labor economics Arthur Thornbury. According to Highton, GE’s official position was that productivity served as a means to a financial end, rather than the end itself as in the GM AIF: “A key point, we believe, in the use of the rate of change of productivity, is the distinction between productivity increases as a specific \textit{measure} for the precise amount of annual, uniform compensation adjustments, and a general guidepost and \textit{educational tool}” (italics added). According to Highton, GE endorsed the use of TFP because it demonstrated the importance of capital and investment better than did labor productivity.

National productivity served as the public’s primary guidepost to gauge the potential for inflation and, Highton believed, a potential counterweight to the political power of unions. Still, this metric had to be weighed against other corporate priorities at the bargaining table and so could not be applied uniformly as an AIF in every circumstance.\footnote{Francis Highton to Arthur S. Thornbury, 19 Dec. 1960; and memo, re: Letter on Wage Policy from Arthur S. Thornbury, 23 Dec. 1960, Memos, 1960–61, both in box 27, Francis E. Highton Papers, AIS.1991.02., Archives Service Center, University of Pittsburgh (hereafter, ASC).}

**Productivity in Practice: The Steel Industry, 1959**

The most important application to collective bargaining of these discussions about productivity occurred in the steel industry, considered at...
the time to be the most egregious force behind cost-push inflation. According to a widely disseminated report written for the Congressional Joint Economic Committee in 1959, if steel prices had behaved as a normal industrial commodity, the wholesale price index would have risen by 52 percent less than it actually did between 1953 and 1959.\textsuperscript{46} The steel industry asserted that its annual price increases shielded its profits from the bite of labor compensation, but by the late 1950s, the industry had begun to have second thoughts. In addition to slackening demand and political controversy over inflation, the steel industry recognized that imports, while small overall and concentrated in low-value products, had grown from 1.2 percent of domestic consumption in 1955 to 2.9 percent in 1958 and would continue to rise unless something was done to enhance the competitiveness of American steel.\textsuperscript{47} Reducing costs required investment in new technologies, which in turn mandated capital funds. The wage-price spiral had aided the industry in running a surplus of cash flow over capital expenditures in the mid-1950s, but recession and the import threat now required the industry to look for funds elsewhere. Industry spokespeople claimed that steel’s subaverage profitability rendered external financing too costly, leading the industry to turn inward for new capital. By bringing its labor compensation in line with productivity, the industry would be able to stabilize its labor costs and free resources for investment without needing to raise prices.\textsuperscript{48}

In 1956, the twelve largest steel firms established a Coordinating Committee to present a unified front to the United Steelworkers (USW) during negotiations. By 1959, leadership of the Committee had fallen to U.S. Steel vice president R. Conrad Cooper, a known emulator of Boulware.\textsuperscript{49} Like Boulware, Cooper believed that productivity served as the leading guidepost for collective bargaining. Several years before, Cooper had described to his superiors that the industry’s long-term objective in negotiations should be to restrain the annualized rise in employment costs since 1940, which he gave in nominal terms as 7.6 to 8 percent, to the industry’s own productivity standard, which he estimated at about 2.8 percent output per man-hour. Of course, wage-price policy conventionally emphasized relating labor compensation to national productivity trends, but the steel industry’s emphasis on its idiosyncratic productivity reflected its objective of improving profitability while stabilizing the price of steel. In contrast, an orthodox wage-price

\textsuperscript{48} American Iron and Steel Institute, \textit{Steel’s Competitive Challenge} (New York, 1961), 15.
\textsuperscript{49} R. C. Hoquist to Virgil Day, 5 Feb. 1957, folder 184, box 9, Boulware Papers.
policy would have granted compensation equal to the national trend and then raised prices by however much unit labor costs rose. Believing that output per man-hour data failed to account for capital investment, Cooper also attempted to develop a TFP index for the steel industry. While a decade of work on this subject had not yielded much success by 1959, it led Cooper to conclude that the industry had to place wage-price policy at the center of its labor relations.50

The Coordinating Committee’s internal deliberations likewise revealed that it expected the “key criterion” of negotiations in 1959 would be productivity. Similar to the discussions at ELRIC, those of the Coordinating Committee noted “the prominence recently given to the relationship between wages and productivity and the confusion which has resulted from a welter of productivity and wage measurements.” The industry would have to “convince both the general public and the [Eisenhower] administration that [the industry’s] standards are correct and [its] resistance [to union demands] is in the public interest.”51 The Coordinating Committee approached none other than Kendrick to provide a discussion of this topic for public consumption because, as Republic Steel’s representative on the Coordinating Committee would relate, he was a “very outstanding public proponent of productivity increases as the only fair basis for cost increases.”52 Kendrick’s productivity discussion was included in a “fact book” designed to explain the steel industry’s economic arguments to the public. According to the fact book, employment costs per man-hour in the steel industry had increased by 7.8 percent a year between 1940 and 1958—much higher than Kendrick’s 2.3 percent annualized figure for TFP nationwide in this period or the 1.5 percent growth per year in steel shipments per man-hour worked. Unless this labor cost trend could be contained by bringing labor compensation in line with the steel industry’s own productivity, the fact book concluded, the industry would be left with no choice but to take its chances with imports and continue to raise prices.53

On the basis of these preparations, Cooper initially offered the USW a one-year wage freeze in return for a pledge to refrain from raising prices. When the union rejected this offer, Cooper and the other

50Coordinating Committee Progress Report to the General Administration Committee, 23 Aug. 1956; and Cooper to Hood, 18 July, 10 Sept., and 16 Oct. 1956, all in unmarked folder, box 3, R. Conrad Cooper Papers, AIS 91.1, ASC.
members of the negotiating team interpreted its rebuttal as evidence that the union turned a blind eye to its role in the wage-price spiral, summarizing the position of USW president David McDonald as being that “we should still consider ourselves free to make price increases and give the Union what it wants.”

Cooper had anticipated that the union might reject the “safe platform” of a wage-price freeze, and he had developed a plan of “affirmative action” to hold in reserve. In late May 1959, Cooper switched his bargaining stance from “no increase in wages or benefits” to “no employment cost increase per unit product.” The industry would agree to provide higher wages and benefits up to the limit of its own productivity, preventing unit labor costs from eating away at internally generated funds. Bargaining for higher wages would also permit the industry to buy out work rules considered to retard productivity growth, an added assurance that any employment costs granted in the 1959 negotiations would not lead to increased unit labor costs.

Faced with this unexpected shift in priorities, the USW concluded that the industry’s goal all along had not been to stop the wage-price spiral but to modify unilaterally what it now termed inflationary contractual provisions. Yet even after raising the issue of work rules, Cooper continued to emphasize the need to ensure that productivity offset compensation so as to stabilize unit labor costs and prices. As Cooper explained to Robert H. Moore of the Federal Mediation and Conciliation Service that July, if the union had agreed to a one-year wage freeze, then the companies would not have raised the issue of work rules. Only when the union had not shown interest in this proposal, Cooper continued, did the negotiating team counter with an offer that would grant economic gains while providing an assurance of steady employment costs per unit. When Moore indicated that any productivity gains provided by changing work rules would be a one-time gain, the negotiating team agreed that these gains were not intended to serve as the basis for an AIF: “[Moore] said he simply wanted to know whether we had in mind some concept such as a 3% rise in productivity per year, and we [the negotiating team] disabused him of entertaining any such idea.”

Cooper did refuse to provide the union with the industry’s own estimates

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of what constituted an affordable settlement, but he justified this hesitance on the grounds that any figure would become a floor rather than a ceiling for bargaining. Though the USW did not accept this argument, Cooper’s explanation echoed the concerns about setting a minimum target that had long accompanied the GM wage formula.\textsuperscript{57}

Still, while Cooper understood this new approach to bargaining as another way to ensure a noninflationary outcome, raising the work rules issue proved to be an “inept handling,” as Northrup termed this blemish on steel’s otherwise successful engagement with the New Look. Management’s demands to make unilateral changes to work rules rallied economically apathetic workers around a defense of their postwar gains, and steelworkers went out on a strike that would last for 116 days.\textsuperscript{58} Soon after the strike began, the Department of Labor intervened by releasing a report on economic trends in the steel industry, but each side clung to the figures that fit its own model of wage-price policy. The USW demanded compensation that matched the 3.7 percent economy-wide growth of labor productivity shown in the report, although the industry countered that the true costs of the union’s proposal, after factoring in all fringe benefits and other forms of compensation, were much greater than claimed. Cooper for his part now indicated that the industry would at most settle at the 2.6 percent trend identified in the report as the industry’s annualized growth in output per total employee man-hour from 1947 to 1957.\textsuperscript{59}

With these official statistics unable to resolve the underlying issues in the strike, the White House reluctantly injected itself into the bargaining process. In October 1959, President Eisenhower used the authority of the Taft–Hartley Act to enjoin the strike for eighty days, to be followed by a vote on the company’s final offer. But before that deadline arrived, the USW managed to win settlements from the can and aluminum industries estimated at 52 cents/hour over thirty months, and it had also convinced Kaiser Steel, one of the smaller and more maverick firms in the industry, to accept a similar settlement. As this amount was still more than the steel industry was willing to absorb, it appeared that the strike would resume after the injunction ended. Ultimately, vice president Richard Nixon and secretary of labor James Mitchell clandestinely intervened to work out a compromise package valued at 41 cents/hour over thirty

\textsuperscript{58} Northrup, “Management’s ‘New Look,’” 9.
\textsuperscript{59} David McDonald to Coordinating Committee, 4 Oct. 1959, folder 8, box 96, United Steelworkers of America, President’s Office Records, 1916–1980, HCLA 1961, Special Collections Library, Pennsylvania State University, State College.
months, with a joint management-labor commission to study work rules.  

The resolution of the strike with higher steel wages and no immediate changes to the work rules issue has since been interpreted as at best a stalemate and at worst “a sweeping victory for the union, a humiliating defeat for the companies,” as Jack Metzgar concludes in his history-cum-memoir of the 1959 strike. Both of these interpretations neglect that Cooper had succeeded in cutting the industry’s long-run labor cost trend in half. The industry estimated that the settlement would raise labor compensation by 3.5 to 3.75 percent a year over thirty months. Though the steel industry’s final contract cost a percentage point above estimates of its own labor productivity, a sharp break had been made in the 8 percent per year trend. Had the industry lost its nerve and accepted the settlement taken by Kaiser, moreover, it would have paid about a quarter more than it ultimately did. The Coordinating Committee thus concluded its report to the chief executives of the industry that Cooper’s hard-nosed tactics had carried the industry toward the objective of cost stability. In a sign that the industry agreed with the findings of this report, Cooper remained the industry’s lead negotiator until his retirement a decade later. For its part, the industry then made good on its initial commitment to refrain from raising prices for the life of this contract.

At GE, a retiring Boulware reflected to Cordiner that the success of the steel industry vindicated his economic philosophy. The steel industry’s ability to hold the union to 3.5 percent had proven an important stepping stone to GE’s own 3 percent settlement in 1960, achieved after nineteen months of successful outreach by the company to its workers and a futile three-week strike that exposed Boulware’s ability to divide and conquer the IUE from GE’s other unions. Boulware noted that union officials at GE had put up less resistance to corporate wage proposals than even he had expected. This was partly due to the macroeconomic conditions that had flattened inflation over the past years, but more importantly, Boulware felt this submission stemmed from the recognition that management would not budge from the wage-price policy it considered economically correct. In 1959, 64 percent of employees party to a collective bargaining agreement with

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61 Metzgar, Striking Steel, 81.


63 Boulware to Ralph Cordiner, 16 Nov. 1960, box 69, Boulware Papers.
at least one thousand workers had received a wage increase of at least 3.5 percent. Only 39 percent did in 1960, and only 35 percent the year after that. The percentage receiving under 2.5 percent—the value of the GM AIF and a high estimate for national long-run labor productivity—rose from 8 percent to 30 percent over these three years. Most significantly, as the economy recovered from recession from 1961 to 1965, both unit labor costs and prices remained virtually stable, a conspicuous contrast to the trends that occurred during the economic expansion of the 1950s.64

Conclusion

The system of collective bargaining established by the New Deal envisioned industrial unions powerful enough to compel management to distribute a larger share of income to workers. Fearing the inflationary consequences of these demands, postwar management sought to contain the costs of collective bargaining while also pursuing a long-run labor peace. In 1948, GM, the largest and most influential firm of the postwar American economy, provided the UAW with a guarantee that real wages would grow at the same rate as did labor productivity for the nation as a whole. General Motors president Wilson believed that distributing the gains of productivity in this manner would avoid cost-push inflation while allowing management to reach a multiyear accord with organized labor. Yet as the model of GM’s labor peace spread, firms largely ignored the role of productivity and instead paid a premium above the rate of compensation considered noninflationary. Given the strong markets of the postwar Golden Age, these firms appeared more than willing to collude with labor in forcing the public to shoulder the costs of labor peace.

That corporate calculus changed once changing market conditions demonstrated that the wage-price spiral could not continue indefinitely. It was not inevitable that recession and foreign competition would lead the members of ELRIC to engage with Kendrick and his theories of productivity, but these challenges did make it easier for Boulware to proselytize for taking a New Look at noninflationary wage-price policy. In the place of the rigid wage formula of GM, Boulware and his collaborators developed a more flexible strategy in which productivity served as a guide for negotiations. Firms worked to understand the new concept of TFP and consulted with Kendrick about the implications of this new

theory for returns on capital and investment. Because labor fiercely clung to its traditional emphasis on distributing productivity so as to enhance real purchasing power, the management of industries such as steel had to devise brand-new methods of labor relations in order for its own understanding of productivity to prevail during negotiations. The New Look strategies thus often entailed a renewal of the antagonisms over managerial prerogatives that the labor peace of the 1950s had cloaked under creeping inflation. Nevertheless, the success of steel and other industries demonstrated that, given the proper set of market incentives, management could define a favorable politics of productivity without first having to dismantle the New Deal order in its entirety.

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